Volume II
DRAFT ENVIRONMENTAL IMPACT REPORT
TRAFFIC IMPACT ANALYSIS
State Clearinghouse No. 2009061113

LYTLE CREEK RANCH SPECIFIC PLAN

Lead Agency:
City of Rialto
Development Services Department
150 South Palm Avenue
Rialto, California 92376

March 2010

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Volume II
DRAFT ENVIRONMENTAL IMPACT REPORT
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State Clearinghouse No. 2009061113

LYTLE CREEK RANCH SPECIFIC PLAN

Annexation No. 170
General Plan Amendment No. 29
Specific Plan No. 12
Development Agreement
Vesting Tentative Tract Map No. 18767
Environmental Assessment Review No. 90-19

Lead Agency:
City of Rialto
Development Services Department - Planning Division
150 South Palm Avenue
Rialto, California 92376
(909) 421-7246

Applicant:
Lytle Development Joint Venture III
2050 Main Street, Suite 252
Irvine, California 92614
(949) 313-5800

March 2010

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Appendix II-A

TRAFFIC IMPACT ANALYSIS

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Appendix II-A-A

Crain & Associated
Phasing of Lytle Creek Ranch
Roadway Improvement
Mitigation Measures
February 11, 2010

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EMAIL TRANSMITTED

February 11, 2010

Mr. Peter Lewandowski
Principal
Environmental Impact Sciences
26051 Via Concha
Mission Viejo, California 92691-5614

RE: Phasing of Lytle Creek Ranch Roadway Improvement Mitigation Measures

Dear Peter,

As requested, we have developed a draft phasing procedure and timeline for the subset of transportation mitigation measures/roadway improvements from the Lytle Creek Ranch Specific Plan (LCRSP) Traffic Impact Assessment (TIA) which are recommended for construction by the project. The phasing analysis determines the amount of trip generation during the AM and PM peak hours of the roadway when a project traffic impact is estimated to be considered "significant" at a study location. The mitigation measure "trigger" values were calculated for a subset of mitigation measures from the LCRSP traffic study dated February 2008. The subset of mitigation measures are those recommended for implementation by the project based on the overall cost of the subset being similar to the project's total fair-share cost of the total cumulative mitigation program, as well as these measures being in close proximity to the LCRSP area. Project implementation of these cumulatively required improvements will help ensure installation of the needed site adjacent roadway improvements by the time they first are needed.

In order to determine trigger values, there are two key assumptions:

- The project traffic impacts at each intersection are proportional to the overall LCRSP project trip generation; and
- If the final "With Project" LOS is unacceptable, the project impact is considered "significant" whenever the project trip threshold is exceeded.

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The following list of mitigation measures recommended for implementation by the project includes the project trip generation trigger levels. For each of the six locations, the list presents the level of project development which will first cause a "significant" CEQA or CMP impact, as those terms are defined in our May 12, 2009 letter. In order to minimize adverse traffic impacts, we recommend incorporating these trigger values into the Development Agreement and/or LCRSP. Specifically, we would recommend that prior to receiving a building permit, the applicant for each of the LCRSP's "planning areas" and/or "B" level subdivision maps, whichever is deemed most appropriate by the City, submit a trip generation report (for uniformity and consistency using the factors in the attached Appendix A – Generation Rates). The trip generation report should be acceptable to the City's Director of Development Services (Director). The trip generation report will include the total LCRSP projects to that time. Specifically, on the day the report is submitted, all buildings in the LCRSP area for which a building permit application has been filed following the LCRSP's enactment shall be included in the trip generation table. The report should include those projects for which the application has been approved, but should not include applications which have been subsequently withdrawn or rejected.

The Appendix A table will determine AM and PM peak hour generation values and will be used to determine which of the mitigation measures the LCRSP generation would exceed the trigger generation value during either the AM or PM peak hour. The triggers listed below would only be modified based upon an agreement between the Applicant, as defined in the project's CEQA document, and the Director. Those mitigation measures for which the trigger level would be exceeded then must be installed prior to the issuance of a Certificate of Occupancy or at an earlier time set by the Director. A substitute improvement and/or Condition of Approval may be agreed-to by the Applicant and Director, but only if it is determined (in consultation with the City Engineer) that the substitute improvement and/or condition would be as equally effective as the originally required improvement in relieving traffic congestion at the location.

Project Study Intersections Mitigation Measures

The improvements are described below and a worksheet for calculating the trigger values contained in Appendix B.

12. I-15 SB On/Off Ramps & Sierra Avenue – Improve Sierra Avenue to provide dual left-turn lanes and two through lanes in the northwest-bound direction, and two through lanes and one free right-turn lane in the southeast-bound direction. Also, widen the southbound off-ramp to accommodate one left-turn lane, one left/right-shared lane and one right-turn lane.

In addition, install a traffic signal at this location.
(AM Peak Hour = 272, PM Peak Hour = 281)

13. I-15 NB On/Off Ramps & Sierra Avenue – Improve Sierra Avenue to provide dual left-turn lanes and two through lanes in the southeast-bound direction, and two through lanes and one right-turn lane in the northwest-bound direction. Reconstruct the northbound off-ramp to accommodate one left-turn lane, one left/through-shared lane and one free right-turn lane. In addition, install a traffic signal at this location.
(AM Peak Hour = 240, PM Peak Hour = 222)

18. Riverside Avenue & Sierra Avenue – Widen and restripe Sierra Avenue to provide dual left-turn lanes and two through lanes in the southbound direction. Also improve the intersection to allow a free right-turn from Riverside Avenue onto Sierra Avenue. Install a traffic signal at this intersection.
(AM Peak Hour = 258, PM Peak Hour = 247)

22. Riverside Avenue & Linden Avenue – Widen and restripe to provide one left-turn lane, one through lane and one through/right-shared lane in the northwest-bound direction.
(AM Peak Hour = 250, PM Peak Hour = 210)

43. SR-210 Fwy WB On/Off Ramps & Riverside Avenue – Flare and restripe Riverside Avenue to provide an exclusive right-turn lane in the southbound direction.
(AM Peak Hour = N/A, PM Peak Hour = 387)

44. SR-210 Fwy EB On/Off Ramps & Riverside Avenue – Improve Riverside Avenue to provide the following: two through lanes and two right-turn lanes in the northbound direction; and dual left-turn lanes and two through lanes in the southbound direction. In addition, improve the SR-210 eastbound off-ramp to provide one left-turn lane, one left/through/right shared lane and one right-turn lane.
(AM Peak Hour = 512, PM Peak Hour = 681)

The above improvements, if funded as part of later development projects within the LCRSP area, would be subject to any “in-lieu credit” provisions of any applicable City or other government agency transportation fees. Inclusion of the above requirement to have such measures implemented in relationship to the development within the LCRSP area would not alter fee provisions, including any applicable in-lieu credit.

Please contact me with any questions or requests for analysis modifications.

Sincerely,

George Rhyner
Senior Transportation Engineer

GR:cw
C19837
JA79256
attachments

cc: Mike Story

APPENDIX A

Generation Rates

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Lytle Creek Ranch Specific Plan
Trip Generation Rates

Land Use [1]	ITE	UNIT OF MEASURE FOR SIZE	Trip Rate for Hours on the Roadway	
			AM Peak	PM Peak
Residential				
Single Family Detached Homes	210	Dwelling Unit	0.75	1.01
Multi-Family Attached Homes	230	Dwelling Unit	0.44	0.52
Detached Senior Housing	251	Dwelling Unit	0.20	0.26
Assisted Living	254	Bed Space	0.14	0.22
Industrial [2]				
Industrial Park	130	Bldg. Area in ksf	0.84	0.86
Maufacturing Standard	140	Bldg. Area in ksf	0.73	0.74
Warehousing Standard[3]	150	Bldg. Area in ksf	0.45	0.47
Warehousing - High Cube	152	Bldg. Area in ksf	0.12	0.14
Lodging				
Hotel	310	Room	0.56	0.59
Motel	320	Room	0.45	0.47
Retail/Services				
Shopping Center[4]	820	Bldg. Area in ksf	1.03	3.75
Bank	912	Bldg. Area in ksf	12.34	45.74
Supermarket (≥15,000 sf)	850	ksf	3.25	10.45
Convenience Market (<15,000 sf)	851	ksf	67.03	52.41
Stand Alone Quality Restaurant	931	Bldg. Area in ksf	0.81	7.49
High-Turnover Restaurant	932	Bldg. Area in ksf	11.52	10.92
Fast Food Restaurant	934	Bldg. Area in ksf	53.11	34.64
Gasoline Service Station	944	Fueling Positions	12.07	13.86
Office				
General-Stand Alone	710	Bldg. Area in ksf	1.55	1.49
Medical/Dental	720	Bldg. Area in ksf	2.48	3.72
Office Park	750	Bldg. Area in ksf	1.74	1.50
Recreational				
Park	412	acres	0.01	0.06
Golf Course	430	acres	0.21	0.30
Health/Fitness Club	492	ksf	1.21	4.05
School				
Elementary	520	students	0.42	0.28
Middle/Jr. High	522	students	0.53	0.15
High	530	students	0.41	0.14

Other [2]

The rate to be considered for other land uses is per the decision of the City Engineer, who shall specify a rate from *Trip Generation, 7th Edition* , ITE if one is available from that source or one from another source which uses actual trip generation count

---

[1]Land-uses, except as noted, to be defined per *Trip Generation, 7th Edition, ITE.*

[2]Passenger Car Equivalent (PCE) factor to be applied for any use where such factors are used in the San Bernadino County Congestion Mangement Plan (CMP) or truck trips exceed 10% of peak hour generation.

[3]Standard warehouses are any warehouses which have less than 24 feet high ceiling or are less than 100,000 square feet in size.

[4]Shopping Centers are not to exceed 20% usage for restaurants (all categories), Cinema (all categories) or any other non-retail use.

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APPENDIX B

Trigger Value Calculations

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Crain & Associates
DRAFT
2/8/2010

Project Total Generation Level
By Which Each Intersection
Must Be Mitigated

INT #	INTERSECTION	AM PEAK HOUR						
					Project Development			
		Intersection Project Trips	Project-only Impact (V/C)	Future (2030) With Project LOS	CEQA Threshold	CMP Threshold	Overall Minimum of CEQA and CMP Threshold	Maximum Development Percentage before Triggering an Impact
12	I-15 SB ON/OFF RAMPS & SIERRA AVE	1,195	0.969	F	272	670	272	4.18%
13	I-15 NB ON/OFF RAMPS & SIERRA AVE	1,351	1.130	F	240	575	240	3.70%
18	RIVERSIDE AVE & SIERRA AVE	1,259	1.282	F	258	506	258	3.97%
22	RIVERSIDE AVE & LINDEN AVE	1,297	N/A	F	250	N/A	250	3.86%
43	SR-210 FWY WB ON/OFF RAMPS & RIVERSIDE AVE	934	0.194	C	N/A	N/A	N/A	N/A
44	SR-210 FWY EB ON/OFF RAMPS & RIVERSIDE AVE	634	0.305	F	512	2,129	512	7.89%

INT #	INTERSECTION	PM PEAK HOUR						
					Project Development			
		Intersection Project Trips	Project-only Impact (V/C)	Future (2030) With Project LOS	CEQA Threshold	CMP Threshold	Overall Minimum of CEQA and CMP Threshold	Maximum Development Percentage before Triggering an Impact
12	I-15 SB ON/OFF RAMPS & SIERRA AVE	1,751	1.232	F	281	527	281	2.86%
13	I-15 NB ON/OFF RAMPS & SIERRA AVE	2,213	1.395	F	222	465	222	2.26%
18	RIVERSIDE AVE & SIERRA AVE	1,990	2.339	F	247	278	247	2.51%
22	RIVERSIDE AVE & LINDEN AVE	2,342	N/A	F	210	N/A	210	2.13%
43	SR-210 FWY WB ON/OFF RAMPS & RIVERSIDE AVE	1,272	0.281	E	387	N/A	387	3.93%
44	SR-210 FWY EB ON/OFF RAMPS & RIVERSIDE AVE	722	0.262	F	681	2,478	681	6.93%

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Appendix II-A-B

Crain & Associates
Lytle Creek Ranch Specific Plan
Specific Plan Maximum Trip Allowance Procedure
December 14, 2009

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EMAIL TRANSMITTED

December 14, 2009

Mr. Mike Story, Director
City of Rialto
Development Services Department
150 Palm Avenue
Rialto, California 92376

RE: Lytle Creek Ranch Specific Plan

Dear Mike,

As proposed, the draft "Lytle Creek Ranch Specific Plan" (LCRSP) includes provisions allowing the project proponent to "transfer development rights" and make other specified land-use modifications within and between neighborhoods and Planning Areas as long as the number of morning (AM) and evening (PM) peak-hour vehicle trips does not exceed the assumptions presented in the "Traffic Impact Analysis" (TIA). Because the proposed LCRSP does not present a methodology by which those land-use changes would occur, while ensuring that the number of AM and PM peak-hour trips is not exceeded, at the request of the City of Rialto staff (City), Crain & Associates has identified and prepared an implementation procedure for allowing the land-use flexibility authorized under the proposed LCRS. This procedure will assist the City's monitoring of the plan's land-use evolution so as not to allow development within the Specific Plan area to exceed the trip generation limits.

In formulating the implementation tools presented herein, Crain & Associates has focused primarily on project-related traffic impacts. In presenting the methodology outlined in the accompanying attachment, it has been Crain & Associates' goal to formulate a set of implementation tools which could be implemented by current and future City personnel with limited complexity, concise methodology, and with readily interpretable tools. Any other environmental concerns would be addressed separately.

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The attached methodology could be included in the LCRSP, in the project's California Environmental Quality Act (CEQA) documentation, and/or in the "mitigation reporting and monitoring program" (MRMP) adopted by the City upon certification of the "Final Environmental Impact Report for the Lytle Creek Ranch Specific Plan" (FEIR). The intent of this language is to allow shifts in the project composition over time in response to market and other forces, and to limit those shifts so that increased traffic impacts do not occur. A recommended approach is attached which would allow more flexibility for other new and potentially unforeseen uses by considering uses not already included in the attachment.

The attachment reflects the potential considerations and procedures which were discussed in our meetings. This attached procedure does not start by detailing a set of land uses for each neighborhood which is pre-specified and requires a determination based on an equivalency in order to substitute other uses by land use. Rather, a trip allowance would be established for each area. Based on the project size and the trip rate table (or a set of rates which is later adopted for unforeseen uses), the trip allowance set for each neighborhood would be reduced for each tentative tract map or other first approval for land-use to be constructed within the LCRSP. Other environmental issues (e.g., air quality, noise, and residential intrusion) would need to be addressed in other sections.

Crain & Associates would encourage the City to review the attachment and provide appropriate comments to allow Crain & Associates to refine this procedure at the City's direction. Based on the City's and the project proponent's needs, Crain & Associates would recommend using the type of language currently in the Attachment to provide a flexible procedure for larger and more dynamic substitutions.

Upon receipt of City comments and if appropriate, Crain & Associates will then make appropriate changes to the presented methodology and will prepare a worksheet that, upon acceptance, would become part of the City's administrative record and serve as the evidentiary basis for assessing future project's compliance with the traffic caps identified in the proposed LCRSP.

Crain & Associates appreciates the opportunity to present these implementation tools for the City's consideration. Should you have any questions concerning the attached material, please feel free to call me at (310) 473-6508, ext. 7289.

Sincerely,

George Rhyner
Senior Transportation Engineer

GR:cw
C19770
JA79256
attachments

cc: Peter Lewandowski, Environmental Impact Sciences
Water Allison, City of Rialto
Jan Dahney, Lytle Creek Joint Venture III
Kevin Lynch, Lytle Creek Joint Venture III

ATTACHMENT
Specific Plan
Maximum Trip Allowance Procedure

The following document is numbered and formatted to allow direct incorporation into Section 3.2.5 (Transfer of Development between Planning Areas) of the "Lytle Creek Ranch Specific Plan" (Specific Plan). Alternatively, this set of implementation procedures could be reformulated as a stand-alone document and/or could be incorporated into the project's CEQA documentation.

Maximum Trip Allowance Procedure

The following procedure addresses the estimated and allowable trip generation for each neighborhood. These requirements do not limit the City's right to:

- Review or require modifications to development submittals in order to enhance the vehicle or pedestrian circulation within the Specific Plan area;
- To accommodate access, circulation, and parking provisions within any Specific Plan project sites;
- Improve other design elements of any proposed tentative subdivision map; or
- Otherwise limit the Specific Plan area approvals required for non-traffic-related impact considerations.

For each tentative subdivision map or other first development-level land-use approval of a project within the Specific Plan area, the number of AM plus PM peak-hour trips shall be determined based on the methodology presented herein. A ledger shall be maintained by the Development Service Department (Department) staff showing the projected number of AM plus PM peak-hour trips for all approved projects within each neighborhood. The trips shall be calculated based on the type and size of the project, and the rates contained in Table 3-3b (Lytle Creek Ranch Specific Plan - Trip Generation Rates). The calculation of trips shall be conducted before approval of a tentative subdivision map or other first development-level land-use entitlement within the Specific Plan area. Should any parcel be sold, the land-uses shall be set as part of the sales contract and the remaining trips for the neighborhood decreased by that amount. The parcel shall be limited to development calculated to generate that number of AM plus PM peak hour trips.

The number of AM plus PM peak-hour trips development-level projects approved within the Specific Plan area shall not exceed 16,336. The total number of combined AM plus

PM average weekday peak-hour trips in Neighborhoods I and IV combined shall not exceed 3,853. The total number of combined AM plus PM average weekday peak-hour trips in Neighborhoods II and III combined shall not exceed 12,483.

Upon approval of the tentative subdivision map or other first development-level land-use entitlement, the type and intensity of the approved land uses and calculated vehicle trip generation values, as derived through Table 3-3b (Lytle Creek Ranch Specific Plan - Trip Generation Rates), shall be posted to the ledger maintained by the Department for each Specific Plan neighborhood. Independent of the proposed use, the tract or other first approval shall be decreased consistent with the Specific plan if:

1. All other requirements within the Specific Plan are met;
2. Adequate circulation and parking are included in the application; and
3. The project will not include the allowable trip level for the neighborhood, considering transfers, to be exceeded.

As shown in Table 3-3c (Trip Allocation by Neighborhood prior to any Trip Transfer), each neighborhood and Planning Area shall have a limiting number of combined AM plus PM peak-hour trips. Subject to the other provisions of the Specific Plan, land uses and development densities may be transferred between Neighborhoods I & IV and between Neighborhood II and III. The transfers shall result in commensurate increases and decreases in the trip allocations for the neighborhoods totaling each other.

Trips can be transferred between neighborhoods within the Specific Plan at the request of the owner or controlling entity in possession of the parcel from which the trips are being transferred upon the approval of the Development Services Director (Director). In no event shall the transfer cause the trip totals for the Specific Plan, the subset of trips for Neighborhoods I plus IV, or the subset of trips for Neighborhoods II plus III to be exceeded, or the other limitations on development intensity (e.g. maximum allowable floor area ratio) to be exceeded. Further, no more than half of the peak hour or daily trips for any neighborhood, based on the approved uses and Table 3-3b (Lytle Creek Specific Plan Trip Generation Rates) may be from land uses other than the residential, retail/services, recreational or school uses as listed in Table 3-3c (Lytle Creek Ranch Specific Plan - Trip Generation Rates).

As an example of this procedure, see the following. Please note that this is only a hypothetical example and not intended to be considered an actual proposal.

Company XYZ acquires a 10 acre parcel of Neighborhood I and proposes a tract map allowing them to build 100 single family detached homes. Each single family home, per Table 3-3b, would generate 1.76 trips during the peak hours, for a total of 176 trips. As part of the tract map approval and recordation process, the City would enter the 176 trips into the ledger sheet for neighborhood I and reduce the remaining neighborhood trips by that amount. If that amount would cause the total amount of 2,045 peak hour trips (plus any approved trip transfers) for Neighborhood I to be exceeded, then the tract map shall not be approved. Otherwise, the off-site traffic impacts shall not be a reason for tract rejection, although appropriate onsite roadway improvements, vehicular and pedestrian circulation routes, and other Specific Plan element requirements must also be met.

Table 3-3b
Lytle Creek Ranch Specific Plan
Trip Generation Rates

Land Use [1]	ITE Code	UNIT OF MEASURE FOR SIZE	Trip Rate for AM & PM Peak Hours of the Roadway
Residential			
Single Family Detached Homes	210	Dwelling Unit	1.76
Multi-Family Attached Homes	230	Dwelling Unit	0.96
Detached Senior Housing	251	Dwelling Unit	0.46
Assisted Living	254	BedSpace	0.36
Industrial [2]			
Industrial Park	130	Bldg. Area in ksf	1.70
Maufacturing Standard	140	Bldg. Area in ksf	1.47
Warehousing[3]	150	Bldg. Area in ksf	0.92
Warehousing - High Cube	152	Bldg. Area in ksf	0.26
Lodging			
Hotel	310	Room	1.15
Motel	320	Room	0.92
Retail/Services			
Shopping Center[4]	820	Bldg. Area in ksf	4.78
Bank	912	Bldg. Area in ksf	58.08
Supermarket (≥15,000 sf)	850	ksf	13.7
Convenience Market (<15,000 sf)	851	ksf	119.44
Stand Alone Quality Restaurant	931	Bldg. Area in ksf	8.30
High-Turnover Restaurant	932	Bldg. Area in ksf	22.44
Fast Food Restaurant	934	Bldg. Area in ksf	87.75
Gasoline Service Station	944	Fueling Positions	25.93
Office			
General-Stand Alone	710	Bldg. Area in ksf	3.04
Medical/Dental	720	Bldg. Area in ksf	6.20
Office Park	750	Bldg. Area in ksf	3.24
Recreational			
Park	412	acres	0.07
Golf Course	430	acres	0.51
Health/Fitness Club	492	ksf	5.26
School			
Elementary	520	students	0.70
Middle/Jr. High	522	students	0.68
High	530	students	0.55

Other [2]

The rate to be considered for other land uses is per the decision of the City Engineer, who shall specify a rate from *Trip Generation, 7th Edition* , ITE if one is available from that source or one from another source which uses actual trip generation count

---

[1]Land-uses, except as noted, to be defined per *Trip Generation, 7th Edition, ITE.*

[2]Passenger Car Equivalent (PCE) factor to be applied for any use where such factors are used in the San Bernadino County Congestion Mangement Plan (CMP) or truck trips are expected to exceed 10% of peak hour generation.

[3]Standard warehouses are any warehouses which have less than 24 feet high ceiling or are less than 100,000 square feet in size.

[4]Shopping Centers are not to exceed 20% usage for restaurants (all categories), Cinema (all categories) or any other non-retail use.

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Appendix II-A-C

Crain & Associates
Lytle Creek Development
Mobile Emissions Analysis Input
September 15, 2009

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EMAIL TRANSMITTED

September 15, 2009

Mr. Peter Lewandowski
Principal
Environmental Impact Sciences
26051 Via Concha
Mission Viejo, California 92691-5614

RE: Lytle Creek Development Mobile Emissions Analysis Input

Dear Peter,

As requested, we have estimated the number of daily (weekend days, as well as weekdays) project vehicle trips (VT) and vehicle miles of travel (VMT) for use in the Greenhouse Gas Emissions analysis for the Lytle Creek Ranch Specific Plan Environmental Impact Report (EIR). Specifically, this is an estimate of the amount of VT and VMT which would be added by the project. It should be noted that this analysis is consistent with, but measures somewhat different variables than those used in the traffic impact analysis. Specifically, this analysis considers how many VT and how much VMT would be added on a global basis by this project. The traffic impact analysis (and associated studies) looks at how many trips would be added to specific locations such as study intersections.

As a first step, we estimated the number of trips added by the project. This analysis was taken from and is consistent with the traffic analysis conducted for the project. The site generation values were taken directly from the computerized East Valley Transportation Model (EVTM) used for the traffic analysis. The weekend trip generation value was compared to the weekday trip generation value based on ITE trip estimates. The ITE rates are less specific to this project, but were less than 10 percent different from the model estimate for this site assuming the proposed project. The ITE projection for the weekend trip ends was slightly lower, but within five percent of the weekday trip end generation value. The EVTM model was run by the Southern California Association of Government (SCAG) Inland Empire office and was an appropriate modification of their RivSan Model used in order to reflect the proposed project.

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The RivSan Model was the model developed for this area and used to project traffic volumes for the San Bernardino County CMP. This model was developed from the regional model which SCAG uses for regional analyses. The regional model is the standard tool in use for air quality and other regional analyses, and that model utilizes the federally issued Urban Transportation Planning Software (UTPS) package.

A very important distinction should be made for the EVTM model's generation analysis. The model, as well as Institute of Transportation Engineers (ITE) "trip" generation rates within the Trip Generation Manual, estimates trip ends (the word "ends" was dropped from the ITE Trip Generation Manual between the 3rd and 4th editions). For most smaller land use projects where one trip end is at the proposed project site, but the other end is outside the study area, this distinction is not important. However, for the Greenhouse Gas Emissions analysis, the study area is the entire SCAG region. The vast majority of trips will have both ends of the trip within the study area. Thus, unlike the limited areas used in the traffic analysis for which a single trip end is included for each trip, both trip ends are included for each trip in this Greenhouse Gas Emissions analysis. The number of trip ends within the Specific Plan area matches the traffic study and other localized analyses, but due to trips which stop at the site and are already on the street network (such as people diverted to a newly built store nearer their home), the adopted method in the UTPS package is to set the number of trips equal to the number of production trip ends. (Each trip is a connection between a production end and an attraction end.) The federally set UTPS methodology was used for this Greenhouse Gas Emissions analysis.

The analysis below shows a summary of the number of productions (added regional trips) for each of the five project zones as well as for the Specific Plan as a total. It should be noted that productions are used for the person trip generation analysis prior to the trip distribution and mode split step. The calculated factor for each zone in the Specific Plan area (with a weighted average of 52%) was applied to the vehicle trip ends. In addition, the vehicle trips assigned by the model to the network were augmented to also include the vehicle trips which stayed within a zone (e.g. a car run to the grocery store which is three blocks away). Therefore, the estimate below is of the total vehicle trips which will be added to the Southern California basin by the Lytle Creek Ranch Specific Plan.

Zone	Neighborhood	Total Trip Ends	Percent Productions	Productions (Added Trips)
80	I	7,533	68.1%	5,130
81	I	2,697	72.1%	1,945
82	II	24,225	54.6%	13,227
83	III	46,614	46.3%	21,582
84	IV	10,444	54.2%	5,661
Specific Plan Total		***91,513***		***47,545***

Once the number of added trips (as opposed to trip ends) was determined, the trip length could then be multiplied by the trips for each project traffic model zone in order to determine the amount of vehicle miles of travel (VMT) which would be added to the region by the Specific Plan. Again, the project computer model utilized by SCAG was used for the average trip length calculation step. The trip length for each project zone was determined from the model output data. This result was then applied to the added vehicle trips as determined above. The following tables show the resulting analysis:

Zone	Neighborhood	Vehicle Trips	Average Trip Length	Added Vehicle Miles of Travel (VMT)
80	I	5,130	14.5	74,385
81	I	1,945	14.4	28,008
82	II	13,227	9.2	121,688
83	III	21,582	9.3	200,713
84	IV	5,661	13.0	73,593
Specific Plan Total		***47,545***		***498,387***

In summary, prior to mitigation, the land uses proposed to be built within the Lytle Creek Ranch Specific Plan area would be expected to add about 47,545 vehicle trips (VT) which add about 498,387 vehicles miles of travel (VMT) to the region.

Please contact me with any questions.

Sincerely,

George Rhyner
Senior Transportation Engineer

GR:cw
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JA79256
enclosures

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Appendix II-A-D

Crain & Associates
Lytle Creek Ranch
Threshold of Significance Criteria
May 12, 2009

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EMAIL TRANSMITTED

May 12, 2009

Mr. Peter Lewandowski
Principal
Environmental Impact Sciences
26051 Via Concha
Mission Viejo, California 92691-5614

RE: Lytle Creek Ranch Threshold of Significance Criteria

Dear Peter,

As we discussed, the Traffic Study for the Lytle Creek Ranch development will be used as part of the EIR (CEQA) and as a Traffic Impact Analysis study for CMP purposes. For this reason, the intersection LOS summary table has been refined to indicate a significant impact both under the City's CEQA and the CMP criteria.

Under CEQA, each local jurisdiction must determine which traffic (and other environmental) impacts it considers "significant." The City of Rialto General Plan states that intersection operations at LOS D or better during the peak hours are generally acceptable. A traffic impact is considered significant if the project contributes measurable traffic to and substantially and adversely changes the level of service to any location projected to experience deficient operations under foreseeable cumulative conditions. For this study, a significant project traffic impact is defined to be those locations (intersections or roadway segments) where the project would contribute 50 or more peak hour vehicle trips along the roadway and where cumulative traffic would cause conditions to degrade below the General Plan goal of LOS D. The Cities of Fontana and San Bernardino has also adopted LOS D as their standard for intersection operations. The County of San Bernardino's standard is LOS C. Therefore, any intersection operating below the standard of the responsible jurisdiction is considered deficient.

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In accordance with the County CMP, the LOS standard for the CMP roadway system is LOS E for all segments and intersections except those designated as having operated at LOS F prior to the County CMP being adopted. For those locations designated as LOS F in the County CMP, a 10 percent or more degradation in the quantitative measure used to determine LOS is considered a deficiency. Additionally, an intersection that results in a volume/capacity ratio equal to or greater than 1.0 is considered to operate at LOS F, regardless of the average stopped delay per vehicle at the intersection.

Attachment 1 shows the number of significant traffic impacts based on the CEQA and CMP significance criteria. In summary, a significant CEQA traffic impact would result at 22 study intersections under the "with project" condition prior to mitigation. A significant CEQA traffic impact would also occur at the same 22 study intersections under the 'without project' condition, except at the intersection of the SR-210 Freeway Westbound Ramps and Riverside Avenue. Based on the CMP threshold criteria, a significant traffic impact under the 'without project' condition (non-project cumulative traffic) is anticipated at 17 study intersections. Three additional study intersections are projected to result in a significant CMP impact with the project traffic.

The mitigation measures described below are recommended to reduce the CEQA and CMP traffic impacts to a less than significant level. The measures were taken from the Lytle Creek Ranch Traffic Study. The redline text shows the modifications and additions to the measures that are recommended to address the CMP significant impacts in addition to addressing the CEQA significant impacts.

As discussed in the Traffic Study, some of these improvements have already been made requirements of previously approved projects. Plans are being prepared or have been approved for some of these improvements. To be conservative, however, these improvements have not been assumed to be completed and, when appropriate, are included as mitigation measures in this study.

<u>Project Study Intersections</u>

1. <u>I-215 NB On/Off Ramps/Arrowhead Blvd & Devore Rd</u> – Install a traffic signal at this location.

3. <u>Cajon Blvd & Glen Helen Pkwy</u> – Install a traffic signal at this location.

4. I-215 NB On/Off Ramps & Palm Ave – Install a traffic signal at this location.

5. I-215 SB On/Off Ramps & Palm Ave – Install a traffic signal at this location.

7. I-215 SB On/Off Ramps & University Pkwy – Improve University Parkway to provide an exclusive right-turn lane in the northbound direction, and one left-turn lane, one left/through-shared lane and one through lane in the southbound direction. In order to accommodate the left-through-shared lane, modify the existing traffic signal to allow split phases for the northbound and southbound approaches.

10. Lytle Creek Road & Glen Helen Pkwy – Restripe Lytle Creek Road to accommodate one left-turn lane and two through lanes in the southeast-bound direction and two through lanes and one right-turn lane in the northwest-bound direction. Also improve and restripe the Glen Helen Parkway approach at Lytle Creek Road to provide dual left-turn lanes and one right-turn lane. In addition, install a traffic signal at this location.

11. Lytle Creek Road & Sierra Avenue – Restripe Lytle Creek Road and Sierra Avenue to accommodate one left-turn lane and two through lanes in the northwest-bound direction, and one through lane and one through/right-shared lane in the southeast-bound direction. In addition, install a traffic signal at this location.

12. I-15 SB On/Off Ramps & Sierra Avenue – Improve Sierra Avenue to provide dual left-turn lanes and two through lanes in the northwest-bound direction, and ~~one~~ two through lanes~~, one through/right-shared lane~~ and one free right-turn lane in the southeast-bound direction. Also, widen the southbound off-ramp to accommodate one left-turn lane, one left/right-shared lane and one right-turn lane. In addition, install a traffic signal at this location.

13. I-15 NB On/Off Ramps & Sierra Avenue – Improve Sierra Avenue to provide ~~one additional~~ dual left-turn lanes and two through lanes in the southeast-bound direction, and two through lanes and one ~~exclusive~~ right-turn lane in the northwest-bound direction. Reconstruct the northbound off-ramp to accommodate one left-turn lane, one left/through-shared lane and one free right-turn lane. In addition, install a traffic signal at this location.

16. I-15 SB On/Off Ramps & Summit Avenue – Restripe Summit Avenue to accommodate one additional left-turn lane in the eastbound direction.

17. I-15 NB On/Off Ramps & Summit Avenue – Restripe the northbound off-ramp to provide dual left-turn lanes and one right-turn lane.

18. Riverside Avenue & Sierra Avenue – Widen and restripe Sierra Avenue to provide dual left-turn lanes and two through lanes in the southbound direction. Also improve the intersection to allow a free right-turn from Riverside Avenue onto Sierra Avenue. Install a traffic signal at this intersection.

22. Riverside Avenue & Linden Avenue – Widen and restripe to provide one left-turn lane, one through lane and one through/right-shared lane in the northwest-bound direction.

39. SR-210 Fwy WB On/Off Ramps & Alder Avenue – Restripe the westbound approach to provide one left-turn lane and one left/through/right-shared lane.

43. SR-210 Fwy WB On/Off Ramps & Riverside Avenue – Flare and restripe Riverside Avenue to provide an exclusive right-turn lane in the southbound direction.

44. SR-210 Fwy EB On/Off Ramps & Riverside Avenue – Improve Riverside Avenue to provide the following: two through lanes and two right-turn lanes in the northbound direction; and dual left-turn lanes and two through lanes in the southbound direction. In addition, improve the SR-210 eastbound off-ramp to provide one left-turn lane, one left/through/right shared lane and one right-turn lane.

47. SR-210 Fwy WB On/Off Ramps & State Street – Improve State Street to provide the following: dual left-turn lanes and two through lanes in the northbound direction; and one through lane, one through/right shared lane and one right-turn lane in the southbound direction.

48. SR-210 Fwy EB On/Off Ramps & State Street – Flare and restripe the eastbound off-ramp to provide the following: one left-turn lane, one left/through-share lane and two right-turn lanes. Modify the traffic signal to accommodate a right-turn overlap phase for the off-ramp eastbound approach and the southbound approach on State Street.

49. Highland Avenue & State Street – Flare and restripe Highland Avenue to provide the following: dual left-turn lanes, one through lane and one through/right-shared lane in the westbound direction; and one left-turn lane, one through lane, one through/right-shared lane and one right-turn lane in the eastbound direction.

55. Easton Street & Ayala Drive – Flare and restripe Easton Street in the eastbound direction to accommodate an exclusive right-turn lane. Modify the traffic signal to include a right-turn overlap phase with the left-turn phase in the northbound direction.

59. Baseline Road & Alder Avenue – Flare and restripe Alder Avenue to provide one left-turn lane, one through lane and one through/right shared lane in the southbound direction.

72. Rialto Avenue & Cedar Avenue – Flare and restripe Cedar Avenue to provide an exclusive right-turn lane in the southbound direction.

74. Merrill Avenue & Cedar Avenue – Flare and restripe Cedar Avenue to provide an exclusive right-turn lane in the northbound direction. Also, Merrill Avenue should be flared and restriped to provide an exclusive right-turn lane in the eastbound direction.

The anticipated effectiveness of the above mitigation measures at the study intersections is listed in Attachment 1. As shown in this attachment, implementation of the above measures will bring all significantly impacted intersections to an acceptable level of service. It should be noted that one or more of these measures may require additional right-of-way. Should any of these measures or measures of equal effectiveness not be approved or implemented, then a significant traffic impact could remain. Attachment 3 shows the intersection lane configurations with the recommended mitigation measures. Attachment 4 contains the LOS calculation worksheets for the 'with project plus mitigation' condition at the five study intersections where mitigation measures have been refined or added.

The cost estimate of the mitigation measures above were calculated, where applicable, according to Appendix G of the San Bernardino CMP. Using the project percentage contribution at each intersection, the project's share cost estimate is determined and are shown in Attachment 2.

Please contact me if you have any questions.

Sincerely,

George Rhyner
Senior Transportation Engineer

GR:jl
C19539

Attachments

Attachment 1
Intersection Level of Service Summary
Future (2030) Traffic Conditions, With Project plus Mitigation

No.	Intersection	Peak Hour	Without Project (2030) V/C	Delay	LOS		With Project (2030) V/C	Delay	LOS		With Project + Mitigation (2030) V/C	Delay	LOS
1	I-215 NB ON/OFF RAMPS/	AM	[1]	19.1	C		[1]	22.0	C		0.425	8.3	A
	ARROWHEAD BLVD & DEVORE RD	PM	[1]	**302.6**	**F**	*	[1]	**507.3**	**F**	*,**	0.834	16.4	B
2	CAJON BLVD & I-215	AM	[1]	13.7	B		[1]	14.6	B				
	SB ON/OFF RAMPS	PM	[1]	13.0	B		[1]	13.7	B				
3	CAJON BLVD &	AM	0.766	20.4	C		0.957	29.9	D		0.414	9.9	A
	GLEN HELEN PKWY [4]	PM	1.076	51.7	F		1.181	**71.4**	**F**	**	0.491	10.6	B
4	I-215 NB ON/OFF	AM	[1]	**289.3**	**F**	*	[1]	**305.5**	**F**	*,**	0.468	11.2	B
	RAMPS & PALM AVE	PM	[1]	**235.9**	**F**	*	[1]	**260.2**	**F**	*,**	0.735	14.7	B
5	I-215 SB ON/OFF	AM	**1.884**	**181.4**	**F**	*	**1.892**	**191.1**	**F**	*,**	0.806	22.1	C
	RAMPS & PALM AVE	PM	**1.899**	**167.6**	**F**	*	**1.985**	**182.2**	**F**	*,**	0.873	25.6	C
6	I-215 NB ON/OFF RAMPS &	AM	0.766	18.6	B		0.776	18.8	B				
	UNIVERSITY PKWY	PM	0.971	34.1	C		0.984	36.1	D				
7	I-215 SB ON/OFF RAMPS &	AM	**1.070**	58.5	E	*	**1.083**	**61.8**	**E**	*,**	0.731	17.3	B
	UNIVERSITY PKWY	PM	**1.453**	**150.6**	**F**	*	**1.472**	**156.7**	**F**	*,**	0.931	26.2	C
8	I-15 SB ON/OFF RAMPS &	AM	[1]	10.8	B		[1]	12.7	B				
	GLEN HELEN PKWY	PM	[1]	10.5	B		[1]	12.6	B				
9	I-15 NB ON/OFF RAMPS &	AM	[1]	10.3	B		[1]	11.6	B				
	GLEN HELEN PKWY	PM	[1]	11.2	B		[1]	13.6	B				
10	LYTLE CREEK RD &	AM	[1]	OVRFL	F		[1]	**OVRFL**	**F**	**	0.676	15.4	B
	GLEN HELEN PKWY [2],[4]	PM	[1]	OVRFL	F		[1]	**OVRFL**	**F**	**	0.626	14.0	B
11	LYTLE CREEK RD &	AM	[1]	48.3	E		[1]	**336.6**	**F**	*,**	0.611	1.8	A
	SIERRA AVE	PM	[1]	**OVRFL**	**F**	*	[1]	**OVRFL**	**F**	*,**	0.777	9.1	A
12	I-15 SB ON/OFF	AM	**3.832**	**806.2**	**F**	*	**4.801**	**OVRFL**	**F**	*,**	0.816	24.1	C
	RAMPS & SIERRA AVE	PM	**3.270**	**506.5**	**F**	*	**4.502**	**826.8**	**F**	*,**	0.950	22.4	C
13	I-15 NB ON/OFF	AM	**1.697**	**146.9**	**F**	*	**2.827**	**460.8**	**F**	*,**	0.461	5.9	A
	RAMPS & SIERRA AVE	PM	**1.962**	**307.6**	**F**	*	**3.357**	**770.7**	**F**	*,**	0.967	32.1	C
14	I-15 SB ON/OFF RAMPS &	AM	0.578	10.4	B		0.590	10.4	B				
	DUNCAN CANYON RD [3]	PM	0.716	18.4	B		0.766	20.6	C				
15	I-15 NB ON/OFF RAMPS/LYTLE	AM	0.184	15.4	B		0.214	15.0	B				
	CREEK RD & DUNCAN CANYON RD [3]	PM	0.464	11.5	B		0.494	13.0	B				

Attachment 1 (Cont.)
Intersection Level of Service Summary
Future (2030) Traffic Conditions, With Project plus Mitigation

No.	Intersection	Peak Hour	Without Project (2030) V/C	Delay	LOS		With Project (2030) V/C	Delay	LOS		With Project + Mitigation (2030) V/C	Delay	LOS
16	I-15 SB ON/OFF RAMPS & SUMMIT AVE	AM	**1.156**	78.9	E	*	**1.160**	**80.4**	**F**	*,**	0.983	37.0	D
		PM	0.792	18.7	B		0.817	19.7	B		0.749	17.1	B
17	I-15 NB ON/OFF RAMPS & SUMMIT AVE	AM	0.816	19.2	B		0.829	19.8	B		0.682	14.6	B
		PM	**1.312**	**124.6**	**F**	*	**1.319**	**129.9**	**F**	*,**	0.982	34.9	C
18	RIVERSIDE AVE & SIERRA AVE	AM	**1.457**	**136.2**	**F**	*	**2.739**	**570.2**	**F**	*,**	0.659	11.9	B
		PM	**1.728**	**186.2**	**F**	*	**4.067**	**906.9**	**F**	*,**	0.982	36.7	D
19	RIVERSIDE AVE & LIVE OAK AVE	AM	0.435	14.6	B		0.729	21.4	C				
		PM	0.422	13.0	B		0.929	35.3	D				
20	RIVERSIDE AVE & ALDER AVE	AM	[1]	20.5	C		0.590	14.3	B				
		PM	[1]	37.0	E		0.804	19.8	B				
21	RIVERSIDE AVE & LOCUST AVE	AM	[1]	19.5	C		0.575	15.3	B				
		PM	[1]	18.1	C		0.766	17.7	B				
22	RIVERSIDE AVE & LINDEN AVE	AM	[1]	40.4	E		**1.193**	**100.5**	**F**	*,**	0.592	12.7	B
		PM	[1]	32.1	D		**1.663**	**270.7**	**F**	*,**	0.864	25.1	C
23	RIVERSIDE AVE & AYALA DR	AM	0.585	16.0	B		0.824	17.9	B				
		PM	0.388	13.5	B		0.779	17.6	B				
24	RIVERSIDE AVE &	AM	0.305	7.2	A		0.417	8.4	A				
	KNOLLWOOD AVE	PM	0.270	5.3	A		0.440	6.5	A				
25	RIVERSIDE AVE &	AM	0.426	12.3	B		0.678	17.2	B				
	COUNTRY CLUB DR	PM	0.296	10.8	B		0.757	18.8	B				
26	RIVERSIDE AVE & DWY	AM	0.355	6.9	A		0.502	5.6	A				
	(FOR SHOPPING CENTER)	PM	0.417	8.5	A		0.622	8.5	A				
27	CASA GRANDE DR & SIERRA AVE	AM	0.450	11.2	B		0.469	11.3	B				
		PM	0.779	16.2	B		0.812	17.4	B				
28	CASA GRANDE DR & ALDER AVE [4]	AM	0.314	18.9	B		0.410	19.6	B				
		PM	0.568	20.8	C		0.642	23.0	C				
29	CASA GRANDE DR &	AM	[1]	11.6	B		[1]	12.5	B				
	LOCUST AVE [4]	PM	[1]	9.9	A		[1]	11.6	B				
30	SUMMIT AVE & SIERRA AVE	AM	0.527	15.4	B		0.544	15.5	B				
		PM	0.707	17.3	B		0.731	18.2	B				

Attachment 1 (Cont.)
Intersection Level of Service Summary
Future (2030) Traffic Conditions, With Project plus Mitigation

No.	Intersection	Peak Hour	Without Project (2030) V/C	Delay	LOS		With Project (2030) V/C	Delay	LOS		With Project + Mitigation (2030) V/C	Delay	LOS
31	BOHNERT AVE & LOCUST AVE [4]	AM	[1]	21.6	C		[1]	22.5	C				
		PM	[1]	19.0	C		[1]	21.1	C				
32	BOHNERT AVE & AYALA DR [4]	AM	0.214	12.5	B		0.330	12.6	B				
		PM	0.445	7.9	A		0.579	8.8	A				
33	SIERRA LAKES PKWY/	AM	0.553	19.5	B		0.557	19.5	B				
	CASMALIA ST & SIERRA AVE	PM	0.796	23.5	C		0.801	23.6	C				
34	CASMALIA ST & ALDER AVE [4]	AM	0.637	22.9	C		0.680	23.6	C				
		PM	0.899	41.8	D		0.955	52.7	D				
35	CASMALIA ST & LOCUST AVE [4]	AM	0.595	20.8	C		0.596	20.9	C				
		PM	0.468	18.2	B		0.472	18.3	B				
36	CASMALIA ST & AYALA DR [4]	AM	0.595	17.1	B		0.687	17.4	B				
		PM	0.611	15.3	B		0.609	17.5	B				
37	SR-210 FWY WB ON/OFF RAMPS &	AM	0.229	4.2	A		0.246	4.6	A				
	SIERRA AVE	PM	0.267	6.9	A		0.287	7.4	A				
38	SR-210 FWY EB ON/OFF RAMPS &	AM	0.492	10.9	B		0.497	10.9	B				
	SIERRA AVE	PM	0.658	12.1	B		0.667	12.3	B				
39	SR-210 FWY WB ON/OFF RAMPS &	AM	0.542	11.9	B		0.582	11.5	B		0.517	10.2	B
	ALDER AVE	PM	0.977	30.3	C		**1.014**	34.0	C	*	0.947	21.6	C
40	SR-210 FWY EB ON/OFF RAMPS &	AM	0.748	19.5	B		0.811	21.3	C				
	ALDER AVE	PM	0.756	17.6	B		0.822	19.3	B				
41	SR-210 FWY WB ON/OFF RAMPS &	AM	0.842	20.3	C		0.932	25.8	C				
	AYALA AVE	PM	0.734	17.9	B		0.873	22.8	C				
42	SR-210 FWY EB ON/OFF RAMPS &	AM	0.735	16.5	B		0.832	20.4	C				
	AYALA AVE	PM	0.895	25.6	C		0.940	30.0	C				
43	SR-210 FWY WB ON/OFF RAMPS &	AM	0.708	16.9	B		0.902	22.8	C		0.811	18.3	B
	RIVERSIDE AVE	PM	0.776	17.3	B		**1.057**	56.4	E	*,**	0.957	31.2	C
44	SR-210 FWY EB ON/OFF RAMPS &	AM	**1.398**	**157.2**	**F**	*	**1.703**	**258.3**	**F**	*,**	0.901	27.6	C
	RIVERSIDE AVE	PM	**1.344**	**128.6**	**F**	*	**1.606**	**201.7**	**F**	*,**	0.898	21.5	C
45	SR-210 FWY WB ON/OFF RAMPS &	AM	0.617	15.1	B		0.638	15.8	B				
	PEPPER AVE	PM	0.751	17.8	B		0.794	20.2	C				

Attachment 1 (Cont.)
Intersection Level of Service Summary
Future (2030) Traffic Conditions, With Project plus Mitigation

No.	Intersection	Peak Hour	Without Project (2030) V/C	Delay	LOS		With Project (2030) V/C	Delay	LOS		With Project + Mitigation (2030) V/C	Delay	LOS
46	SR-210 FWY EB ON/OFF RAMPS &	AM	0.515	11.3	B		0.541	12.1	B				
	PEPPER AVE	PM	0.656	15.3	B		0.680	16.1	B				
47	SR-210 FWY WB ON/OFF RAMPS &	AM	0.969	26.8	C		1.031	35.6	D		0.653	11.8	B
	STATE ST	PM	**1.497**	**174.5**	**F**	*	**1.667**	**229.0**	**F**	*,**	0.975	29.7	C
48	SR-210 FWY EB ON/OFF RAMPS &	AM	0.745	33.6	C		0.861	36.6	D		0.702	22.5	C
	STATE ST	PM	**1.116**	71.7	E	*	**1.184**	**88.7**	**F**	*,**	0.873	25.2	C
49	HIGHLAND AVE & STATE ST	AM	**1.163**	**115.9**	**F**	*	**1.208**	**133.9**	**F**	*,**	0.820	26.8	C
		PM	**1.374**	**195.1**	**F**	*	**1.484**	**234.1**	**F**	*,**	0.909	44.3	D
50	HIGHLAND AVE & CALIFORNIA ST	AM	0.490	9.3	A		0.512	9.1	A				
		PM	0.873	17.5	B		0.931	21.3	C				
51	HIGHLAND AVE &	AM	0.382	6.4	A		0.401	6.2	A				
	MEDICAL CENTER DR	PM	0.518	7.9	A		0.560	7.8	A				
52	HIGHLAND AVE &	AM	0.524	14.7	B		0.545	14.7	B				
	MOUNT VERNON AVE	PM	0.700	17.7	B		0.748	18.3	B				
53	HIGHLAND AVE & SIERRA AVE	AM	0.409	12.7	B		0.422	12.8	B				
		PM	0.523	10.1	B		0.543	10.4	B				
54	HIGHLAND AVE/EASTON ST &	AM	0.668	21.8	C		0.725	22.8	C				
	ALDER AVE	PM	0.904	34.2	C		0.961	42.6	D				
55	EASTON ST &	AM	0.858	31.7	C		0.916	34.6	C		0.719	20.3	C
	AYALA DR [4]	PM	1.176	83.9	F		1.256	**100.2**	**F**	**	1.057	52.7	D
56	EASTON ST &	AM	0.812	27.4	C		0.837	29.2	C				
	RIVERSIDE AVE	PM	0.895	31.3	C		0.962	38.6	D				
57	EASTON ST &	AM	0.254	9.0	A		0.261	9.2	A				
	HIGHLAND AVE	PM	0.583	9.5	A		0.625	10.3	B				
58	BASELINE RD &	AM	0.452	17.5	B		0.463	17.4	B				
	SIERRA AVE	PM	0.775	23.9	C		0.797	24.5	C				
59	BASELINE RD &	AM	0.765	29.5	C		0.786	32.3	C		0.786	31.1	C
	ALDER AVE	PM	**1.044**	66.2	E	*	**1.106**	**80.5**	**F**	*,**	0.998	51.2	D
60	BASELINE RD &	AM	0.498	18.7	B		0.517	18.5	B				
	CEDAR AVE/AYALA DR	PM	0.860	27.0	C		0.891	28.8	C				

Attachment 1 (Cont.)
Intersection Level of Service Summary
Future (2030) Traffic Conditions, With Project plus Mitigation

No.	Intersection	Peak Hour	Without Project (2030) V/C	Delay	LOS		With Project (2030) V/C	Delay	LOS		With Project + Mitigation (2030) V/C	Delay	LOS
61	BASELINE RD &	AM	0.515	18.8	B		0.547	18.9	B				
	CACTUS AVE	PM	0.629	19.7	B		0.690	20.9	C				
62	BASELINE RD &	AM	0.557	19.5	B		0.580	19.4	B				
	RIVERSIDE AVE	PM	0.843	27.6	C		0.866	28.9	C				
63	BASELINE RD &	AM	0.464	8.4	A		0.479	8.3	A				
	PEPPER AVE	PM	0.467	10.6	B		0.482	10.7	B				
64	BASELINE RD &	AM	0.323	9.7	A		0.340	9.6	A				
	STATE ST	PM	0.471	10.6	B		0.493	10.8	B				
65	FOOTHILL BLVD & SIERRA AVE	AM	0.544	19.9	B		0.552	20.1	C				
		PM	0.970	36.2	D		0.969	37.9	D				
66	FOOTHILL BLVD & ALDER AVE	AM	0.412	14.8	B		0.425	15.0	B				
		PM	0.768	18.2	B		0.803	19.2	B				
67	FOOTHILL BLVD & CEDAR AVE	AM	0.775	21.3	C		0.791	21.6	C				
		PM	0.957	37.1	D		0.959	39.2	D				
68	FOOTHILL BLVD & CACTUS AVE	AM	0.429	14.5	B		0.434	14.6	B				
		PM	0.750	19.6	B		0.782	20.7	C				
69	FOOTHILL BLVD & RIVERSIDE AVE	AM	0.549	19.4	B		0.565	19.5	B				
		PM	0.847	27.5	C		0.860	28.3	C				
70	ARROW BLVD & SIERRA AVE	AM	0.543	18.5	B		0.550	18.5	B				
		PM	0.904	33.6	C		0.914	34.5	C				
71	ARROW BLVD & ALDER AVE	AM	0.693	21.2	C		0.699	21.6	C				
		PM	0.912	32.0	C		0.924	33.3	C				
72	RIALTO AVE & CEDAR AVE	AM	0.811	30.7	C		0.828	31.4	C		0.828	29.8	C
		PM	**1.030**	59.1	E	*	**1.042**	61.3	E	*,**	0.974	45.0	D
73	RIALTO AVE & CACTUS AVE [4]	AM	0.418	9.7	A		0.425	9.8	A				
		PM	0.491	10.2	B		0.501	10.4	B				
74	MERRILL AVE & CEDAR AVE	AM	0.888	21.8	C		0.896	22.1	C		0.859	20.7	C
		PM	**1.080**	55.1	E	*	**1.088**	57.1	E	*,**	0.996	36.8	D
75	MERRILL AVE & CACTUS AVE [4]	AM	0.309	13.7	B		0.316	13.7	B				
		PM	0.427	14.3	B		0.436	14.3	B				

* Denotes a CMP deficiency (i.e. LOS F and/or V/C >=1).

** Denotes a significant project CEQA traffic impact, prior to mitigation.

N/A Intersection does not currently exist, but is scheduled to be constructed by the study year 2030.

Bold Indicates unsatisfactory condition.

[1] Volume to capacity ratio is not provided for two-way, STOP sign-controlled intersections.

[2] Glen Helen Parkway is currently closed at Lytle Creek Road.

[3] I-15 on/off-ramps at Duncan Canyon Road do not currently exist, but are scheduled to be constructed by the study year of 2030.

[4] Non-CMP-Network intersection.

Attachment 2
Traffic Analysis Recommended Traffic Mitigation Measure Cost Estimates

Intersection	Improvement Measure Number	Improvement Measure Category	2003 Base Cost	Added Items (50%)	Inflation	2009 Cost	Project Percentage	Project Portion
1	1	New Signal	$ 90,000	$ 45,000	$ 24,300	$ 159,300	12.4%	$ 19,753
3	1	New Signal	$ 90,000	$ 45,000	$ 24,300	$ 159,300	13.2%	$ 21,028
4	1	New Signal	$ 90,000	$ 45,000	$ 24,300	$ 159,300	10.8%	$ 17,204
5	1	New Signal	$ 90,000	$ 45,000	$ 24,300	$ 159,300	7.2%	$ 11,470
7	1	Add Signal Phase	$ 25,000	$ 12,500	$ 6,750	$ 44,250	4.4%	$ 1,947
	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 13,500	$ 88,500	4.4%	$ 3,894
10	1	New Signal	$ 90,000	$ 45,000	$ 24,300	$ 159,300	32.6%	$ 51,932
	2	Added Turn Lane(s)	$ 100,000	$ 50,000	$ 27,000	$ 177,000	32.6%	$ 57,702
	2	Added Thru Lane(s)	$ 200,000	$ 100,000	$ 54,000	$ 354,000	32.6%	$ 115,404
11	1	New Signal	$ 90,000	$ 45,000	$ 24,300	$ 159,300	33.3%	$ 53,047
	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 13,500	$ 88,500	33.3%	$ 29,471
	2	Added Thru Lane(s)	$ 200,000	$ 100,000	$ 54,000	$ 354,000	33.3%	$ 117,882
12	1	New Signal	$ 90,000	$ 45,000	$ 24,300	$ 159,300	41.1%	$ 65,472
	3	Added Turn Lane(s)	$ 150,000	$ 75,000	$ 40,500	$ 265,500	41.1%	$ 109,121
	2	Added Thru Lane(s)	$ 200,000	$ 100,000	$ 54,000	$ 354,000	41.1%	$ 145,494
13	1	New Signal	$ 90,000	$ 45,000	$ 24,300	$ 159,300	65.8%	$ 104,819
	3	Added Turn Lane(s)	$ 150,000	$ 75,000	$ 40,500	$ 265,500	65.8%	$ 174,699
	1	Added Thru Lane(s)	$ 100,000	$ 50,000	$ 27,000	$ 177,000	65.8%	$ 116,466
16	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 13,500	$ 88,500	100.0%	$ 88,500
17	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 13,500	$ 88,500	29.9%	$ 26,462
18	1	New Signal	$ 90,000	$ 45,000	$ 24,300	$ 159,300	67.8%	$ 108,005
	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 13,500	$ 88,500	67.8%	$ 60,003
	1	Added Thru Lane(s)	$ 100,000	$ 50,000	$ 27,000	$ 177,000	67.8%	$ 120,006
22	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 13,500	$ 88,500	84.0%	$ 74,340
	1	Added Thru Lane(s)	$ 100,000	$ 50,000	$ 27,000	$ 177,000	84.0%	$ 148,680

Attachment 2 (Cont.)
Traffic Analysis Recommended Traffic Mitigation Measure Cost Estimates

Intersection	Improvement Measure Number	Improvement Measure Category	2003 Base Cost	Added Items (50%)	Inflation	2009 Cost	Project Percentage	Project Portion
39	1	Restripe Lane	$ 10,000	$ 5,000	$ 2,700	$ 17,700	40.3%	$ 7,133
43	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 13,500	$ 88,500	27.5%	$ 24,338
44	2	Added Turn Lane(s)	$ 100,000	$ 50,000	$ 27,000	$ 177,000	16.7%	$ 29,559
47	2	Added Turn Lane(s)	$ 100,000	$ 50,000	$ 27,000	$ 177,000	7.4%	$ 13,098
48	1	Add Signal Phase	$ 25,000	$ 12,500	$ 6,750	$ 44,250	4.2%	$ 1,859
	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 13,500	$ 88,500	4.2%	$ 3,717
49	2	Added Turn Lane(s)	$ 100,000	$ 50,000	$ 27,000	$ 177,000	19.7%	$ 34,869
55	1	Add Signal Phase	$ 25,000	$ 12,500	$ 6,750	$ 44,250	28.5%	$ 12,611
	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 13,500	$ 88,500	28.5%	$ 25,223
59	1	Added Thru Lane(s)	$ 100,000	$ 50,000	$ 27,000	$ 177,000	28.2%	$ 49,914
72	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 13,500	$ 88,500	2.3%	$ 2,036
74	2	Added Turn Lane(s)	$ 100,000	$ 50,000	$ 27,000	$ 177,000	3.5%	$ 6,195
Intersection Total						**$ 5,655,150**	**36.3%**	**$ 2,053,350**

ATTACHMENT 3

STUDY INTERSECTION LANE CONFIGURATIONS WITH MITIGATION

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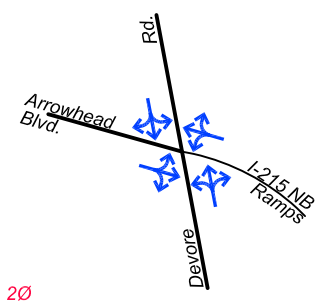
5/11/2009

FN: LYTLE CREEK RANCH/LANE-CONFIG(WMIT)-5-2009

1 I-215 NB On/Off Ramps/ Arrow Blvd. and Devore Rd.



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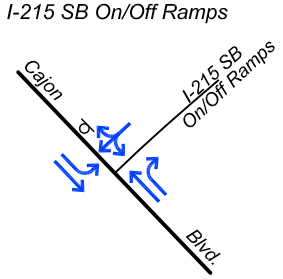
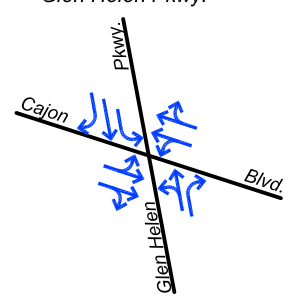
2 Cajon Blvd. and I-215 SB On/Off Ramps



3 Cajon Blvd. and Glen Helen Pkwy.



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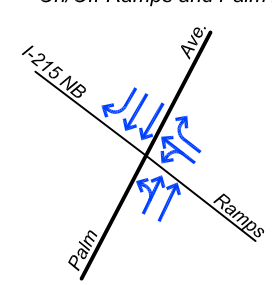
4 Barstow Fwy.(I-215) NB On/Off Ramps and Palm Ave.



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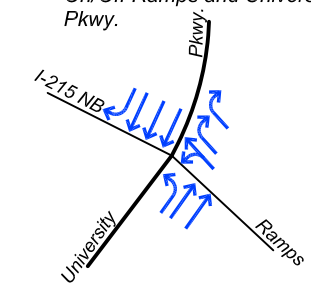
5 Barstow Fwy.(I-215) SB On/Off Ramps/Kendall Dr. and Palm Ave.

3Ø

6 Barstow Fwy.(I-215) NB On/Off Ramps and University Pkwy.



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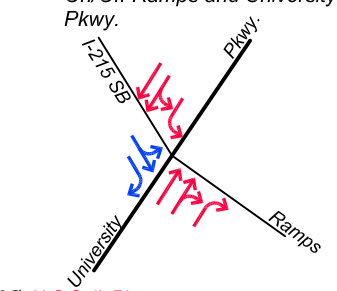
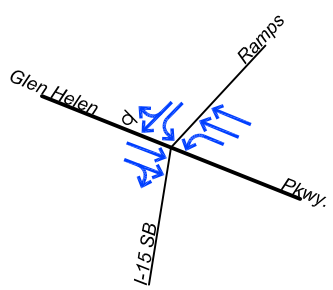
7 Barstow Fwy.(I-215) SB On/Off Ramps and University Pkwy.



3Ø, N-S Split Phase

8 Ontario Fwy (I-15) SB On/Off Ramps and Glen Helen Pkwy.



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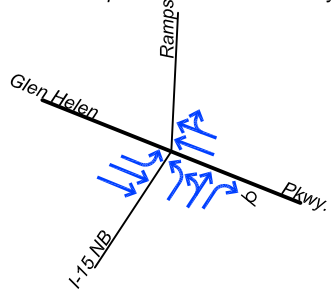
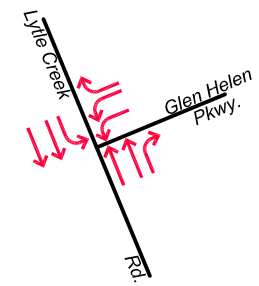


10 Lytle Creek Road and Glen Helen Pkwy.



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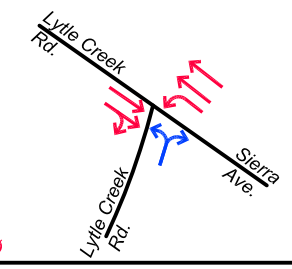
11 Lytle Creek Road and Sierra Ave.



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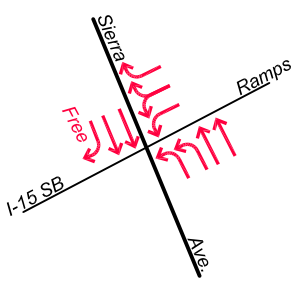
12 Ontario Fwy. (I-15) SB On/Off Ramps and Sierra Ave.



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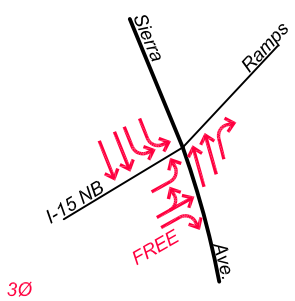

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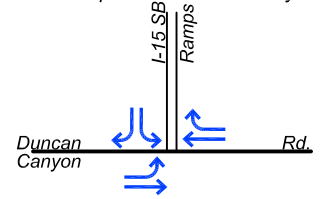
14 Ontario Fwy. (I-15) SB On/Off Ramps and Duncan Canyon Rd.



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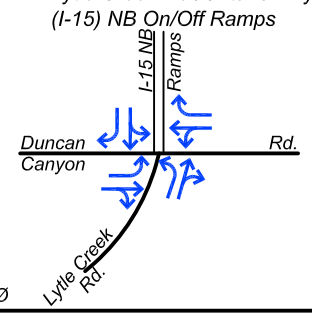
15 Duncan Canyon Rd. and Lytle Creek Rd./Ontario Fwy. (I-15) NB On/Off Ramps



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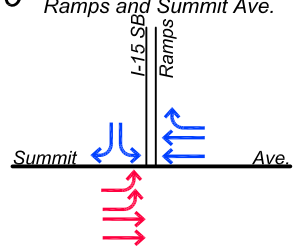
16 Ontario Fwy. (I-15) SB On/Off Ramps and Summit Ave.



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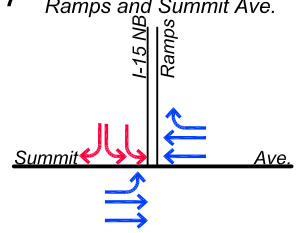
17 Ontario Fwy. (I-15) NB On/Off Ramps and Summit Ave.



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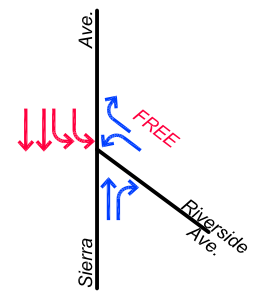
18 Riverside Ave. and Sierra Ave.



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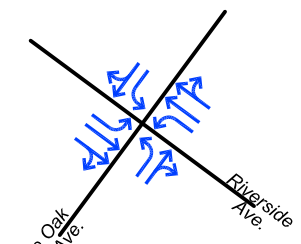

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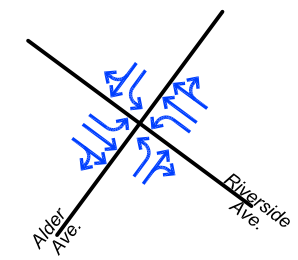
20 Riverside Ave. and Alder Ave.



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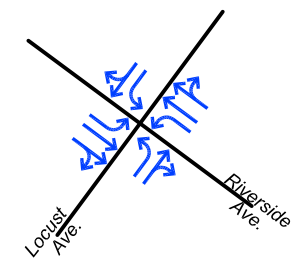

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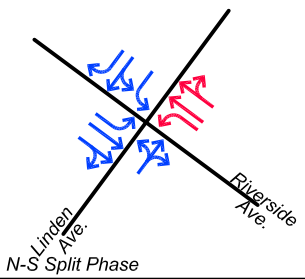
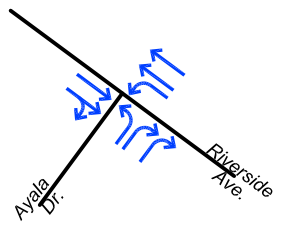
22 Riverside Ave. and Linden Ave.



4Ø, N-S Split Phase

23 Riverside Ave. and Ayala Dr.



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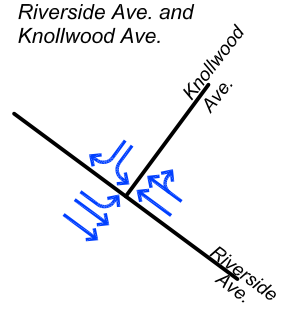

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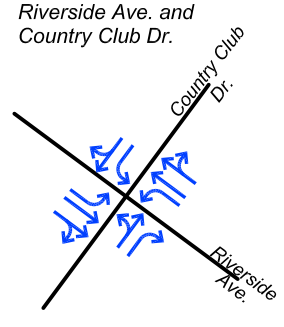
25 Riverside Ave. and Country Club Dr.



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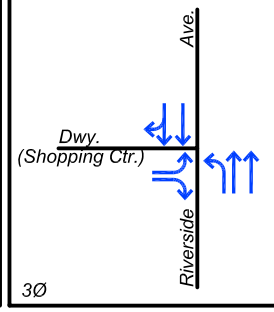

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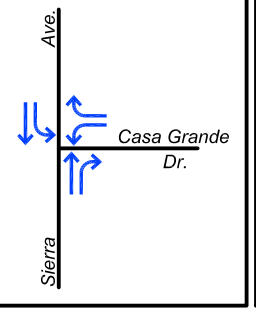
27 Casa Grande Dr. and Sierra Ave.



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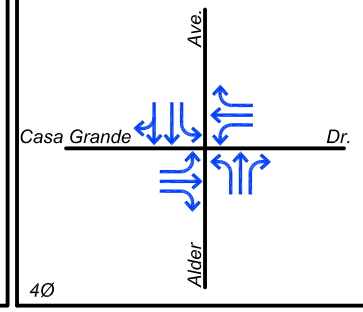

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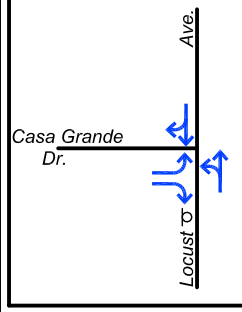
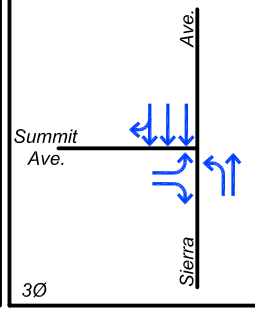
29 Casa Grande Dr. and Locust Ave.



30 Summit Ave. and Sierra Ave.



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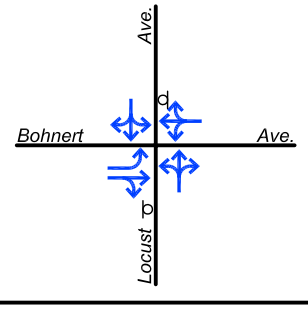
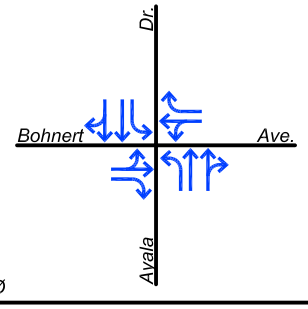
31 Bohnert Ave. and Locust Ave.



32 Bohnert Ave. and Ayala Dr.



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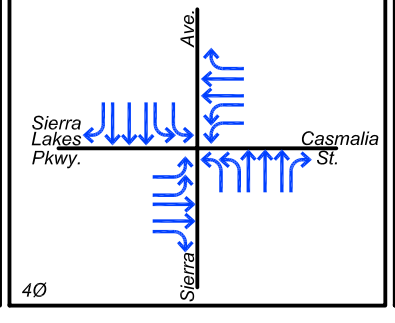
33 Sierra Lakes Pkwy/Casmalia St. and Sierra Ave.



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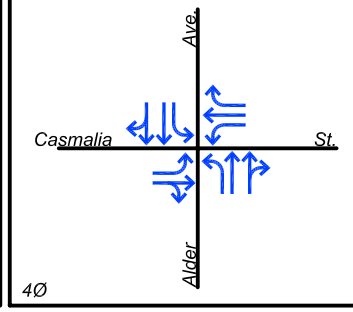

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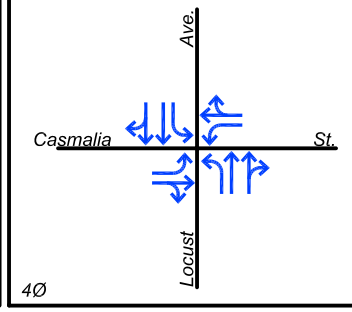
35 Casmalia St. and Locust Ave.



4Ø

LEGEND

With Project Lane Configuration
With Mitigation Lane Configuration

Free Right-Turn Movement
Overlap Phase

Number of Signal Phases
Stop Sign Controlled

3Ø FREE OVL

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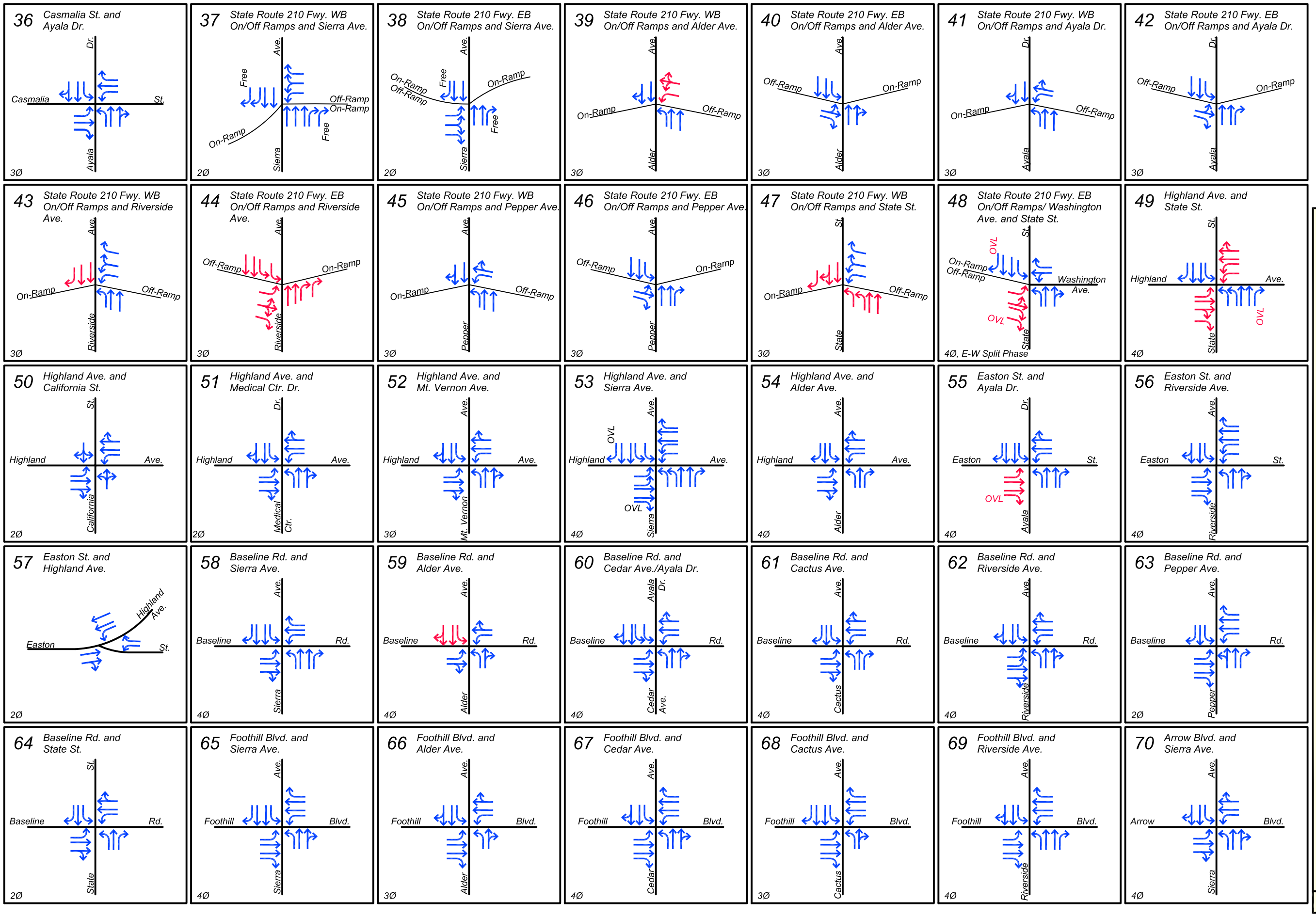
FUTURE INTERSECTION LANE CONFIGURATION WITH PROJECT PLUS MITIGATION



5/11/2009

FN: LYTLE CREEK RANCH\LANE-CONFIG(WMIT)-5-2009

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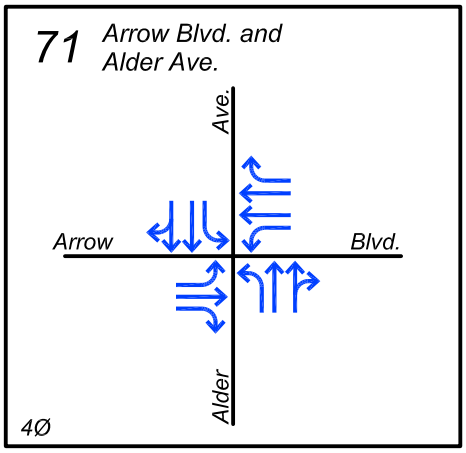
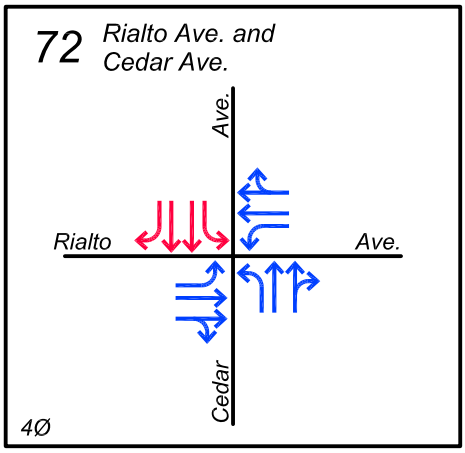
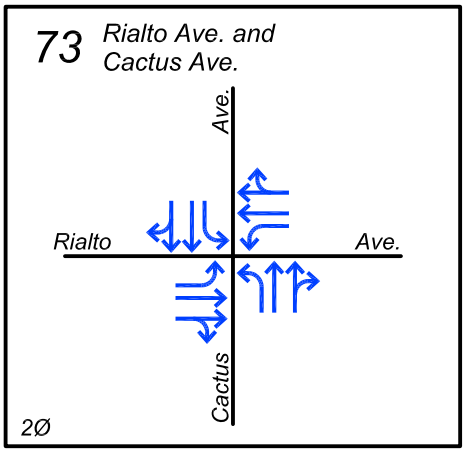
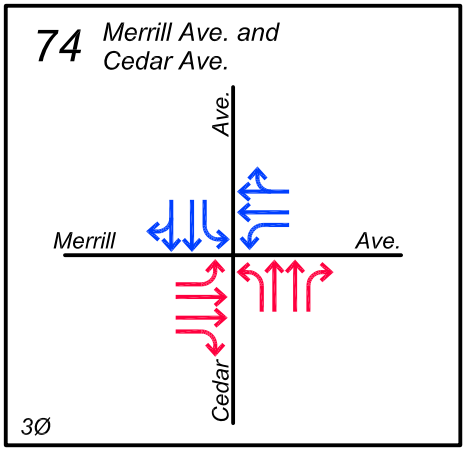
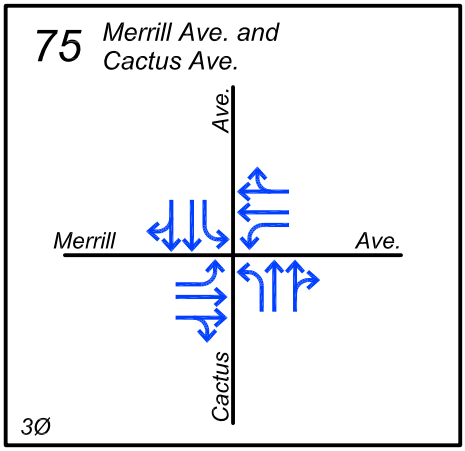
FUTURE INTERSECTION LANE CONFIGURATION WITH PROJECT PLUS MITIGATION











LEGEND	
3Ø	Number of Signal Phases
O	Stop Sign Controlled
FREE	Free Right-Turn Movement
OVL	Overlap Phase
	With Project Lane Configuration
	With Mitigation Lane Configuration

5/11/2009

FN: LYTLE CREEK RANCH\LANE-CONFIG(WMIT)-5-2009

FUTURE INTERSECTION
LANE CONFIGURATION
WITH PROJECT PLUS MITIGATION

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ATTACHMENT 4

INTERSECTION LEVEL OF SERVICE CALCULATION WORKSHEETS

FUTURE WITH PROJECT PLUS MITIGATION

(MODIFIED WORKSHEETS ONLY)

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Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
AM Peak Hour

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

Intersection #12 I-15 SB On/Off-Ramps & Sierra Ave

Cycle (sec):	75	Critical Vol./Cap.(X):	0.816
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	24.1
Optimal Cycle:	60	Level Of Service:	C

Street Name:	I-15 SB On/Off-Ramps						Sierra Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Permitted			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	0 0	0	1 0	1! 0	1	0 0	2 0	1	2 0	2 0	0
Volume Module:												
Base Vol:	0	0	0	486	23	250	0	884	1436	910	377	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	486	23	250	0	884	1436	910	377	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	486	23	250	0	884	1436	910	377	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95
PHF Volume:	0	0	0	512	24	263	0	931	0	958	397	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	512	24	263	0	931	0	958	397	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	0	0	0	512	24	263	0	931	0	958	397	0
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:	0.00	0.00	0.00	1.63	0.06	1.31	0.00	2.00	1.00	2.00	2.00	0.00
Final Sat.:	0	0	0	2941	108	2487	0	3800	1900	3400	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.17	0.22	0.11	0.00	0.24	0.00	0.28	0.10	0.00
Crit Moves:					****			****		****		
Green/Cycle:	0.00	0.00	0.00	0.27	0.27	0.27	0.00	0.30	0.00	0.35	0.65	0.00
Volume/Cap:	0.00	0.00	0.00	0.63	0.82	0.39	0.00	0.82	0.00	0.82	0.16	0.00
Delay/Veh:	0.0	0.0	0.0	24.9	30.8	22.2	0.0	29.0	0.0	26.9	5.3	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:	0.0	0.0	0.0	24.9	30.8	22.2	0.0	29.0	0.0	26.9	5.3	0.0
LOS by Move:	A	A	A	C	C	C	A	C	A	C	A	A
HCM2kAvgQ:	0	0	0	8	12	4	0	12	0	14	2	0

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

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Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
PM Peak Hour

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

****

Intersection #12 I-15 SB On/Off-Ramps & Sierra Ave

****

Cycle (sec): 60 Critical Vol./Cap.(X): 0.950
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 22.4
Optimal Cycle: OPTIMIZED Level Of Service: C

****

Street Name:	I-15 SB On/Off-Ramps						Sierra Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Permitted			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	0 0	0	1 0	1! 0	1	0 0	2 0	1	2 0	2 0	0
Volume Module:												
Base Vol:	0	0	0	398	5	378	0	1400	723	786	1595	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	398	5	378	0	1400	723	786	1595	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	398	5	378	0	1400	723	786	1595	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95
PHF Volume:	0	0	0	419	5	398	0	1474	0	827	1679	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	419	5	398	0	1474	0	827	1679	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	0	0	0	419	5	398	0	1474	0	827	1679	0
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:	0.00	0.00	0.00	1.52	0.01	1.47	0.00	2.00	1.00	2.00	2.00	0.00
Final Sat.:	0	0	0	2736	24	2789	0	3800	1900	3400	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.15	0.22	0.14	0.00	0.39	0.00	0.24	0.44	0.00
Crit Moves:					****			****		****		
Green/Cycle:	0.00	0.00	0.00	0.24	0.24	0.24	0.00	0.41	0.00	0.26	0.66	0.00
Volume/Cap:	0.00	0.00	0.00	0.65	0.95	0.61	0.00	0.95	0.00	0.95	0.67	0.00
Delay/Veh:	0.0	0.0	0.0	21.9	42.1	21.2	0.0	30.1	0.0	41.3	6.7	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:	0.0	0.0	0.0	21.9	42.1	21.2	0.0	30.1	0.0	41.3	6.7	0.0
LOS by Move:	A	A	A	C	D	C	A	C	A	D	A	A
HCM2kAvgQ:	0	0	0	6	13	5	0	19	0	14	10	0

****

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

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Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
AM Peak Hour

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

Intersection #13 I-15 NB On/Off-Ramps & Sierra Ave

Cycle (sec):	60	Critical Vol./Cap.(X):	0.461
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	5.9
Optimal Cycle:	60	Level Of Service:	A

Street Name:	I-15 NB On/Off-Ramps						Sierra Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Ignore			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 1	0 0	1	0 0	0 0	0	2 0	2 0	0	0 0	2 0	1
Volume Module:												
Base Vol:	161	2	432	0	0	0	181	1189	0	0	1122	481
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:	161	2	432	0	0	0	181	1189	0	0	1122	481
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	161	2	432	0	0	0	181	1189	0	0	1122	481
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	169	2	0	0	0	0	191	1252	0	0	1181	506
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	169	2	0	0	0	0	191	1252	0	0	1181	506
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	169	2	0	0	0	0	191	1252	0	0	1181	506
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00
Lanes:	1.98	0.02	1.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	3558	44	1900	0	0	0	3400	3800	0	0	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.00	0.00	0.00	0.00	0.06	0.33	0.00	0.00	0.31	0.27
Crit Moves:	****						****				****	
Green/Cycle:	0.10	0.10	0.00	0.00	0.00	0.00	0.12	0.80	0.00	0.00	0.67	0.67
Volume/Cap:	0.46	0.46	0.00	0.00	0.00	0.00	0.46	0.41	0.00	0.00	0.46	0.39
Delay/Veh:	26.2	26.2	0.0	0.0	0.0	0.0	25.3	1.9	0.0	0.0	4.7	4.5
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:	26.2	26.2	0.0	0.0	0.0	0.0	25.3	1.9	0.0	0.0	4.7	4.5
LOS by Move:	C	C	A	A	A	A	C	A	A	A	A	A
HCM2kAvgQ:	2	2	0	0	0	0	2	4	0	0	5	4

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

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Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
PM Peak Hour

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

Intersection #13 I-15 NB On/Off-Ramps & Sierra Ave

Cycle (sec):	80	Critical Vol./Cap.(X):	0.967
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	32.1
Optimal Cycle:	130	Level Of Service:	C

Street Name:	I-15 NB On/Off-Ramps						Sierra Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Ignore			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 1	0 0	1	0 0	0 0	0	2 0	2 0	0	0 0	2 0	1
Volume Module:												
Base Vol:	1052	0	896	0	0	0	511	1299	0	0	1322	774
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:	1052	0	896	0	0	0	511	1299	0	0	1322	774
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1052	0	896	0	0	0	511	1299	0	0	1322	774
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	1107	0	0	0	0	0	538	1367	0	0	1392	815
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1107	0	0	0	0	0	538	1367	0	0	1392	815
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1107	0	0	0	0	0	538	1367	0	0	1392	815
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	3600	0	1900	0	0	0	3400	3800	0	0	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.31	0.00	0.00	0.00	0.00	0.00	0.16	0.36	0.00	0.00	0.37	0.43
Crit Moves:	****						****					****
Green/Cycle:	0.32	0.00	0.00	0.00	0.00	0.00	0.16	0.61	0.00	0.00	0.44	0.44
Volume/Cap:	0.97	0.00	0.00	0.00	0.00	0.00	0.97	0.59	0.00	0.00	0.83	0.97
Delay/Veh:	46.0	0.0	0.0	0.0	0.0	0.0	63.1	10.1	0.0	0.0	23.1	44.9
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:	46.0	0.0	0.0	0.0	0.0	0.0	63.1	10.1	0.0	0.0	23.1	44.9
LOS by Move:	D	A	A	A	A	A	E	B	A	A	C	D
HCM2kAvgQ:	20	0	0	0	0	0	12	11	0	0	17	26

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

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Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
AM Peak Hour

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

****

Intersection #39 Alder Ave. and SR-210 Fwy. WB On/Off Ramps

****

Cycle (sec):	60	Critical Vol./Cap.(X):	0.517
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.2
Optimal Cycle: OPTIMIZED		Level Of Service:	B

****

Street Name:	Alder Ave.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	1 0	1! 0	0
Volume Module:												
Base Vol:	194	893	0	0	507	471	0	0	0	238	0	51
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:	194	893	0	0	507	471	0	0	0	238	0	51
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	194	893	0	0	507	471	0	0	0	238	0	51
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:	204	940	0	0	534	496	0	0	0	251	0	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	204	940	0	0	534	496	0	0	0	251	0	54
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:	204	940	0	0	534	496	0	0	0	251	0	54
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	0.00	0.00	1.04	0.96	0.00	0.00	0.00	1.71	0.00	0.29
Final Sat.:	1800	3800	0	0	1970	1830	0	0	0	3080	0	549
Capacity Analysis Module:												
Vol/Sat:	0.11	0.25	0.00	0.00	0.27	0.27	0.00	0.00	0.00	0.08	0.00	0.10
Crit Moves:	****				****					****		
Green/Cycle:	0.21	0.72	0.00	0.00	0.51	0.51	0.00	0.00	0.00	0.18	0.00	0.18
Volume/Cap:	0.54	0.34	0.00	0.00	0.54	0.54	0.00	0.00	0.00	0.45	0.00	0.54
Delay/Veh:	22.5	3.3	0.0	0.0	10.4	10.4	0.0	0.0	0.0	22.3	0.0	23.2
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:	22.5	3.3	0.0	0.0	10.4	10.4	0.0	0.0	0.0	22.3	0.0	23.2
LOS by Move:	C	A	A	A	B	B	A	A	A	C	A	C
HCM2kAvgQ:	4	3	0	0	7	7	0	0	0	3	0	4

****

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

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Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
PM Peak Hour

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

Intersection #39 Alder Ave. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.947
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 21.6
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name:	Alder Ave.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	1 0	1! 0	0
Volume Module:												
Base Vol:	309	1171	0	0	466	749	0	0	0	556	0	170
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:	309	1171	0	0	466	749	0	0	0	556	0	170
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	309	1171	0	0	466	749	0	0	0	556	0	170
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:	325	1233	0	0	491	788	0	0	0	585	0	179
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	325	1233	0	0	491	788	0	0	0	585	0	179
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:	325	1233	0	0	491	788	0	0	0	585	0	179
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	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.63	0.00	0.37
Final Sat.:	1800	3800	0	0	1900	1900	0	0	0	2940	0	697
Capacity Analysis Module:												
Vol/Sat:	0.18	0.32	0.00	0.00	0.26	0.41	0.00	0.00	0.00	0.20	0.00	0.26
Crit Moves:	****					****						****
Green/Cycle:	0.19	0.63	0.00	0.00	0.44	0.44	0.00	0.00	0.00	0.27	0.00	0.27
Volume/Cap:	0.95	0.52	0.00	0.00	0.59	0.95	0.00	0.00	0.00	0.73	0.00	0.95
Delay/Veh:	58.8	6.3	0.0	0.0	13.2	30.0	0.0	0.0	0.0	22.7	0.0	41.4
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:	58.8	6.3	0.0	0.0	13.2	30.0	0.0	0.0	0.0	22.7	0.0	41.4
LOS by Move:	E	A	A	A	B	C	A	A	A	C	A	D
HCM2kAvgQ:	11	7	0	0	8	20	0	0	0	8	0	14

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

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Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
AM Peak Hour

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

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Intersection #44 Riverside Ave. and SR-210 Fwy. EB On/Off Ramps

****

Cycle (sec):	60	Critical Vol./Cap.(X):	0.901
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	27.6
Optimal Cycle: OPTIMIZED		Level Of Service:	C

****

Street Name:	Riverside Ave.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	2 0	2	2 0	2 0	0	1 0	1! 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	0	546	1148	1398	560	0	90	0	296	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	546	1148	1398	560	0	90	0	296	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	546	1148	1398	560	0	90	0	296	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	575	1208	1472	589	0	95	0	312	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	575	1208	1472	589	0	95	0	312	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	575	1208	1472	589	0	95	0	312	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.95	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	2.00	2.00	2.00	0.00	1.24	0.00	1.76	0.00	0.00	0.00
Final Sat.:	0	3800	3600	3400	3800	0	2237	0	3338	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.15	0.34	0.43	0.16	0.00	0.04	0.00	0.09	0.00	0.00	0.00
Crit Moves:			****	****			****					
Green/Cycle:	0.00	0.35	0.35	0.45	0.80	0.00	0.10	0.00	0.10	0.00	0.00	0.00
Volume/Cap:	0.00	0.43	0.96	0.96	0.19	0.00	0.42	0.00	0.93	0.00	0.00	0.00
Delay/Veh:	0.0	15.2	35.9	30.7	1.5	0.0	25.7	0.0	53.9	0.0	0.0	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:	0.0	15.2	35.9	30.7	1.5	0.0	25.7	0.0	53.9	0.0	0.0	0.0
LOS by Move:	A	B	D	C	A	A	C	A	D	A	A	A
HCM2kAvgQ:	0	4	18	22	1	0	2	0	7	0	0	0

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

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Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #44 Riverside Ave. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.898
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	21.5
Optimal Cycle: OPTIMIZED		Level Of Service:	C

Street Name:	Riverside Ave.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	2 0	2	2 0	2 0	0	1 0	1! 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	0	565	922	1211	984	0	103	0	541	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	565	922	1211	984	0	103	0	541	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	565	922	1211	984	0	103	0	541	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	595	971	1275	1036	0	108	0	569	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	595	971	1275	1036	0	108	0	569	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	595	971	1275	1036	0	108	0	569	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.95	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	2.00	2.00	2.00	0.00	1.17	0.00	1.83	0.00	0.00	0.00
Final Sat.:	0	3800	3600	3400	3800	0	2101	0	3482	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.16	0.27	0.37	0.27	0.00	0.05	0.00	0.16	0.00	0.00	0.00
Crit Moves:			****	****					****			
Green/Cycle:	0.00	0.30	0.30	0.42	0.72	0.00	0.18	0.00	0.18	0.00	0.00	0.00
Volume/Cap:	0.00	0.52	0.90	0.90	0.38	0.00	0.28	0.00	0.90	0.00	0.00	0.00
Delay/Veh:	0.0	17.8	30.2	24.2	3.4	0.0	21.2	0.0	37.5	0.0	0.0	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:	0.0	17.8	30.2	24.2	3.4	0.0	21.2	0.0	37.5	0.0	0.0	0.0
LOS by Move:	A	B	C	C	A	A	C	A	D	A	A	A
HCM2kAvgQ:	0	5	13	17	4	0	2	0	9	0	0	0

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

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Lytle Creek Ranch Project
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AM Peak Hour

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

Intersection #74 Cedar Ave. and Merrill Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.859
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 20.7
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name:	Cedar Ave.						Merrill Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	159	1470	85	288	1816	169	216	471	118	147	328	138
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:	159	1470	85	288	1816	169	216	471	118	147	328	138
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	159	1470	85	288	1816	169	216	471	118	147	328	138
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:	167	1547	89	303	1912	178	227	496	124	155	345	145
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	167	1547	89	303	1912	178	227	496	124	155	345	145
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:	167	1547	89	303	1912	178	227	496	124	155	345	145
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	1.83	0.17	1.00	2.00	1.00	1.00	1.41	0.59
Final Sat.:	1800	3800	1900	1800	3476	324	1800	3800	1900	1800	2675	1125
Capacity Analysis Module:												
Vol/Sat:	0.09	0.41	0.05	0.17	0.55	0.55	0.13	0.13	0.07	0.09	0.13	0.13
Crit Moves:	****				****			****				
Green/Cycle:	0.11	0.53	0.53	0.22	0.64	0.64	0.15	0.15	0.15	0.15	0.15	0.15
Volume/Cap:	0.86	0.77	0.09	0.77	0.86	0.86	0.83	0.86	0.43	0.57	0.85	0.85
Delay/Veh:	56.0	13.1	7.0	31.0	12.0	12.0	43.7	37.2	24.1	26.4	36.3	36.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	56.0	13.1	7.0	31.0	12.0	12.0	43.7	37.2	24.1	26.4	36.3	36.3
LOS by Move:	E	B	A	C	B	B	D	D	C	C	D	D
HCM2kAvgQ:	6	13	1	8	19	19	7	8	3	4	7	7

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

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Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
PM Peak Hour

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

****

Intersection #74 Cedar Ave. and Merrill Ave.

****

Cycle (sec):	70	Critical Vol./Cap.(X):	0.996
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	36.8
Optimal Cycle: OPTIMIZED		Level Of Service:	D

****

Street Name:	Cedar Ave.						Merrill Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	191	1960	203	207	1752	184	232	890	161	141	573	184
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:	191	1960	203	207	1752	184	232	890	161	141	573	184
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	191	1960	203	207	1752	184	232	890	161	141	573	184
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:	201	2063	214	218	1844	194	244	937	169	148	603	194
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	201	2063	214	218	1844	194	244	937	169	148	603	194
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:	201	2063	214	218	1844	194	244	937	169	148	603	194
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	1.81	0.19	1.00	2.00	1.00	1.00	1.51	0.49
Final Sat.:	1800	3800	1900	1800	3439	361	1800	3800	1900	1800	2876	924
Capacity Analysis Module:												
Vol/Sat:	0.11	0.54	0.11	0.12	0.54	0.54	0.14	0.25	0.09	0.08	0.21	0.21
Crit Moves:		****		****				****				
Green/Cycle:	0.11	0.55	0.55	0.12	0.55	0.55	0.25	0.25	0.25	0.25	0.25	0.25
Volume/Cap:	0.97	1.00	0.21	1.00	0.97	0.97	0.55	1.00	0.36	0.33	0.85	0.85
Delay/Veh:	85.2	34.6	8.3	90.3	28.8	28.8	24.4	54.6	22.2	22.0	32.3	32.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	85.2	34.6	8.3	90.3	28.8	28.8	24.4	54.6	22.2	22.0	32.3	32.3
LOS by Move:	F	C	A	F	C	C	C	D	C	C	C	C
HCM2kAvgQ:	9	31	2	10	29	29	6	17	3	3	11	11

****

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

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Appendix II-A-E

Crain & Associates
Lytle Creek Ranch
Recommended Roadway Improvements
March 19, 2009

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EMAIL TRANSMITTED

March 19, 2009

Mr. Peter Lewandowski
Principal
Environmental Impact Sciences
26051 Via Concha
Mission Viejo, California 92691-5614

RE: Lytle Creek Ranch Recommended Roadway Improvements

Dear Peter,

Concern has been raised that the traffic study and associated EIR section need to provide measures for the project to implement beyond paying its "fair share" of the cumulative traffic mitigation measures. Specifically, a request was made that we develop a subset of the cumulative traffic measures which the project would be assigned to construct. Therefore, we have prepared this technical memorandum to categorize the various roadway improvements assumed and recommended in the Lytle Creek Ranch Traffic Impact Analysis (TIA). The roadway improvements in the TIA include both those assumed as project features (e.g. the internal roadway system) as well as those recommended as expansions to the Congestion Management Plan (CMP) improvements. Additionally, this memorandum more precisely recommends a level of project responsibility for funding its fair share of the CMP roadway improvements as well as for constructing appropriate portions of the improvements.

The first set of improvements described within the TIA study is of the existing roadway facilities. These existing conditions form the base level for conditions at each study intersection. Next, the land use and improvement level from the November 2007 SanBAG Development Mitigation Nexus Study (Appendix K of the SanBAG Congestion Management Program [CPM]) are added to existing conditions. The assumed improvements will add new facilities to the network rather than expanding existing surface streets. It is necessary to assume that there are

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these added roadway network links in order to assure that project trips are correctly assigned to the future roadway network. For example, the intersection of Casa Grande Drive and Sierra Avenue did not exist when the traffic counts were conducted for the Lytle Creek Ranch TIA, but needed to be included in the future traffic network in order for traffic to be appropriately assigned to this intersection. Further, since all cumulative developments (including, if approved and constructed, the Lytle Creek Ranch project) are required to pay fees to fund CMP improvements, the CMP level of roadway improvements are balanced with the CMP assumed level of development. If the assumed level of land use occurs, this level of roadway improvements will also receive funding and be implemented. Therefore, the SanBAG Development Mitigation Nexus Study (which was utilized and should be incorporated into the EIR by reference) level of improvements was assumed in all scenarios. Finally, the "With Project" scenario also includes the proposed project internal roadway system and connection of that system to the surrounding public roadway network.

The resulting level of capacity and traffic demand on the roadway network, assuming cumulative development including the project, was then analyzed. This analysis was used to determine if the proposed roadway network would meet the CMP standard of LOS D or better. The SanBAG Development Mitigation Nexus Study generally set an appropriate level of improvements and fee levels. However, for the "With Project" scenario some additional mitigation measures were needed for 22 out of the 75 study intersections. These improvements were beyond the links programmed within the CMP. These improvements were generally more minor than entirely new facilities to be installed by the CMP mitigation study funding (e.g. an added turn lane at an intersection rather than a new roadway segment). The project fee payment for the mitigation study level of improvements was calculated at over $21 million, while the calculated fair share of the additional improvements at the study intersections was $1.8 million. Thus, over 90% of the off-site traffic improvement costs for the project will be via the required CMP fee payment to the City of Rialto, with less than 10% of the total calculated fair share resulting from the additional intersection improvements.

Based on a subsequent review of the TIA, we have identified five of the 22 study intersection with additional improvements needed to address the "With Project" scenario as being good cases for project implementation of the additional mitigation. At these five intersections more than 40% of the increased traffic through the intersection results from the project (see Attachment #1). The cost estimate for the improvements at these five intersections using the CMP methodology is a total of $1.8 million. Therefore, we would recommend to the City that the improvements at these five intersections be required to be implemented by the project as its fair

share contribution for the additional intersection improvement. In summary, these five intersections are those of the intersections requiring improvements beyond the CMP which are most heavily impacted by development of the Specific Plan area, and also the construction estimate equals the project "fair share" estimate.

It should be noted that all 5 improvements are feasible for the project to construct. Four of the five intersections are located immediately adjacent to the Specific Plan area. The fifth intersection improvement is to an existing intersection near the Specific Plan area which is recommended to be built within the existing right-of-way. However, it should be noted that this fifth intersection improvement will require Caltrans approval.

In summary, the majority of the roadway improvement measures are included in the TIA as part of the proposed project or cumulative projects, so that the assigning of project traffic reflects the planned future roadway network. The CMP fee has been adopted by the City and will pay for important new roadway segments. In addition, as a fair share, it is recommended that the project construct improvements at the five intersections where it results in 40% or more of the cumulative traffic growth. The CMP consistent cost estimates indicate these improvements will cost approximately $1.8 million which is also the calculated Specific Plan fair share of those improvements.

Please contact me with any questions.

Sincerely,

George Rhyner
Senior Transportation Engineer

GR:lc
C19473B
attachment

Attachment 1

Crain & Associates
3/18/2009
Draft

Lytle Creek Ranch
Traffic Analysis Recommended Transportation Improvement Costs

Intersection	Improvement Measure No	Improvement Measure Category	2003 Base Cost	Added Items (50%)	Inflation	2007 Cost	Project Percentage	Project Portion	Cumulative Total Cost
Recommended Construction Obligations									
16 I-15 SB ON/OFF RAMPS & SUMMIT AVE	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 9,000	$ 84,000	100.0%	$ 84,000	$ 84,000
22 RIVERSIDE AVE & LINDEN AVE	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 9,000	$ 84,000	84.0%	$ 70,560	$ 168,000
	1	Added Thru Lane(s)	$ 100,000	$ 50,000	$ 18,000	$ 168,000	84.0%	$ 141,120	$ 336,000
18 RIVERSIDE AVE & SIERRA AVE	1	New Signal	$ 90,000	$ 45,000	$ 16,200	$ 151,200	67.8%	$ 102,514	$ 487,200
	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 9,000	$ 84,000	67.8%	$ 56,952	$ 571,200
	1	Added Thru Lane(s)	$ 100,000	$ 50,000	$ 18,000	$ 168,000	67.8%	$ 113,904	$ 739,200
13 I-15 NB ON/OFF RAMPS & SIERRA AVE	1	New Signal	$ 90,000	$ 45,000	$ 16,200	$ 151,200	65.8%	$ 99,490	$ 890,400
	2	Added Turn Lane(s)	$ 100,000	$ 50,000	$ 18,000	$ 168,000	65.8%	$ 110,544	$ 1,058,400
	1	Added Thru Lane(s)	$ 100,000	$ 50,000	$ 18,000	$ 168,000	65.8%	$ 110,544	$ 1,226,400
12 I-15 SB ON/OFF RAMPS & SIERRA AVE	1	New Signal	$ 90,000	$ 45,000	$ 16,200	$ 151,200	41.1%	$ 62,143	$ 1,377,600
	3	Added Turn Lane(s)	$ 150,000	$ 75,000	$ 27,000	$ 252,000	41.1%	$ 103,572	$ 1,629,600
	1	Added Thru Lane(s)	$ 100,000	$ 50,000	$ 18,000	$ 168,000	41.1%	$ 69,048	$ 1,797,600
Other Additional Cumulative Measures									
11 LYTLE CREEK RD & SIERRA AVE	1	New Signal	$ 90,000	$ 45,000	$ 16,200	$ 151,200	33.3%	$ 50,350	$ 1,948,800
	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 9,000	$ 84,000	33.3%	$ 27,972	$ 2,032,800
	2	Added Thru Lane(s)	$ 200,000	$ 100,000	$ 36,000	$ 336,000	33.3%	$ 111,888	$ 2,368,800
10 LYTLE CREEK RD & GLEN HELEN PKWY	1	New Signal	$ 90,000	$ 45,000	$ 16,200	$ 151,200	32.6%	$ 49,291	$ 2,520,000
	2	Added Turn Lane(s)	$ 100,000	$ 50,000	$ 18,000	$ 168,000	32.6%	$ 54,768	$ 2,688,000
	2	Added Thru Lane(s)	$ 200,000	$ 100,000	$ 36,000	$ 336,000	32.6%	$ 109,536	$ 3,024,000
17 I-15 NB ON/OFF RAMPS & SUMMIT AVE	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 9,000	$ 84,000	29.9%	$ 25,116	$ 3,108,000
55 EASTON ST & AYALA DR	1	Add Signal Phase	$ 25,000	$ 12,500	$ 4,500	$ 42,000	28.5%	$ 11,970	$ 3,150,000
	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 9,000	$ 84,000	28.5%	$ 23,940	$ 3,234,000
59 BASELINE RD AND ALDER AVE	1	Added Thru Lane(s)	$ 100,000	$ 50,000	$ 18,000	$ 168,000	28.2%	$ 47,376	$ 3,402,000
43 SR-210 FWY WB ON/OFF RAMPS & RIVERSIDE AVE	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 9,000	$ 84,000	27.5%	$ 23,100	$ 3,486,000
49 HIGHLAND AVE & STATE ST	2	Added Turn Lane(s)	$ 100,000	$ 50,000	$ 18,000	$ 168,000	19.7%	$ 33,096	$ 3,654,000
44 SR-210 FWY EB ON/OFF RAMPS & RIVERSIDE AVE	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 9,000	$ 84,000	16.7%	$ 14,028	$ 3,738,000
3 CAJON BLVD & GLEN HELEN PKWY	1	New Signal	$ 90,000	$ 45,000	$ 16,200	$ 151,200	13.2%	$ 19,958	$ 3,889,200
1 I-215 NB RAMPS/ARROWHEAD BL & DEVORE RD	1	New Signal	$ 90,000	$ 45,000	$ 16,200	$ 151,200	12.4%	$ 18,749	$ 4,040,400
4 I-215 NB ON/OFF RAMPS & PALM AVE	1	New Signal	$ 90,000	$ 45,000	$ 16,200	$ 151,200	10.8%	$ 16,330	$ 4,191,600
47 SR-210 FWY WB ON/OFF RAMPS & STATE ST	2	Added Turn Lane(s)	$ 100,000	$ 50,000	$ 18,000	$ 168,000	7.4%	$ 12,432	$ 4,359,600
5 I-215 SB ON/OFF RAMPS & PALM AVE	1	New Signal	$ 90,000	$ 45,000	$ 16,200	$ 151,200	7.2%	$ 10,886	$ 4,510,800
7 I-215 SB ON/OFF RAMPS & UNIVERSITY PKWY	1	Add Signal Phase	$ 25,000	$ 12,500	$ 4,500	$ 42,000	4.4%	$ 1,848	$ 4,552,800
	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 9,000	$ 84,000	4.4%	$ 3,696	$ 4,636,800
48 SR-210 FWY EB ON/OFF RAMPS & STATE ST	1	Add Signal Phase	$ 25,000	$ 12,500	$ 4,500	$ 42,000	4.2%	$ 1,764	$ 4,678,800
	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 9,000	$ 84,000	4.2%	$ 3,528	$ 4,762,800
74 MERRILL AVE & CEDAR AVE	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 9,000	$ 84,000	3.5%	$ 2,940	$ 4,846,800
72 RIALTO AVE & CEDAR AVE	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 9,000	$ 84,000	2.3%	$ 1,932	$ 4,930,800
Intersection Total						**$ 4,930,800**	**36.5%**	**$ 1,800,884**	

Appendix II-A-F

Crain & Associates
Traffic Impact Analysis Report for the Lytle Creek Ranch Planned Development Project
February 2008

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EMAIL TRANSMITTED

May 12, 2009

Mr. Peter Lewandowski
Principal
Environmental Impact Sciences
26051 Via Concha
Mission Viejo, California 92691-5614

RE: Lytle Creek Ranch Threshold of Significance Criteria

Dear Peter,

As we discussed, the Traffic Study for the Lytle Creek Ranch development will be used as part of the EIR (CEQA) and as a Traffic Impact Analysis study for CMP purposes. For this reason, the intersection LOS summary table has been refined to indicate a significant impact both under the City's CEQA and the CMP criteria.

Under CEQA, each local jurisdiction must determine which traffic (and other environmental) impacts it considers "significant." The City of Rialto General Plan states that intersection operations at LOS D or better during the peak hours are generally acceptable. A traffic impact is considered significant if the project contributes measurable traffic to and substantially and adversely changes the level of service to any location projected to experience deficient operations under foreseeable cumulative conditions. For this study, a significant project traffic impact is defined to be those locations (intersections or roadway segments) where the project would contribute 50 or more peak hour vehicle trips along the roadway and where cumulative traffic would cause conditions to degrade below the General Plan goal of LOS D. The Cities of Fontana and San Bernardino has also adopted LOS D as their standard for intersection operations. The County of San Bernardino's standard is LOS C. Therefore, any intersection operating below the standard of the responsible jurisdiction is considered deficient.

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In accordance with the County CMP, the LOS standard for the CMP roadway system is LOS E for all segments and intersections except those designated as having operated at LOS F prior to the County CMP being adopted. For those locations designated as LOS F in the County CMP, a 10 percent or more degradation in the quantitative measure used to determine LOS is considered a deficiency. Additionally, an intersection that results in a volume/capacity ratio equal to or greater than 1.0 is considered to operate at LOS F, regardless of the average stopped delay per vehicle at the intersection.

Attachment 1 shows the number of significant traffic impacts based on the CEQA and CMP significance criteria. In summary, a significant CEQA traffic impact would result at 22 study intersections under the "with project" condition prior to mitigation. A significant CEQA traffic impact would also occur at the same 22 study intersections under the 'without project' condition, except at the intersection of the SR-210 Freeway Westbound Ramps and Riverside Avenue. Based on the CMP threshold criteria, a significant traffic impact under the 'without project' condition (non-project cumulative traffic) is anticipated at 17 study intersections. Three additional study intersections are projected to result in a significant CMP impact with the project traffic.

The mitigation measures described below are recommended to reduce the CEQA and CMP traffic impacts to a less than significant level. The measures were taken from the Lytle Creek Ranch Traffic Study. The redline text shows the modifications and additions to the measures that are recommended to address the CMP significant impacts in addition to addressing the CEQA significant impacts.

As discussed in the Traffic Study, some of these improvements have already been made requirements of previously approved projects. Plans are being prepared or have been approved for some of these improvements. To be conservative, however, these improvements have not been assumed to be completed and, when appropriate, are included as mitigation measures in this study.

<u>Project Study Intersections</u>

1. <u>I-215 NB On/Off Ramps/Arrowhead Blvd & Devore Rd</u> – Install a traffic signal at this location.

3. <u>Cajon Blvd & Glen Helen Pkwy</u> – Install a traffic signal at this location.

4. I-215 NB On/Off Ramps & Palm Ave – Install a traffic signal at this location.

5. I-215 SB On/Off Ramps & Palm Ave – Install a traffic signal at this location.

7. I-215 SB On/Off Ramps & University Pkwy – Improve University Parkway to provide an exclusive right-turn lane in the northbound direction, and one left-turn lane, one left/through-shared lane and one through lane in the southbound direction. In order to accommodate the left-through-shared lane, modify the existing traffic signal to allow split phases for the northbound and southbound approaches.

10. Lytle Creek Road & Glen Helen Pkwy – Restripe Lytle Creek Road to accommodate one left-turn lane and two through lanes in the southeast-bound direction and two through lanes and one right-turn lane in the northwest-bound direction. Also improve and restripe the Glen Helen Parkway approach at Lytle Creek Road to provide dual left-turn lanes and one right-turn lane. In addition, install a traffic signal at this location.

11. Lytle Creek Road & Sierra Avenue – Restripe Lytle Creek Road and Sierra Avenue to accommodate one left-turn lane and two through lanes in the northwest-bound direction, and one through lane and one through/right-shared lane in the southeast-bound direction. In addition, install a traffic signal at this location.

12. I-15 SB On/Off Ramps & Sierra Avenue – Improve Sierra Avenue to provide dual left-turn lanes and two through lanes in the northwest-bound direction, and ~~one~~ two through lanes~~, one through/right-shared lane~~ and one free right-turn lane in the southeast-bound direction. Also, widen the southbound off-ramp to accommodate one left-turn lane, one left/right-shared lane and one right-turn lane. In addition, install a traffic signal at this location.

13. I-15 NB On/Off Ramps & Sierra Avenue – Improve Sierra Avenue to provide ~~one additional~~ dual left-turn lanes and two through lanes in the southeast-bound direction, and two through lanes and one ~~exclusive~~ right-turn lane in the northwest-bound direction. Reconstruct the northbound off-ramp to accommodate one left-turn lane, one left/through-shared lane and one free right-turn lane. In addition, install a traffic signal at this location.

16. I-15 SB On/Off Ramps & Summit Avenue – Restripe Summit Avenue to accommodate one additional left-turn lane in the eastbound direction.

17. I-15 NB On/Off Ramps & Summit Avenue – Restripe the northbound off-ramp to provide dual left-turn lanes and one right-turn lane.

18. Riverside Avenue & Sierra Avenue – Widen and restripe Sierra Avenue to provide dual left-turn lanes and two through lanes in the southbound direction. Also improve the intersection to allow a free right-turn from Riverside Avenue onto Sierra Avenue. Install a traffic signal at this intersection.

22. Riverside Avenue & Linden Avenue – Widen and restripe to provide one left-turn lane, one through lane and one through/right-shared lane in the northwest-bound direction.

39. SR-210 Fwy WB On/Off Ramps & Alder Avenue – Restripe the westbound approach to provide one left-turn lane and one left/through/right-shared lane.

43. SR-210 Fwy WB On/Off Ramps & Riverside Avenue – Flare and restripe Riverside Avenue to provide an exclusive right-turn lane in the southbound direction.

44. SR-210 Fwy EB On/Off Ramps & Riverside Avenue – Improve Riverside Avenue to provide the following: two through lanes and two right-turn lanes in the northbound direction; and dual left-turn lanes and two through lanes in the southbound direction. In addition, improve the SR-210 eastbound off-ramp to provide one left-turn lane, one left/through/right shared lane and one right-turn lane.

47. SR-210 Fwy WB On/Off Ramps & State Street – Improve State Street to provide the following: dual left-turn lanes and two through lanes in the northbound direction; and one through lane, one through/right shared lane and one right-turn lane in the southbound direction.

48. SR-210 Fwy EB On/Off Ramps & State Street – Flare and restripe the eastbound off-ramp to provide the following: one left-turn lane, one left/through-share lane and two right-turn lanes. Modify the traffic signal to accommodate a right-turn overlap phase for the off-ramp eastbound approach and the southbound approach on State Street.

49. Highland Avenue & State Street – Flare and restripe Highland Avenue to provide the following: dual left-turn lanes, one through lane and one through/right-shared lane in the westbound direction; and one left-turn lane, one through lane, one through/right-shared lane and one right-turn lane in the eastbound direction.

55. Easton Street & Ayala Drive – Flare and restripe Easton Street in the eastbound direction to accommodate an exclusive right-turn lane. Modify the traffic signal to include a right-turn overlap phase with the left-turn phase in the northbound direction.

59. Baseline Road & Alder Avenue – Flare and restripe Alder Avenue to provide one left-turn lane, one through lane and one through/right shared lane in the southbound direction.

72. Rialto Avenue & Cedar Avenue – Flare and restripe Cedar Avenue to provide an exclusive right-turn lane in the southbound direction.

74. Merrill Avenue & Cedar Avenue – Flare and restripe Cedar Avenue to provide an exclusive right-turn lane in the northbound direction. Also, Merrill Avenue should be flared and restriped to provide an exclusive right-turn lane in the eastbound direction.

The anticipated effectiveness of the above mitigation measures at the study intersections is listed in Attachment 1. As shown in this attachment, implementation of the above measures will bring all significantly impacted intersections to an acceptable level of service. It should be noted that one or more of these measures may require additional right-of-way. Should any of these measures or measures of equal effectiveness not be approved or implemented, then a significant traffic impact could remain. Attachment 3 shows the intersection lane configurations with the recommended mitigation measures. Attachment 4 contains the LOS calculation worksheets for the 'with project plus mitigation' condition at the five study intersections where mitigation measures have been refined or added.

The cost estimate of the mitigation measures above were calculated, where applicable, according to Appendix G of the San Bernardino CMP. Using the project percentage contribution at each intersection, the project's share cost estimate is determined and are shown in Attachment 2.

Please contact me if you have any questions.

Sincerely,

George Rhyner
Senior Transportation Engineer

GR:jl
C19539

Attachments

Attachment 1
Intersection Level of Service Summary
Future (2030) Traffic Conditions, With Project plus Mitigation

No.	Intersection	Peak Hour	Without Project (2030) V/C	Delay	LOS		With Project (2030) V/C	Delay	LOS		With Project + Mitigation (2030) V/C	Delay	LOS
1	I-215 NB ON/OFF RAMPS/	AM	[1]	19.1	C		[1]	22.0	C		0.425	8.3	A
	ARROWHEAD BLVD & DEVORE RD	PM	[1]	**302.6**	**F**	*	[1]	**507.3**	**F**	*,**	0.834	16.4	B
2	CAJON BLVD & I-215	AM	[1]	13.7	B		[1]	14.6	B				
	SB ON/OFF RAMPS	PM	[1]	13.0	B		[1]	13.7	B				
3	CAJON BLVD &	AM	0.766	20.4	C		0.957	29.9	D		0.414	9.9	A
	GLEN HELEN PKWY [4]	PM	1.076	51.7	F		1.181	**71.4**	**F**	**	0.491	10.6	B
4	I-215 NB ON/OFF	AM	[1]	**289.3**	**F**	*	[1]	**305.5**	**F**	*,**	0.468	11.2	B
	RAMPS & PALM AVE	PM	[1]	**235.9**	**F**	*	[1]	**260.2**	**F**	*,**	0.735	14.7	B
5	I-215 SB ON/OFF	AM	**1.884**	**181.4**	**F**	*	**1.892**	**191.1**	**F**	*,**	0.806	22.1	C
	RAMPS & PALM AVE	PM	**1.899**	**167.6**	**F**	*	**1.985**	**182.2**	**F**	*,**	0.873	25.6	C
6	I-215 NB ON/OFF RAMPS &	AM	0.766	18.6	B		0.776	18.8	B				
	UNIVERSITY PKWY	PM	0.971	34.1	C		0.984	36.1	D				
7	I-215 SB ON/OFF RAMPS &	AM	**1.070**	58.5	E	*	**1.083**	**61.8**	**E**	*,**	0.731	17.3	B
	UNIVERSITY PKWY	PM	**1.453**	**150.6**	**F**	*	**1.472**	**156.7**	**F**	*,**	0.931	26.2	C
8	I-15 SB ON/OFF RAMPS &	AM	[1]	10.8	B		[1]	12.7	B				
	GLEN HELEN PKWY	PM	[1]	10.5	B		[1]	12.6	B				
9	I-15 NB ON/OFF RAMPS &	AM	[1]	10.3	B		[1]	11.6	B				
	GLEN HELEN PKWY	PM	[1]	11.2	B		[1]	13.6	B				
10	LYTLE CREEK RD &	AM	[1]	OVRFL	F		[1]	**OVRFL**	**F**	**	0.676	15.4	B
	GLEN HELEN PKWY [2],[4]	PM	[1]	OVRFL	F		[1]	**OVRFL**	**F**	**	0.626	14.0	B
11	LYTLE CREEK RD &	AM	[1]	48.3	E		[1]	**336.6**	**F**	*,**	0.611	1.8	A
	SIERRA AVE	PM	[1]	**OVRFL**	**F**	*	[1]	**OVRFL**	**F**	*,**	0.777	9.1	A
12	I-15 SB ON/OFF	AM	**3.832**	**806.2**	**F**	*	**4.801**	**OVRFL**	**F**	*,**	0.816	24.1	C
	RAMPS & SIERRA AVE	PM	**3.270**	**506.5**	**F**	*	**4.502**	**826.8**	**F**	*,**	0.950	22.4	C
13	I-15 NB ON/OFF	AM	**1.697**	**146.9**	**F**	*	**2.827**	**460.8**	**F**	*,**	0.461	5.9	A
	RAMPS & SIERRA AVE	PM	**1.962**	**307.6**	**F**	*	**3.357**	**770.7**	**F**	*,**	0.967	32.1	C
14	I-15 SB ON/OFF RAMPS &	AM	0.578	10.4	B		0.590	10.4	B				
	DUNCAN CANYON RD [3]	PM	0.716	18.4	B		0.766	20.6	C				
15	I-15 NB ON/OFF RAMPS/LYTLE	AM	0.184	15.4	B		0.214	15.0	B				
	CREEK RD & DUNCAN CANYON RD [3]	PM	0.464	11.5	B		0.494	13.0	B				

Attachment 1 (Cont.)
Intersection Level of Service Summary
Future (2030) Traffic Conditions, With Project plus Mitigation

No.	Intersection	Peak Hour	Without Project (2030) V/C	Delay	LOS		With Project (2030) V/C	Delay	LOS		With Project + Mitigation (2030) V/C	Delay	LOS
16	I-15 SB ON/OFF RAMPS & SUMMIT AVE	AM	**1.156**	78.9	E	*	**1.160**	**80.4**	**F**	*,**	0.983	37.0	D
		PM	0.792	18.7	B		0.817	19.7	B		0.749	17.1	B
17	I-15 NB ON/OFF RAMPS & SUMMIT AVE	AM	0.816	19.2	B		0.829	19.8	B		0.682	14.6	B
		PM	**1.312**	**124.6**	**F**	*	**1.319**	**129.9**	**F**	*,**	0.982	34.9	C
18	RIVERSIDE AVE & SIERRA AVE	AM	**1.457**	**136.2**	**F**	*	**2.739**	**570.2**	**F**	*,**	0.659	11.9	B
		PM	**1.728**	**186.2**	**F**	*	**4.067**	**906.9**	**F**	*,**	0.982	36.7	D
19	RIVERSIDE AVE & LIVE OAK AVE	AM	0.435	14.6	B		0.729	21.4	C				
		PM	0.422	13.0	B		0.929	35.3	D				
20	RIVERSIDE AVE & ALDER AVE	AM	[1]	20.5	C		0.590	14.3	B				
		PM	[1]	37.0	E		0.804	19.8	B				
21	RIVERSIDE AVE & LOCUST AVE	AM	[1]	19.5	C		0.575	15.3	B				
		PM	[1]	18.1	C		0.766	17.7	B				
22	RIVERSIDE AVE & LINDEN AVE	AM	[1]	40.4	E		**1.193**	**100.5**	**F**	*,**	0.592	12.7	B
		PM	[1]	32.1	D		**1.663**	**270.7**	**F**	*,**	0.864	25.1	C
23	RIVERSIDE AVE & AYALA DR	AM	0.585	16.0	B		0.824	17.9	B				
		PM	0.388	13.5	B		0.779	17.6	B				
24	RIVERSIDE AVE &	AM	0.305	7.2	A		0.417	8.4	A				
	KNOLLWOOD AVE	PM	0.270	5.3	A		0.440	6.5	A				
25	RIVERSIDE AVE &	AM	0.426	12.3	B		0.678	17.2	B				
	COUNTRY CLUB DR	PM	0.296	10.8	B		0.757	18.8	B				
26	RIVERSIDE AVE & DWY	AM	0.355	6.9	A		0.502	5.6	A				
	(FOR SHOPPING CENTER)	PM	0.417	8.5	A		0.622	8.5	A				
27	CASA GRANDE DR & SIERRA AVE	AM	0.450	11.2	B		0.469	11.3	B				
		PM	0.779	16.2	B		0.812	17.4	B				
28	CASA GRANDE DR & ALDER AVE [4]	AM	0.314	18.9	B		0.410	19.6	B				
		PM	0.568	20.8	C		0.642	23.0	C				
29	CASA GRANDE DR &	AM	[1]	11.6	B		[1]	12.5	B				
	LOCUST AVE [4]	PM	[1]	9.9	A		[1]	11.6	B				
30	SUMMIT AVE & SIERRA AVE	AM	0.527	15.4	B		0.544	15.5	B				
		PM	0.707	17.3	B		0.731	18.2	B				

Attachment 1 (Cont.)
Intersection Level of Service Summary
Future (2030) Traffic Conditions, With Project plus Mitigation

No.	Intersection	Peak Hour	Without Project (2030) V/C	Delay	LOS		With Project (2030) V/C	Delay	LOS		With Project + Mitigation (2030) V/C	Delay	LOS
31	BOHNERT AVE & LOCUST AVE [4]	AM	[1]	21.6	C		[1]	22.5	C				
		PM	[1]	19.0	C		[1]	21.1	C				
32	BOHNERT AVE & AYALA DR [4]	AM	0.214	12.5	B		0.330	12.6	B				
		PM	0.445	7.9	A		0.579	8.8	A				
33	SIERRA LAKES PKWY/	AM	0.553	19.5	B		0.557	19.5	B				
	CASMALIA ST & SIERRA AVE	PM	0.796	23.5	C		0.801	23.6	C				
34	CASMALIA ST & ALDER AVE [4]	AM	0.637	22.9	C		0.680	23.6	C				
		PM	0.899	41.8	D		0.955	52.7	D				
35	CASMALIA ST & LOCUST AVE [4]	AM	0.595	20.8	C		0.596	20.9	C				
		PM	0.468	18.2	B		0.472	18.3	B				
36	CASMALIA ST & AYALA DR [4]	AM	0.595	17.1	B		0.687	17.4	B				
		PM	0.611	15.3	B		0.609	17.5	B				
37	SR-210 FWY WB ON/OFF RAMPS &	AM	0.229	4.2	A		0.246	4.6	A				
	SIERRA AVE	PM	0.267	6.9	A		0.287	7.4	A				
38	SR-210 FWY EB ON/OFF RAMPS &	AM	0.492	10.9	B		0.497	10.9	B				
	SIERRA AVE	PM	0.658	12.1	B		0.667	12.3	B				
39	SR-210 FWY WB ON/OFF RAMPS &	AM	0.542	11.9	B		0.582	11.5	B		0.517	10.2	B
	ALDER AVE	PM	0.977	30.3	C		**1.014**	34.0	C	*	0.947	21.6	C
40	SR-210 FWY EB ON/OFF RAMPS &	AM	0.748	19.5	B		0.811	21.3	C				
	ALDER AVE	PM	0.756	17.6	B		0.822	19.3	B				
41	SR-210 FWY WB ON/OFF RAMPS &	AM	0.842	20.3	C		0.932	25.8	C				
	AYALA AVE	PM	0.734	17.9	B		0.873	22.8	C				
42	SR-210 FWY EB ON/OFF RAMPS &	AM	0.735	16.5	B		0.832	20.4	C				
	AYALA AVE	PM	0.895	25.6	C		0.940	30.0	C				
43	SR-210 FWY WB ON/OFF RAMPS &	AM	0.708	16.9	B		0.902	22.8	C		0.811	18.3	B
	RIVERSIDE AVE	PM	0.776	17.3	B		**1.057**	56.4	E	*,**	0.957	31.2	C
44	SR-210 FWY EB ON/OFF RAMPS &	AM	**1.398**	**157.2**	**F**	*	**1.703**	**258.3**	**F**	*,**	0.901	27.6	C
	RIVERSIDE AVE	PM	**1.344**	**128.6**	**F**	*	**1.606**	**201.7**	**F**	*,**	0.898	21.5	C
45	SR-210 FWY WB ON/OFF RAMPS &	AM	0.617	15.1	B		0.638	15.8	B				
	PEPPER AVE	PM	0.751	17.8	B		0.794	20.2	C				

Attachment 1 (Cont.)
Intersection Level of Service Summary
Future (2030) Traffic Conditions, With Project plus Mitigation

No.	Intersection	Peak Hour	Without Project (2030) V/C	Delay	LOS		With Project (2030) V/C	Delay	LOS		With Project + Mitigation (2030) V/C	Delay	LOS
46	SR-210 FWY EB ON/OFF RAMPS &	AM	0.515	11.3	B		0.541	12.1	B				
	PEPPER AVE	PM	0.656	15.3	B		0.680	16.1	B				
47	SR-210 FWY WB ON/OFF RAMPS &	AM	0.969	26.8	C		1.031	35.6	D		0.653	11.8	B
	STATE ST	PM	**1.497**	**174.5**	**F**	*	**1.667**	**229.0**	**F**	*,**	0.975	29.7	C
48	SR-210 FWY EB ON/OFF RAMPS &	AM	0.745	33.6	C		0.861	36.6	D		0.702	22.5	C
	STATE ST	PM	**1.116**	71.7	E	*	**1.184**	**88.7**	**F**	*,**	0.873	25.2	C
49	HIGHLAND AVE & STATE ST	AM	**1.163**	**115.9**	**F**	*	**1.208**	**133.9**	**F**	*,**	0.820	26.8	C
		PM	**1.374**	**195.1**	**F**	*	**1.484**	**234.1**	**F**	*,**	0.909	44.3	D
50	HIGHLAND AVE & CALIFORNIA ST	AM	0.490	9.3	A		0.512	9.1	A				
		PM	0.873	17.5	B		0.931	21.3	C				
51	HIGHLAND AVE &	AM	0.382	6.4	A		0.401	6.2	A				
	MEDICAL CENTER DR	PM	0.518	7.9	A		0.560	7.8	A				
52	HIGHLAND AVE &	AM	0.524	14.7	B		0.545	14.7	B				
	MOUNT VERNON AVE	PM	0.700	17.7	B		0.748	18.3	B				
53	HIGHLAND AVE & SIERRA AVE	AM	0.409	12.7	B		0.422	12.8	B				
		PM	0.523	10.1	B		0.543	10.4	B				
54	HIGHLAND AVE/EASTON ST &	AM	0.668	21.8	C		0.725	22.8	C				
	ALDER AVE	PM	0.904	34.2	C		0.961	42.6	D				
55	EASTON ST &	AM	0.858	31.7	C		0.916	34.6	C		0.719	20.3	C
	AYALA DR [4]	PM	1.176	83.9	F		1.256	**100.2**	**F**	**	1.057	52.7	D
56	EASTON ST &	AM	0.812	27.4	C		0.837	29.2	C				
	RIVERSIDE AVE	PM	0.895	31.3	C		0.962	38.6	D				
57	EASTON ST &	AM	0.254	9.0	A		0.261	9.2	A				
	HIGHLAND AVE	PM	0.583	9.5	A		0.625	10.3	B				
58	BASELINE RD &	AM	0.452	17.5	B		0.463	17.4	B				
	SIERRA AVE	PM	0.775	23.9	C		0.797	24.5	C				
59	BASELINE RD &	AM	0.765	29.5	C		0.786	32.3	C		0.786	31.1	C
	ALDER AVE	PM	**1.044**	66.2	E	*	**1.106**	**80.5**	**F**	*,**	0.998	51.2	D
60	BASELINE RD &	AM	0.498	18.7	B		0.517	18.5	B				
	CEDAR AVE/AYALA DR	PM	0.860	27.0	C		0.891	28.8	C				

Attachment 1 (Cont.)
Intersection Level of Service Summary
Future (2030) Traffic Conditions, With Project plus Mitigation

No.	Intersection	Peak Hour	Without Project (2030) V/C	Delay	LOS		With Project (2030) V/C	Delay	LOS		With Project + Mitigation (2030) V/C	Delay	LOS
61	BASELINE RD &	AM	0.515	18.8	B		0.547	18.9	B				
	CACTUS AVE	PM	0.629	19.7	B		0.690	20.9	C				
62	BASELINE RD &	AM	0.557	19.5	B		0.580	19.4	B				
	RIVERSIDE AVE	PM	0.843	27.6	C		0.866	28.9	C				
63	BASELINE RD &	AM	0.464	8.4	A		0.479	8.3	A				
	PEPPER AVE	PM	0.467	10.6	B		0.482	10.7	B				
64	BASELINE RD &	AM	0.323	9.7	A		0.340	9.6	A				
	STATE ST	PM	0.471	10.6	B		0.493	10.8	B				
65	FOOTHILL BLVD & SIERRA AVE	AM	0.544	19.9	B		0.552	20.1	C				
		PM	0.970	36.2	D		0.969	37.9	D				
66	FOOTHILL BLVD & ALDER AVE	AM	0.412	14.8	B		0.425	15.0	B				
		PM	0.768	18.2	B		0.803	19.2	B				
67	FOOTHILL BLVD & CEDAR AVE	AM	0.775	21.3	C		0.791	21.6	C				
		PM	0.957	37.1	D		0.959	39.2	D				
68	FOOTHILL BLVD & CACTUS AVE	AM	0.429	14.5	B		0.434	14.6	B				
		PM	0.750	19.6	B		0.782	20.7	C				
69	FOOTHILL BLVD & RIVERSIDE AVE	AM	0.549	19.4	B		0.565	19.5	B				
		PM	0.847	27.5	C		0.860	28.3	C				
70	ARROW BLVD & SIERRA AVE	AM	0.543	18.5	B		0.550	18.5	B				
		PM	0.904	33.6	C		0.914	34.5	C				
71	ARROW BLVD & ALDER AVE	AM	0.693	21.2	C		0.699	21.6	C				
		PM	0.912	32.0	C		0.924	33.3	C				
72	RIALTO AVE & CEDAR AVE	AM	0.811	30.7	C		0.828	31.4	C		0.828	29.8	C
		PM	**1.030**	59.1	E	*	**1.042**	61.3	E	*,**	0.974	45.0	D
73	RIALTO AVE & CACTUS AVE [4]	AM	0.418	9.7	A		0.425	9.8	A				
		PM	0.491	10.2	B		0.501	10.4	B				
74	MERRILL AVE & CEDAR AVE	AM	0.888	21.8	C		0.896	22.1	C		0.859	20.7	C
		PM	**1.080**	55.1	E	*	**1.088**	57.1	E	*,**	0.996	36.8	D
75	MERRILL AVE & CACTUS AVE [4]	AM	0.309	13.7	B		0.316	13.7	B				
		PM	0.427	14.3	B		0.436	14.3	B				

* Denotes a CMP deficiency (i.e. LOS F and/or V/C >=1).

** Denotes a significant project CEQA traffic impact, prior to mitigation.

N/A Intersection does not currently exist, but is scheduled to be constructed by the study year 2030.

Bold Indicates unsatisfactory condition.

[1] Volume to capacity ratio is not provided for two-way, STOP sign-controlled intersections.

[2] Glen Helen Parkway is currently closed at Lytle Creek Road.

[3] I-15 on/off-ramps at Duncan Canyon Road do not currently exist, but are scheduled to be constructed by the study year of 2030.

[4] Non-CMP-Network intersection.

Attachment 2
Traffic Analysis Recommended Traffic Mitigation Measure Cost Estimates

Intersection	Improvement Measure Number	Improvement Measure Category	2003 Base Cost	Added Items (50%)	Inflation	2009 Cost	Project Percentage	Project Portion
1	1	New Signal	$ 90,000	$ 45,000	$ 24,300	$ 159,300	12.4%	$ 19,753
3	1	New Signal	$ 90,000	$ 45,000	$ 24,300	$ 159,300	13.2%	$ 21,028
4	1	New Signal	$ 90,000	$ 45,000	$ 24,300	$ 159,300	10.8%	$ 17,204
5	1	New Signal	$ 90,000	$ 45,000	$ 24,300	$ 159,300	7.2%	$ 11,470
7	1	Add Signal Phase	$ 25,000	$ 12,500	$ 6,750	$ 44,250	4.4%	$ 1,947
	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 13,500	$ 88,500	4.4%	$ 3,894
10	1	New Signal	$ 90,000	$ 45,000	$ 24,300	$ 159,300	32.6%	$ 51,932
	2	Added Turn Lane(s)	$ 100,000	$ 50,000	$ 27,000	$ 177,000	32.6%	$ 57,702
	2	Added Thru Lane(s)	$ 200,000	$ 100,000	$ 54,000	$ 354,000	32.6%	$ 115,404
11	1	New Signal	$ 90,000	$ 45,000	$ 24,300	$ 159,300	33.3%	$ 53,047
	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 13,500	$ 88,500	33.3%	$ 29,471
	2	Added Thru Lane(s)	$ 200,000	$ 100,000	$ 54,000	$ 354,000	33.3%	$ 117,882
12	1	New Signal	$ 90,000	$ 45,000	$ 24,300	$ 159,300	41.1%	$ 65,472
	3	Added Turn Lane(s)	$ 150,000	$ 75,000	$ 40,500	$ 265,500	41.1%	$ 109,121
	2	Added Thru Lane(s)	$ 200,000	$ 100,000	$ 54,000	$ 354,000	41.1%	$ 145,494
13	1	New Signal	$ 90,000	$ 45,000	$ 24,300	$ 159,300	65.8%	$ 104,819
	3	Added Turn Lane(s)	$ 150,000	$ 75,000	$ 40,500	$ 265,500	65.8%	$ 174,699
	1	Added Thru Lane(s)	$ 100,000	$ 50,000	$ 27,000	$ 177,000	65.8%	$ 116,466
16	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 13,500	$ 88,500	100.0%	$ 88,500
17	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 13,500	$ 88,500	29.9%	$ 26,462
18	1	New Signal	$ 90,000	$ 45,000	$ 24,300	$ 159,300	67.8%	$ 108,005
	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 13,500	$ 88,500	67.8%	$ 60,003
	1	Added Thru Lane(s)	$ 100,000	$ 50,000	$ 27,000	$ 177,000	67.8%	$ 120,006
22	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 13,500	$ 88,500	84.0%	$ 74,340
	1	Added Thru Lane(s)	$ 100,000	$ 50,000	$ 27,000	$ 177,000	84.0%	$ 148,680

Attachment 2 (Cont.)
Traffic Analysis Recommended Traffic Mitigation Measure Cost Estimates

Intersection	Improvement Measure Number	Improvement Measure Category	2003 Base Cost	Added Items (50%)	Inflation	2009 Cost	Project Percentage	Project Portion
39	1	Restripe Lane	$ 10,000	$ 5,000	$ 2,700	$ 17,700	40.3%	$ 7,133
43	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 13,500	$ 88,500	27.5%	$ 24,338
44	2	Added Turn Lane(s)	$ 100,000	$ 50,000	$ 27,000	$ 177,000	16.7%	$ 29,559
47	2	Added Turn Lane(s)	$ 100,000	$ 50,000	$ 27,000	$ 177,000	7.4%	$ 13,098
48	1	Add Signal Phase	$ 25,000	$ 12,500	$ 6,750	$ 44,250	4.2%	$ 1,859
	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 13,500	$ 88,500	4.2%	$ 3,717
49	2	Added Turn Lane(s)	$ 100,000	$ 50,000	$ 27,000	$ 177,000	19.7%	$ 34,869
55	1	Add Signal Phase	$ 25,000	$ 12,500	$ 6,750	$ 44,250	28.5%	$ 12,611
	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 13,500	$ 88,500	28.5%	$ 25,223
59	1	Added Thru Lane(s)	$ 100,000	$ 50,000	$ 27,000	$ 177,000	28.2%	$ 49,914
72	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 13,500	$ 88,500	2.3%	$ 2,036
74	2	Added Turn Lane(s)	$ 100,000	$ 50,000	$ 27,000	$ 177,000	3.5%	$ 6,195
Intersection Total						**$ 5,655,150**	**36.3%**	**$ 2,053,350**

ATTACHMENT 3

STUDY INTERSECTION LANE CONFIGURATIONS WITH MITIGATION

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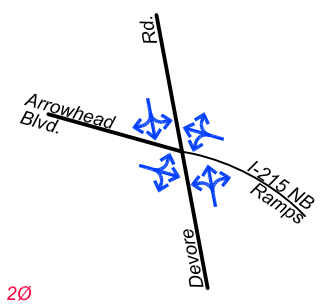
5/11/2009

FN: LYTLE CREEK RANCH/LANE-CONFIG(WMIT)-5-2009

1 I-215 NB On/Off Ramps/ Arrow Blvd. and Devore Rd.



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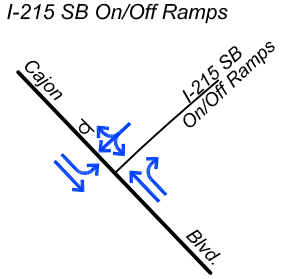
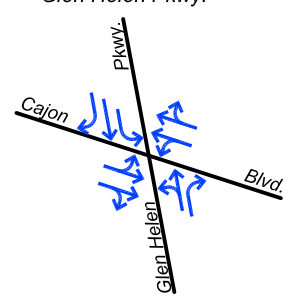
2 Cajon Blvd. and I-215 SB On/Off Ramps



3 Cajon Blvd. and Glen Helen Pkwy.



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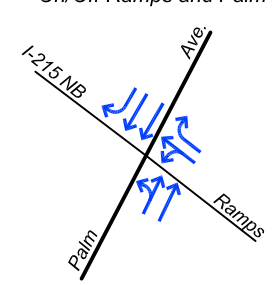
4 Barstow Fwy.(I-215) NB On/Off Ramps and Palm Ave.



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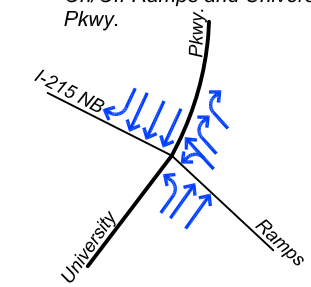
5 Barstow Fwy.(I-215) SB On/Off Ramps/Kendall Dr. and Palm Ave.

3Ø

6 Barstow Fwy.(I-215) NB On/Off Ramps and University Pkwy.



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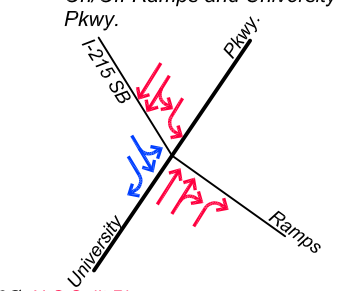
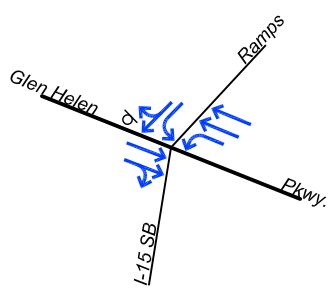
7 Barstow Fwy.(I-215) SB On/Off Ramps and University Pkwy.

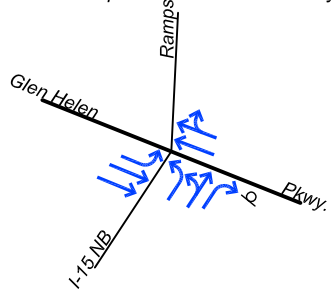


3Ø, N-S Split Phase

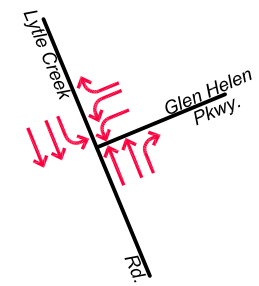
8 Ontario Fwy (I-15) SB On/Off Ramps and Glen Helen Pkwy.



9 Ontario Fwy (I-15) NB On/Off Ramps and Glen Helen Pkwy.



10 Lytle Creek Road and Glen Helen Pkwy.



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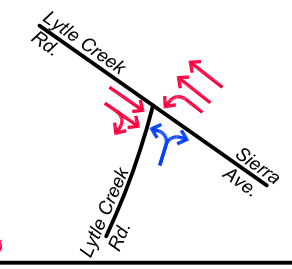
11 Lytle Creek Road and Sierra Ave.



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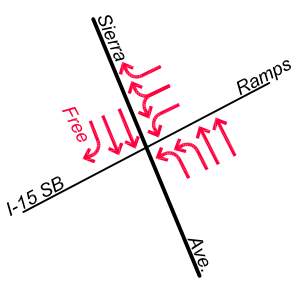
12 Ontario Fwy. (I-15) SB On/Off Ramps and Sierra Ave.



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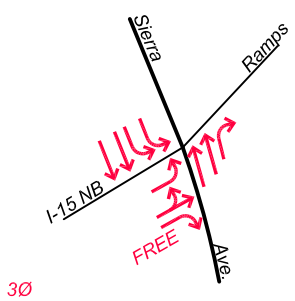
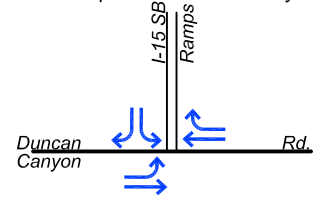
13 Ontario Fwy. (I-15) NB On/Off Ramps and Sierra Ave.



3Ø

14 Ontario Fwy. (I-15) SB On/Off Ramps and Duncan Canyon Rd.



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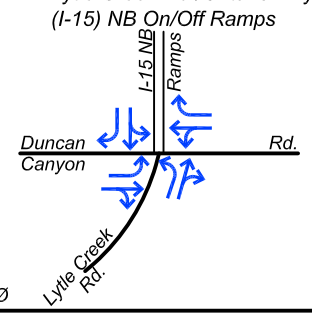
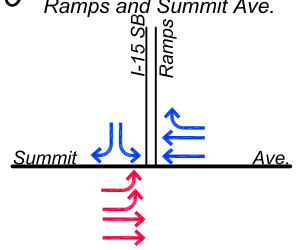
15 Duncan Canyon Rd. and Lytle Creek Rd./Ontario Fwy. (I-15) NB On/Off Ramps



3Ø

16 Ontario Fwy. (I-15) SB On/Off Ramps and Summit Ave.



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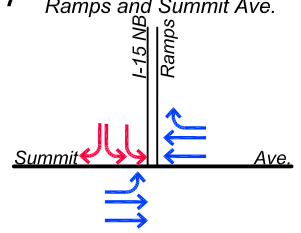
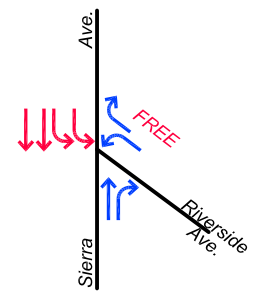
17 Ontario Fwy. (I-15) NB On/Off Ramps and Summit Ave.



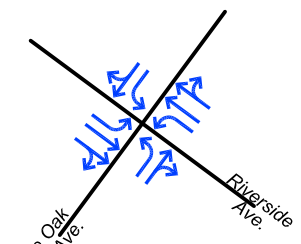
3Ø

18 Riverside Ave. and Sierra Ave.



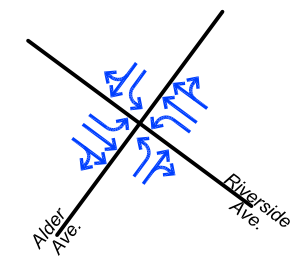
3Ø

19 Riverside Ave. and Live Oak Ave.



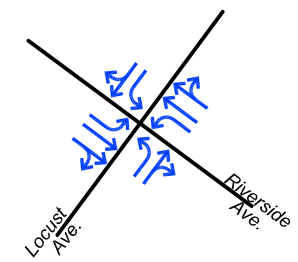
4Ø

20 Riverside Ave. and Alder Ave.



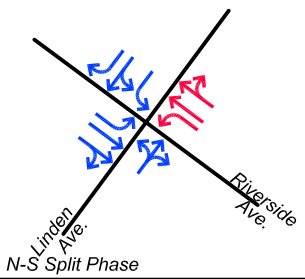
3Ø

21 Riverside Ave. and Locust Ave.



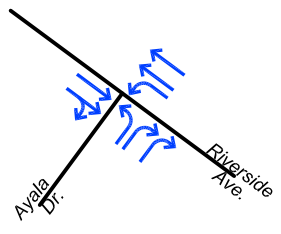
3Ø

22 Riverside Ave. and Linden Ave.



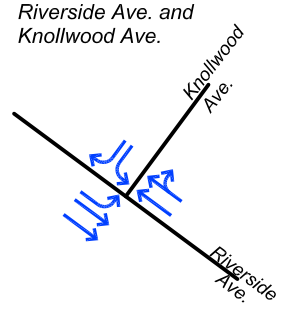
4Ø, N-S Split Phase

23 Riverside Ave. and Ayala Dr.



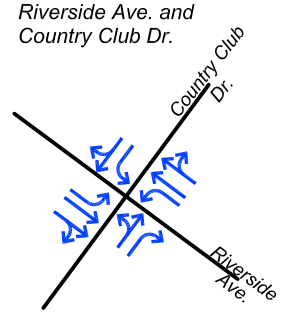
3Ø

24 Riverside Ave. and Knollwood Ave.



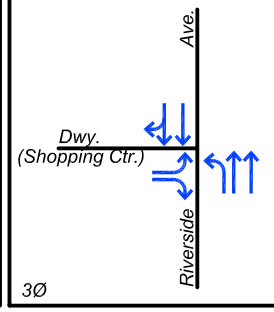
3Ø

25 Riverside Ave. and Country Club Dr.



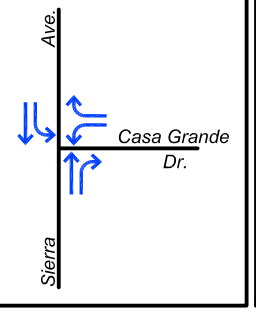
3Ø

26 Riverside Ave. and Driveway (For Shopping Ctr.)



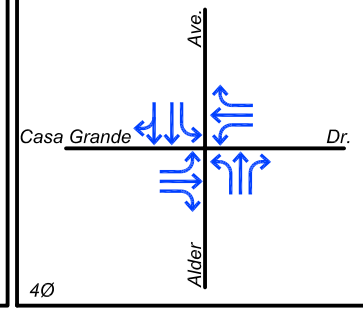
3Ø

27 Casa Grande Dr. and Sierra Ave.



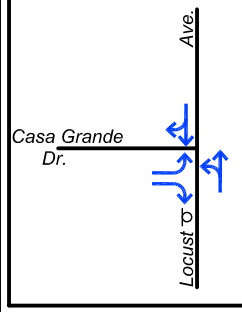
2Ø

28 Casa Grande Dr. and Alder Ave.

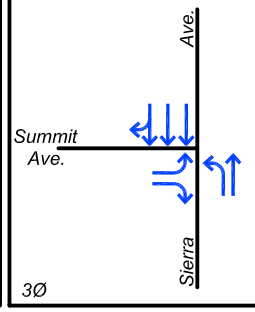


4Ø

29 Casa Grande Dr. and Locust Ave.

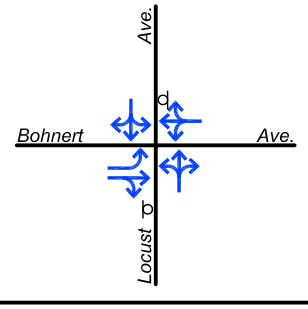


30 Summit Ave. and Sierra Ave.

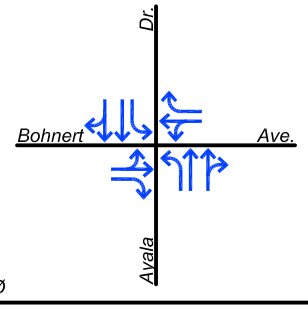


3Ø

31 Bohnert Ave. and Locust Ave.

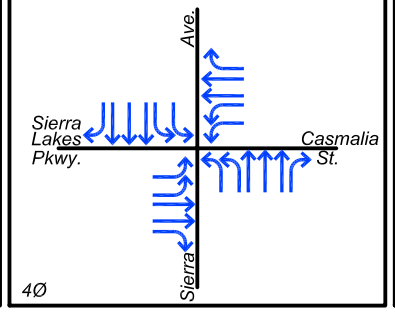


32 Bohnert Ave. and Ayala Dr.



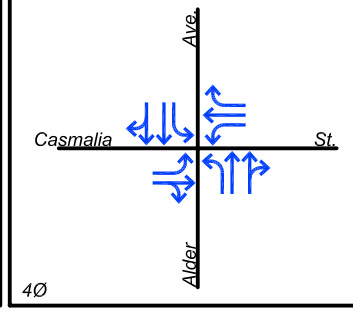
3Ø

33 Sierra Lakes Pkwy/Casmalia St. and Sierra Ave.



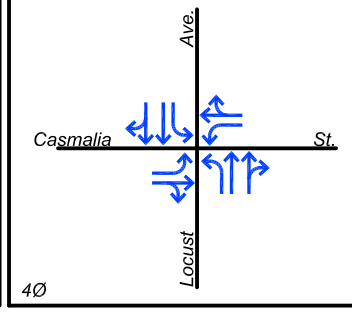
4Ø

34 Casmalia St. and Alder Ave.



4Ø

35 Casmalia St. and Locust Ave.



4Ø

LEGEND

With Project Lane Configuration
With Mitigation Lane Configuration

Free Right-Turn Movement
Overlap Phase

Number of Signal Phases
Stop Sign Controlled

3Ø FREE OVL

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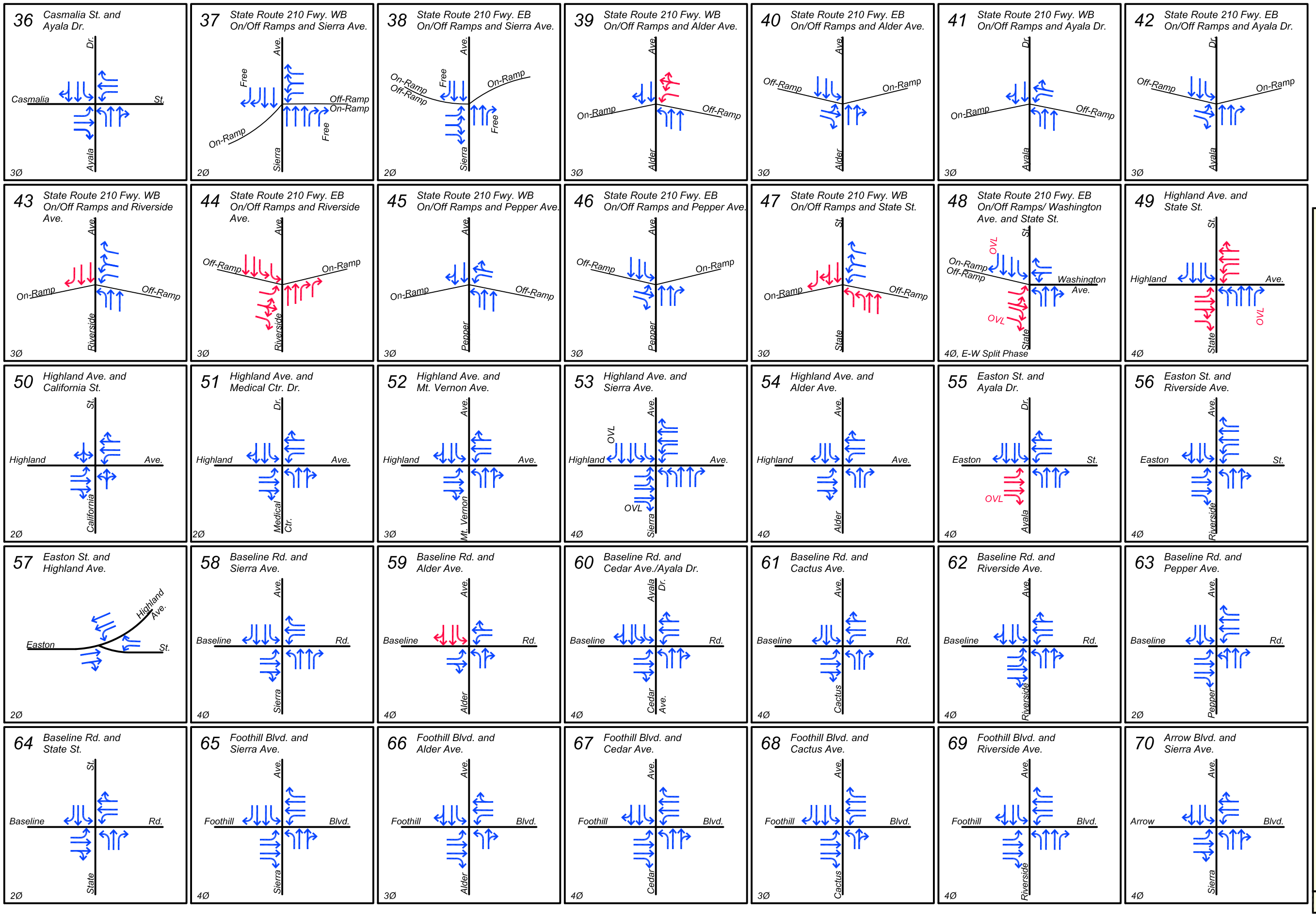
FUTURE INTERSECTION LANE CONFIGURATION WITH PROJECT PLUS MITIGATION



5/11/2009

FN: LYTLE CREEK RANCH\LANE-CONFIG(WMIT)-5-2009

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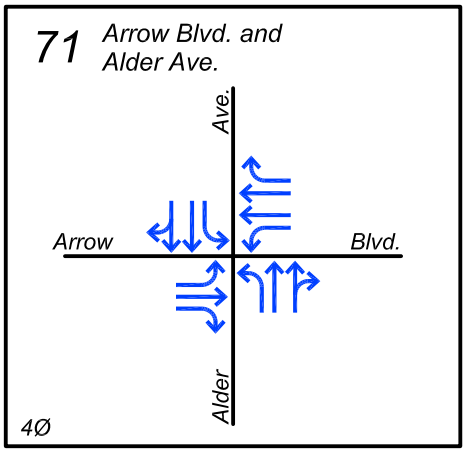

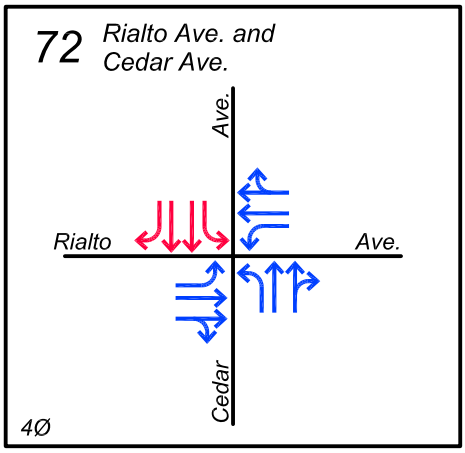

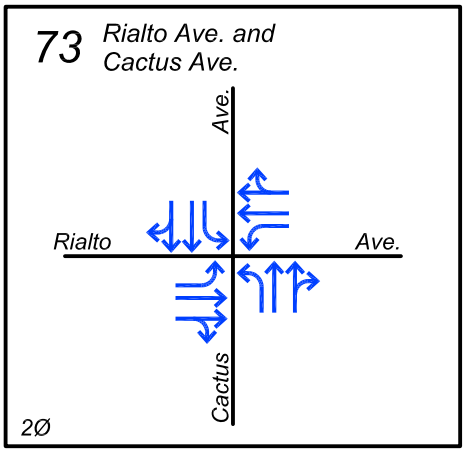

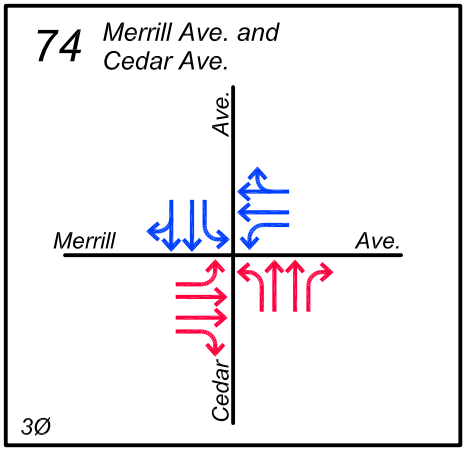

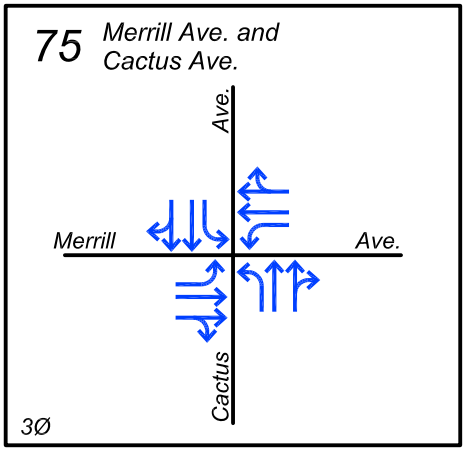

LEGEND	
3Ø	Number of Signal Phases
O	Stop Sign Controlled
FREE	Free Right-Turn Movement
OVL	Overlap Phase
	With Project Lane Configuration
	With Mitigation Lane Configuration

5/11/2009

FN: LYTLE CREEK RANCH\LANE-CONFIG(WMIT)-5-2009

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LANE CONFIGURATION
WITH PROJECT PLUS MITIGATION

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ATTACHMENT 4

INTERSECTION LEVEL OF SERVICE CALCULATION WORKSHEETS

FUTURE WITH PROJECT PLUS MITIGATION

(MODIFIED WORKSHEETS ONLY)

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Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
AM Peak Hour

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

Intersection #12 I-15 SB On/Off-Ramps & Sierra Ave

Cycle (sec):	75	Critical Vol./Cap.(X):	0.816
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	24.1
Optimal Cycle:	60	Level Of Service:	C

Street Name:	I-15 SB On/Off-Ramps						Sierra Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Permitted			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	0 0	0	1 0	1! 0	1	0 0	2 0	1	2 0	2 0	0
Volume Module:												
Base Vol:	0	0	0	486	23	250	0	884	1436	910	377	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	486	23	250	0	884	1436	910	377	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	486	23	250	0	884	1436	910	377	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95
PHF Volume:	0	0	0	512	24	263	0	931	0	958	397	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	512	24	263	0	931	0	958	397	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	0	0	0	512	24	263	0	931	0	958	397	0
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:	0.00	0.00	0.00	1.63	0.06	1.31	0.00	2.00	1.00	2.00	2.00	0.00
Final Sat.:	0	0	0	2941	108	2487	0	3800	1900	3400	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.17	0.22	0.11	0.00	0.24	0.00	0.28	0.10	0.00
Crit Moves:					****			****		****		
Green/Cycle:	0.00	0.00	0.00	0.27	0.27	0.27	0.00	0.30	0.00	0.35	0.65	0.00
Volume/Cap:	0.00	0.00	0.00	0.63	0.82	0.39	0.00	0.82	0.00	0.82	0.16	0.00
Delay/Veh:	0.0	0.0	0.0	24.9	30.8	22.2	0.0	29.0	0.0	26.9	5.3	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:	0.0	0.0	0.0	24.9	30.8	22.2	0.0	29.0	0.0	26.9	5.3	0.0
LOS by Move:	A	A	A	C	C	C	A	C	A	C	A	A
HCM2kAvgQ:	0	0	0	8	12	4	0	12	0	14	2	0

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

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Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
PM Peak Hour

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

****

Intersection #12 I-15 SB On/Off-Ramps & Sierra Ave

****

Cycle (sec): 60 Critical Vol./Cap.(X): 0.950
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 22.4
Optimal Cycle: OPTIMIZED Level Of Service: C

****

Street Name:	I-15 SB On/Off-Ramps						Sierra Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Permitted			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	0 0	0	1 0	1! 0	1	0 0	2 0	1	2 0	2 0	0
Volume Module:												
Base Vol:	0	0	0	398	5	378	0	1400	723	786	1595	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	398	5	378	0	1400	723	786	1595	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	398	5	378	0	1400	723	786	1595	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95
PHF Volume:	0	0	0	419	5	398	0	1474	0	827	1679	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	419	5	398	0	1474	0	827	1679	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	0	0	0	419	5	398	0	1474	0	827	1679	0
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:	0.00	0.00	0.00	1.52	0.01	1.47	0.00	2.00	1.00	2.00	2.00	0.00
Final Sat.:	0	0	0	2736	24	2789	0	3800	1900	3400	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.15	0.22	0.14	0.00	0.39	0.00	0.24	0.44	0.00
Crit Moves:					****			****		****		
Green/Cycle:	0.00	0.00	0.00	0.24	0.24	0.24	0.00	0.41	0.00	0.26	0.66	0.00
Volume/Cap:	0.00	0.00	0.00	0.65	0.95	0.61	0.00	0.95	0.00	0.95	0.67	0.00
Delay/Veh:	0.0	0.0	0.0	21.9	42.1	21.2	0.0	30.1	0.0	41.3	6.7	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:	0.0	0.0	0.0	21.9	42.1	21.2	0.0	30.1	0.0	41.3	6.7	0.0
LOS by Move:	A	A	A	C	D	C	A	C	A	D	A	A
HCM2kAvgQ:	0	0	0	6	13	5	0	19	0	14	10	0

****

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

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Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
AM Peak Hour

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

Intersection #13 I-15 NB On/Off-Ramps & Sierra Ave

Cycle (sec):	60	Critical Vol./Cap.(X):	0.461
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	5.9
Optimal Cycle:	60	Level Of Service:	A

Street Name:	I-15 NB On/Off-Ramps						Sierra Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Ignore			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 1	0 0	1	0 0	0 0	0	2 0	2 0	0	0 0	2 0	1
Volume Module:												
Base Vol:	161	2	432	0	0	0	181	1189	0	0	1122	481
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:	161	2	432	0	0	0	181	1189	0	0	1122	481
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	161	2	432	0	0	0	181	1189	0	0	1122	481
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	169	2	0	0	0	0	191	1252	0	0	1181	506
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	169	2	0	0	0	0	191	1252	0	0	1181	506
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	169	2	0	0	0	0	191	1252	0	0	1181	506
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00
Lanes:	1.98	0.02	1.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	3558	44	1900	0	0	0	3400	3800	0	0	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.00	0.00	0.00	0.00	0.06	0.33	0.00	0.00	0.31	0.27
Crit Moves:	****						****				****	
Green/Cycle:	0.10	0.10	0.00	0.00	0.00	0.00	0.12	0.80	0.00	0.00	0.67	0.67
Volume/Cap:	0.46	0.46	0.00	0.00	0.00	0.00	0.46	0.41	0.00	0.00	0.46	0.39
Delay/Veh:	26.2	26.2	0.0	0.0	0.0	0.0	25.3	1.9	0.0	0.0	4.7	4.5
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:	26.2	26.2	0.0	0.0	0.0	0.0	25.3	1.9	0.0	0.0	4.7	4.5
LOS by Move:	C	C	A	A	A	A	C	A	A	A	A	A
HCM2kAvgQ:	2	2	0	0	0	0	2	4	0	0	5	4

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

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Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #13 I-15 NB On/Off-Ramps & Sierra Ave

Cycle (sec):	80	Critical Vol./Cap.(X):	0.967
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	32.1
Optimal Cycle:	130	Level Of Service:	C

Street Name:	I-15 NB On/Off-Ramps						Sierra Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Ignore			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 1	0 0	1	0 0	0 0	0	2 0	2 0	0	0 0	2 0	1
Volume Module:												
Base Vol:	1052	0	896	0	0	0	511	1299	0	0	1322	774
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:	1052	0	896	0	0	0	511	1299	0	0	1322	774
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1052	0	896	0	0	0	511	1299	0	0	1322	774
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	1107	0	0	0	0	0	538	1367	0	0	1392	815
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1107	0	0	0	0	0	538	1367	0	0	1392	815
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1107	0	0	0	0	0	538	1367	0	0	1392	815
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	3600	0	1900	0	0	0	3400	3800	0	0	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.31	0.00	0.00	0.00	0.00	0.00	0.16	0.36	0.00	0.00	0.37	0.43
Crit Moves:	****						****					****
Green/Cycle:	0.32	0.00	0.00	0.00	0.00	0.00	0.16	0.61	0.00	0.00	0.44	0.44
Volume/Cap:	0.97	0.00	0.00	0.00	0.00	0.00	0.97	0.59	0.00	0.00	0.83	0.97
Delay/Veh:	46.0	0.0	0.0	0.0	0.0	0.0	63.1	10.1	0.0	0.0	23.1	44.9
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:	46.0	0.0	0.0	0.0	0.0	0.0	63.1	10.1	0.0	0.0	23.1	44.9
LOS by Move:	D	A	A	A	A	A	E	B	A	A	C	D
HCM2kAvgQ:	20	0	0	0	0	0	12	11	0	0	17	26

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

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Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
AM Peak Hour

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

****

Intersection #39 Alder Ave. and SR-210 Fwy. WB On/Off Ramps

****

Cycle (sec):	60	Critical Vol./Cap.(X):	0.517
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.2
Optimal Cycle: OPTIMIZED		Level Of Service:	B

****

Street Name:	Alder Ave.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	1 0	1! 0	0
Volume Module:												
Base Vol:	194	893	0	0	507	471	0	0	0	238	0	51
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:	194	893	0	0	507	471	0	0	0	238	0	51
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	194	893	0	0	507	471	0	0	0	238	0	51
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:	204	940	0	0	534	496	0	0	0	251	0	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	204	940	0	0	534	496	0	0	0	251	0	54
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:	204	940	0	0	534	496	0	0	0	251	0	54
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	0.00	0.00	1.04	0.96	0.00	0.00	0.00	1.71	0.00	0.29
Final Sat.:	1800	3800	0	0	1970	1830	0	0	0	3080	0	549
Capacity Analysis Module:												
Vol/Sat:	0.11	0.25	0.00	0.00	0.27	0.27	0.00	0.00	0.00	0.08	0.00	0.10
Crit Moves:	****				****					****		
Green/Cycle:	0.21	0.72	0.00	0.00	0.51	0.51	0.00	0.00	0.00	0.18	0.00	0.18
Volume/Cap:	0.54	0.34	0.00	0.00	0.54	0.54	0.00	0.00	0.00	0.45	0.00	0.54
Delay/Veh:	22.5	3.3	0.0	0.0	10.4	10.4	0.0	0.0	0.0	22.3	0.0	23.2
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:	22.5	3.3	0.0	0.0	10.4	10.4	0.0	0.0	0.0	22.3	0.0	23.2
LOS by Move:	C	A	A	A	B	B	A	A	A	C	A	C
HCM2kAvgQ:	4	3	0	0	7	7	0	0	0	3	0	4

****

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

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Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #39 Alder Ave. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.947
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 21.6
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name:	Alder Ave.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	1 0	1! 0	0
Volume Module:												
Base Vol:	309	1171	0	0	466	749	0	0	0	556	0	170
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:	309	1171	0	0	466	749	0	0	0	556	0	170
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	309	1171	0	0	466	749	0	0	0	556	0	170
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:	325	1233	0	0	491	788	0	0	0	585	0	179
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	325	1233	0	0	491	788	0	0	0	585	0	179
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:	325	1233	0	0	491	788	0	0	0	585	0	179
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	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.63	0.00	0.37
Final Sat.:	1800	3800	0	0	1900	1900	0	0	0	2940	0	697
Capacity Analysis Module:												
Vol/Sat:	0.18	0.32	0.00	0.00	0.26	0.41	0.00	0.00	0.00	0.20	0.00	0.26
Crit Moves:	****					****						****
Green/Cycle:	0.19	0.63	0.00	0.00	0.44	0.44	0.00	0.00	0.00	0.27	0.00	0.27
Volume/Cap:	0.95	0.52	0.00	0.00	0.59	0.95	0.00	0.00	0.00	0.73	0.00	0.95
Delay/Veh:	58.8	6.3	0.0	0.0	13.2	30.0	0.0	0.0	0.0	22.7	0.0	41.4
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:	58.8	6.3	0.0	0.0	13.2	30.0	0.0	0.0	0.0	22.7	0.0	41.4
LOS by Move:	E	A	A	A	B	C	A	A	A	C	A	D
HCM2kAvgQ:	11	7	0	0	8	20	0	0	0	8	0	14

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

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Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
AM Peak Hour

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

****

Intersection #44 Riverside Ave. and SR-210 Fwy. EB On/Off Ramps

****

Cycle (sec):	60	Critical Vol./Cap.(X):	0.901
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	27.6
Optimal Cycle: OPTIMIZED		Level Of Service:	C

****

Street Name:	Riverside Ave.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	2 0	2	2 0	2 0	0	1 0	1! 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	0	546	1148	1398	560	0	90	0	296	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	546	1148	1398	560	0	90	0	296	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	546	1148	1398	560	0	90	0	296	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	575	1208	1472	589	0	95	0	312	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	575	1208	1472	589	0	95	0	312	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	575	1208	1472	589	0	95	0	312	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.95	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	2.00	2.00	2.00	0.00	1.24	0.00	1.76	0.00	0.00	0.00
Final Sat.:	0	3800	3600	3400	3800	0	2237	0	3338	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.15	0.34	0.43	0.16	0.00	0.04	0.00	0.09	0.00	0.00	0.00
Crit Moves:			****	****			****					
Green/Cycle:	0.00	0.35	0.35	0.45	0.80	0.00	0.10	0.00	0.10	0.00	0.00	0.00
Volume/Cap:	0.00	0.43	0.96	0.96	0.19	0.00	0.42	0.00	0.93	0.00	0.00	0.00
Delay/Veh:	0.0	15.2	35.9	30.7	1.5	0.0	25.7	0.0	53.9	0.0	0.0	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:	0.0	15.2	35.9	30.7	1.5	0.0	25.7	0.0	53.9	0.0	0.0	0.0
LOS by Move:	A	B	D	C	A	A	C	A	D	A	A	A
HCM2kAvgQ:	0	4	18	22	1	0	2	0	7	0	0	0

****

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

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Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #44 Riverside Ave. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.898
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	21.5
Optimal Cycle: OPTIMIZED		Level Of Service:	C

Street Name:	Riverside Ave.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	2 0	2	2 0	2 0	0	1 0	1! 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	0	565	922	1211	984	0	103	0	541	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	565	922	1211	984	0	103	0	541	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	565	922	1211	984	0	103	0	541	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	595	971	1275	1036	0	108	0	569	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	595	971	1275	1036	0	108	0	569	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	595	971	1275	1036	0	108	0	569	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.95	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	2.00	2.00	2.00	0.00	1.17	0.00	1.83	0.00	0.00	0.00
Final Sat.:	0	3800	3600	3400	3800	0	2101	0	3482	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.16	0.27	0.37	0.27	0.00	0.05	0.00	0.16	0.00	0.00	0.00
Crit Moves:			****	****					****			
Green/Cycle:	0.00	0.30	0.30	0.42	0.72	0.00	0.18	0.00	0.18	0.00	0.00	0.00
Volume/Cap:	0.00	0.52	0.90	0.90	0.38	0.00	0.28	0.00	0.90	0.00	0.00	0.00
Delay/Veh:	0.0	17.8	30.2	24.2	3.4	0.0	21.2	0.0	37.5	0.0	0.0	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:	0.0	17.8	30.2	24.2	3.4	0.0	21.2	0.0	37.5	0.0	0.0	0.0
LOS by Move:	A	B	C	C	A	A	C	A	D	A	A	A
HCM2kAvgQ:	0	5	13	17	4	0	2	0	9	0	0	0

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

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Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
AM Peak Hour

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

Intersection #74 Cedar Ave. and Merrill Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.859
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 20.7
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name:	Cedar Ave.						Merrill Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	159	1470	85	288	1816	169	216	471	118	147	328	138
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:	159	1470	85	288	1816	169	216	471	118	147	328	138
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	159	1470	85	288	1816	169	216	471	118	147	328	138
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:	167	1547	89	303	1912	178	227	496	124	155	345	145
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	167	1547	89	303	1912	178	227	496	124	155	345	145
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:	167	1547	89	303	1912	178	227	496	124	155	345	145
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	1.83	0.17	1.00	2.00	1.00	1.00	1.41	0.59
Final Sat.:	1800	3800	1900	1800	3476	324	1800	3800	1900	1800	2675	1125
Capacity Analysis Module:												
Vol/Sat:	0.09	0.41	0.05	0.17	0.55	0.55	0.13	0.13	0.07	0.09	0.13	0.13
Crit Moves:	****				****			****				
Green/Cycle:	0.11	0.53	0.53	0.22	0.64	0.64	0.15	0.15	0.15	0.15	0.15	0.15
Volume/Cap:	0.86	0.77	0.09	0.77	0.86	0.86	0.83	0.86	0.43	0.57	0.85	0.85
Delay/Veh:	56.0	13.1	7.0	31.0	12.0	12.0	43.7	37.2	24.1	26.4	36.3	36.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	56.0	13.1	7.0	31.0	12.0	12.0	43.7	37.2	24.1	26.4	36.3	36.3
LOS by Move:	E	B	A	C	B	B	D	D	C	C	D	D
HCM2kAvgQ:	6	13	1	8	19	19	7	8	3	4	7	7

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

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Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
PM Peak Hour

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

****

Intersection #74 Cedar Ave. and Merrill Ave.

****

Cycle (sec):	70	Critical Vol./Cap.(X):	0.996
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	36.8
Optimal Cycle: OPTIMIZED		Level Of Service:	D

****

Street Name:	Cedar Ave.						Merrill Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 0	1	1 0	1 1	0
Volume Module:												
Base Vol:	191	1960	203	207	1752	184	232	890	161	141	573	184
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:	191	1960	203	207	1752	184	232	890	161	141	573	184
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	191	1960	203	207	1752	184	232	890	161	141	573	184
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:	201	2063	214	218	1844	194	244	937	169	148	603	194
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	201	2063	214	218	1844	194	244	937	169	148	603	194
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:	201	2063	214	218	1844	194	244	937	169	148	603	194
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	1.81	0.19	1.00	2.00	1.00	1.00	1.51	0.49
Final Sat.:	1800	3800	1900	1800	3439	361	1800	3800	1900	1800	2876	924
Capacity Analysis Module:												
Vol/Sat:	0.11	0.54	0.11	0.12	0.54	0.54	0.14	0.25	0.09	0.08	0.21	0.21
Crit Moves:		****		****				****				
Green/Cycle:	0.11	0.55	0.55	0.12	0.55	0.55	0.25	0.25	0.25	0.25	0.25	0.25
Volume/Cap:	0.97	1.00	0.21	1.00	0.97	0.97	0.55	1.00	0.36	0.33	0.85	0.85
Delay/Veh:	85.2	34.6	8.3	90.3	28.8	28.8	24.4	54.6	22.2	22.0	32.3	32.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	85.2	34.6	8.3	90.3	28.8	28.8	24.4	54.6	22.2	22.0	32.3	32.3
LOS by Move:	F	C	A	F	C	C	C	D	C	C	C	C
HCM2kAvgQ:	9	31	2	10	29	29	6	17	3	3	11	11

****

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

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TRAFFIC IMPACT ANALYSIS REPORT FOR THE LYTLE CREEK RANCH PLANNED DEVELOPMENT PROJECT

Prepared for:

LYTLE DEVELOPMENT COMPANY
AND
CITY OF RIALTO

Prepared by:

Crain & Associates
2007 Sawtelle Boulevard
Los Angeles, California 90025
(310) 473-6508

February 2008

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I. INTRODUCTION

The Lytle Creek Ranch area is proposing to be developed with a 2,447.3-acre master planned mixed-use community located partially within the city existing limits of Rialto but mainly within the City's sphere of influence within the unincorporated portion of San Bernardino County. The site and the intended development are referred to as "Lytle Creek Ranch". The site is bisected partially by both the Ontario (Interstate 15) Freeway and the Lytle Creek Wash, an intermittent stream. Of the 2,447.3 acres, more than half of the property will be preserved as open space. The remaining acres are organized into four distinct residential neighborhoods that include single and multi-family units, retail areas, schools, and public and recreational amenities. Figure 1 is a site vicinity map of the proposed project location. The proposed project land uses by neighborhood are shown in Figure 2, Lytle Creek Ranch Land Use Plan.

Crain & Associates was retained by Lytle Development Company to conduct a transportation study to be included in the Lytle Creek Ranch Environmental Impact Report (EIR). Under the City's technical direction, traffic impacts were assessed for the Project on the study area transportation system. The report documents the results of that study, which analyzed existing and future traffic conditions in accordance with procedures specified by the San Bernardino Associated Governments (SanBAG) in the San Bernardino County Congestion Management Plan (CMP). Staff from the City and SanBAG participated in a series of discussions to ensure that this report (and underlying analyses) met all applicable CEQA and CMP requirements. The analysis includes a detailed evaluation of traffic conditions at 75 intersections (35 nearby CMP intersections and 40 additional project area intersections). Regional facilities, including 29 freeway segments, were also evaluated. These study locations were selected according to CMP traffic impact analysis (TIA) procedures and is based upon the East Valley

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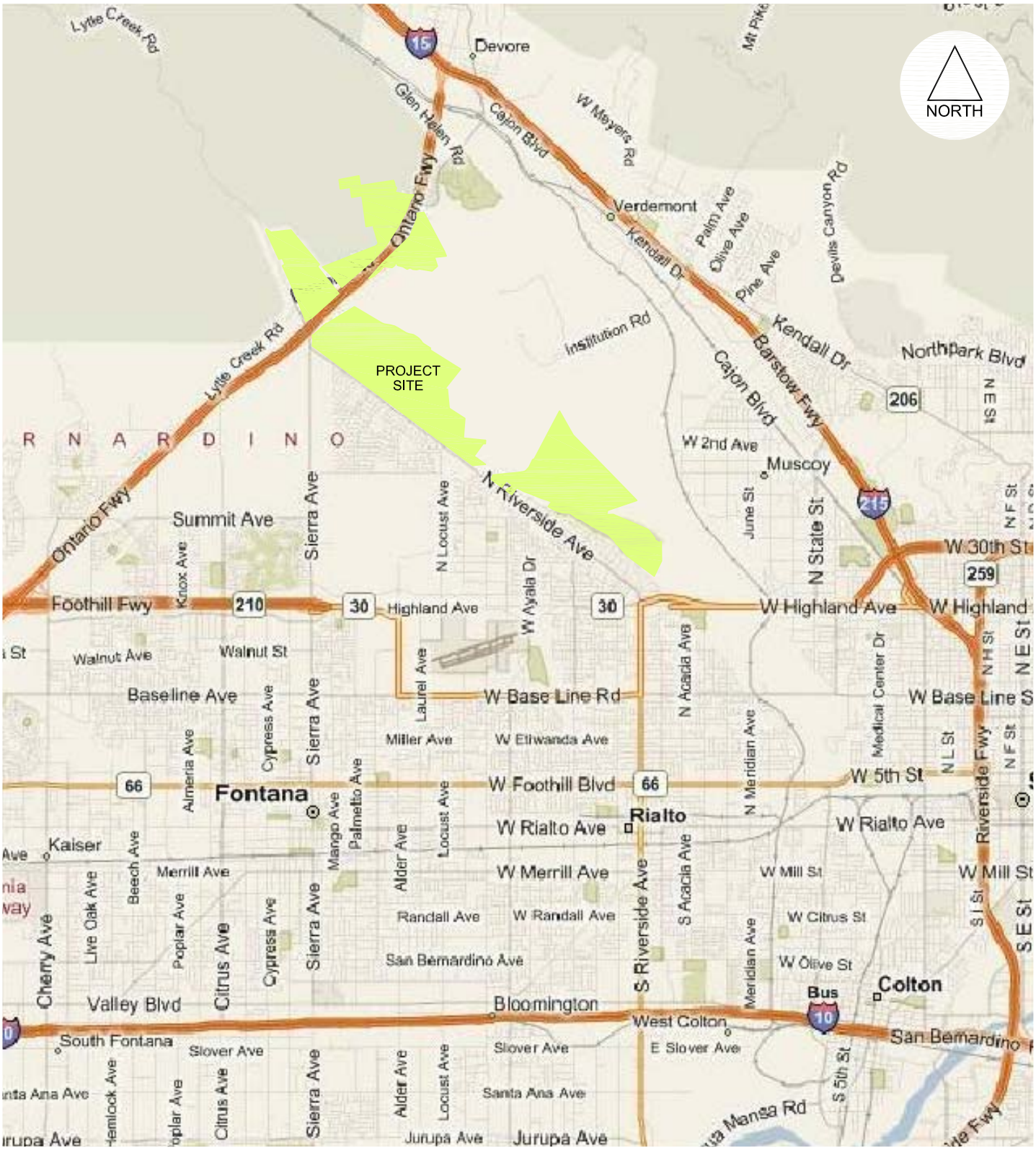


FIGURE 1

45/4/2007

FN: LYTLE CREEK RANCH\SITEVICN

SITE VICINITY MAP

CRAIN & ASSOCIATES
Transportation Planning
Traffic Engineering
2007 Sawtelle Boulevard
Los Angeles California 90025
PH (310) 473 6508 F (310) 444 9771
www.crainandassociates.com

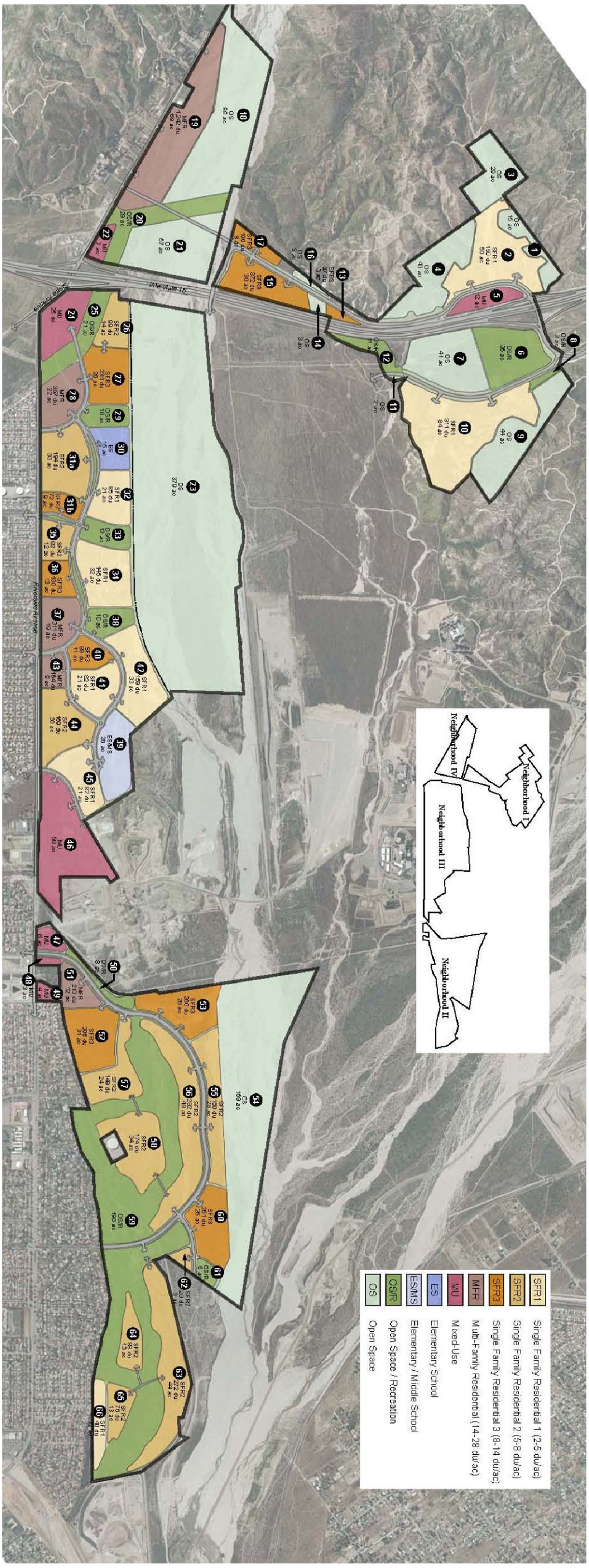


FIGURE 2

05/03/2007

:LYTLE CREK RANCH\DOC.

LYTLE CREEK RANCH LAND USE PLAN

CRAIN & ASSOCIATES
Transportation Planning
Traffic Engineering
2007 Sawtelle Boulevard
Los Angeles California 90025
PH (310) 473 6508 F (310) 444 9771
www.crainandassociates.com

Transportation Model (EVTM) output used for this analysis. These study locations were those most likely to be directly impacted by the traffic generated by the Lytle Creek Ranch project. Then, mitigation measures were identified which would mitigate any significant traffic impacts, resulting in a transportation system that operated at acceptable levels of service.

Project Area Study Intersections

- Barstow Freeway (I-215) NB On/Off Ramps/Arrowhead Boulevard/Devore Road [1]
- Cajon Boulevard/Barstow Freeway (I-215) SB On/Off Ramps [1]
- Cajon Boulevard/Glen Helen Parkway
- Barstow Freeway (I-215) NB On/Off Ramps/Palm Avenue [1]
- Barstow Freeway (I-215) SB On/Off Ramps/Palm Avenue [1]
- Barstow Freeway (I-215) NB On/Off Ramps/University Parkway [1]
- Barstow Freeway (I-215) SB On/Off Ramps/University Parkway [1]
- Ontario Freeway (I-15) SB On/Off Ramps/Glen Helen Parkway [1]
- Ontario Freeway (I-15) NB On/Off Ramps/Glen Helen Parkway [1]
- Lytle Creek Road/ Glen Helen Parkway [2]
- Lytle Creek Road/Sierra Avenue
- Ontario Freeway (I-15) SB On/Off Ramps/Sierra Avenue [1]
- Ontario Freeway (I-15) NB On/Off Ramps/Sierra Avenue [1]
- Ontario Freeway (I-15) SB On/Off Ramps/Duncan Canyon Road [1] [3]
- Ontario Freeway (I-15) NB On/Off Ramps/Lytle Creek Road and Duncan Canyon Road [1] [3]
- Ontario Freeway (I-15) SB On/Off Ramps/Summit Avenue [1]
- Ontario Freeway (I-15) NB On/Off Ramps/Summit Avenue [1]
- Riverside Avenue/Sierra Avenue [1]
- Riverside Avenue/Live Oak Avenue
- Riverside Avenue/Alder Avenue
- Riverside Avenue/Locust Avenue
- Riverside Avenue/Linden Avenue
- Riverside Avenue/Ayala Drive
- Riverside Avenue/Knollwood Avenue

Project Area Study Intersections (Continued)

- Riverside Avenue/Country Club Drive
- Riverside Avenue/Driveway (For Shopping Center)
- Casa Grande Drive/Sierra Avenue [4]
- Casa Grande Drive/Alder Avenue
- Casa Grande Drive/Locust Avenue
- Summit Avenue/Sierra Avenue
- Bohnert Avenue/Locust Avenue
- Bohnert Avenue/Ayala Drive
- Sierra Lakes Parkway/Casmalia Street and Sierra Avenue
- Casmalia Street/Alder Avenue
- Casmalia Street/Locust Avenue
- Casmalia Street/Ayala Drive [5]
- State Route 210 Freeway WB On/Off Ramps/Sierra Avenue [1]
- State Route 210 Freeway EB On/Off Ramps/Sierra Avenue [1] [6]
- State Route 210 Freeway WB On/Off Ramps/Alder Avenue [1] [6]
- State Route 210 Freeway EB On/Off Ramps/Alder Avenue [1] [6]
- State Route 210 Freeway WB On/Off Ramps/Ayala Avenue [1] [4] [6]
- State Route 210 Freeway EB On/Off Ramps/Ayala Avenue [1] [4] [6]
- State Route 210 Freeway WB On/Off Ramps/Riverside Avenue [1] [4] [6]
- State Route 210 Freeway EB On/Off Ramps/Riverside Avenue [1] [4] [6]
- State Route 210 Freeway WB On/Off Ramps/Pepper Avenue [1] [4] [6]
- State Route 210 Freeway EB On/Off Ramps/Pepper Avenue [1] [4] [6]
- State Route 210 Freeway WB On/Off Ramps/State Street [1] [4] [6]
- State Route 210 Freeway EB On/Off Ramps/State Street [1] [4] [6]
- Highland Avenue/State Street
- Highland Avenue/California Street
- Highland Avenue/Medical Center Drive
- Highland Avenue/Mount Vernon Avenue [1]
- Highland Avenue/Sierra Avenue
- Highland Avenue/Alder Avenue
- Easton Street/Ayala Drive
- Easton Street/Riverside Avenue

Project Area Study Intersections (Continued)

- Easton Street/Highland Avenue
- Baseline Road/Sierra Avenue [1]
- Baseline Road/Alder Avenue [1]
- Baseline Road/Cedar Avenue and Ayala Drive
- Baseline Road/Cactus Avenue
- Baseline Road/Riverside Avenue [1]
- Baseline Road/Pepper Avenue
- Baseline Road/State Street [4]
- Foothill Boulevard/Sierra Avenue [1]
- Foothill Boulevard/ Alder Avenue [1]
- Foothill Boulevard/ Cedar Avenue [1]
- Foothill Boulevard/ Cactus Avenue
- Foothill Boulevard/ Riverside Avenue [1]
- Arrow Boulevard/Sierra Avenue
- Arrow Boulevard/Alder Avenue
- Rialto Avenue/Cedar Avenue
- Rialto Avenue/Cactus Avenue
- Merrill Avenue/Cedar Avenue
- Merrill Avenue/Cactus Avenue

Note:
[1] Congestion Management Plan intersection.
[2] Glen Helen Parkway is currently closed at Lytle Creek Road.
[3] I-15 on/off ramps at Duncan Canyon Road do not currently exist, but are scheduled to be constructed by the study year of 2030.
[4] Intersection does not currently exist, but is scheduled to be constructed by the study year 2030.
[5] East leg of intersection currently closed to prohibit cut-through traffic through the residential neighborhood during the construction of the SR-210 Freeway.
[6] Freeway ramp(s) under construction.

Study Freeway Segments

- Ontario Freeway (I-15) between Barstow Freeway (I-215) and Glen Helen Parkway
- Ontario Freeway (I-15) between Glen Helen Parkway and Sierra Avenue
- Ontario Freeway (I-15) between Sierra Avenue and Duncan Canyon Road
- Ontario Freeway (I-15) between Duncan Canyon Road and Summit Avenue

Study Freeway Segments (Continued)

- Ontario Freeway (I-15) between Summit Avenue and State Route 210 Freeway
- Barstow Freeway (I-215) between Ontario Freeway (I-15) and Devore Road
- Barstow Freeway (I-215) between Devore Road and Palm Avenue
- Barstow Freeway (I-215) between Palm Avenue and University Parkway
- Barstow Freeway (I-215) between University Parkway and State Route 30 Freeway
- Barstow Freeway (I-215) between State Route 30 Freeway and Mount Vernon Avenue/27th Street
- Barstow Freeway (I-215) between Mount Vernon Avenue/27th Street and Highland Avenue
- Barstow Freeway (I-215) between Highland Avenue and Massachusetts Avenue
- Barstow Freeway (I-215) between Massachusetts Avenue and State Route 259 Freeway
- Barstow Freeway (I-215) between State Route 259 Freeway and Baseline Street
- Barstow Freeway (I-215) between Baseline Street and 5th Street
- Barstow Freeway (I-215) between 5th Street and 2nd Street
- Barstow Freeway (I-215) between 2nd Street and Mill Street
- State Route 210 Freeway between Ontario Freeway (I-15) and Cherry Avenue*
- State Route 210 Freeway between Cherry Avenue and Citrus Avenue*
- State Route 210 Freeway between Citrus Avenue and Sierra Avenue*
- State Route 210 Freeway between Sierra Avenue and Alder Avenue*
- State Route 210 Freeway between Alder Avenue and Ayala Drive*
- State Route 210 Freeway between Ayala Drive and Riverside Avenue*
- State Route 210 Freeway between Riverside Avenue and Pepper Avenue*
- State Route 210 Freeway between Pepper Avenue and State Street*
- State Route 210 Freeway between State Street and Barstow Freeway (I-215)*
- State Route 30 Freeway between Barstow Freeway (I-215) and H Street*
- State Route 30 Freeway between H Street and State Route 259 Freeway*
- State Route 30 Freeway between State Route 259 Freeway and Waterman* Avenue

* State Route 210 and State Route 30 are currently under construction or some lanes are closed due to extension of the freeway.

I.A PROJECT DESCRIPTION

The Lytle Creek Ranch project is a 2,447.3-acre master planned mixed-use community located partially within the city existing limits of Rialto but mainly within the City's sphere of influence within the unincorporated portion of San Bernardino County. Of the 2,447.3 acres, more than half of the property will be preserved as open space. The site is bisected partially by both the Ontario (Interstate 15) Freeway and the Lytle Creek Wash, an intermittent stream. The project is organized into four distinct residential neighborhoods. Of the total acreage, the planned development includes approximately 3,409 single-family detached homes and approximately 4,998 multi-family units. Approximately 849,420 square feet of retail use is also planned. Public amenities include one elementary school and one elementary/middle school located on a total of about 41 acres. Recreational amenities include park uses on approximately 120 acres and an 18-hole public golf course on approximately 198 acres. A system of multi-purpose pedestrian and bicycle trails are also included in the proposed site development. In addition, a Park & Ride facility is planned for construction to promote ride sharing.

Based on the proposed land uses described above, Table 1 summarizes the proposed Lytle Creek Ranch project.

Table 1
Lytle Creek Ranch Land Use Summary

3,409 single-family detached homes;

4,998 multi-family units;

849,420 square feet of shopping center;

41 acres for schools [1];

131 acres of park space; and

198 acres of golf course space [2]

[1] Includes approximately 750-student elementary school (K-6) and 1,200-student elementary/middle school (K-8).
[2] 18-hole public golf course.

I.B ANALYSIS METHODOLOGY

The transportation analysis methodology and scope for the Lytle Creek Ranch project was determined at onset by the lead jurisdiction (the City of Rialto). The City of Rialto Staff, San Bernardino County Staff and the Congestion Management Plan (CMP) for San Bernardino County directed the consultant staff with respect to conducting this analysis. The City and County approved the list of CMP intersections, other project specific intersections, and CMP dictated freeway segments to be included in the analysis.

The technical analysis was conducted using a computerized transportation model, which models (replicates) travel demand and traffic volumes. As directed by the SanBAG staff, the East Valley Transportation Model (EVTM), which was developed by the City of San Bernardino, was used for this study. The EVTM, in comparison to the SanBAG model, was developed with greater detail in the study area including additional links and zones that better replicate area traffic patterns. The study team provided the

City of San Bernardino staff with the specific details for the Lytle Creek Ranch site so that they could incorporate this site specific data into their regional traffic model, thus producing forecasts for the With and Without Project scenarios. That is, the City of San Bernardino staff ran their regional travel demand model twice using these site specific data, once to produce the "Study Year 2030 Without Project" traffic volumes, and once to produce the "Study Year 2030 With Project" traffic volumes. The project volumes were also determined based on runs of the project select zones. The EVTM produced future year forecasted traffic volume conditions on street segments surrounding the project site. Turning movement traffic volumes at study intersections were determined using procedures developed for SanBAG that are included in a program named B-Turns. B-Turns, a pivot point model, estimates future turning movement volumes at an intersection based on existing turning movement volumes (e.g., intersection turning movement counts) and future street segment volumes (e.g., link volumes from the EVTM). The SanBAG provided this B-Turns program to Crain & Associates, and the City of San Bernardino refined the EVTM and provided the necessary model output.

Traffix 7.8 was the software package used to conduct the intersection level-of-service analysis. The Highway Capacity Manual 2000 (HCM2000) methodology was used to calculate the level-of-service at the study intersections. Based on guidelines from the San Bernardino CMP, the LOS analysis for signalized intersections has been performed using optimized signal timing. A lost time of two seconds per phase was assumed. For existing conditions, saturation flow rates of 1,800 vehicles per hour of green per lane (vphgpl) was assumed for exclusive through lanes and exclusive right-turn lanes, 1,700 vphgpl for exclusive single left-turn lanes and 1,600 vphgpl for exclusive double left-turn lanes. For future conditions, saturation flow rates of 1,900 vphgpl was assumed for exclusive through lanes and exclusive right-turn lanes, 1,800 vphgpl for exclusive single

left-turn lanes and double right-turn lanes, and 1,700 vphgpl for exclusive double left-turn lanes.

The EVTM's results and intersection count data, along with intersection geometrics and traffic signal and control data, were combined in Traffix to determine the Levels of Service (LOS) and traffic delays at the signalized and STOP sign-controlled study intersections for both existing and future traffic conditions. For the study freeway segments, the level of service was determined based on a calculation of the volume-to-capacity (V/C) ratio according to CMP methodologies.

II. EXISTING CONDITIONS

A network of streets and highways provides local circulation and access to the Lytle Creek Ranch site. These nearby area streets and freeways are listed and described in detail in the following sections, Sections II.A.1 and II.A.2, respectively. The street classifications and definitions are found in Appendix E.

II.A.1 Streets and Highways

Arrowhead Boulevard is a discontinuous local street located north of the I-215 Freeway in the unincorporated portion of the County of San Bernardino. This roadway forms the west leg of the intersection of Devore Road and the I-215 northbound on/off ramps. It has one through lane in each direction west of Devore Road.

Cajon Boulevard is part of historic Route 66. In the project area, this roadway extends south of and parallel to the I-215 Freeway and is designated as a Major Arterial in the City of San Bernardino and a Major Highway in the unincorporated portion of the County of San Bernardino from about one-quarter-mile northwest of Glen Helen Parkway to south of Highland Avenue where it becomes Mount Vernon Avenue in the City of San Bernardino. This roadway generally has one to two lanes in each direction and provides left-turn lanes at major intersections. No parking is allowed along the roadway.

Kendall Drive, designated a Secondary Arterial in the City of San Bernardino and a Secondary Highway in the unincorporated portion of the County of San Bernardino, is located south of the I-215 between Cajon Boulevard and Palm Avenue. Kendall Drive also extends east of Palm Avenue on the north of the I-215 as a Major Arterial in the City of San Bernardino. Generally, this arterial has one to two through lanes in each direction, and contains a parallel bike lane.

University Parkway, designated a Major Arterial in the City of San Bernardino, extends from Northpark Boulevard where it provides access to the California State University San Bernardino Campus to Cajon Boulevard where it continues southerly as State Street. This arterial provides two to three through lanes in each direction, with left turn channelization at major intersections.

Riverside Avenue is designated a Major Arterial in the City of Rialto that extends in the northwest direction near the project site. This roadway forms the southwestern boundary of most of the project site and intersects Sierra Avenue just south of the I-15 Freeway/Sierra Avenue interchange. As a major arterial, the number of lanes in each direction varies from one to two lanes between Sierra Avenue and Country Club Drive. Left-turn pockets are provided at key intersections. Parking is not allowed along Riverside Avenue.

Duncan Canyon Road is designated a Primary Highway between Citrus Avenue and Coyote Canyon Road, and a Secondary Highway south of Coyote Canyon Road, according to the City of Fontana Circulation Master Plan. This roadway provides one through lane in each direction.

Casa Grande Drive is an east/west Secondary Arterial that extends from Locust Avenue to approximately one quarter-mile west of Palmetto Avenue in the City of Rialto. This roadway has one through lane in each direction and left turn channelization.

Summit Avenue is designated as a Secondary Highway between Sierra Avenue and Beech Avenue in the City of Fontana. This roadway also extends westerly as a Primary Highway from Beech Avenue to Cherry Avenue where it becomes Wilson Avenue. Summit Avenue provides a full interchange with the I-15 Freeway. It provides two through lanes in each direction at the I-15 interchange and is a two-lane roadway just west of Sierra Avenue.

Bohnert Avenue is a continuation of Apple Avenue at Cactus Avenue where it extends westerly as a Collector Street and terminates at Locust Avenue. This roadway has one through lane in each direction and is located in the City of Rialto.

Sierra Lakes Parkway, a Primary Highway in the City of Fontana, extends from Cherry Avenue to Sierra Avenue where it continues as Casmalia Street. It has one to two through lanes in each direction and left-turn channelization at key intersections.

Casmalia Street is designated a Primary Highway between Sierra Avenue and the City of Fontana/City of Rialto limit within the City of Fontana. In the City of Rialto, Casmalia Street is designated a Secondary Arterial between the City of Fontana/City of Rialto limit and Ayala Drive, and a Collector Street between Ayala Drive and Riverside Avenue. This roadway is a continuation of Sierra Lakes Parkway at Sierra Avenue and extends easterly until its termination at Riverside Avenue. Casmalia Street generally provides one through lane in each direction, plus left-turn channelization at major intersections. The east leg of Casmalia Street at Ayala Drive is currently closed to prohibit cut-through traffic due to the construction of the SR-210 Freeway.

Highland Avenue is a discontinuous roadway that parallels the SR-210. It is designated a Primary Highway west of Palmetto Avenue, which is within the City of Fontana limits. Within the City of Rialto limits, it is designated a Major Arterial that extends from the City of Fontana/City of Rialto limits to Alder Avenue where it becomes Easton Street. Due to the discontinuation of east-west through traffic on the SR-210 as a result of the freeway construction, the east leg of the Highland Avenue/Sierra Avenue intersection is currently closed. Instead, the section of Highland Avenue east of Sierra Avenue is currently aligned across the SR-210 eastbound off-ramp. Further to the east, Highland Avenue extends from Easton Street just east of Riverside Avenue to the City of San Bernardino as State Route 30. The westbound approach of Highland Avenue between State Street and California Street was closed between January 26 and March 25, 2007 when traffic

counts at study intersections along Highland Avenue was conducted. Connections to Interstate 215 and the State Route 259 Freeway are available along this route. In the project area, Highland Avenue has two through lanes in each direction with left-turn channelization at major intersections.

Easton Street is located in the City of Rialto and is designated a Major Arterial and a Collector Street west and east of Ayala Drive, respectively. This roadway is discontinuous between Ayala Drive and Spruce Avenue. East of Riverside Avenue, it connects to Highland Avenue which is parallel to and on the north side of the new SR-210 Freeway extension. In the project area, Easton Street provides two through lanes in each direction and left-turn channelization at key intersections.

Baseline Road, designated a Major Arterial in the cities of Rialto and San Bernardino and a Major Highway in the City of Fontana, provides east/west access between the City of Highland to the City of Upland where it becomes 16th Street, and becomes Baseline Road again in the County of Los Angeles. In the study area, this roadway has one to two through lanes in each direction, plus left-turn channelization at major intersections.

Foothill Boulevard, designated a Major Arterial in the cities of Rialto and San Bernardino and a Major Highway in the City of Fontana, is part of Historic Route 66 and provides east/west access between the City of San Bernardino and Cities in Los Angeles County. It generally has two through lanes in each direction and left-turn channelization at key intersections.

Arrow Boulevard, a Primary Highway in the City of Fontana, begins in the City of Upland and continues easterly, intermittently called Arrow Route and Arrow Highway until it reaches the City of Fontana, where it is Arrow Boulevard. This roadway continues as

Rialto Avenue east of the City of Fontana/City of Rialto city boundary. Arrow Boulevard has one to two through lanes in each direction, plus left-turn channelization.

Rialto Avenue is designated a Major Arterial and a Secondary Arterial west and east of Willow Avenue, respectively, within the City of Rialto. In the City of San Bernardino, it is designated a Major Arterial between the City of Rialto/City of San Bernardino city limit and approximately one-third-mile west of Mount Vernon Avenue. Further to the east, this roadway is a Secondary Arterial. Rialto Avenue is a continuation of Arrow Boulevard at the intersection with Cedar Avenue and extends easterly to Tippecanoe Avenue near the San Bernardino International Airport. At its intersections with Cedar Avenue and Cactus Avenue, Rialto Avenue has two through lanes in each direction and left-turn channelization.

Merrill Avenue is a Secondary Highway in the cities of Rialto and Fontana. Merrill Avenue is a continuation of Back Straight Road at the intersection with Cherry Avenue and extends easterly, continuing as Mill Street east of Eucalyptus Avenue. At its intersections with Cedar Avenue and Cactus Avenue, Merrill Avenue has two through lanes in each direction, plus left-turn channelization.

Devore Road, a Secondary Highway between Cajon Boulevard and Kenwood Avenue in the unincorporated portion of the County of San Bernardino, is a continuation of Glen Helen Parkway at its intersection with Cajon Boulevard and extends northerly to Foothill Street. This roadway has one through lane in each direction at its intersection with Arrow Boulevard and the I-215 Freeway northbound ramps.

Palm Avenue is designated a Secondary Arterial between Cajon Boulevard and Ohio Avenue, a Collector Street between Ohio Avenue and Verdemont Drive, and a Local Street north and south of those segments in the City of San Bernardino. It begins from the San Bernardino National Forest and extends to Cajon Boulevard, where it continues

southwesterly as Institution Road. Palm Avenue has one northbound through lane and two southbound through lanes, plus left-turn channelization, at its intersection with Kendall Drive/I-215 Freeway southbound ramps.

Glen Helen Parkway is a Major Highway in the unincorporated portion of the County of San Bernardino that provides direct access to the project site. This roadway provides one to two through lanes in each direction, plus left-turn channelization at major intersections. No parking is allowed in either direction. It extends northerly from Lytle Creek Road/Sierra Avenue to Cajon Boulevard, where it becomes Devore Road. Currently, Glen Helen Parkway is closed to through traffic between Lytle Creek Road/Sierra Avenue and the I-15 Freeway southbound ramps, although a few vehicles do access this portion of the roadway from the Lytle Creek Road/I-15 interchange.

Lytle Creek Road extends northeasterly from Duncan Canyon Road west of the I-15 Freeway and extends southerly starting at Duncan Canyon Road east of the I-15 Freeway. It is designated a Secondary Highway between Summit Avenue and Duncan Canyon Road and a Collector Street south of Summit Avenue as indicated in the City of Fontana General Plan. In the unincorporated portion of the County of San Bernardino, this roadway is designated a Secondary Highway from Sierra Avenue to approximately one and one-third mile northwest of the I-15 Freeway, and then continues northwesterly into the San Bernardino National Forest as a Mountain Secondary Highway. Lytle Creek Road forms the western border of the project site and generally provides one lane in each direction, with left-turn channelization at key intersections.

Sierra Avenue is designated a Major Highway south of the I-15 Freeway in the City of Fontana. Between the I-15 Freeway and Lytle Creek Road, Sierra Avenue is designated a Primary Highway in the City of Fontana and a Secondary Highway in the unincorporated portion of the County of San Bernardino. This roadway extends from Lytle Creek Road to the south pass the I-10 Freeway to the community of Rubidoux,

just north of the SR-60 Freeway. This roadway generally provides two through lanes in each direction with left-turn channelization south of the SR-210 Freeway. Just north of the SR-210, Sierra Avenue has three through lanes in each direction. Further north, it provides one to two through lanes in each direction.

Live Oak Avenue, designated a Major Arterial between Riverside Avenue and Terra Vista Drive in the City of Rialto, begins at La Morada Drive and continues northerly to Riverside Avenue, where it will be aligned opposite of a proposed project roadway. Between Riverside Drive and Terra Vista Drive, Live Oak Avenue has two through lanes in each direction.

Alder Avenue is a Major Arterial north of Baseline Avenue in the City of Rialto and a Primary Highway south of that roadway in the City of Fontana. Alder Avenue is unpaved south of Jurupa Avenue. It extends discontinuously northerly to Riverside Avenue, where it will be aligned opposite of a proposed project roadway. Alder Avenue provides one to two through lanes in each direction, plus left-turn channelization at key intersections.

Locust Avenue is designated a north/south Secondary Arterial between Riverside Avenue and south of Easton Street in the City of Rialto. South of Baseline Road, Locust Avenue is generally a Secondary Highway traversing intermittently through the City of Fontana and the County of San Bernardino. Near the Rialto Municipal Airport, this roadway is discontinuous between Easton Street and Baseline Road. Further north, it forms a T-intersection with Riverside Avenue, aligning opposite of a proposed project roadway. In the project area, one to two through lanes in each direction are provided.

Linden Avenue is a Secondary Arterial north of Baseline Avenue and a Collector Street south of that roadway in the City of Rialto. This roadway begins at 5th Street in

Riverside County and extends discontinuously northerly to Riverside Avenue, where it will be aligned opposite of a proposed project roadway. Linden Avenue provides one through lane in each direction between Riverside Avenue and Summit Avenue.

Ayala Drive is a north/south Major Arterial in the City of Rialto. In the project area, Ayala Drive begins at Riverside Avenue, extends southerly to the east of the Rialto Municipal Airport and continues as Cedar Avenue south of Baseline Road. Ayala Drive has two through lanes in each direction and left-turn channelization.

Knollwood Avenue is a local street between Sycamore Avenue and Riverside Avenue in the unincorporated portion of the County of San Bernardino. It has one through lane in each direction.

Country Club Drive is designated a Major Arterial south of Riverside Avenue in the City of Rialto and a local street north of that roadway in the unincorporated portion of the County of San Bernardino. Country Club Drive extends northerly from the intersection of Bohnert Avenue and Cactus Avenue and terminates at the El Racho Verde Golf Course. At its intersection with Riverside Avenue, Country Club Drive has one through lane in each direction and southbound left-turn channelization. Parking is allowed north of Riverside Avenue.

Cactus Avenue is designated a Major Arterial in the City of Rialto. In the study area, this roadway is a continuation of Country Club Drive at the intersection with Bohnert Avenue and extends discontinuously southerly to El Rivino Road. Cactus Avenue provides one to two through lanes per direction, plus left-turn channelization at major intersections.

Pepper Avenue, a Major Arterial in the cities of Rialto and San Bernardino, is a continuation of Shirley Bright Road and extends southerly to the City of Colton. At the

intersection with Baseline Road, Pepper Avenue has two northbound through lanes and one southbound through lane, plus southbound left-turn channelization.

State Street, designated a Major Highway between Cajon Boulevard and Highland Avenue in the unincorporated portion of the County of San Bernardino, is a continuation of University Parkway at its intersection with Cajon Boulevard. State Street has two through lanes in each direction and left-turn channelization at its intersection with Highland Avenue.

California Street is designated a north/south Collector Street in the City of San Bernardino. It begins at Cajon Boulevard and terminates at Baseline Street. This roadway has one through lane in each direction at its intersection with Highland Avenue.

Medical Center Drive, a north/south Secondary Arterial in the City of San Bernardino, connects Cajon Boulevard and 5th Street. At its intersection with Highland Avenue, this roadway has two through lanes in each direction and left-turn channelization.

Mount Vernon Avenue is designated a Major Arterial south of Highland Avenue in the City of San Bernardino. It begins at the intersection of Little Mountain Drive and 27th Street and extends discontinuously southerly to Riverside County. Mount Vernon Avenue has two through lanes in each direction and left-turn channelization at its intersection with Highland Avenue.

II.A.2 Freeways

Interstate 15 (Ontario Freeway) generally operates in a north-south direction. It extends from San Diego to Barstow, and then turns northeasterly through Nevada and beyond. This freeway has three to four travel lanes in each direction near the project site. A full freeway-to-freeway interchange is provided at the SR-210 Freeway and at the I-10 Freeway (San Bernardino Freeway) to the south and I-215 Freeway to the north of the

project site. Access to the I-15 Freeway from the project site is provided at Sierra Avenue and Glen Helen Parkway.

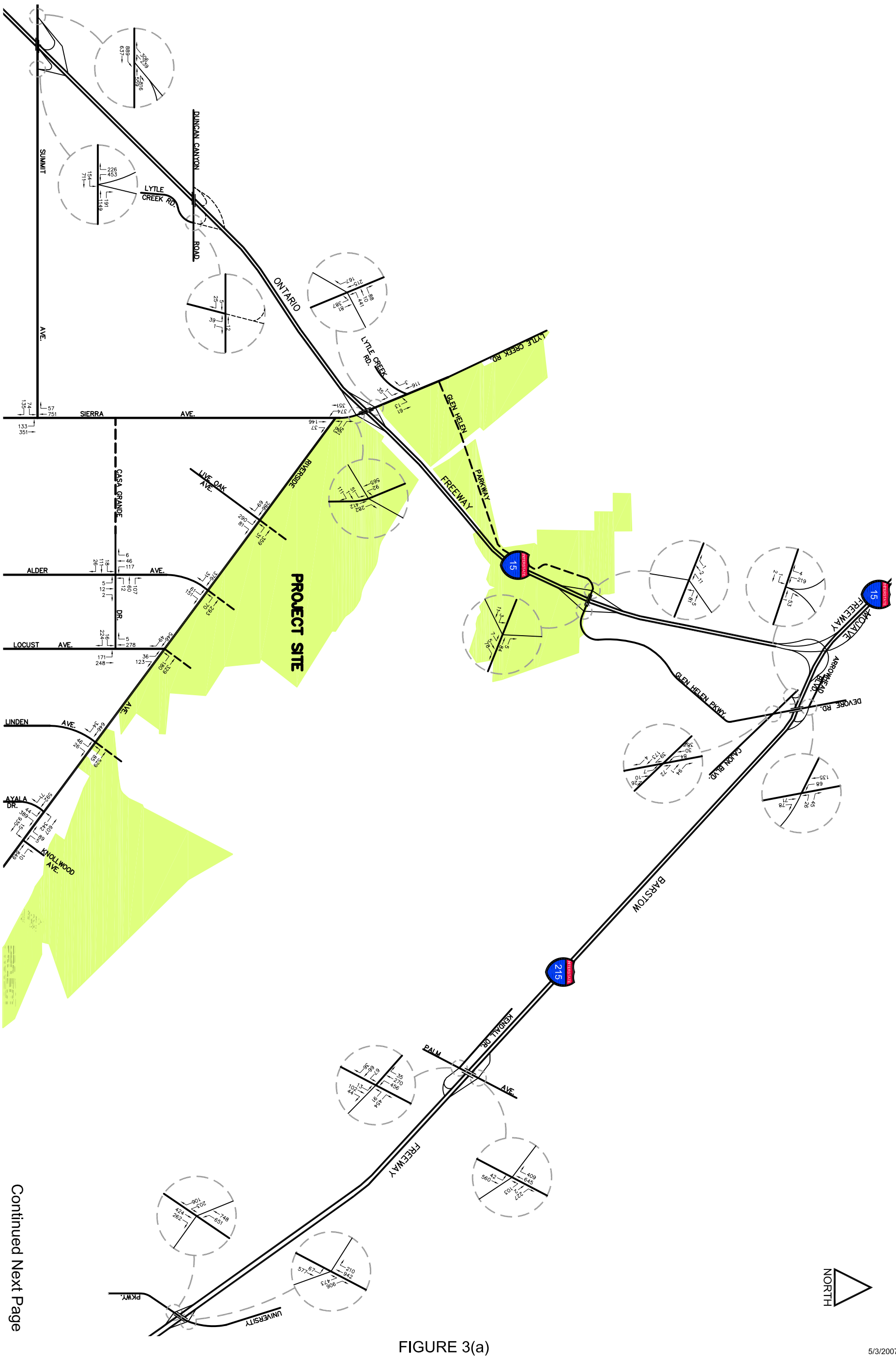
Interstate 215 (Barstow Freeway), which generally provides north/south access, generally has two to three travel lanes in each direction in the project area. The I-215 Freeway begins at the I-15 interchange and continues through Riverside County, re-connecting with the I-15 Freeway in the City of Murrieta. A full freeway-to-freeway interchange is provided at the I-15 Freeway to the north of the project site.

State Route 210 Freeway provides east/west access between San Bernardino County and Los Angeles County. SR-210 begins in the City of Rialto and extends westerly, merging with Interstate 210 in the City of Glendora within Los Angeles County. To the east, the SR-210 connects to the SR-30 in the City of San Bernardino. During the time when the traffic counts used for this analysis was conducted, the SR-210 between Sierra Avenue and State Street was under construction and this section of the freeway was closed. (The transportation model used for this study reflects the freeway closure for the existing condition.) Construction of the freeway improvement was completed in June 2007. In the project vicinity, SR-210 was constructed and improved with three mainline travel lanes plus a High-Occupancy-Vehicle (HOV) lane in each direction.

II.B. EXISTING TRAFFIC VOLUMES AND LEVELS OF SERVICE

The Traffic Solution and NDS, both professional traffic data collection companies, collected traffic count data during the morning and afternoon peak periods in January and March of 2007. The existing (2007) traffic volumes for the AM and PM peak-hour periods are shown in Figures 3(a), and 3(b), respectively. Manual Count Sheets and intersection lane configurations are found in the appendix of the report.

For this project, the study intersections and freeway segments were selected based on the identification of traffic volumes that would exceed County growth standards.



Continued Next Page

FIGURE 3(a)

5/3/2007

Lytle Creek Ranch\AM2007EX

EXISTING (2007) TRAFFIC VOLUMES
AM PEAK HOUR

STICK(EX)

CRAIN & ASSOCIATES
Transportation Planning
Traffic Engineering
2007 Sawtelle Boulevard
Los Angeles California 90025
PH (310) 473 6508 F (310) 444 9771
www.crainandassociates.com

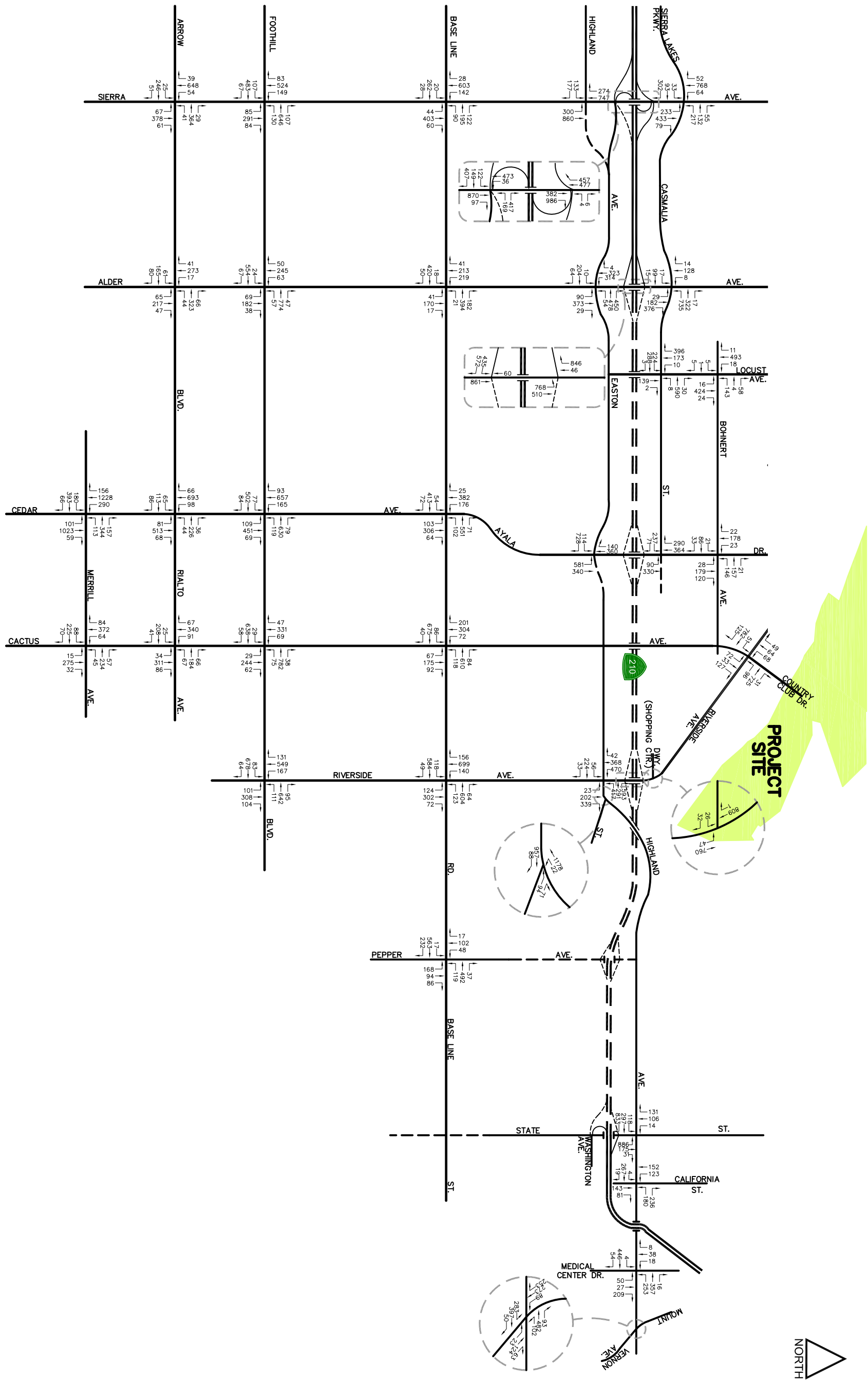


FIGURE 3(a) - CONTINUED

5/3/2007

Lytle Creek Ranch\AM2007EX

STICK(EX)

EXISTING (2007) TRAFFIC VOLUMES
AM PEAK HOUR

CRAIN & ASSOCIATES
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Traffic Engineering
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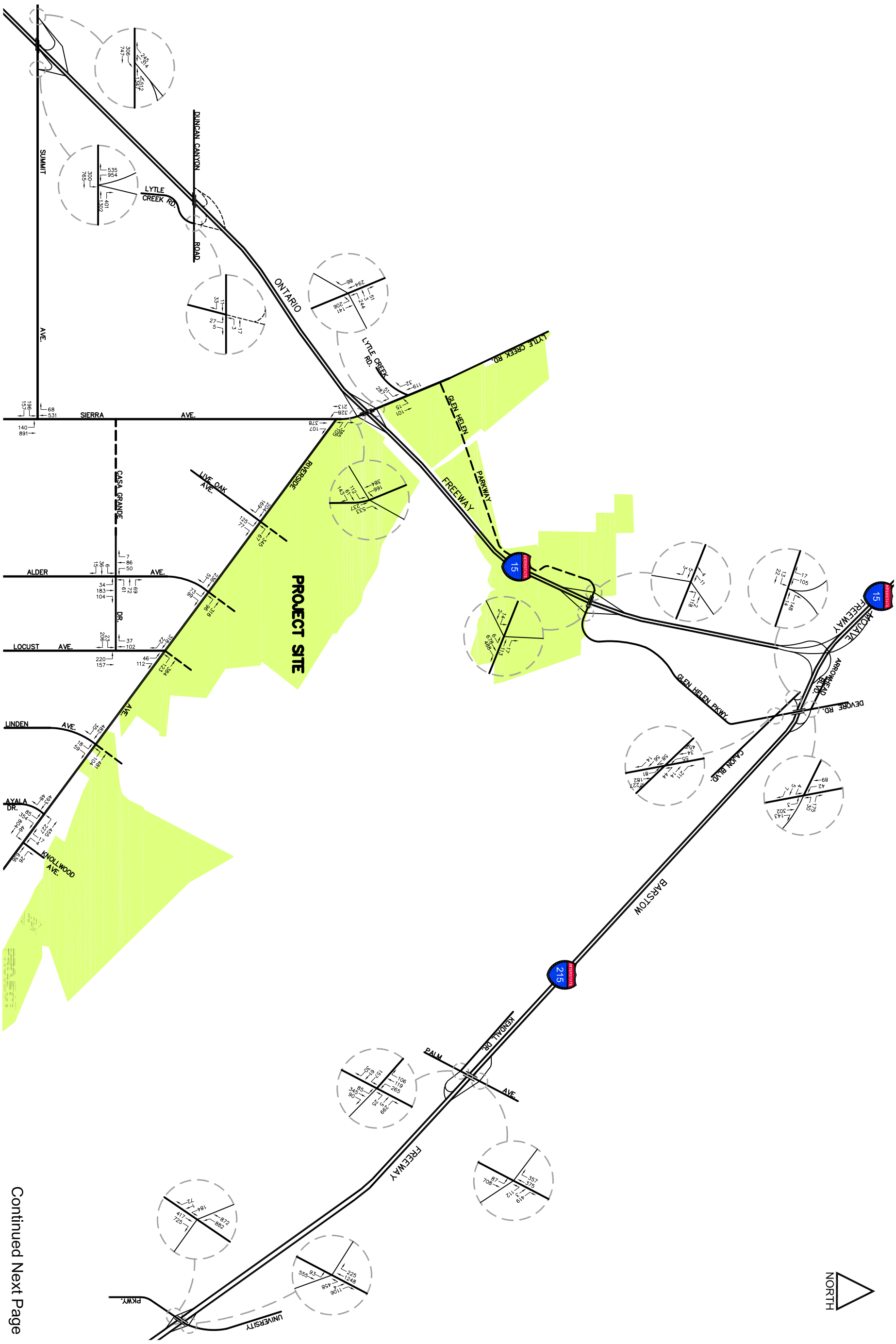

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FIGURE 3(b)

5/3/2007

Lytle Creek Ranch\PM2007EX

EXISTING (2007) TRAFFIC VOLUMES
PM PEAK HOUR

STICK(EX)

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FIGURE 3(b) - CONTINUED

5/3/2007

Lytle Creek Ranch\PM2007EX

STICK(EX)

EXISTING (2007) TRAFFIC VOLUMES
PM PEAK HOUR

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According to the County growth standards, the study area must include all major intersections with 50 or more peak-hour project trips (two-way) and freeway segments with 100 or more peak-hour project trips (two-way) within a five-mile radius from the project site. Based on these standards, a total of 75 study intersections and 29 study freeway segments were selected for analyses. All traffic analyses were performed using traditional and well-established traffic engineering techniques described below. The traffic counts described above were conducted specifically for this study (instead of using previously conducted counts from other studies) to insure that any recent changes in traffic patterns would be reflected in this study. Other data (i.e., intersection geometrics, parking-related curb restrictions and traffic signal and stop-controlled operations) were obtained by field surveys at the study locations.

The methodology used in this study for the analysis and evaluation of traffic operations at each study intersection is based on procedures outlined in the Highway Capacity Manual (HCM2000), per San Bernardino County CMP guidelines. This methodology determines the operating characteristics of an intersection in terms of the "Level of Service" (LOS) provided for different levels of traffic volumes and other variables such as lane configurations and type of control. LOS describes the quality of service. Intersections with a LOS of A, B or C operate quite well. Typically, LOS D is the design level of service for many metropolitan street systems. LOS E represents volumes at or near the capacity of the facility, and might result in stoppages of momentary duration and fairly unstable flow. LOS F occurs when a facility is overloaded and is characterized by stop-and-go traffic with stoppages for a long duration. Table 2 further explains LOS types used in this study.

By applying this analysis procedure to the signalized study intersections, the average vehicular delay and the corresponding LOS for existing traffic conditions were determined. Similarly, HCM methodologies were used to analyze the all-way and two-

Table 2
Level of Service
As a Function of Delay

Level of Service	Description of Operating Characteristics	Signalized Avg Total Delay Per Vehicle (Sec)[a]	Two-Way and All-Way Stop-Controlled Delay Per Vehicle (Sec)[b, c]
A	Uncongested operations; all vehicles clear in a single cycle.	≤ 10	0 - 10
B	Same as above.	> 10 - 20	> 10 - 15
C	Light congestion; occasional backups on critical approaches.	> 20 - 35	> 15 - 25
D	Congestion on critical approaches.	> 35 - 55	> 25 - 35
E	Severe congestion with some long-standing lines on critical approaches. Blockage of intersection may occur if traffic signal does not provide turning movements	> 55 - 80	> 35 - 50
F	Forced flow with stoppages of long duration.	> 80	> 50

[a] From Exhibit 16-2 of the Highway Capacity Manual (2000), Transportation Research Board, Washington, D.C., 2000.

[b] From Exhibits 17-2 & 17-22 of the Highway Capacity Manual (2000), Transportation Research Board, Washington, D.C., 2000.

[c] Delay for all-way stop sign controlled intersections is the average delay for all vehicles. Delay for two-way stop sign controlled intersections is the worst delay for the critical minor approaches. Average delay for all vehicles at two way stop sign controlled intersections is less.

way STOP sign controlled study intersections. It should be noted that the delay for signalized and all-way stop sign controlled intersections is the average delay for all vehicles entering the intersection during the specified peak hour period, whereas the delay for two-way stop sign controlled intersections is based on the worst-case approach delay for the minor approaches. Thus, the average delay for all vehicles at two-way stop sign controlled intersections is substantially less.

An analysis of traffic conditions at the 63 existing study area intersections shows that all but 12 of these intersections (7 CMP intersections and 5 additional study area intersections) are operating at LOS D or better during the AM and PM peak hours. Table 3 shows the existing 2007 AM and PM peak hour Levels of Service (LOS) values for the study intersections.

Freeway segment volumes were obtained from traffic data on the Caltrans Traffic and Vehicle Data website. However, peak hour traffic counts for the segment of the SR-210 between Sierra Avenue and Alder Avenue were based on current manual intersection counts at the Alder Avenue ramp interchange. The daily volume for this freeway segment was estimated based on the peak hour volumes multiplied by the daily-to-peak-hours ratio at an adjacent freeway segment. For the data from Caltrans, the peak hour volumes are for both directions combined and no directional splits were available at these segments. As a result, directional splits were derived from directional freeway volume data from the San Bernardino County CMP where available. Where directional splits were not available, a 55%/45% split was assumed. In addition, Caltrans' sources do not indicate whether the peak hour volume represent AM or PM peak hour conditions. However, the peak-hour volumes used from the Caltrans' annual volume data were assumed to be PM peak-hour volumes and the AM peak-hour volumes were assumed to be 90 percent of the PM peak-hour volumes, per San Bernardino County CMP guidelines.

Under CMP methodologies, the level of service for freeway segments was determined by the volume-to-capacity (V/C) ratio as summarized in Table 4. Using the San Bernardino CMP methodologies, the previously determined peak hour directional freeway segment volumes and the number of lanes for each freeway segment were used to calculate the existing 2007 freeway V/C ratios and levels of service in the

Table 3
Existing (2007) Level of Service Summary
Project Area and CMP Intersections

No.		Peak Hour	Existing V/C	Existing Delay	Existing LOS
1	I-215 NB On/Off Ramps/Arrowhead Boulevard &	AM	[1]	10.2	B
	Devore Road	PM	[1]	14.2	B
2	Cajon Boulevard &	AM	[1]	9.6	A
	I-215 SB On/Off Ramps	PM	[1]	9.4	A
3	Cajon Boulevard &	AM	0.177	8.9	A
	Glen Helen Parkway	PM	0.497	12.0	B
4	I-215 NB On/Off Ramps &	AM	[1]	20.6	C
	Palm Avenue	PM	[1]	30.8	D
5	I-215 SB On/Off Ramps &	AM	1.091	46.7	E
	Palm Avenue	PM	0.865	26.3	D
6	I-215 NB On/Off Ramps &	AM	0.576	15.9	B
	University Parkway	PM	0.694	17.0	B
7	I-215 SB On/Off Ramps &	AM	0.810	20.3	C
	University Parkway	PM	1.162	72.3	E
8	I-15 SB On/Off Ramps &	AM	[1]	9.9	A
	Glen Helen Parkway	PM	[1]	10.6	B
9	I-15 NB On/Off Ramps &	AM	[1]	8.7	A
	Glen Helen Parkway	PM	[1]	37.1	E
10	Lytle Creek Road &	AM	N/A	N/A	N/A
	Glen Helen Parkway [2]	PM	N/A	N/A	N/A
11	Lytle Creek Road &	AM	[1]	9.0	A
	Sierra Avenue	PM	[1]	11.9	B
12	I-15 SB On/Off Ramps &	AM	0.991	43.8	E
	Sierra Avenue	PM	0.664	15.5	C
13	I-15 NB On/Off Ramps &	AM	0.984	30.3	D
	Sierra Avenue	PM	0.907	25.6	D
14	I-15 SB On/Off Ramps &	AM	N/A	N/A	N/A
	Duncan Canyon Road [3]	PM	N/A	N/A	N/A
15	I-15 NB On/Off Ramps/Lytle Creek Road &	AM	[1]	8.8	A
	Duncan Canyon Road [3]	PM	[1]	8.8	A
16	I-15 SB On/Off Ramps &	AM	1.288	114.6	F
	Summit Avenue	PM	0.864	21.2	C
17	I-15 NB On/Off Ramps &	AM	0.791	19.1	B
	Summit Avenue	PM	1.240	99.4	F
18	Riverside Avenue &	AM	1.025	40.7	E
	Sierra Avenue	PM	0.781	22.8	C

Table 3 (cont.)
Existing (2007) Level of Service Summary
Project Area and CMP Intersections

No.		Peak Hour	Existing V/C	Existing Delay	Existing LOS
19	Riverside Avenue &	AM	0.336	16.1	B
	Live Oak Avenue	PM	0.253	14.7	B
20	Riverside Avenue &	AM	[1]	12.6	B
	Alder Avenue	PM	[1]	12.6	B
21	Riverside Avenue &	AM	[1]	16.4	C
	Locust Avenue	PM	[1]	12.8	B
22	Riverside Avenue &	AM	[1]	35.3	E
	Linden Avenue	PM	[1]	15.3	C
23	Riverside Avenue &	AM	0.577	16.500	B
	Ayala Drive	PM	0.447	16.200	B
24	Riverside Avenue &	AM	0.307	7.300	A
	Knollwood Avenue	PM	0.250	5.600	A
25	Riverside Avenue &	AM	0.443	11.800	B
	Country Club Drive	PM	0.408	12.200	B
26	Riverside Avenue &	AM	0.308	6.800	A
	Driveway (for Shopping Center)	PM	0.436	9.600	A
27	Casa Grande Drive &	AM	N/A	N/A	N/A
	Sierra Avenue	PM	N/A	N/A	N/A
28	Casa Grande Drive &	AM	0.175	17.400	B
	Alder Avenue	PM	0.227	16.600	B
29	Casa Grande Drive &	AM	[1]	12.500	B
	Locust Avenue	PM	[1]	10.700	B
30	Summit Avenue &	AM	0.279	12.600	B
	Sierra Avenue	PM	0.714	16.300	B
31	Bohnert Avenue &	AM	[1]	75.2	F
	Locust Avenue	PM	[1]	24.6	C
32	Bohnert Avenue &	AM	0.315	14.2	B
	Ayala Drive	PM	0.624	15.5	B
33	Sierra Lakes Parkway/Casmalia Street &	AM	0.474	18.1	B
	Sierra Avenue	PM	0.701	19.8	B
34	Casmalia Street &	AM	0.836	33.3	C
	Alder Avenue	PM	1.187	124.2	F
35	Casmalia Street &	AM	0.814	35.5	D
	Locust Avenue	PM	0.711	28.0	C
36	Casmalia Street &	AM	0.437	14.9	B
	Ayala Drive	PM	0.624	18.3	B

Table 3 (cont.)
Existing (2007) Level of Service Summary
Project Area and CMP Intersections

No.		Peak Hour	Existing V/C	Existing Delay	Existing LOS
37	SR-210 Freeway WB On/Off Ramps & Sierra Avenue	AM	0.147	1.1	A
		PM	0.208	1.4	A
38	SR-210 Freeway EB On/Off Ramps & Sierra Avenue	AM	0.747	23.5	C
		PM	0.903	40.0	D
39	SR-210 Freeway WB On/Off Ramps & Alder Avenue	AM	1.029	42.7	D
		PM	0.807	10.8	B
40	SR-210 Freeway EB On/Off Ramps & Alder Avenue	AM	0.628	12.6	B
		PM	0.796	13.6	B
41	SR-210 Freeway WB On/Off Ramps & Ayala Drive	AM	N/A	N/A	N/A
		PM	N/A	N/A	N/A
42	SR-210 Freeway EB On/Off Ramps & Ayala Drive	AM	N/A	N/A	N/A
		PM	N/A	N/A	N/A
43	SR-210 Freeway WB On/Off Ramps & Riverside Avenue	AM	N/A	N/A	N/A
		PM	N/A	N/A	N/A
44	SR-210 Freeway EB On/Off Ramps & Riverside Avenue	AM	N/A	N/A	N/A
		PM	N/A	N/A	N/A
45	SR-210 Freeway WB On/Off Ramps & Pepper Avenue	AM	N/A	N/A	N/A
		PM	N/A	N/A	N/A
46	SR-210 Freeway EB On/Off Ramps & Pepper Avenue	AM	N/A	N/A	N/A
		PM	N/A	N/A	N/A
47	SR-210 Freeway WB On/Off Ramps & State Street	AM	N/A	N/A	N/A
		PM	N/A	N/A	N/A
48	SR-210 Freeway EB On/Off Ramps & State Street	AM	N/A	N/A	N/A
		PM	N/A	N/A	N/A
49	Highland Avenue & State Street	AM	0.683	18.2	B
		PM	0.764	19.6	B
50	Highland Avenue & California Street	AM	0.325	10.2	B
		PM	0.439	10.7	B
51	Highland Avenue & Medical Center Drive	AM	0.299	8.8	A
		PM	0.405	11.0	B
52	Highland Avenue & Mount Vernon Avenue	AM	0.552	17.4	B
		PM	0.596	17.5	B
53	Highland Avenue & Sierra Avenue	AM	0.467	9.5	A
		PM	0.398	8.4	A
54	Highland Avenue/Easton Street & Alder Avenue	AM	0.787	30.2	C
		PM	0.885	38.0	D

Table 3 (cont.)
Existing (2007) Level of Service Summary
Project Area and CMP Intersections

No.		Peak Hour	Existing V/C	Existing Delay	Existing LOS
55	Easton Street &	AM	0.753	19.5	B
	Ayala Drive	PM	1.120	65.5	E
56	Easton Street &	AM	0.956	46.9	D
	Riverside Avenue	PM	1.202	101.5	F
57	Easton Street &	AM	0.431	3.5	A
	Highland Avenue	PM	0.620	4.5	A
58	Baseline Road &	AM	0.381	17.8	B
	Sierra Avenue	PM	0.695	22.0	C
59	Baseline Road &	AM	0.684	23.6	C
	Alder Avenue	PM	0.919	46.8	D
60	Baseline Road &	AM	0.459	19.0	B
	Cedar Avenue/Ayala Drive	PM	0.671	21.2	C
61	Baseline Road &	AM	0.579	19.6	B
	Cactus Avenue	PM	0.693	18.8	B
62	Baseline Road &	AM	0.647	21.4	C
	Riverside Avenue	PM	0.792	25.8	C
63	Baseline Road &	AM	0.288	8.2	A
	Pepper Avenue	PM	0.441	6.6	A
64	Baseline Road &	AM	N/A	N/A	N/A
	State Street	PM	N/A	N/A	N/A
65	Foothill Boulevard &	AM	0.532	19.1	B
	Sierra Avenue	PM	0.910	29.4	C
66	Foothill Boulevard &	AM	0.449	13.4	B
	Alder Avenue	PM	0.639	15.1	B
67	Foothill Boulevard &	AM	0.598	20.0	B
	Cedar Avenue	PM	0.807	25.0	C
68	Foothill Boulevard &	AM	0.473	14.3	B
	Cactus Avenue	PM	0.749	17.8	B
69	Foothill Boulevard &	AM	0.610	20.0	C
	Riverside Avenue	PM	0.905	32.2	C
70	Arrow Boulevard &	AM	0.430	17.7	B
	Sierra Avenue	PM	0.776	26.0	C
71	Arrow Boulevard &	AM	0.305	18.5	B
	Alder Avenue	PM	0.647	19.8	B
72	Rialto Avenue &	AM	0.449	16.2	B
	Cedar Avenue	PM	0.598	19.7	B

Table 3 (cont.)
Existing (2007) Level of Service Summary
Project Area and CMP Intersections

No.		Peak Hour	Existing V/C	Existing Delay	Existing LOS
73	Rialto Avenue & Cactus Avenue	AM	0.206	8.9	A
		PM	0.317	9.7	A
74	Merrill Avenue & Cedar Avenue	AM	0.714	17.6	B
		PM	0.986	32.2	C
75	Merrill Avenue & Cactus Avenue	AM	0.254	14.0	B
		PM	0.358	13.1	B

N/A Intersection does not currently exist, but is scheduled to be constructed by the study year 2030.
[1] Volume to capacity ratio is not provided for two-way, STOP sign-controlled
[2] Glen Helen Parkway is currently closed at Lytle Creek Road.
[3] I-15 on/off-ramps at Duncan Canyon Road do not currently exist, but are scheduled to be constructed by the study year of 2030.

Table 4
Freeway Mainline Level of Service Definitions

Volume / Capacity (V/C)	LOS
≤0.6	A
>0.6 and ≤0.7	B
>0.7 and ≤0.8	C
>0.8 and ≤0.9	D
>0.9 and ≤1.0	E
>1.0	F

project vicinity. Existing freeway geometrics (e.g., number of mainline travel lanes) for each of the segments analyzed were determined from CMP data, aerial photographs and field surveys.

Based on these criteria, the levels of service values at the freeway study segments are shown in Table 5. As this table shows, all study freeway segments analyzed currently operate at Level of Service E or better during one or both peak hours. (The CMP level

of service standard for freeway operations is LOS E.) Note that the segments along the SR-210 between Alder Avenue and State Street do not have traffic volume data available due to the construction of the State Route 210 Freeway when traffic count data were being collected. These segments are noted with "[N/A]" (not applicable) in Table 5.

Table 5
Existing (2007) Freeway Level of Service Summary

No.	Location	Peak Hour	Direction	No. of Lanes	Total Capacity	Daily Volume	Peak Hour Volume	V/C	LOS
1	Ontario Fwy (I-15) between	AM	NB	3	6900	133,600	3,600	0.52	A
	Barstow Fwy (I-215) and		SB	3	6900		5,400	0.78	C
	Glen Helen Parkway	PM	NB	3	6900		6,000	0.87	D
			SB	3	6900		4,000	0.58	A
2	Ontario Fwy (I-15) between	AM	NB	3	6900	134,700	3,600	0.52	A
	Glen Helen Parkway and		SB	3	6900		5,500	0.80	C
	Sierra Ave	PM	NB	3	6900		6,100	0.88	D
			SB	3	6900		4,000	0.58	A
3	Ontario Fwy (I-15) between	AM	NB	4	9200	134,700	3,600	0.39	A
	Sierra Ave and		SB	4	9200		5,500	0.60	A
	Duncan Canyon Road	PM	NB	4	9200		6,100	0.66	B
			SB	4	9200		4,000	0.43	A
4	Ontario Fwy (I-15) between	AM	NB	4	9200	134,700	3,600	0.39	A
	Duncan Canyon Road and		SB	4	9200		5,500	0.60	A
	Summit Ave	PM	NB	4	9200		6,100	0.66	B
			SB	4	9200		4,000	0.43	A
5	Ontario Fwy (I-15) between	AM	NB	4	9200	142,800	3,800	0.41	A
	Summit Ave and		SB	4	9200		5,700	0.62	B
	State Route 210 Fwy	PM	NB	4	9200		6,400	0.70	B
			SB	4	9200		4,200	0.46	A
6	Barstow Fwy (I-215) between	AM	NB	2	4600	52,000	1,600	0.35	A
	Ontario Fwy (I-15) and		SB	2	4600		2,400	0.52	A
	Devore Road	PM	NB	2	4600		2,700	0.59	A
			SB	2	4600		1,800	0.39	A
7	Barstow Fwy (I-215) between	AM	NB	2	4600	62,200	1,900	0.41	A
	Devore Road and		SB	2	4600		2,900	0.63	B
	Palm Ave	PM	NB	2	4600		3,200	0.70	B
			SB	2	4600		2,100	0.46	A

Table 5 (Cont.)
Existing (2007) Freeway Level of Service Summary

No.	Location	Peak Hour	Direction	No. of Lanes	Total Capacity	Daily Volume	Peak Hour Volume	V/C	LOS
8	Barstow Fwy (I-215) between	AM	NB	2	4600	61,200	1,900	0.41	A
	Palm Ave and		SB	2	4600		2,800	0.61	B
	University Parkway	PM	NB	2	4600		3,100	0.67	B
			SB	2	4600		2,100	0.46	A
9	Barstow Fwy (I-215) between	AM	NB	3	6900	86,700	2,800	0.41	A
	University Parkway and		SB	3	6900		4,200	0.61	B
	State Route 30 Fwy	PM	NB	3	6900		4,700	0.68	B
			SB	3	6900		3,100	0.45	A
10	Barstow Fwy (I-215) between	AM	NB	2	4600	61,200	2,100	0.46	A
	State Route 30 Fwy and		SB	2	4600		2,900	0.63	B
	Mt Vernon Ave/27th St	PM	NB	2	4600		3,200	0.70	B
			SB	2	4600		2,300	0.50	A
11	Barstow Fwy (I-215) between	AM	NB	2	4600	68,300	2,200	0.48	A
	Mt Vernon Ave/27th St and		SB	2	4600		3,000	0.65	B
	Highland Ave	PM	NB	2	4600		3,400	0.74	C
			SB	2	4600		2,400	0.52	A
12	I-215 Fwy between	AM	NB	2	4600	72,400	2,200	0.48	A
	Highland Ave and		SB	2	4600		3,100	0.67	B
	Massachusetts Ave	PM	NB	2	4600		3,400	0.74	C
			SB	2	4600		2,500	0.54	A
13	I-215 Fwy between	AM	NB	2	4600	74,500	2,200	0.48	A
	Massachusetts Ave and		SB	2	4600		3,100	0.67	B
	State Route 259 Fwy	PM	NB	2	4600		3,400	0.74	C
			SB	2	4600		2,500	0.54	A
14	I-215 Fwy between	AM	NB	3	6900	138,700	4,400	0.64	B
	State Route 259 Fwy and		SB	3	6900		5,400	0.78	C
	Baseline St	PM	NB	3	6900		5,900	0.86	D
			SB	3	6900		4,900	0.71	C
15	I-215 Fwy between	AM	NB	3	6900	154,000	4,900	0.71	C
	Baseline St and 5th St		SB	3	6900		6,000	0.87	D
		PM	NB	3	6900		6,600	0.96	E
			SB	3	6900		5,400	0.78	C
16	I-215 Fwy between	AM	NB	3	6900	155,100	5,500	0.80	C
	5th St and 2nd St		SB	3	6900		5,500	0.80	C
		PM	NB	3	6900		6,100	0.88	D
			SB	3	6900		6,100	0.88	D

Table 5 (Cont.)
Existing (2007) Freeway Level of Service Summary

No.	Location	Peak Hour	Direction	No. of Lanes	Total Capacity	Daily Volume	Peak Hour Volume	V/C	LOS
17	I-215 Fwy between 2nd St and Mill St	AM	NB	4	9200	170,400	6,100	0.66	B
			SB	4	9200		6,100	0.66	B
		PM	NB	4	9200		6,700	0.73	C
			SB	4	9200		6,700	0.73	C
18	State Route 210 Fwy between Ontario Fwy (I-15) and Cherry Ave	AM	WB	3	6900	64,300	2,500	0.36	A
			EB	3	6900		2,000	0.29	A
		PM	WB	3	6900		2,300	0.33	A
			EB	3	6900		2,800	0.41	A
19	State Route 210 Fwy between Cherry Ave and Citrus Ave	AM	WB	3	6900	57,100	2,200	0.32	A
			EB	3	6900		1,800	0.26	A
		PM	WB	3	6900		2,000	0.29	A
			EB	3	6900		2,500	0.36	A
20	State Route 210 Fwy between Citrus Ave and Sierra Ave	AM	WB	2	4600	51,000	2,000	0.43	A
			EB	2	4600		1,600	0.35	A
		PM	WB	2	4600		1,800	0.39	A
			EB	2	4600		2,200	0.48	A
21	State Route 210 Fwy between Sierra Ave and Alder Ave	AM	WB	2	4600	35,800	1,600	0.35	A
			EB	2	4600		1,000	0.22	A
		PM	WB	2	4600		1,300	0.28	A
			EB	2	4600		1,500	0.33	A
22	State Route 210 Fwy between Alder Ave and Ayala Dr	AM	WB			[N/A]			
			EB	[N/A]	[N/A]		[N/A]	[N/A]	[N/A]
		PM	WB						
			EB						
23	State Route 210 Fwy between Ayala Dr and Riverside Ave	AM	WB			[N/A]			
			EB	[N/A]	[N/A]		[N/A]	[N/A]	[N/A]
		PM	WB						
			EB						
24	State Route 210 Fwy between Riverside Ave and Pepper Ave	AM	WB			[N/A]			
			EB	[N/A]	[N/A]		[N/A]	[N/A]	[N/A]
		PM	WB						
			EB						

Table 5 (Cont.)
Existing (2007) Freeway Level of Service Summary

No.	Location	Peak Hour	Direction	No. of Lanes	Total Capacity	Daily Volume	Peak Hour Volume	V/C	LOS
25	State Route 210 Fwy between Pepper Ave and State St	AM	WB	[N/A]	[N/A]	[N/A]	[N/A]	[N/A]	[N/A]
			EB						
		PM	WB						
			EB						
26	State Route 210 Fwy between State St and Barstow Fwy (I-215)	AM	WB	2	4600	30,600	1,400	0.30	A
			EB	2	4600		1,100	0.24	A
		PM	WB	2	4600		1,200	0.26	A
			EB	2	4600		1,500	0.33	A
27	State Route 30 Fwy between Barstow Fwy (I-215) and H St	AM	WB	2	4600	53,000	2,400	0.52	A
			EB	2	4600		1,900	0.41	A
		PM	WB	2	4600		2,200	0.48	A
			EB	2	4600		2,600	0.57	A
28	State Route 30 Fwy between H St and State Route 259	AM	WB	2	4600	56,100	2,500	0.54	A
			EB	2	4600		2,000	0.43	A
		PM	WB	2	4600		2,300	0.50	A
			EB	2	4600		2,800	0.61	B
29	State Route 30 Fwy between State Route 259 and Waterman Ave	AM	WB	3	6900	115,300	4,800	0.70	B
			EB	3	6900		4,000	0.58	A
		PM	WB	3	6900		4,400	0.64	B
			EB	3	6900		5,400	0.78	C

[N/A] Caltrans traffic volume data not available due to construction of State Route 210 Freeway.

III. FUTURE TRAFFIC CONDITIONS

III.A TRAFFIC FORECASTS

The future (year 2030) traffic volumes in the project area were forecasted by the City of San Bernardino, using their local refinement of the regional travel demand model, called the East Valley Transportation Model (EVTM). The year 2030 was selected because the CMP requires analysis of long-term horizon year conditions, currently 2030 based on the EVTM. In discussions with the San Bernardino Association of Governments (SanBAG), County of San Bernardino and City of San Bernardino staff, the EVTM was determined to be the most appropriate long-range transportation-planning tool for this analysis. The EVTM uses a regional land-use database that was developed in close consultation with the relevant local jurisdictions that regulate land-use and acceptable levels of development. The future year street and highway networks assumed for this model were also developed based on input from jurisdictions throughout the region. The parameters within the model (trip generation rates, roadway capacities, etc.) have been calibrated for more than a 20-year period to closely replicate the particular transportation patterns and characteristics specifically for the City of San Bernardino and surround areas including the project vicinity.

The EVTM is based on the SCAG San Bernardino/Riverside Comprehensive Transportation Planning (CTP) model. The San Bernardino/Riverside CTP model is a refinement of the SCAG regional model and was developed jointly by SCAG and San Bernardino Association of Governments (SanBAG). San Bernardino County's Congestion Management Plan (CMP) is formed using model output from this jointly developed CTP model. The EVTM contains somewhat more disaggregate land-use data in the study area than the CTP and SCAG regional models, and it also contains additional roadways (links) in the study area that are not replicated in the CTP and

SCAG regional models. The EVTM was also developed using similar modeling procedures that were used in the CTP and SCAG modeling procedures, so it has a high level of consistency with the original CTP and SCAG regional travel demand models.

For this study, the EVTM was further refined in consultation with the City of San Bernardino staff, to more accurately replicate local traffic patterns, and to better reflect local street capacities and constraints within the study area, thus allowing a more detailed study.

The following text describes, in greater detail, the modeling scenarios developed for this study. The post-processing procedures are described more in detail in Appendix A.

1. Existing (2007) Conditions: This scenario replicates existing traffic conditions based on year 2007 socioeconomic data and existing roadway network conditions. Future growth estimates is determined by comparing traffic model volumes from the future "Without Project" conditions and existing (2007) conditions.

2. Future (2030) "Without Project" Conditions: The combined effect of future regional growth in vehicle trips (based on the greater of the EVTM growth projections and the growth from known, proposed or potential projects in the study area), excluding the land use changes due to the project itself, established the future conditions that would occur without the development of the proposed project through the year 2030.

3. Future (2030) "With Project" Conditions: The combined effect of future regional growth in vehicle trips (including EVTM forecasts and information on known, proposed or potential projects in the study area), including the land use changes due to the project itself, established the future conditions that would occur with the development of the proposed project through the year 2030.

III.A.1 Ambient Growth

Ambient growth is the background growth in traffic that comes from a multitude of regional projects. This growth generally is viewed as inevitable, since much of the traffic in any area is passing through the study area, rather than being locally generated. In the manual methodology of projecting traffic volumes, an ambient growth factor of approximately one to two percent per annum is usually applied globally to the existing traffic volumes to obtain an estimate of future traffic volumes.

The EVTM explicitly takes into account all growth in the five County Southern California region, including the project study area. Therefore, a generalized ambient growth factor (on traffic volumes) was not considered appropriate. Calculated growth, on a zone-by-zone basis, for future baseline projections was taken into account within the land use databases that were provided by the City of San Bernardino staff. The land use databases were used to calculate trip generations for each zone in the model for the existing and future scenarios.

This methodology of using land use growth projections within a computerized model to replicate changes in travel demand and traffic behavior patterns better replicates real life changes in the transportation element of urban developments.

III.A.2 Cumulative Growth

The EVTM socioeconomic data were augmented by a search for specific development projects within the City of Rialto, which are on file with the City of Rialto. These "related projects" included projects that are completed but not fully occupied, are currently under construction or beginning construction, or are presently only proposed but which could become operational within the time frame examined in this study. After a thorough review of the records from the City of Rialto, a list of 104 new building projects that are located within the city was compiled. The related projects' descriptions and locations

from the City of Rialto are listed in Table 6. Figure 3 depicts the locations of all related projects. The higher socioeconomic data value for each zone, based on a comparison of the EVTM growth projections data and the sum of the known related projects proposed for each zone, was used as the incremental growth for that zone. This incremental growth was then added to the existing data contained in the "Existing Conditions" model.

Growth from 10 other related projects of area-wide significance were also considered in the EVTM for the future 2030 base (Without Project) scenario. These developments are recently proposed related projects. To be conservative, it was assumed that the growth from the EVTM did not include the growth from these related projects. As a result, the related projects growth was added in addition to the EVTM growth. To replicate the related projects, 10 new zones were added into the model. A summary of these additional related projects and their socioeconomic characteristics are shown in Table 7.

Thus, the combination of the local refinements to the traffic model transportation network and the growth projections from EVTM and the related projects formed the basis for the forecasts of future "Without Project" conditions in the study area.

Table 6
City of Rialto Related Project Description and Location

NO.	SIZE	UNIT	DESCRIPTION	LOCATION
1	43,365	sf	New Sanctuary	1123 S. Cactus Ave.
2	15	acre	Container Storage Facility	S/S Lowell, W/O Locust
3	16	du	Single Family Residential	Btwn Locust & Maple, S/O Persimmon
4	24	du	Single Family Residential	W/O Linden, ext of McWethy
5	27,280	sf	Office, Shop & Storage	Westerly terminus of Lowell
6	23	du	Single Family Residential	NWC Baseline & Cactus
7	20,400	sf	Warehouse & Maintenance Bldg.	E/S Locust, S/O Vineyard
8	2,112	sf	Two-Story Office Bldg.	233 North Riverside
9	126,000	sf	Storage Facility	E/S Locust S/O Riverside
10	22,094	sf	Used Car Sales Lot	S/S Foothill, btwn Lilac & Cactus
11	26	du	Single Family Residential	NWC Etiwanda & Pepper
12	5,394	sf	Auto Repair Facility	E/S Lilac, 150' S/O Foothill
13	9	du	Single Family Residential	W/S Linden, N/O Summit
14	24	du	Single Family Residential	W/S Cactus, 213' N/O Baseline
15	28	du	Apartment	E & W sides of Palm, 250 ft. S/O Walnut
16	132	du	Single Family Residential	SEC Cactus & BaseLine Rd.
17	13,678	sf	Office	NEC Laurel & Lowell
	19,097	sf	Maint. Shop	
18	13,745	sf	Multi-tenant Retail Bldg. Within Shopping Ctr.	NEC Highland and Riverside Ave.
19	21	du	Single Family Residential	NEC Maple Ave. & Summit Ave
20	29	du	Single Family Residential	S/S Bonnie View, E/O Willow
21	7,200	sf	Retail Center	466 E. Foothill (NWC Foothill & Acacia)
22	143,900	sf	Freight Terminal	SWC Lowell & Locust
23	19,500	sf	RV Maint. & Repair Fac.	S/S Slover, 190' W/O River
24	27,598	sf	2 Industial Buildings	NWC Lowell & Laurel
25	15	du	Single Family Residential	Btwn Locust & Maple Ave., S/O Persimmon
26	14	du	Single Family Residential	592 N. Linden Ave.
27	40	du	Rehab. Apartments	Willow/winchester
28	9.52	acre	Contractors Storage Yard	2330 S. Willow Ave.
29	250,000	sf	Retail (Walmart SuperCenter)	SWC San Bernardino & Riverside
	34,000	sf	Misc. Retail Pads	
	0.79	acre	Gas Station	
	(125,000)	sf	Walmart (To be Removed)	1610 S. Riverside
30	132	du	Apartment	N/S Rialto, 350' e/o Maple Ave,
31	15,090	sf	Savon Pharmacy w/ Drive-thru	S/S Base Line Rd., 600 ft. W/O Riverside Ave.
32	9,300	sf	Restaurants	NWC Riverside Ave. & Highland
33	4,200	sf	Retail Center	1621 South Riverside
34	20	du	Single Family Residential	W/S Eucalyptus, S/O Frisbie Park
35	15	du	Single Family Residential	W/S Cedar, Btwn. Bohnert & Summit Ave.

Table 6 (Cont.)
City of Rialto Related Project Description and Location

NO.	SIZE	UNIT	DESCRIPTION	LOCATION
36	20,000	sf	2 Industrial Buildings	E/S Fitzgerald, 227 S/O Leiske Dr.
37	5,000	sf	Preschool in Existing Building	515 West Rialto
38	21,183	sf	Alteration of Smog Shop to Entertainment Ctr.	363 W. Valley
39	6,280	sf	Retail	NEC Ayala & Base Line Rd.
40	18,000	sf	Industial Building	Leiske Dr., W/O Ayala
41	10	du	Single Family Residential	E/S Cedar, btwn. Woodcrest & Miramont
42	14,635	sf	Office	2352 North Locust
43	1,396,495	sf	Two Distribution Bldgs.	W/O Riverside Ave., E/O Holly
44	43,000	sf	Retail	Foothill and Cedar
45	15,000	sf	Warehouse & Office	429 West Rialto Avenue
46	12,000	sf	Addition to Existing Church	311 S. Sycamore
47	4,392	sf	Retail Center	SC Foothill Blvd. & Willow
48	20	empl	Bio-solids processing facility	501 E. Santa Ana Ave.
49	10,785	sf	Lumber Yard Office, Retail, Storage	S/O Rialto, E/S Spruce
50	22,606	sf	Shopping Center	1364 W. Foothill (NEC Foothill & Linden)
51	83,300	sf	Expansion to Distribution Facility	330 West Resource Dr.
52	12,000	sf	Storage Bldg.	3141 S. Riverside Ave.
53	15,500	sf	Drive-thru pharmacy	S/S Base Line Rd., 600' W/O Riverside
54	1,400,000	sf	Warehouse Distribution	N/O Santa Ana River, W/O Riverside
55	402,500	sf	Industrial Building	562 W Santa Ana
56	24	du	Single Family Residential	NWC Linden & Merrill Ave.
57	295,000	sf	Distrib. Warehouse	100 S Cedar
58	3,764	sf	Two-Story Retail Center	420 S. Riverside
59	17	du	Single Family Residential	670 S. Lilac Ave.
60	192,844	sf	Warehouse	1409 S. Lilac Ave.
61	19	du	Single Family Residential	S/S San Bernardino btwn Spruce & Idylwild
62	20,800	sf	Industrial Bldg.	2280 S. Lilac Ave.
63	725,937	sf	Warehouse/Distribution Bldgs.	NWC & NEC Cedar & Rialto
64	40	du	Condominium	S/S Rialto, 175' E/O Maple Ave.
65	38	du	Apartment	1062 S. Riverside Ave.
66	11	du	Apartment	1012 S. Riverside Ave.
67	888	sf	Office Addition to Existing Warehouse	2805 Industrial Dr.
68	683	sf	Telecommunication Facility	1794 West Easton
69	4,642	sf	Auto Sales & Servicing	515 West Valley Blvd.
70	6,340	sf	Retail Center	NEC Cactus & Bloomington
71	705	sf	Addition to SBC building	495 S. Riverside Ave.
72	2,900	sf	Gas Station w/ Conv. Store & Car Wash	NWC Riverside Ave. & Agua Mansa Rd.
	1,850	sf	Restaurant w/ Drive-Thru	
73	800	sf	Concrete Batch Plant	S/S Santa Ana, 320' W/O Willow

Table 6 (Cont.)
City of Rialto Related Project Description and Location

NO.	SIZE	UNIT	DESCRIPTION	LOCATION
74	204	du	Single Family Residential	N/S Base Line, 300' E/O Fitzgerald (31 acres)
75	3,041	sf	Church	234 West Merrill
76	16,250	sf	Addition to Existing Manufacturing Bldg.	168 S. Spruce
77	7,750	sf	Industrial Bldg.	2741 S. Lilac Ave.
78	17	du	Single Family Residential	E/S Acacia, approx. 600' S/O Carter
79	29,630	sf	Warehouse	E/S Lilac Ave. btwn Slover & Mindanao
80	1,040	sf	Office	211 West Valley
	(1)	du	Single Family Residential (To be converted)	
81	127.5	sf	Wireless Telecomm. Fac. Co-location	150 S. Larch
82	1,155	sf	Wireless Telecomm. Co-location	Ball field, Jerry Eaves Park
83	1,022	sf	Wireless Telecomm. Fac. Ww/60' monopine	1464 West Merrill Ave.
84	192	sf	Co-location Tele. Comm. Fac. On Monopalm	140 West Easton
85	150	sf	Co-location Tele. Comm. Fac. On Monopole	E/S of Willow, 900' N/O Valley
86	150	sf	Co-location Tele. Comm. Fac. On Monopalm	855 West Bast Line Rd.
87	10,833	sf	Industrial Building	W/S Riverside, approx. 170' S/o Slover
88	330,000	sf	Industrial Building	SWC Agua Mansa & Riverside Ave.
89	2,208	sf	Warehouse Addition to Existing Trailer Facility	225 West Slover
90	900	sf	Trailer Storage Facility (2.81 Acres)	SWC Linden & Rialto
91	6,014	sf	Auto Retail Wholesale in Existing Auto Repair Fac	1731 South Cactus
92	70	du	Condominium	E/S Willow, S/O Merrill Ave.
93	1,636	sf	Dog Kennel	435 West Randall
94	51	du	Condominium	W/S Riverside, 400' S/oO Merrill Ave.
95	17,750	sf	Industrial Building	S/S Slover, 256' W/O Riverside Ave.
96			Pepper Ave. Specific Plan	Pepper Avenue, S/O 210 Ext.
	291	du	Single Family Residential	
	594	du	Multi Family Residential	
	13	acre	Commercial	
97	119,440	sf	Warehouse	375 South Cactus
98	9,000	sf	Warehouse w/ office	1230 Durst Dr.
99	23,000	sf	Warehouse	1253 W. Rialto
100	4,976	sf	Addition to existing retail bldg.	SEC Riverside Ave. & South St.
101	800	sf	Convert Banquet Patio into Outdoor Seating Area	728 E. Foothill Blvd.
102	60,000	sf	Building Materials Retail Center	165 S. Spruce Avenue
103	25	du	Condominium	166 W. Walnut
104			Renaissance Rialto	Generally bounded by Casmalia St. to the
	3,853	du	Residential	north, Baseline Rd. to the south, Alder Ave.
	1,174,323	sf	Retail/Commercial	to the west and Ayala Dr. to the east
	711,553	sf	Office	
	436,961	sf	"Town Center" Retail Shopping Center	
	4,554,199	sf	Business and Industrial Park	

Table 7
Other Related Projects of Area-Wide Significance

					Employees	
		EVTM	Single-Family	Multi-Family		Non-
No.	Project	Zone	Dwelling Units	Dwelling Units	Retail	Retail
1	Empire North	85	241	312	0	0
2	Lytle Creek North	86	2234	172	218	899
3	CALMAT	87	0	0	0	3448
4	Rolling Hills- Gordon	88	406	0	0	0
5	Rolling Hills- Bice	89	292	0	0	0
6	Martin Ranch	208	329	0	0	0
7	Kendall	747	0	0	420	0
8	Lowes	748	0	0	403	0
9	Culligan	749	0	0	228	0
10	Paradise Hills	750	235	269	0	0
Note: Employment includes School, Golf Course & Park						

III.B PROJECT TRAFFIC

The following section contains information describing the vehicular trip generating characteristics of the proposed project. It also represents the methodology used to estimate the trip generation, distribution and assignment of the project site.

III.B.1 Project Trip Generation

The demographic assumptions used as inputs into the SCAG model to determine project trip generation are shown in Table 8(a). The AM and PM peak hour trip generation for the Lytle Creek Ranch project are shown in Table 8(b).

Table 8(a)
Project Demographic Summary

						Employees	
				Single-Family	Multi-Family		Non-
Land Use			Rate	Dwelling Units	Dwelling Units	Retail	Retail
3,409	du	Single-Family		3409	0	0	0
		Detached Homes					
4,998	du	Attached Residential		0	4998	0	0
		Homes					
849,420	sf	Retail Development	2 Emp/1 ksf	0	0	1699	0
41	acre	Schools [1]	0.1 Emp/Student	0	0	0	195
131	acre	Park Space	0.05 Emp/Acre	0	0	0	7
198	acre	Golf Course Space [2]	1.74 Emp/Hole	0	0	31	0
[1] Includes approximately 750-student elementary school (K-6) and 1,200-student elementary/middle							
school (K-8).							
[2] Includes 18-hole golf course.							

Table 8(b)
Project Trip Generation Summary

		AM Peak Hour		PM Peak Hour	
Description	Zone	Inbound	Outbound	Inbound	Outbound
Neighborhood I	80	135	352	446	300
	81	42	133	162	108
Neighborhood II	82	537	835	1,195	970
Neighborhood III	83	1,124	1,224	1,963	1,835
Neighborhood IV	84	252	356	537	456
Total		**2,090**	**2,900**	**4,303**	**3,669**

III.B.2 Project Trip Distribution

Each trip to and from the project will be linked to another site somewhere within the region. For example, each commute trip to the project in the morning will have started at an employee's residence. The procedure utilized to estimate the location to which each of the project generated trips will be linked was the computerized transportation gravity model of trip linkages for the uses within the proposed project. This model also considers the land-use patterns throughout the Southern California area to estimate current trip making patterns. Additionally, it considers future growth patterns to determine how trip linkages will change over time. For example, it considers the amount of housing and shopping growth zone in each to determine how far residents will decide to travel to find items they wish to purchase. The computerized model was also used to project trip linkages for commute trips, such as those made by project site employees. For these trips, the locations of housing and employment sites were taken into account in relation to competing employment sites.

III.B.3 Project Trip Assignment

Using the trip distribution as described above, the computerized traffic model was utilized to help assign traffic to individual roadways within the study area. The computer model assumes drivers follow the most rational, direct path. This model accounted for the level of congestion on each roadway and determined which path resulted in the shortest travel time for each trip. This has been shown to produce the most reliable overall traffic projections. Further, this procedure concentrates volumes and improvements on the preferred (major) routes rather than encouraging use of minor routes. However, it should be noted that the model reflected the approximate location of project driveways. Because the project site has several proposed roadways and driveways (e.g., along Riverside Avenue), some adjustments were needed to better

reflect likely travel paths to the detailed access locations. Figure 4 shows the traffic volumes for the Lytle Creek Ranch Project.

In addition, the proposed project would result in the relocation of vehicular access for the Cemex and Tile Company. Currently, vehicular access for the Cemex and Tile Company is provided via a driveway located on the north side of Riverside Avenue between Linden Avenue and Ashford Avenue. Vehicular access would be relocated to the proposed project roadway on the north side of Riverside Avenue across from Locust Avenue. As a result, a traffic shift was also made to account for the driveway access relocation.

III.B.4 Project Parking

The project will contain a mix of land uses. Due to the potential variation within the final approved elements constructed within the allowed project elements, parking levels cannot be established at this time. However, parking will be provided to meet City of Rialto parking codes and other requirements. This will ensure that adequate parking is provided.

III.B.5 Site Access

The Lytle Creek Ranch project area will be served by a new roadway system. The project site is divided into four neighborhoods, as shown in Figure 2.

Neighborhood I, which is located on both the west and east sides of the I-15 Freeway, will have access via Glen Helen Parkway. On the west side of the I-15 Freeway, project driveways will connect to Glen Helen Parkway between Lytle Creek Road on the south and the I-15 southbound ramps along Glen Helen Parkway. On the east side of the I-15 Freeway, a new roadway will provide access for project uses in Neighborhood I. This new roadway will extend northerly and connect to Glen Helen Parkway about 1,200 feet

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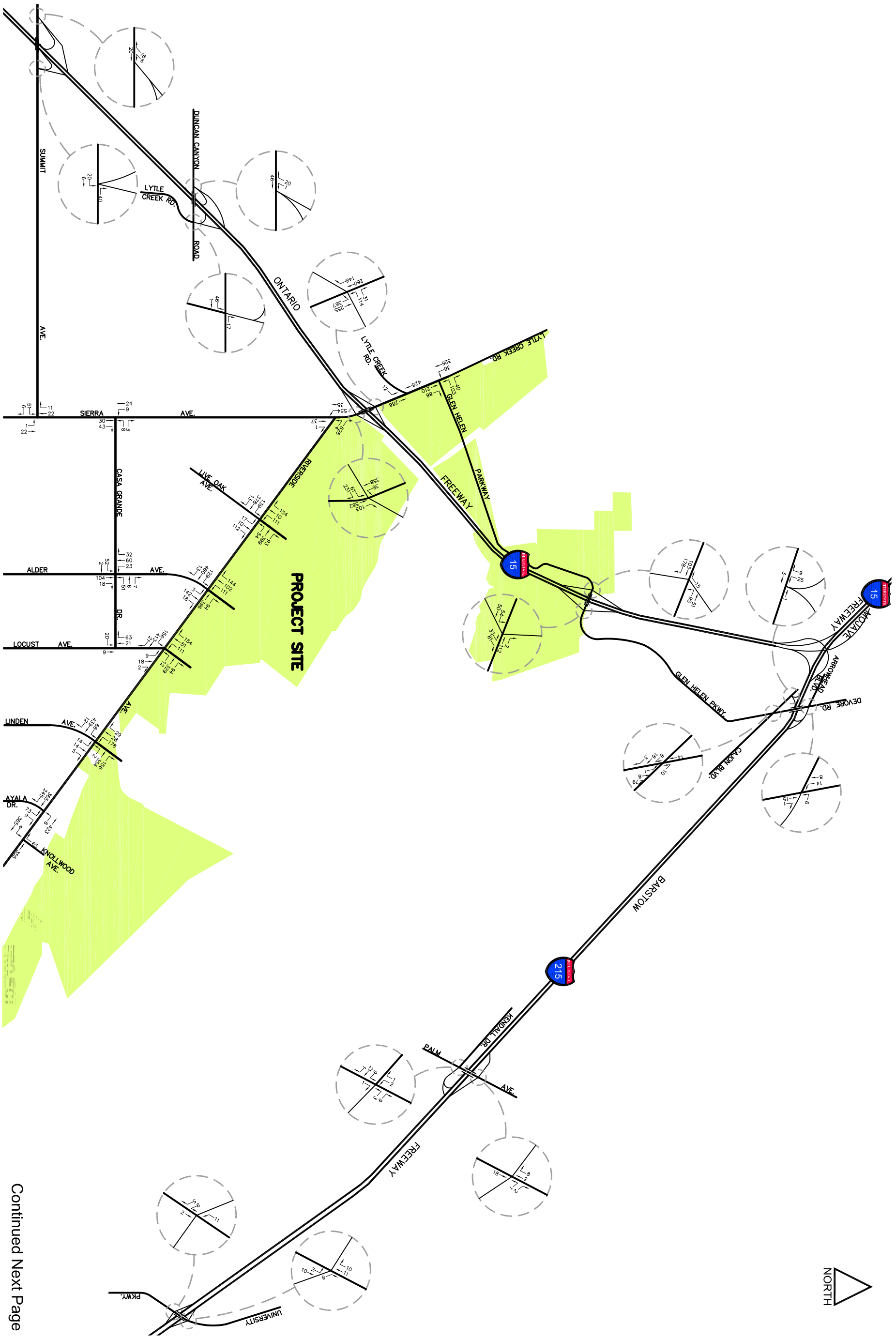

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FIGURE 4(a)

5/3/2007

Lytle Creek Ranch\AMPRJSELLINK

STICK(WP)

TOTAL PROJECT ONLY TRAFFIC VOLUMES
AM PEAK HOUR

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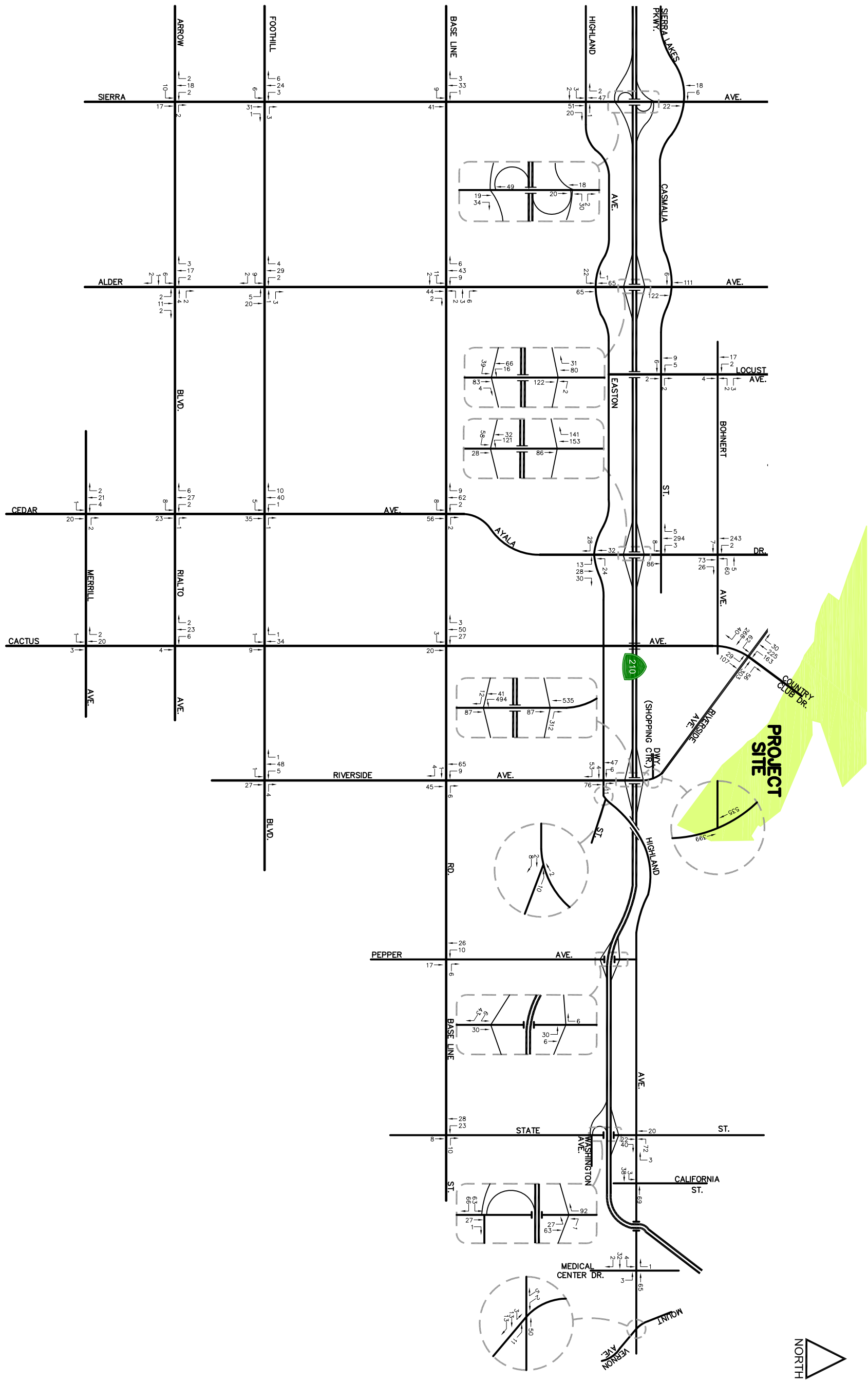

FIGURE 4(a) - CONTINUED

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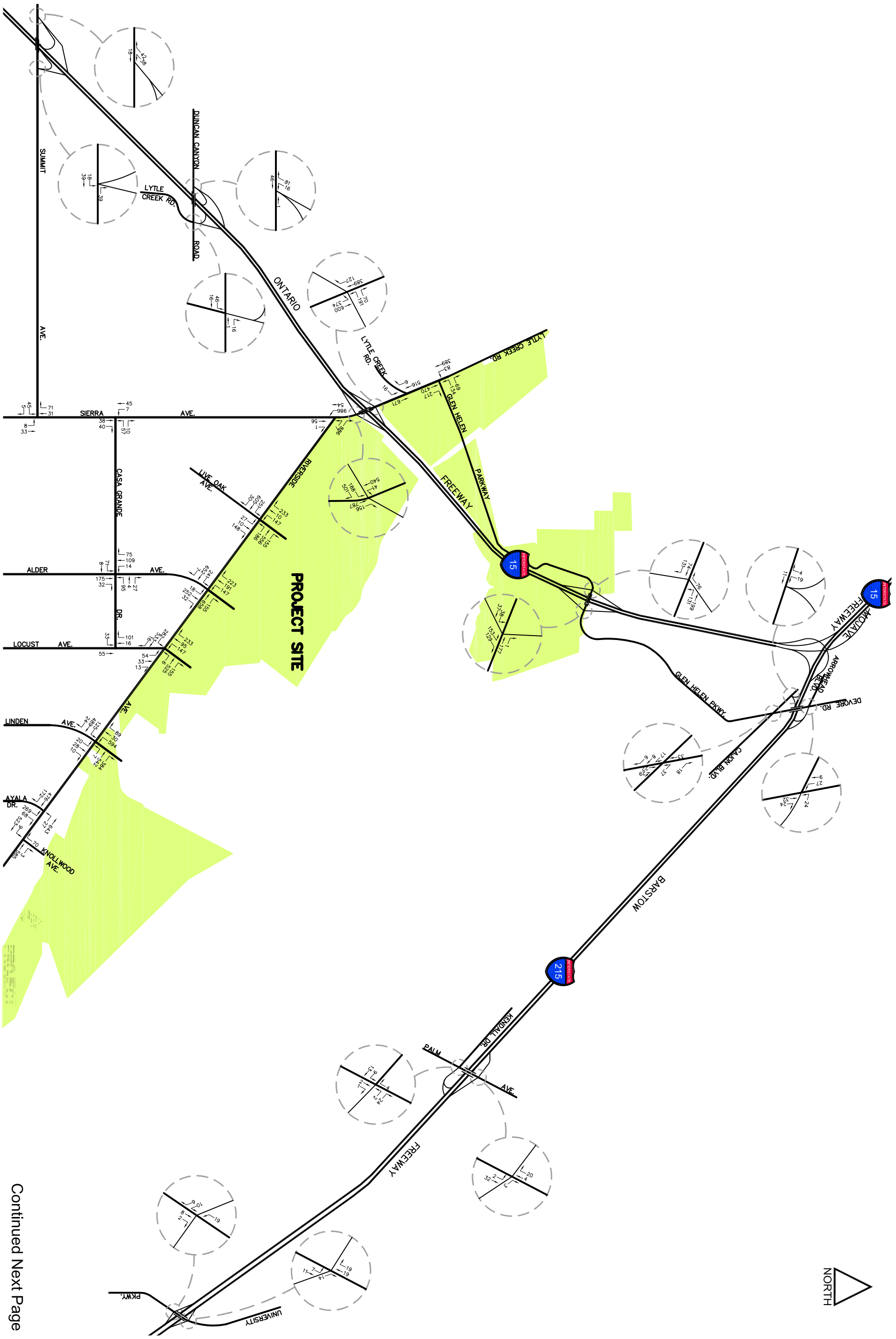

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FIGURE 4(b)

5/3/2007

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TOTAL PROJECT ONLY TRAFFIC VOLUMES
PM PEAK HOUR

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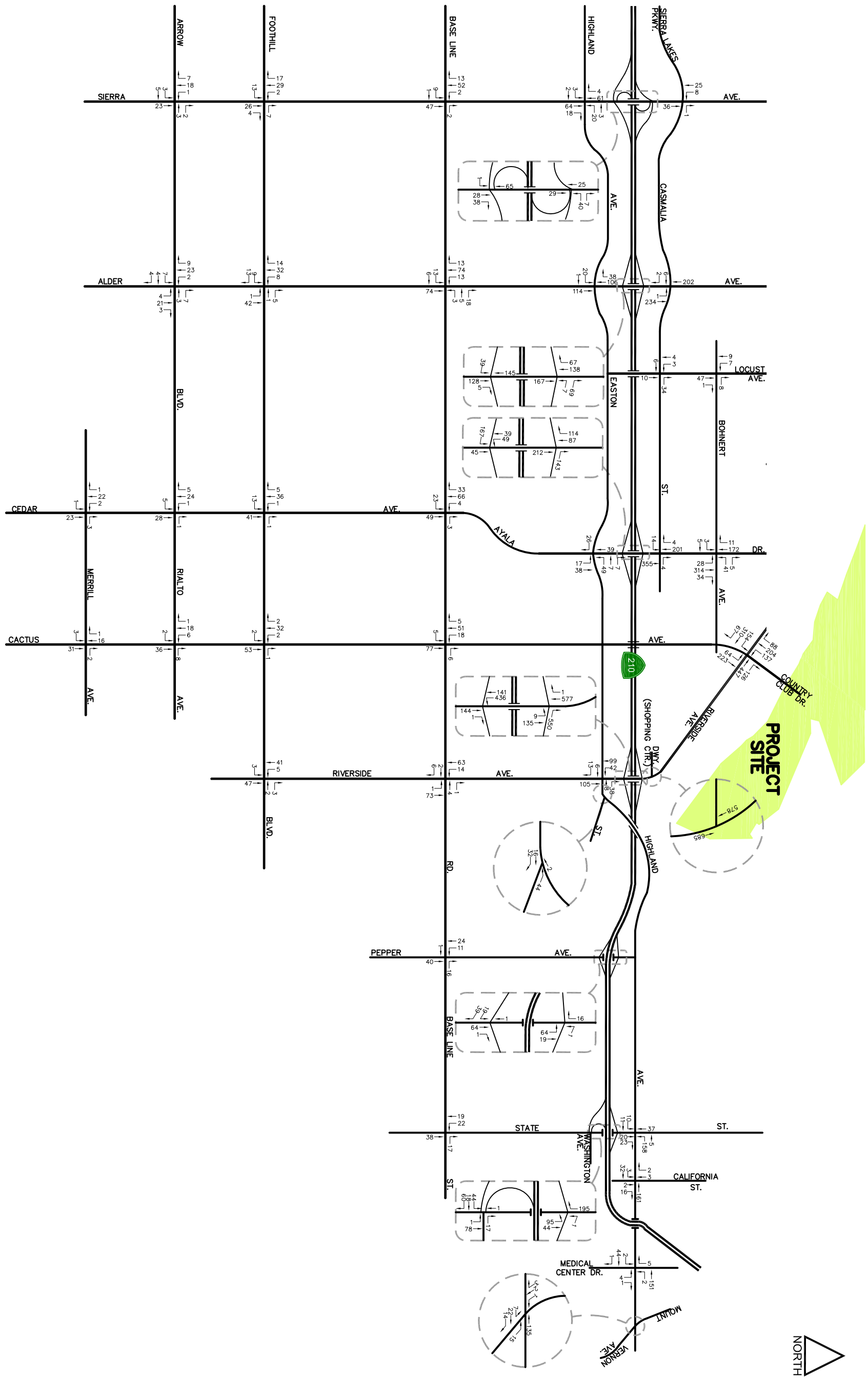

FIGURE 4(b) - CONTINUED

5/3/2007

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TOTAL PROJECT ONLY TRAFFIC VOLUMES
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east of the I-15 interchange. The new roadway will also extend southerly, continue west under the I-15 Freeway and connect to Glen Helen Parkway about 0.5 mile north of Lytle Creek Road.

Neighborhood II is located north of Riverside Avenue. This neighborhood will have a new loop roadway. The new roadway will extend northeasterly beginning at Riverside Avenue across from Linden Avenue, bend southeasterly through the neighborhood and connect to Country Club Drive. The SR-210 Freeway interchanges are located to the south at Ayala Drive and Riverside Avenue.

Neighborhood III is located on the north side of Riverside Avenue and east of the I-15 Freeway. An internal roadway system will extend through this neighborhood. This internal roadway will connect to Riverside Avenue at four access locations across from Redwood Avenue, Live Oak Avenue, Alder Avenue and Locust Avenue. Regional access to this neighborhood will be available at the I-15 Freeway/Sierra Avenue interchange and the interchanges along the SR-210 Freeway along Sierra Avenue and Alder Avenue.

Neighborhood IV will have primary access off of Lytle Creek Road. Regional access to this neighborhood will be provided at the Sierra Avenue interchange with the I-15 Freeway. Access is also available from Glen Helen Parkway.

III.C PUBLIC TRANSPORTATION

Several public transportation options are provided within walking distance of the Lytle Creek Ranch site. Omnitrans, the local public bus service provider, provides one bus route in the project vicinity. In addition, Metrolink, Southern California's regional rail system, operates the San Bernardino Line south of the project area. The public transit routes serving the project area are described below.

Omnitrans

Route 22 connects north and south Rialto. Major destinations along this route include the Rialto Civic Center and the Arrowhead Regional Medical Center. It also provides access to the Rialto Metrolink Station. Near the project site, Route 22 travels on Riverside Avenue, with stops at Live Oak Avenue and Linden Avenue. Service is provided on headways of approximately 20 minutes Monday through Friday. Saturday and Sunday service is less frequent, with 30 minutes and hourly headways, respectively.

Metrolink

San Bernardino Line provides daily rail service between San Bernardino County, San Gabriel Valley and Downtown Los Angeles. The San Bernardino Line provides a stop at Los Angeles Union Station, thereby providing transfer opportunities to a variety of public transit services. Cal State Los Angeles has direct train access to this line and Claremont College has access to this line via a shuttle connection. In the project vicinity, the San Bernardino Line serves the Rialto Station, located at 261 South Palm Avenue south of the project site, and the Fontana Station, located at 16777 Orange Way also south of the project site. When used in conjunction with Omnitrans Route 22, the San Bernardino Line is accessible to and from the project site. The San Bernardino Line operates during weekdays, Saturdays and Sundays. Weekday westbound service operates on headways of approximately 20 minutes during AM peak hours and weekday eastbound service operates on headways of approximately 20 minutes during PM peak hours. Saturday and Sunday service is less frequent.

III.D WITH AND WITHOUT PROJECT CONDITIONS

III.D.1 Future Roadway Network

Several important roadway improvements will be made in this portion of San Bernardino County within the study time-period. The most important of these will be freeway improvements including the extension of the State Route 210 (SR-210) and State Route 30 (SR-30) freeways. At the completion of this project, the SR-210 and SR-30 facilities will be a continuous freeway from the Interstate 10 Freeway in the City of Redlands to the Interstate 210 Freeway in the City of Glendora in Los Angeles County. It should be noted that this infrastructure improvement was under construction when the traffic count data was collected and was recently completed in June 2007. Thus, the traffic analysis for the existing condition which is based on the traffic count data reflects traffic conditions before the completion of the SR-210/SR-30 freeway extension. Other freeway improvements were identified in the CMP that includes an approved traffic improvement program which is to be implemented pursuant to an approved implementation program. The CMP improvements that have been approved and are reasonably assured to be implemented by 2030 were also assumed. These other freeway improvements include the following: the addition of a high-occupancy-vehicle (HOV) lane in the northbound and southbound directions on Interstate 15 between Interstate 215 and Interstate 10; the addition of a mainline lane in the northbound and southbound directions on Interstate 215 between Interstate 15 and State Route 259; provide four mainline and one HOV lane in the northbound and southbound directions on Interstate 215 between State Route 259 and Interstate 10; provide a total of three mainline lanes and one HOV lane in the westbound and eastbound directions on State Route 210 between Interstate 15 and Highland Avenue; and the addition of a mainline lane on State Route 30 between Highland Avenue and Interstate 10 in the westbound and eastbound directions. Thus, it has been included in all future condition scenarios analyzed for the proposed Lytle Creek Ranch development. In addition, the

construction of several new freeway ramps was included in all future scenarios. The new freeway ramps are located at Sierra Avenue, Alder Avenue, Ayala Drive, Riverside Drive, Pepper Avenue and State Street along the I-30 and at Duncan Canyon Road along the I-15. (The freeway interchanges at Sierra Avenue and Alder Avenue was partially completed when the traffic count data was collected and is currently in operation.) Likely future lane configurations at these ramps have been assumed for the Level of Service calculations. The travel demand model (EVTM) takes into account several factors that reflect the expected changes in traffic distributions and route-choice (assignment) due to these and other improvements to the roadway system. For example, with the completion of the SR-30/SR-210 freeway improvements, many drivers (vehicles) will choose to use the newly completed freeway instead of traveling on the existing parallel arterial routes. This shift in route choice may actually result in a reduction in future traffic volumes on the arterial streets that are adjacent (and parallel) to the newly constructed SR-30/SR-210 freeway.

Other local roadway improvements that are reflected in the travel demand model (EVTM) have also been assumed to accompany local land-use development patterns. One example is the Alder Avenue extension between the SR-210 Freeway and Casa Grande Drive. Also, Casa Grande Drive was assumed to extend westward and connect to Sierra Avenue. Further to the south, it was assumed that Easton Street would be continuous between Ayala Drive and Arrowhead Avenue. To the east in the City of San Bernardino, State Street would extend southerly from south of Hanford Street to Foothill Boulevard. Should the local land-use development patterns not occur, these proposed roadway improvements may not be built because there would be no need for them. Thus, all roadway improvements assumed in this study are reflected by the City of San Bernardino and/or SanBAG in the EVTM and are considered reasonably assured for the level of development assumed.

III.D.2 Surface Street Impacts

Figure 5 displays the Year 2030 AM and PM peak-hour traffic volumes for the Without Project condition, respectively. Figure 6 shows the Year 2030 With Project traffic volumes. The future 2030 With Project traffic volumes reflect the level of traffic that would be expected at full buildout. For consistency and compatibility, the same lane configurations were assumed for both the With and Without Project scenarios, except at the project access locations along Riverside Avenue where new project roadways will be constructed as part of the project. The new project roadways will be located on the north side of Riverside Avenue at Redwood Avenue, Live Oak Avenue, Alder Avenue, Locust Avenue, and Linden Avenue. It should be noted that the already programmed roadway improvements discussed above were included in both the With and Without Project scenarios.

Using these assumptions, Table 9 presents the results of the AM and PM peak hour analysis (Highway Capacity Manual 2000 methodology) of future traffic conditions. These include Without and With Project at the study CMP intersections and other project area intersections (as used throughout this report).

Under the California Environmental Quality Act (CEQA), each local jurisdiction must determine which traffic (and other environmental) impacts it considers “significant.” The City of Rialto General Plan states that intersection operations at LOS D or better during the peak hour are generally acceptable. Therefore, any intersection operating at LOS E or F will be considered deficient. A traffic impact is considered significant if the project both 1) contributes measurable traffic to and 2) substantially and adversely changes the level of service to any location projected to experience deficient operations under foreseeable cumulative conditions. For this study, a significant project traffic impact is defined to be those locations (intersections or roadway segments) where the project

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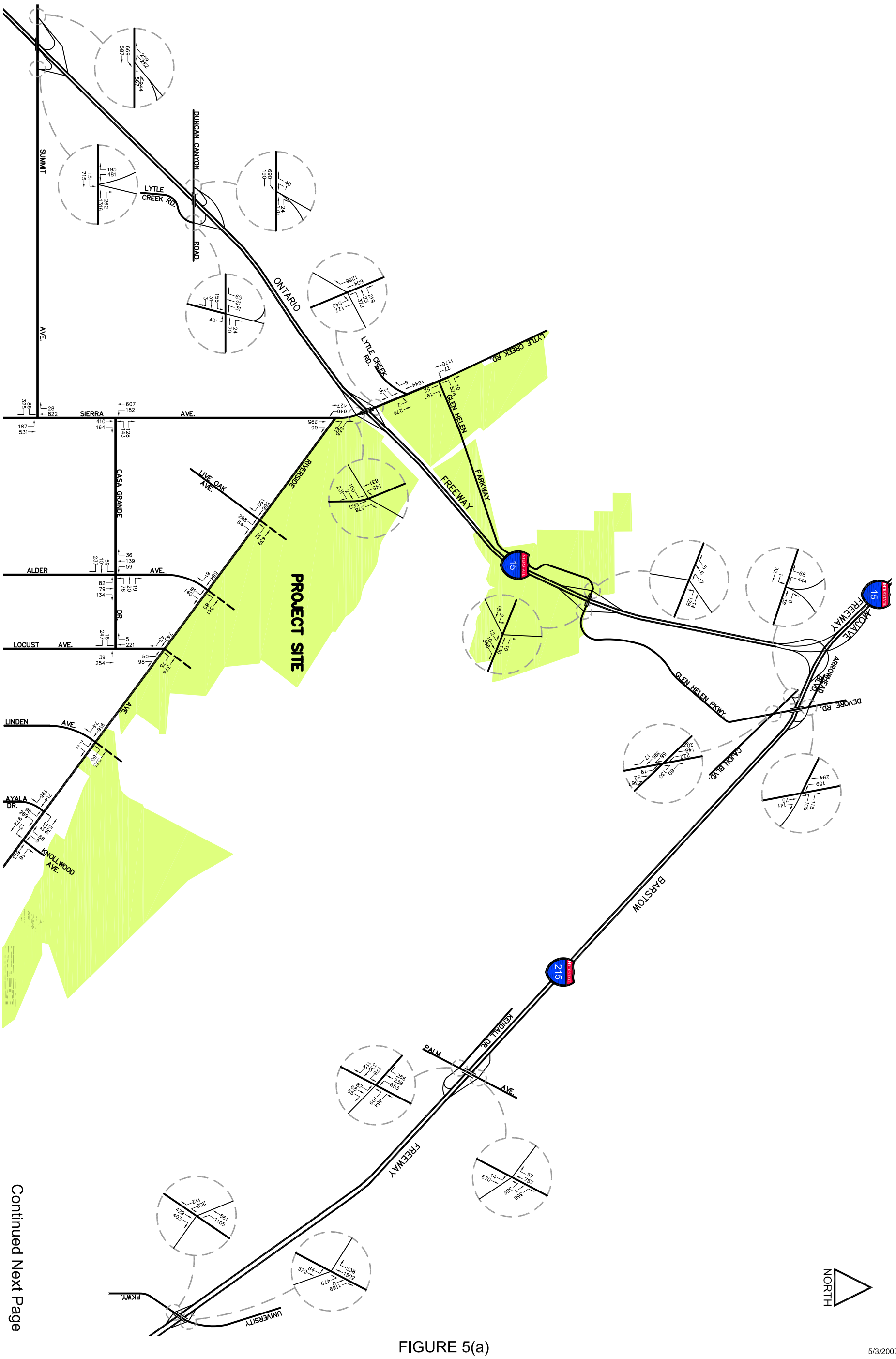

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FIGURE 5(a)

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Lytle Creek Ranch\AM2030WO

FUTURE (2030) TRAFFIC VOLUMES
WITHOUT PROJECT
AM PEAK HOUR

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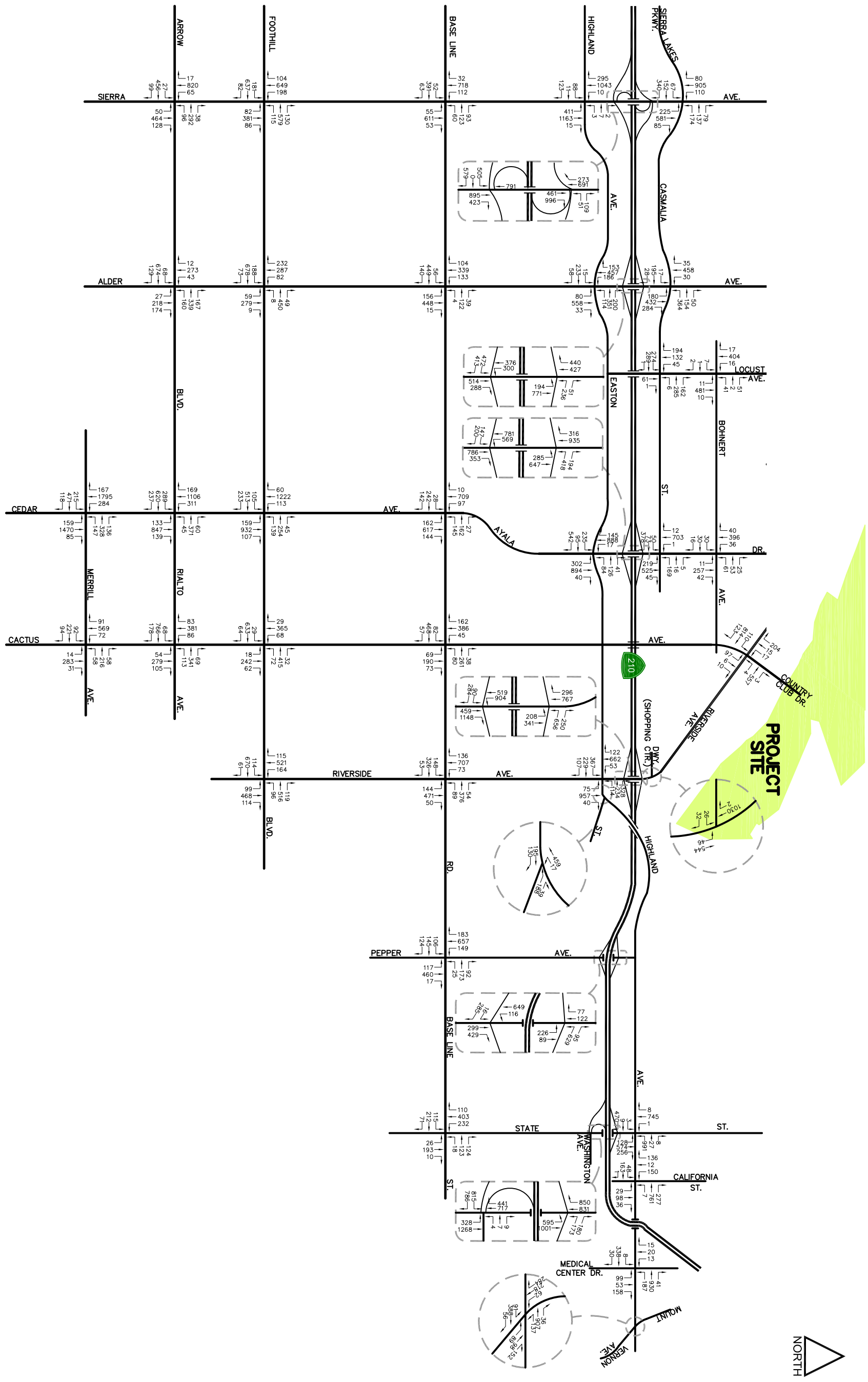

FIGURE 5(a) - CONTINUED

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FUTURE (2030) TRAFFIC VOLUMES
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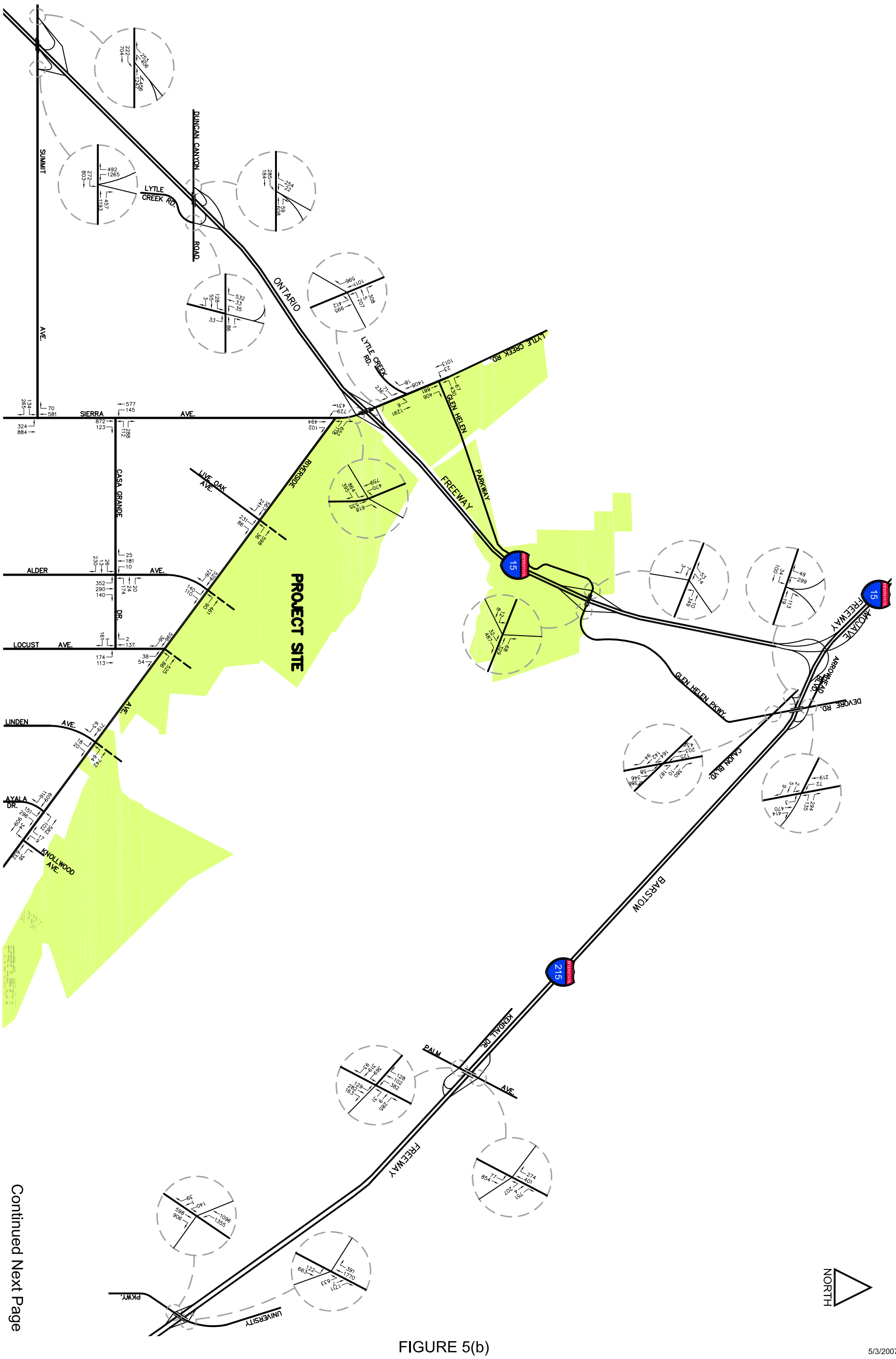

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FIGURE 5(b)

5/3/2007

Lytle Creek Ranch\PM2030WO

FUTURE (2030) TRAFFIC VOLUMES
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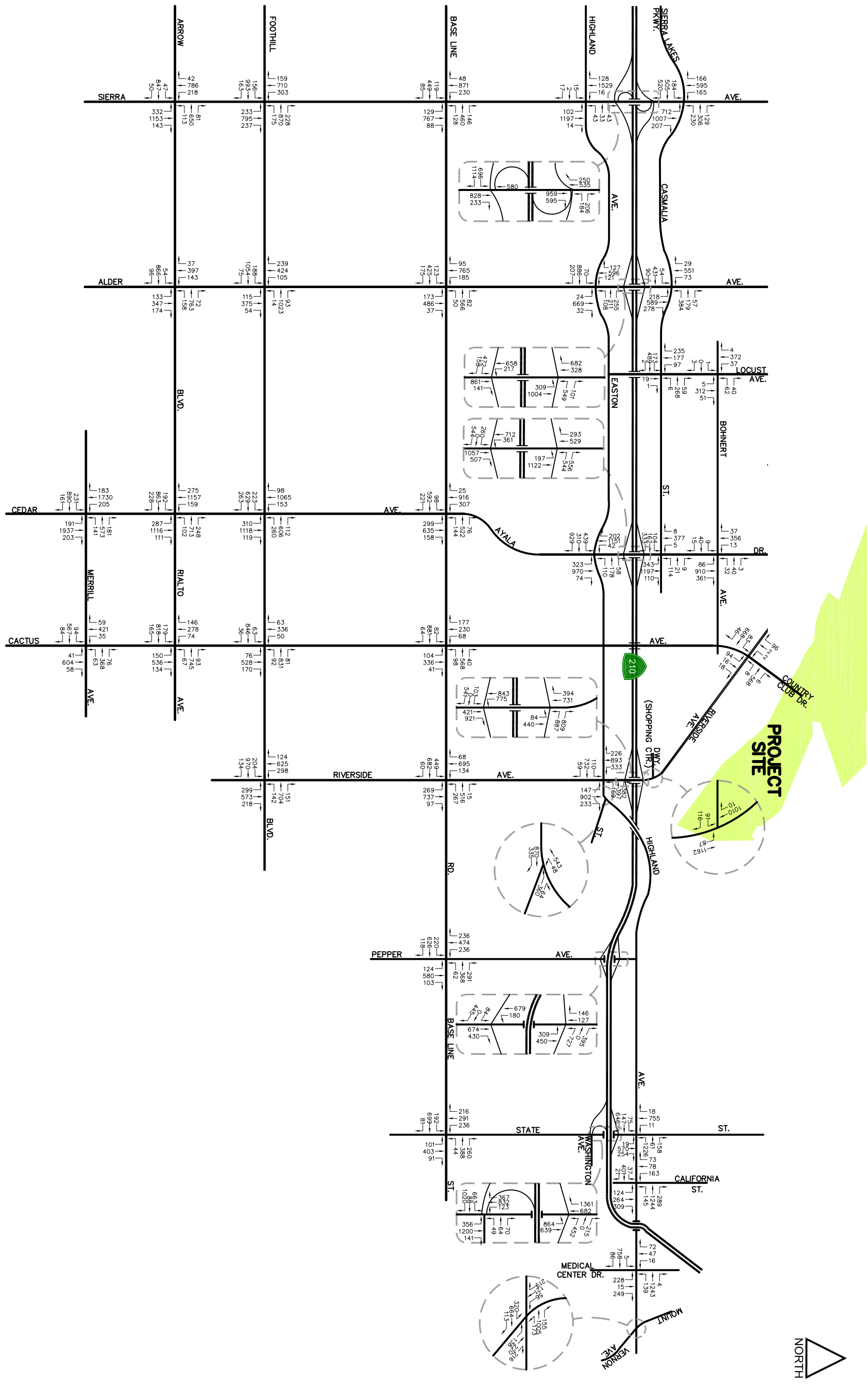

FIGURE 5(b) - CONTINUED

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FUTURE (2030) TRAFFIC VOLUMES
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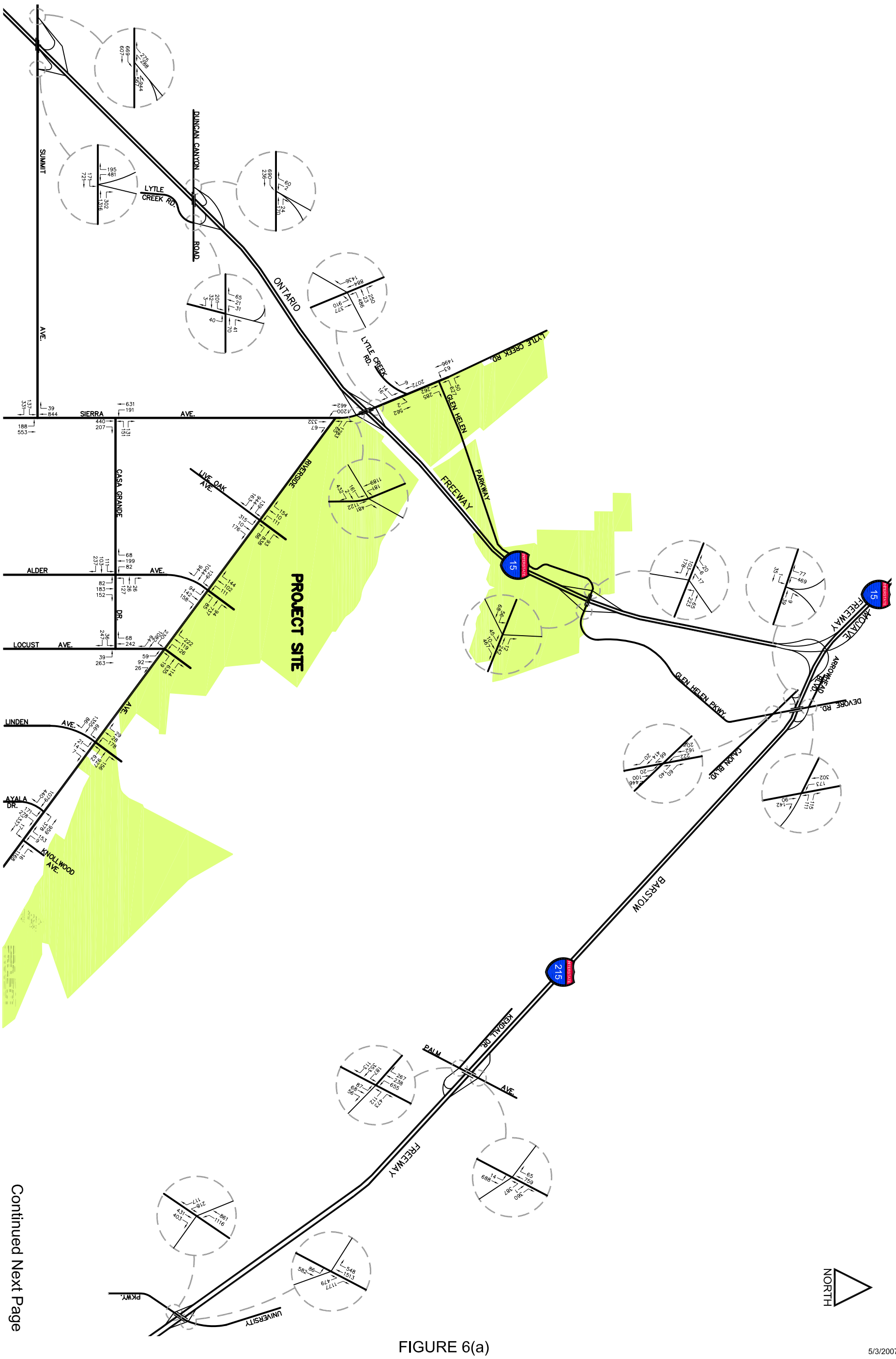

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FIGURE 6(a)

5/3/2007

Lytle Creek Ranch\AM2030WP

FUTURE (2030) TRAFFIC VOLUMES
WITH PROJECT
AM PEAK HOUR

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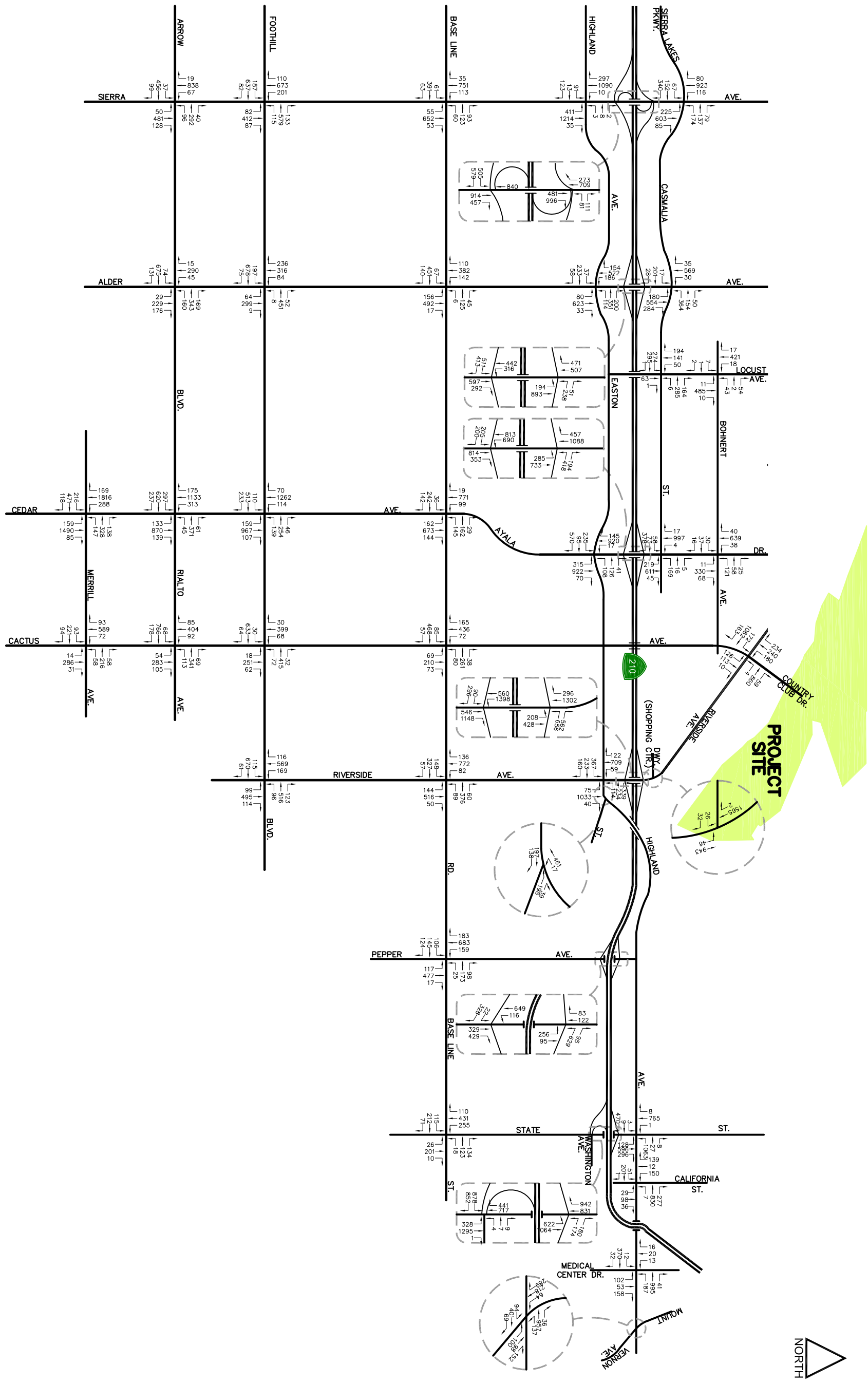

FIGURE 6(a) - CONTINUED

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FUTURE (2030) TRAFFIC VOLUMES
WITH PROJECT
AM PEAK HOUR

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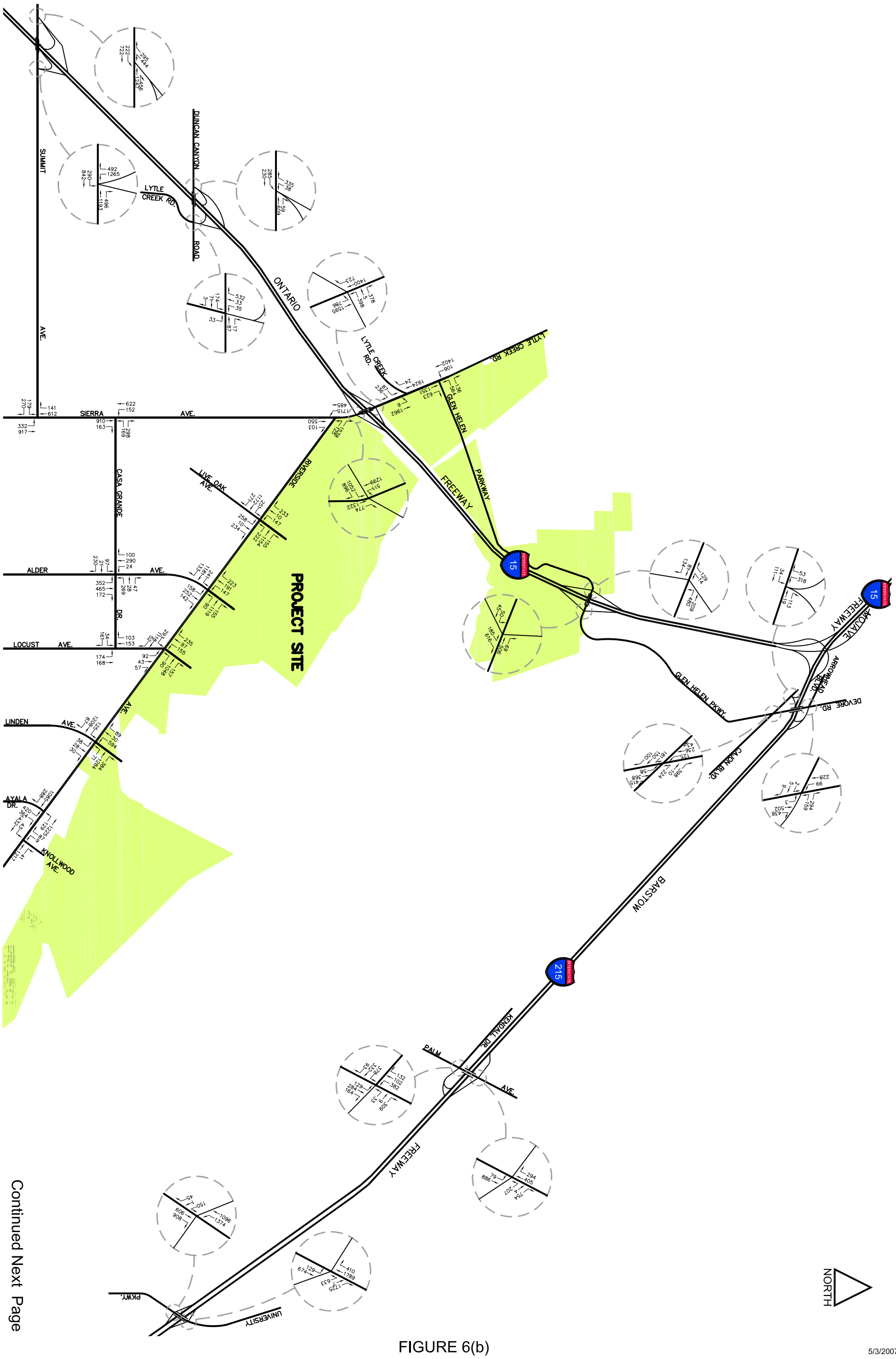

Continued Next Page

FIGURE 6(b)

5/3/2007

Lytle Creek Ranch\PM2030WP

FUTURE (2030) TRAFFIC VOLUMES
WITH PROJECT
PM PEAK HOUR

STICK(WP)

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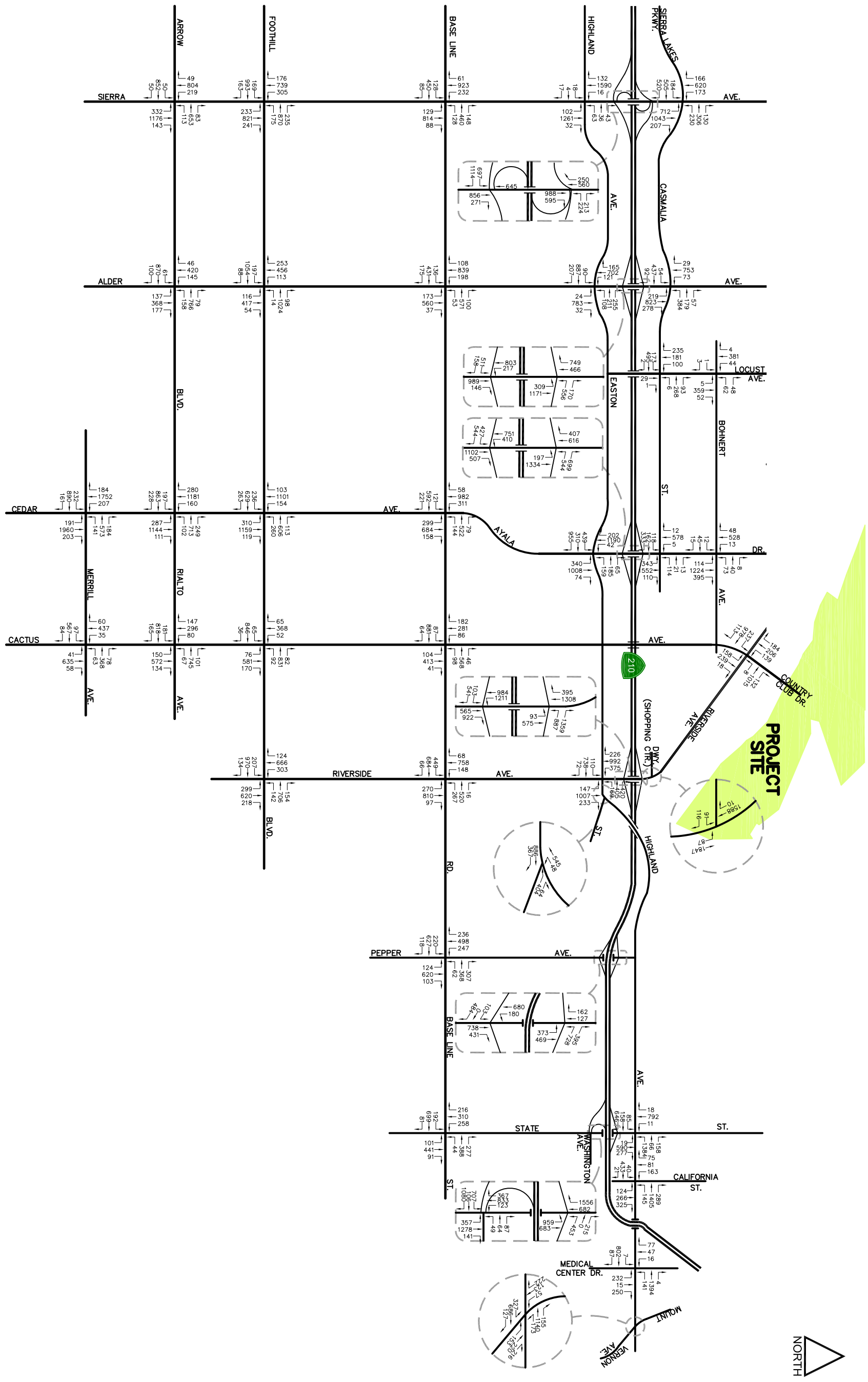

FIGURE 6(b) - CONTINUED

5/3/2007

Lytle Creek Ranch\PM2030WP

STICK(WP)

FUTURE (2030) TRAFFIC VOLUMES
WITH PROJECT
PM PEAK HOUR

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Table 9
Intersection Level of Service Summary
Future (2030) Traffic Volumes

No.	Intersection	Peak Hour	Existing (2007) V/C	Existing (2007) Delay	Existing (2007) LOS	Without Project (2030) V/C	Without Project (2030) Delay	Without Project (2030) LOS	With Project (2030) V/C	With Project (2030) Delay	With Project (2030) LOS	
1	I-215 NB On/Off Ramps/Arrowhead Boulevard &	AM	[1]	10.2	B	[1]	19.1	C	0.000	22.0	C	
	Devore Road	PM	[1]	14.2	B	[1]	302.6	F	0.000	507.3	F	*
2	Cajon Boulevard &	AM	[1]	9.6	A	[1]	13.7	B	0.000	14.6	B	
	I-215 SB On/Off Ramps	PM	[1]	9.4	A	[1]	13.0	B	0.000	13.7	B	
3	Cajon Boulevard &	AM	0.177	8.9	A	0.766	20.4	C	0.957	29.9	D	
	Glen Helen Parkway	PM	0.497	12.0	B	1.076	51.7	F	1.181	71.4	F	*
4	I-215 NB On/Off Ramps &	AM	[1]	20.6	C	[1]	289.3	F	0.000	305.5	F	*
	Palm Avenue	PM	[1]	30.8	D	[1]	235.9	F	0.000	260.2	F	*
5	I-215 SB On/Off Ramps &	AM	1.091	46.7	E	1.884	181.4	F	1.892	191.1	F	*
	Palm Avenue	PM	0.865	26.3	D	1.899	167.6	F	1.985	182.2	F	*
6	I-215 NB On/Off Ramps &	AM	0.576	15.9	B	0.766	18.6	B	0.776	18.8	B	
	University Parkway	PM	0.694	17.0	B	0.971	34.1	C	0.984	36.1	D	
7	I-215 SB On/Off Ramps &	AM	0.810	20.3	C	1.070	58.5	E	1.083	61.8	E	*
	University Parkway	PM	1.162	72.3	E	1.453	150.6	F	1.472	156.7	F	*
8	I-15 SB On/Off Ramps &	AM	[1]	9.9	A	[1]	10.8	B	0.000	12.7	B	
	Glen Helen Parkway	PM	[1]	10.6	B	[1]	10.5	B	0.000	12.6	B	
9	I-15 NB On/Off Ramps &	AM	[1]	8.7	A	[1]	10.3	B	0.000	11.6	B	
	Glen Helen Parkway	PM	[1]	37.1	E	[1]	11.2	B	0.000	13.6	B	
10	Lytle Creek Road &	AM	N/A	N/A	N/A	N/A	OVRFL	F	0.000	OVRFL	F	*
	Glen Helen Parkway [2]	PM	N/A	N/A	N/A	N/A	OVRFL	F	0.000	OVRFL	F	*
11	Lytle Creek Road &	AM	[1]	9.0	A	[1]	48.3	E	0.000	336.6	F	*
	Sierra Avenue	PM	[1]	11.9	B	[1]	OVRFL	F	0.000	OVRFL	F	*
12	I-15 SB On/Off Ramps &	AM	0.991	43.8	E	3.832	806.2	F	4.801	OVRFL	F	*
	Sierra Avenue	PM	0.664	15.5	C	3.270	506.5	F	4.502	826.8	F	*
13	I-15 NB On/Off Ramps &	AM	0.984	30.3	D	1.697	146.9	F	2.827	460.8	F	*
	Sierra Avenue	PM	0.907	25.6	D	1.962	307.6	F	3.357	770.7	F	*
14	I-15 SB On/Off Ramps &	AM	N/A	N/A	N/A	0.578	10.4	B	0.590	10.4	B	
	Duncan Canyon Road [3]	PM	N/A	N/A	N/A	0.716	18.4	B	0.766	20.6	C	
15	I-15 NB On/Off Ramps/Lytle Creek Road &	AM	[1]	8.8	A	0.184	15.4	B	0.214	15.0	B	
	Duncan Canyon Road [3]	PM	[1]	8.8	A	0.464	11.5	B	0.494	13.0	B	

Table 9 (Cont.)
Intersection Level of Service Summary
Future (2030) Traffic Volumes

No.	Intersection	Peak Hour	Existing (2007) V/C	Existing (2007) Delay	Existing (2007) LOS	Without Project (2030) V/C	Without Project (2030) Delay	Without Project (2030) LOS	With Project (2030) V/C	With Project (2030) Delay	With Project (2030) LOS	
16	I-15 SB On/Off Ramps &	AM	1.288	114.6	F	1.156	78.9	E	1.160	80.4	F	*
	Summit Avenue	PM	0.864	21.2	C	0.792	18.7	B	0.817	19.7	B	
17	I-15 NB On/Off Ramps &	AM	0.791	19.1	B	0.816	19.2	B	0.829	19.8	B	
	Summit Avenue	PM	1.240	99.4	F	1.312	124.6	F	1.319	129.9	F	*
18	Riverside Avenue &	AM	1.025	40.7	E	1.457	136.2	F	2.739	570.2	F	*
	Sierra Avenue	PM	0.781	22.8	C	1.728	186.2	F	4.067	906.9	F	*
19	Riverside Avenue &	AM	0.336	16.1	B	0.435	14.6	B	0.729	21.4	C	
	Live Oak Avenue	PM	0.253	14.7	B	0.422	13.0	B	0.929	35.3	D	
20	Riverside Avenue &	AM	[1]	12.6	B	[1]	20.5	C	0.590	14.3	B	
	Alder Avenue	PM	[1]	12.6	B	[1]	37.0	E	0.804	19.8	B	
21	Riverside Avenue &	AM	[1]	16.4	C	[1]	19.5	C	0.575	15.3	B	
	Locust Avenue	PM	[1]	12.8	B	[1]	18.1	C	0.766	17.7	B	
22	Riverside Avenue &	AM	[1]	35.3	E	[1]	40.4	E	1.193	100.5	F	*
	Linden Avenue	PM	[1]	15.3	C	[1]	32.1	D	1.663	270.7	F	*
23	Riverside Avenue &	AM	0.577	16.5	B	0.585	16.0	B	0.824	17.9	B	
	Ayala Drive	PM	0.447	16.2	B	0.388	13.5	B	0.779	17.6	B	
24	Riverside Avenue &	AM	0.307	7.3	A	0.305	7.2	A	0.417	8.4	A	
	Knollwood Avenue	PM	0.250	5.6	A	0.270	5.3	A	0.440	6.5	A	
25	Riverside Avenue &	AM	0.443	11.8	B	0.426	12.3	B	0.678	17.2	B	
	Country Club Drive	PM	0.408	12.2	B	0.296	10.8	B	0.757	18.8	B	
26	Riverside Avenue &	AM	0.308	6.8	A	0.355	6.9	A	0.502	5.6	A	
	Driveway (for Shopping Center)	PM	0.436	9.6	A	0.417	8.5	A	0.622	8.5	A	
27	Casa Grande Drive &	AM	N/A	N/A	N/A	0.450	11.2	B	0.469	11.3	B	
	Sierra Avenue	PM	N/A	N/A	N/A	0.779	16.2	B	0.812	17.4	B	
28	Casa Grande Drive &	AM	0.175	17.4	B	0.314	18.9	B	0.410	19.6	B	
	Alder Avenue	PM	0.227	16.6	B	0.568	20.8	C	0.642	23.0	C	
29	Casa Grande Drive &	AM	[1]	12.5	B	[1]	11.6	B	0.000	12.5	B	
	Locust Avenue	PM	[1]	10.7	B	[1]	9.9	A	0.000	11.6	B	
30	Summit Avenue &	AM	0.279	12.6	B	0.527	15.4	B	0.544	15.5	B	
	Sierra Avenue	PM	0.714	16.3	B	0.707	17.3	B	0.731	18.2	B	

Table 9 (Cont.)
Intersection Level of Service Summary
Future (2030) Traffic Volumes

No.	Intersection	Peak Hour	Existing (2007) V/C	Existing (2007) Delay	Existing (2007) LOS	Without Project (2030) V/C	Without Project (2030) Delay	Without Project (2030) LOS	With Project (2030) V/C	With Project (2030) Delay	With Project (2030) LOS	
31	Bohnert Avenue &	AM	[1]	75.2	F	[1]	21.6	C	0.000	22.5	C	
	Locust Avenue	PM	[1]	24.6	C	[1]	19.0	C	0.000	21.1	C	
32	Bohnert Avenue &	AM	0.315	14.2	B	0.214	12.5	B	0.330	12.6	B	
	Ayala Drive	PM	0.624	15.5	B	0.445	7.9	A	0.579	8.8	A	
33	Sierra Lakes Parkway/Casmalia Street &	AM	0.474	18.1	B	0.553	19.5	B	0.557	19.5	B	
	Sierra Avenue	PM	0.701	19.8	B	0.796	23.5	C	0.801	23.6	C	
34	Casmalia Street &	AM	0.836	33.3	C	0.637	22.9	C	0.680	23.6	C	
	Alder Avenue	PM	1.187	124.2	F	0.899	41.8	D	0.955	52.7	D	
35	Casmalia Street &	AM	0.814	35.5	D	0.595	20.8	C	0.596	20.9	C	
	Locust Avenue	PM	0.711	28.0	C	0.468	18.2	B	0.472	18.3	B	
36	Casmalia Street &	AM	0.437	14.9	B	0.595	17.1	B	0.687	17.4	B	
	Ayala Drive	PM	0.624	18.3	B	0.611	15.3	B	0.609	17.5	B	
37	SR-210 Freeway WB On/Off Ramps &	AM	0.147	1.1	A	0.229	4.2	A	0.246	4.6	A	
	Sierra Avenue	PM	0.208	1.4	A	0.267	6.9	A	0.287	7.4	A	
38	SR-210 Freeway EB On/Off Ramps &	AM	0.747	23.5	C	0.492	10.9	B	0.497	10.9	B	
	Sierra Avenue	PM	0.903	40.0	D	0.658	12.1	B	0.667	12.3	B	
39	SR-210 Freeway WB On/Off Ramps &	AM	1.029	42.7	D	0.542	11.9	B	0.582	11.5	B	
	Alder Avenue	PM	0.807	10.8	B	0.977	30.3	C	1.014	34.0	C	
40	SR-210 Freeway EB On/Off Ramps &	AM	0.628	12.6	B	0.748	19.5	B	0.811	21.3	C	
	Alder Avenue	PM	0.796	13.6	B	0.756	17.6	B	0.822	19.3	B	
41	SR-210 Freeway WB On/Off Ramps &	AM	N/A	N/A	N/A	0.842	20.3	C	0.932	25.8	C	
	Ayala Drive	PM	N/A	N/A	N/A	0.734	17.9	B	0.873	22.8	C	
42	SR-210 Freeway EB On/Off Ramps &	AM	N/A	N/A	N/A	0.735	16.5	B	0.832	20.4	C	
	Ayala Drive	PM	N/A	N/A	N/A	0.895	25.6	C	0.940	30.0	C	
43	SR-210 Freeway WB On/Off Ramps &	AM	N/A	N/A	N/A	0.708	16.9	B	0.902	22.8	C	
	Riverside Avenue	PM	N/A	N/A	N/A	0.776	17.3	B	1.057	56.4	E	*
44	SR-210 Freeway EB On/Off Ramps &	AM	N/A	N/A	N/A	1.398	157.2	F	1.703	258.3	F	*
	Riverside Avenue	PM	N/A	N/A	N/A	1.344	128.6	F	1.606	201.7	F	*
45	SR-210 Freeway WB On/Off Ramps &	AM	N/A	N/A	N/A	0.617	15.1	B	0.638	15.8	B	
	Pepper Avenue	PM	N/A	N/A	N/A	0.751	17.8	B	0.794	20.2	C	

Table 9 (Cont.)
Intersection Level of Service Summary
Future (2030) Traffic Volumes

No.	Intersection	Peak Hour	Existing (2007) V/C	Existing (2007) Delay	Existing (2007) LOS	Without Project (2030) V/C	Without Project (2030) Delay	Without Project (2030) LOS	With Project (2030) V/C	With Project (2030) Delay	With Project (2030) LOS	
46	SR-210 Freeway EB On/Off Ramps &	AM	N/A	N/A	N/A	0.515	11.3	B	0.541	12.1	B	
	Pepper Avenue	PM	N/A	N/A	N/A	0.656	15.3	B	0.680	16.1	B	
47	SR-210 Freeway WB On/Off Ramps &	AM	N/A	N/A	N/A	0.969	26.8	C	1.031	35.6	D	
	State Street	PM	N/A	N/A	N/A	1.497	174.5	F	1.667	229.0	F	*
48	SR-210 Freeway EB On/Off Ramps &	AM	N/A	N/A	N/A	0.745	33.6	C	0.861	36.6	D	
	State Street	PM	N/A	N/A	N/A	1.116	71.7	E	1.184	88.7	F	*
49	Highland Avenue &	AM	0.683	18.2	B	1.163	115.9	F	1.208	133.9	F	*
	State Street	PM	0.764	19.6	B	1.374	195.1	F	1.484	234.1	F	*
50	Highland Avenue &	AM	0.325	10.2	B	0.490	9.3	A	0.512	9.1	A	
	California Street	PM	0.439	10.7	B	0.873	17.5	B	0.931	21.3	C	
51	Highland Avenue &	AM	0.299	8.8	A	0.382	6.4	A	0.401	6.2	A	
	Medical Center Drive	PM	0.405	11.0	B	0.518	7.9	A	0.560	7.8	A	
52	Highland Avenue &	AM	0.552	17.4	B	0.524	14.7	B	0.545	14.7	B	
	Mount Vernon Avenue	PM	0.596	17.5	B	0.700	17.7	B	0.748	18.3	B	
53	Highland Avenue &	AM	0.467	9.5	A	0.409	12.7	B	0.422	12.8	B	
	Sierra Avenue	PM	0.398	8.4	A	0.523	10.1	B	0.543	10.4	B	
54	Highland Avenue/Easton Street &	AM	0.787	30.2	C	0.668	21.8	C	0.725	22.8	C	
	Alder Avenue	PM	0.885	38.0	D	0.904	34.2	C	0.961	42.6	D	
55	Easton Street &	AM	0.753	19.5	B	0.858	31.7	C	0.916	34.6	C	
	Ayala Drive	PM	1.120	65.5	E	1.176	83.9	F	1.256	100.2	F	*
56	Easton Street &	AM	0.956	46.9	D	0.812	27.4	C	0.837	29.2	C	
	Riverside Avenue	PM	1.202	101.5	F	0.895	31.3	C	0.962	38.6	D	
57	Easton Street &	AM	0.431	3.5	A	0.254	9.0	A	0.261	9.2	A	
	Highland Avenue	PM	0.620	4.5	A	0.583	9.5	A	0.625	10.3	B	
58	Baseline Road &	AM	0.381	17.8	B	0.452	17.5	B	0.463	17.4	B	
	Sierra Avenue	PM	0.695	22.0	C	0.775	23.9	C	0.797	24.5	C	
59	Baseline Road &	AM	0.684	23.6	C	0.765	29.5	C	0.786	32.3	C	
	Alder Avenue	PM	0.919	46.8	D	1.044	66.2	E	1.106	80.5	F	*
60	Baseline Road &	AM	0.459	19.0	B	0.498	18.7	B	0.517	18.5	B	
	Cedar Avenue/Ayala Drive	PM	0.671	21.2	C	0.860	27.0	C	0.891	28.8	C	

Table 9 (Cont.)
Intersection Level of Service Summary
Future (2030) Traffic Volumes

No.	Intersection	Peak Hour	Existing (2007) V/C	Existing (2007) Delay	Existing (2007) LOS	Without Project (2030) V/C	Without Project (2030) Delay	Without Project (2030) LOS	With Project (2030) V/C	With Project (2030) Delay	With Project (2030) LOS	
61	Baseline Road &	AM	0.579	19.6	B	0.515	18.8	B	0.547	18.9	B	
	Cactus Avenue	PM	0.693	18.8	B	0.629	19.7	B	0.690	20.9	C	
62	Baseline Road &	AM	0.647	21.4	C	0.557	19.5	B	0.580	19.4	B	
	Riverside Avenue	PM	0.792	25.8	C	0.843	27.6	C	0.866	28.9	C	
63	Baseline Road &	AM	0.288	8.2	A	0.464	8.4	A	0.479	8.3	A	
	Pepper Avenue	PM	0.441	6.6	A	0.467	10.6	B	0.482	10.7	B	
64	Baseline Road &	AM	N/A	N/A	N/A	0.323	9.7	A	0.340	9.6	A	
	State Street	PM	N/A	N/A	N/A	0.471	10.6	B	0.493	10.8	B	
65	Foothill Boulevard &	AM	0.532	19.1	B	0.544	19.9	B	0.552	20.1	C	
	Sierra Avenue	PM	0.910	29.4	C	0.970	36.2	D	0.969	37.9	D	
66	Foothill Boulevard &	AM	0.449	13.4	B	0.412	14.8	B	0.425	15.0	B	
	Alder Avenue	PM	0.639	15.1	B	0.768	18.2	B	0.803	19.2	B	
67	Foothill Boulevard &	AM	0.598	20.0	B	0.775	21.3	C	0.791	21.6	C	
	Cedar Avenue	PM	0.807	25.0	C	0.957	37.1	D	0.959	39.2	D	
68	Foothill Boulevard &	AM	0.473	14.3	B	0.429	14.5	B	0.434	14.6	B	
	Cactus Avenue	PM	0.749	17.8	B	0.750	19.6	B	0.782	20.7	C	
69	Foothill Boulevard &	AM	0.610	20.0	C	0.549	19.4	B	0.565	19.5	B	
	Riverside Avenue	PM	0.905	32.2	C	0.847	27.5	C	0.860	28.3	C	
70	Arrow Boulevard &	AM	0.430	17.7	B	0.543	18.5	B	0.550	18.5	B	
	Sierra Avenue	PM	0.776	26.0	C	0.904	33.6	C	0.914	34.5	C	
71	Arrow Boulevard &	AM	0.305	18.5	B	0.693	21.2	C	0.699	21.6	C	
	Alder Avenue	PM	0.647	19.8	B	0.912	32.0	C	0.924	33.3	C	
72	Rialto Avenue &	AM	0.449	16.2	B	0.811	30.7	C	0.828	31.4	C	
	Cedar Avenue	PM	0.598	19.7	B	1.030	59.1	E	1.042	61.3	E	*
73	Rialto Avenue &	AM	0.206	8.9	A	0.418	9.7	A	0.425	9.8	A	
	Cactus Avenue	PM	0.317	9.7	A	0.491	10.2	B	0.501	10.4	B	
74	Merrill Avenue &	AM	0.714	17.6	B	0.888	21.8	C	0.896	22.1	C	
	Cedar Avenue	PM	0.986	32.2	C	1.080	55.1	E	1.088	57.1	E	*
75	Merrill Avenue &	AM	0.254	14.0	B	0.309	13.7	B	0.316	13.7	B	
	Cactus Avenue	PM	0.358	13.1	B	0.427	14.3	B	0.436	14.3	B	

* Denotes a significant project traffic impact, prior to mitigation.
N/A Intersection does not currently exist, but is scheduled to be constructed by the study year 2030.
[1] Volume to capacity ratio is not provided for two-way, STOP sign-controlled intersections.
[2] Glen Helen Parkway is currently closed at Lytle Creek Road.
[3] I-15 on/off-ramps at Duncan Canyon Road do not currently exist, but are scheduled to be constructed by the study year of 2030.

would contribute 50 or more peak hour vehicle trips along the roadway and where cumulative traffic would cause conditions to degrade below the General Plan goal of LOS D.

The completed but not mitigated project based on the analysis of the Year 2030 conditions contained in Table 9, would have a significant traffic impact at 14 CMP intersections and 8 other study area intersections. It should be noted that the significant traffic impacts at these 22 locations would occur with or without the project.

CEQA also requires that local jurisdictions consider potential measures to mitigate these significant traffic impacts. Feasible roadway improvements and traffic reduction measures designed to mitigate significant traffic impacts of the project at these intersections have been identified and are described in the Project Mitigation section.

III.D.2a Project Percent of Total Traffic

The Total Net New Volumes (Future With Project Volumes minus Existing Volumes) was summed at these 22 significantly impacted study intersections for the year 2030 Full Project Buildout scenario. The project contribution to volumes at intersections was also calculated by determining the total number of vehicles passing through each intersection. Table 10 quantifies the project's contribution to new traffic volumes for the 23-year study period (years 2007 to 2030). Specifically, the ratio of "Project Contribution Volumes" to "Total Net New Volumes" is used to determine the project contribution to total new volumes for each study intersection where applicable.

Table 10 lists Project Contribution Volumes, Total Net New Volumes and the Project Contribution Percentage for Project Study Intersections and CMP Study Intersections that require mitigation measures. It should be noted that in some cases, non-project traffic volumes will decrease at a location. This may occur due to improvements due to alternative routes, such as the SR-210/SR-30 Freeway. It may also occur due to the

secondary impacts of the project. Whenever non-project volumes were predicted to decrease, the project contribution was reported as 100 percent.

III.D.3 Impacts on Regional Transportation System

In order to analyze the impact of the project on the regional transportation system (i.e., the freeway network), the output from the transportation model (EVTM) were used and analyzed. The model forecasted total volumes on all links (roadway segments), including the I-15, I-215, SR-210 and SR-30 for the study years of 2007 and 2030. A total of 29 freeway segments near the project site were selected based on the probable routes that would be followed by Project traffic. These segments include those most likely to be significantly impacted by the project. As shown in Table 11, the Lytle Creek Ranch project would have a significant traffic impact at eight study freeway segments. In addition, without substantial basic capacity improvements, the congested conditions on SR-210 and I-215 will worsen without and with the Project.

Table 10
Project Contributions to Total New Volumes
Study Period 2007 – 2030

		AM Peak Hour		PM Peak Hour			
No.	Intersection	Lytle Creek Ranch Project	Total Net New Volumes	Lytle Creek Ranch Project	Total Net New Volumes	Critical Peak Period	Critical Percent Contribution
1	I-215 NB ON/OFF RAMPS/ARROWHEAD BLVD & DEVORE RD	44	510	116	938	PM	12.4%
3	CAJON BLVD & GLEN HELEN PKWY	141	1093	170	1287	PM	13.2%
4	I-215 NB ON/OFF RAMPS & PALM AVE	31	286	61	568	AM	10.8%
5	I-215 SB ON/OFF RAMPS & PALM AVE	47	974	55	760	PM	7.2%
7	I-215 SB ON/OFF RAMPS & UNIVERSITY PKWY	27	752	45	1026	PM	4.4%
10	LYTLE CREEK RD & GLEN HELEN PKWY	803	2783	1362	4182	PM	32.6%
11	LYTLE CREEK RD & SIERRA AVE	726	2443	1209	3634	PM	33.3%
12	I-15 SB ON/OFF RAMPS & SIERRA AVE	1195	2977	1751	4260	PM	41.1%
13	I-15 NB ON/OFF RAMPS & SIERRA AVE	1351	2054	2213	4218	AM	65.8%
16	I-15 SB ON/OFF RAMPS & SUMMIT AVE	42	42	98	98	AM	100.0%
17	I-15 NB ON/OFF RAMPS & SUMMIT AVE	66	302	96	321	PM	29.9%
18	RIVERSIDE AVE & SIERRA AVE	1259	1857	1990	3000	AM	67.8%
22	RIVERSIDE AVE & LINDEN AVE	1297	1563	2342	2789	PM	84.0%
43	SR-210 FWY WB ON/OFF RAMPS & RIVERSIDE AVE	934	3452	1272	4617	PM	27.5%
44	SR-210 FWY EB ON/OFF RAMPS & RIVERSIDE AVE	634	4038	722	4326	PM	16.7%
47	SR-210 FWY WB ON/OFF RAMPS & STATE ST	183	3813	335	4548	PM	7.4%
48	SR-210 FWY EB ON/OFF RAMPS & STATE ST	157	4531	219	5192	PM	4.2%
49	HIGHLAND AVE & STATE ST	154	782	264	1493	AM	19.7%
55	EASTON ST & AYALA DR	155	1301	183	642	PM	28.5%
59	BASELINE RD AND ALDER AVE	128	348	219	775	PM	28.2%
72	RIALTO AVE & CEDAR AVE	67	2304	64	2724	PM	2.3%
74	MERRILL AVE & CEDAR AVE	50	1316	52	1493	PM	3.5%

Table 11
Future (2030) Freeway Levels of Service Summary

						Without Project Condition				With Project Condition			
No.	Location	Peak Hour	Direction	No. of Lanes	Total Capacity	Daily Volume	Peak Hour Volume	V/C	LOS	Daily Volume	Peak Hour Volume	V/C	LOS
1	Ontario Fwy (I-15) between	AM	NB	3+1HOV	8500	142,900	3,900	0.46	A	146,500	4,030	0.47	A
	Barstow Fwy (I-215) and		SB	3+1HOV	8500		5,700	0.67	B		5,770	0.68	B
	Glen Helen Parkway	PM	NB	3+1HOV	8500		6,000	0.71	C		6,130	0.72	C
			SB	3+1HOV	8500		4,500	0.53	A		4,680	0.55	A
2	Ontario Fwy (I-15) between	AM	NB	3+1HOV	8500	150,500	4,200	0.49	A	159,500	4,380	0.52	A
	Glen Helen Parkway and		SB	3+1HOV	8500		5,900	0.69	B		6,230	0.73	C
	Sierra Ave	PM	NB	3+1HOV	8500		6,300	0.74	C		6,670	0.78	C
			SB	3+1HOV	8500		4,600	0.54	A		4,970	0.58	A
3	Ontario Fwy (I-15) between	AM	NB	4+1HOV	10800	162,200	4,200	0.39	A	179,700	4,540	0.42	A
	Sierra Ave and		SB	4+1HOV	10800		7,100	0.66	B		7,800	0.72	C
	Duncan Canyon Road	PM	NB	4+1HOV	10800		6,900	0.64	B		7,760	0.72	C
			SB	4+1HOV	10800		5,100	0.47	A		5,710	0.53	A
4	Ontario Fwy (I-15) between	AM	NB	4+1HOV	10800	169,600	4,100	0.38	A	185,200	4,370	0.40	A
	Duncan Canyon Road and		SB	4+1HOV	10800		7,800	0.72	C		8,480	0.79	C
	Summit Ave	PM	NB	4+1HOV	10800		7,400	0.69	B		8,200	0.76	C
			SB	4+1HOV	10800		5,200	0.48	A		5,710	0.53	A
5	Ontario Fwy (I-15) between	AM	NB	4+1HOV	10800	175,300	4,200	0.39	A	189,400	4,410	0.41	A
	Summit Ave and		SB	4+1HOV	10800		7,900	0.73	C		8,560	0.79	C
	State Route 210 Fwy	PM	NB	4+1HOV	10800		8,000	0.74	C		8,740	0.81	D
			SB	4+1HOV	10800		5,200	0.48	A		5,630	0.52	A

Table 11 (Cont.)
Future (2030) Freeway Levels of Service Summary

						Without Project Condition				With Project Condition			
No.	Location	Peak Hour	Direction	No. of Lanes	Total Capacity	Daily Volume	Peak Hour Volume	V/C	LOS	Daily Volume	Peak Hour Volume	V/C	LOS
6	Barstow Fwy (I-215) between	AM	NB	3	6900	64,100	1,600	0.23	A	65,300	1,650	0.24	A
	Ontario Fwy (I-15) and		SB	3	6900		3,600	0.52	A		3,600	0.52	A
	Devore Road	PM	NB	3	6900		4,300	0.62	B		4,470	0.65	B
			SB	3	6900		2,200	0.32	A		2,200	0.32	A
7	Barstow Fwy (I-215) between	AM	NB	3	6900	69,300	1,900	0.28	A	71,100	1,940	0.28	A
	Devore Road and		SB	3	6900		4,000	0.58	A		4,080	0.59	A
	Palm Ave	PM	NB	3	6900		4,800	0.70	B		4,940	0.72	C
			SB	3	6900		2,100	0.30	A		2,170	0.31	A
8	Barstow Fwy (I-215) between	AM	NB	3	6900	81,100	2,600	0.38	A	82,800	2,640	0.38	A
	Palm Ave and		SB	3	6900		4,300	0.62	B		4,390	0.64	B
	University Parkway	PM	NB	3	6900		5,200	0.75	C		5,320	0.77	C
			SB	3	6900		2,300	0.33	A		2,360	0.34	A
9	Barstow Fwy (I-215) between	AM	NB	4	9200	121,300	3,400	0.37	A	123,000	3,430	0.37	A
	University Parkway and		SB	4	9200		6,300	0.68	B		6,390	0.69	B
	State Route 30 Fwy	PM	NB	4	9200		7,400	0.80	C		7,510	0.82	D
			SB	4	9200		4,000	0.43	A		4,070	0.44	A
10	Barstow Fwy (I-215) between	AM	NB	3	6900	85,800	2,400	0.35	A	86,700	2,410	0.35	A
	State Route 30 Fwy and		SB	3	6900		4,800	0.70	B		4,860	0.70	B
	Mt Vernon Ave/27th St	PM	NB	3	6900		5,300	0.77	C		5,370	0.78	C
			SB	3	6900		3,300	0.48	A		3,330	0.48	A

Table 11 (Cont.)
Future (2030) Freeway Levels of Service Summary

						Without Project Condition				With Project Condition				
No.	Location	Peak Hour	Direction	No. of Lanes	Total Capacity	Daily Volume	Peak Hour Volume	V/C	LOS	Daily Volume	Peak Hour Volume	V/C	LOS	
11	Barstow Fwy (I-215) between	AM	NB	3	6900	118,500	2,700	0.39	A	123,000	2,750	0.40	A	
	Mt Vernon Ave/27th St and		SB	3	6900		6,500	0.94	E		6,830	0.99	E	
	Highland Ave	PM	NB	3	6900		6,500	0.94	E		6,720	0.97	E	
			SB	3	6900		4,300	0.62	B		4,460	0.65	B	
12	I-215 Fwy between	AM	NB	3	6900	129,400	2,900	0.42	A	134,900	2,980	0.43	A	
	Highland Ave and		SB	3	6900		6,900	1.00	E		7,230	1.05	F	*
	Massachusetts Ave	PM	NB	3	6900		7,400	1.07	F		7,750	1.12	F	*
			SB	3	6900		4,600	0.67	B		4,760	0.69	B	
13	I-215 Fwy between	AM	NB	3	6900	131,500	3,000	0.43	A	137,000	3,080	0.45	A	
	Massachusetts Ave and		SB	3	6900		6,900	1.00	E		7,230	1.05	F	*
	State Route 259 Fwy	PM	NB	3	6900		7,600	1.10	F		7,950	1.15	F	*
			SB	3	6900		4,600	0.67	B		4,760	0.69	B	
14	I-215 Fwy between	AM	NB	4+1HOV	10800	156,600	5,400	0.50	A	160,700	5,480	0.51	A	
	State Route 259 Fwy and		SB	4+1HOV	10800		9,900	0.92	E		10,230	0.95	E	
	Baseline St	PM	NB	4+1HOV	10800		10,600	0.98	E		10,920	1.01	F	*
			SB	4+1HOV	10800		7,700	0.71	C		7,860	0.73	C	
15	I-215 Fwy between	AM	NB	4+1HOV	10800	257,100	6,600	0.61	B	262,800	6,680	0.62	B	
	Baseline St and 5th St		SB	4+1HOV	10800		11,600	1.07	F		11,930	1.10	F	*
		PM	NB	4+1HOV	10800		13,100	1.21	F		13,420	1.24	F	*
			SB	4+1HOV	10800		9,100	0.84	D		9,260	0.86	D	

Table 11 (Cont.)
Future (2030) Freeway Levels of Service Summary

						Without Project Condition				With Project Condition				
No.	Location	Peak Hour	Direction	No. of Lanes	Total Capacity	Daily Volume	Peak Hour Volume	V/C	LOS	Daily Volume	Peak Hour Volume	V/C	LOS	
16	I-215 Fwy between	AM	NB	4+1HOV	10800	223,500	6,100	0.56	A	227,700	6,160	0.57	A	
	5th St and 2nd St		SB	4+1HOV	10800		10,100	0.94	E		10,340	0.96	E	
		PM	NB	4+1HOV	10800		9,900	0.92	E		10,130	0.94	E	
			SB	4+1HOV	10800		9,300	0.86	D		9,430	0.87	D	
17	I-215 Fwy between	AM	NB	4+1HOV	10800	263,900	7,800	0.72	C	268,100	7,860	0.73	C	
	2nd St and Mill St		SB	4+1HOV	10800		10,800	1.00	E		11,040	1.02	F	*
		PM	NB	4+1HOV	10800		12,400	1.15	F		12,630	1.17	F	*
			SB	4+1HOV	10800		10,400	0.96	E		10,530	0.98	E	
18	State Route 210 Fwy between	AM	WB	3+1HOV	8500	125,600	4,700	0.55	A	126,600	4,750	0.56	A	
	Ontario Fwy (I-15) and		EB	3+1HOV	8500		2,900	0.34	A		2,910	0.34	A	
	Cherry Ave	PM	WB	3+1HOV	8500		4,700	0.55	A		4,730	0.56	A	
			EB	3+1HOV	8500		5,600	0.66	B		5,650	0.66	B	
19	State Route 210 Fwy between	AM	WB	3+1HOV	8500	166,800	6,900	0.81	D	169,400	7,030	0.83	D	
	Cherry Ave and Citrus Ave		EB	3+1HOV	8500		4,000	0.47	A		4,040	0.48	A	
		PM	WB	3+1HOV	8500		6,200	0.73	C		6,280	0.74	C	
			EB	3+1HOV	8500		7,900	0.93	E		8,040	0.95	E	
20	State Route 210 Fwy between	AM	WB	3+1HOV	8500	165,400	6,400	0.75	C	168,600	6,540	0.77	C	
	Citrus Ave and Sierra Ave		EB	3+1HOV	8500		4,300	0.51	A		4,360	0.51	A	
		PM	WB	3+1HOV	8500		6,200	0.73	C		6,320	0.74	C	
			EB	3+1HOV	8500		8,000	0.94	E		8,160	0.96	E	

Table 11 (Cont.)
Future (2030) Freeway Levels of Service Summary

						Without Project Condition				With Project Condition				
No.	Location	Peak Hour	Direction	No. of Lanes	Total Capacity	Daily Volume	Peak Hour Volume	V/C	LOS	Daily Volume	Peak Hour Volume	V/C	LOS	
21	State Route 210 Fwy between	AM	WB	3+1HOV	8500	153,200	6,300	0.74	C	157,300	6,470	0.76	C	
	Sierra Ave and Alder Ave		EB	3+1HOV	8500		4,000	0.47	A		4,090	0.48	A	
		PM	WB	3+1HOV	8500		6,000	0.71	C		6,170	0.73	C	
			EB	3+1HOV	8500		7,200	0.85	D		7,400	0.87	D	
22	State Route 210 Fwy between	AM	WB	3+1HOV	8500	145,400	6,000	0.71	C	149,100	6,140	0.72	C	
	Alder Ave and Ayala Dr		EB	3+1HOV	8500		3,700	0.44	A		3,770	0.44	A	
		PM	WB	3+1HOV	8500		5,600	0.66	B		5,780	0.68	B	
			EB	3+1HOV	8500		7,000	0.82	D		7,170	0.84	D	
23	State Route 210 Fwy between	AM	WB	3+1HOV	8500	153,200	6,000	0.71	C	155,800	6,000	0.71	C	
	Ayala Dr and Riverside Ave		EB	3+1HOV	8500		4,300	0.51	A		4,440	0.52	A	
		PM	WB	3+1HOV	8500		6,200	0.73	C		6,410	0.75	C	
			EB	3+1HOV	8500		7,000	0.82	D		7,050	0.83	D	
24	State Route 210 Fwy between	AM	WB	3+1HOV	8500	181,900	6,400	0.75	C	196,000	6,710	0.79	C	
	Riverside Ave and		EB	3+1HOV	8500		6,000	0.71	C		6,620	0.78	C	
	Pepper Ave	PM	WB	3+1HOV	8500		7,400	0.87	D		8,150	0.96	E	
			EB	3+1HOV	8500		8,100	0.95	E		8,590	1.01	F	*
25	State Route 210 Fwy between	AM	WB	3+1HOV	8500	191,000	6,800	0.80	C	203,700	7,080	0.83	D	
	Pepper Ave and State St		EB	3+1HOV	8500		6,200	0.73	C		6,770	0.80	C	
		PM	WB	3+1HOV	8500		8,100	0.95	E		8,770	1.03	F	*
			EB	3+1HOV	8500		8,200	0.96	E		8,630	1.02	F	*

Table 11 (Cont.)
Future (2030) Freeway Levels of Service Summary

						Without Project Condition				With Project Condition				
No.	Location	Peak Hour	Direction	No. of Lanes	Total Capacity	Daily Volume	Peak Hour Volume	V/C	LOS	Daily Volume	Peak Hour Volume	V/C	LOS	
26	State Route 210 Fwy between	AM	WB	3	6900	171,600	6,100	0.88	D	180,000	6,260	0.91	E	
	State St and		EB	3	6900		5,900	0.86	D		6,340	0.92	E	
	Barstow Fwy (I-215)	PM	WB	3	6900		6,700	0.97	E		7,080	1.03	F	*
			EB	3	6900		7,800	1.13	F		8,110	1.18	F	*
27	State Route 30 Fwy between	AM	WB	3	6900	148,100	6,500	0.94	E	152,400	6,620	0.96	E	
	Barstow Fwy (I-215) and H St		EB	3	6900		4,100	0.59	A		4,270	0.62	B	
		PM	WB	3	6900		6,100	0.88	D		6,320	0.92	E	
			EB	3	6900		6,600	0.96	E		6,760	0.98	E	
28	State Route 30 Fwy between	AM	WB	3	6900	126,600	5,500	0.80	C	129,800	5,590	0.81	D	
	H St and State Route 259		EB	3	6900		3,700	0.54	A		3,830	0.56	A	
		PM	WB	3	6900		5,300	0.77	C		5,460	0.79	C	
			EB	3	6900		5,500	0.80	C		5,620	0.81	D	
29	State Route 30 Fwy between	AM	WB	4	9200	190,400	7,900	0.86	D	193,600	7,990	0.87	D	
	State Route 259 and		EB	4	9200		5,800	0.63	B		5,930	0.64	B	
	Waterman Ave	PM	WB	4	9200		7,400	0.80	C		7,560	0.82	D	
			EB	4	9200		8,500	0.92	E		8,620	0.94	E	

* Denotes study freeway segment is deficient (I.e. LOS F).

IV. PROJECT MITIGATION

The measures described in this section are intended to mitigate traffic impacts of the full development of the Lytle Creek Ranch project by the year 2030. The mitigation measures described below also addresses cumulative impacts at all study locations. This mitigation package consists of traffic reduction measures, traffic capacity expansions and site access enhancements.

It should be noted that some of these improvements have already been made requirements of previously approved projects. Plans are being prepared or have been approved for some of these improvements. To be conservative, however, these improvements haven't been assumed to be completed and, when appropriate, are included as mitigation measures below.

IV.A ARTERIAL IMPROVEMENTS

This section describes mitigation measures that are recommended to increase arterial capacity in the study area. These measures are intended to accommodate the additional traffic generated by the Project as well as other cumulative area developments. The Project should equitably participate in the implementation of these improvement measures by paying its fair share of the cost of the improvements.

In addition, these proposed improvements are designed to reduce project-related traffic impacts to less than significant levels, and to ensure that sufficient roadway capacity exists to accommodate all anticipated area growth. As such, other developments may install some of these improvements, especially those improvements that are relatively remote with respect to the Project site. Should other developments implement any of the improvements described below, no further measures will be required of the Project at the subject locations.

Project Study Intersections

Appendix D contains graphics showing the existing intersection lane configurations, as well as which will exist in 2030 without the project, with the project and with the following mitigation measures:

1. I-215 NB On/Off Ramps/Arrowhead Blvd & Devore Rd – Install a traffic signal at this location.

3. Cajon Blvd & Glen Helen Pkwy – Install a traffic signal at this location.

4. I-215 NB On/Off Ramps & Palm Ave – Install a traffic signal at this location.

5. I-215 SB On/Off Ramps & Palm Ave – Install a traffic signal at this location.

7. I-215 SB On/Off Ramps & University Pkwy – Improve University Parkway to provide an exclusive right-turn lane in the northbound direction, and one left-turn lane, one left/through-shared lane and one through lane in the southbound direction. In order to accommodate the left-through-shared lane, modify the existing traffic signal to allow split phases for the northbound and southbound approaches.

10. Lytle Creek Road & Glen Helen Pkwy – Restripe Lytle Creek Road to accommodate one left-turn lane and two through lanes in the southeast-bound direction and two through lanes and one right-turn lane in the northwest-bound direction. Also improve and restripe the Glen Helen Parkway approach at Lytle Creek Road to provide dual left-turn lanes and one right-turn lane. In addition, install a traffic signal at this location.

11. Lytle Creek Road & Sierra Avenue – Restripe Lytle Creek Road and Sierra Avenue to accommodate one left-turn lane and two through lanes in the northwest-bound direction, and one through lane and one through/right-shared lane in the southeast-bound direction. In addition, install a traffic signal at this location.

12. I-15 SB On/Off Ramps & Sierra Avenue – Improve Sierra Avenue to provide dual left-turn lanes and two through lanes in the northwest-bound direction, and one through lane, one through/right-shared lane and one right-turn lane in the southeast-bound direction. Also, widen the southbound off-ramp to accommodate one left-turn lane, one left/right-shared lane and one right-turn lane. In addition, install a traffic signal at this location.

13. I-15 NB On/Off Ramps & Sierra Avenue – Improve Sierra Avenue to provide one additional through lane in the southeast-bound direction, and one exclusive right-turn lane in the northwest-bound direction. Reconstruct the northbound off-ramp to accommodate one left-turn lane, one left/through-shared lane and one free right-turn lane. In addition, install a traffic signal at this location.

16. I-15 SB On/Off Ramps & Summit Avenue – Restripe Summit Avenue to accommodate one additional left-turn lane in the eastbound direction.

17. I-15 NB On/Off Ramps & Summit Avenue – Restripe the northbound off-ramp to provide dual left-turn lanes and one right-turn lane.

18. Riverside Avenue & Sierra Avenue – Widen and restripe Sierra Avenue to provide dual left-turn lanes and two through lanes in the southbound direction. Also improve the intersection to allow a free right-turn from Riverside Avenue onto Sierra Avenue. Install a traffic signal at this intersection.

22. Riverside Avenue & Linden Avenue – Widen and restripe to provide one left-turn lane, and one through lane and one through/right-shared lane in the northwest-bound direction.

43. SR-210 Fwy WB On/Off Ramps & Riverside Avenue – Flare and restripe Riverside Avenue to provide an exclusive right-turn lane in the southbound direction.

44. SR-210 Fwy EB On/Off Ramps & Riverside Avenue – Improve Riverside Avenue to provide the following: two through lanes and two right-turn lanes in the northbound direction; and dual left-turn lanes and two through lanes in the southbound direction.

47. SR-210 Fwy WB On/Off Ramps & State Street – Improve State Street to provide the following: dual left-turn lanes and two through lanes in the northbound direction; and one through lane, one through/right shared lane and one right-turn lane in the southbound direction.

48. SR-210 Fwy EB On/Off Ramps & State Street – Flare and restripe the eastbound off-ramp to provide the following: one left-turn lane, one left/through-share lane and two right-turn lanes. Modify the traffic signal to accommodate a right-turn overlap phase for the off-ramp eastbound approach and the southbound approach on State Street.

49. Highland Avenue & State Street – Flare and restripe Highland Avenue to provide the following: dual left-turn lanes, one through lane and one through/right-shared lane in the westbound direction; and one left-turn lane, one through lane, one through/right-shared lane and one right-turn lane in the eastbound direction.

55. Easton Street & Ayala Drive – Flare and restripe Easton Street in the eastbound direction to accommodate an exclusive right-turn lane. Modify the traffic signal to include a right-turn overlap phase with the left-turn phase in the northbound direction.

59. Baseline Road & Alder Avenue – Flare and restripe Alder Avenue to provide one left-turn lane, one through lane and one through/right shared lane in the southbound direction.

72. Rialto Avenue & Cedar Avenue – Flare and restripe Cedar Avenue to provide an exclusive right-turn lane in the southbound direction.

74. Merrill Avenue & Cedar Avenue – Flare and restripe Cedar Avenue to provide an exclusive right-turn lane in the northbound direction.

The anticipated effectiveness of the above mitigation measures at the study intersections is listed in Table 12. As shown in this table, implementation of the above measures will bring all significantly impacted intersections to an acceptable level of service (LOS D or better).

The cost estimate of the mitigation measures were calculated according to Appendix G of the San Bernardino CMP. Using the project percentage contribution from Table 10, the project's share cost estimate is determined and are shown in Table 13.

Internal Project Roadways

Due to the potential variation within the final approved elements constructed within the allowed project elements, the specific project roadway design (e.g. roadway width, number of lanes) cannot be established at this time. However, the project roadways will be designed to meet City of Rialto roadway standards and to provide sufficient capacity to accommodate the project traffic.

Study Area Roadways

Lytle Creek Road - Widen and restripe Lytle Creek Road from Glen Helen Parkway to Sierra Avenue to provide two through lanes in each direction.

Glen Helen Parkway - Widen and restripe this arterial to provide two through lanes in each direction between Lytle Creek Road and Cajon Boulevard.

Table 12
Intersection Level of Service Summary
Future (2030) Traffic Conditions, With Project plus Mitigation

No.	Intersection	Peak Hour	Without Project V/C	Without Project Delay	Without Project LOS	With Project V/C	With Project Delay	With Project LOS		With Project + Mitigation V/C	With Project + Mitigation Delay	With Project + Mitigation LOS
1	I-215 NB ON/OFF RAMPS/ARROWHEAD	AM	[1]	19.1	C	[1]	22.0	C		0.425	8.3	A
	BLVD & DEVORE RD	PM	[1]	302.6	F	[1]	507.3	F	*	0.834	16.4	B
3	CAJON BLVD & GLEN HELEN PKWY	AM	0.766	20.4	C	0.957	29.9	D		0.414	9.9	A
		PM	1.076	51.7	F	1.181	71.4	F	*	0.491	10.6	B
4	I-215 NB ON/OFF RAMPS & PALM AVE	AM	[1]	289.3	F	[1]	305.5	F	*	0.468	11.2	B
		PM	[1]	235.9	F	[1]	260.2	F	*	0.735	14.7	B
5	I-215 SB ON/OFF RAMPS & PALM AVE	AM	1.884		F	1.892	191.1	F	*	0.806	22.1	C
		PM	1.899	167.6	F	1.985	182.2	F	*	0.873	25.6	C
7	I-215 SB ON/OFF RAMPS &	AM	1.070	58.5	E	1.083	61.8	E	*	0.731	17.3	B
	UNIVERSITY PKWY	PM	1.453	150.6	F	1.472	156.7	F	*	0.931	26.2	C
10	LYTLE CREEK RD &	AM	[1]	OVRFL	F	[1]	OVRFL	F	*	0.676	15.4	B
	GLEN HELEN PKWY	PM	[1]	OVRFL	F	[1]	OVRFL	F	*	0.626	14.0	B
11	LYTLE CREEK RD & SIERRA AVE	AM	[1]	48.3	E	[1]	336.6	F	*	0.611	1.8	A
		PM	[1]	OVRFL	F	[1]	OVRFL	F	*	0.777	9.1	A
12	I-15 SB ON/OFF RAMPS & SIERRA AVE	AM	3.832	806.2	F	4.801	OVRFL	F	*	1.016	41.6	D
		PM	3.270	506.5	F	4.502	826.8	F	*	0.955	22.5	C
13	I-15 NB ON/OFF RAMPS & SIERRA AVE	AM	1.697	146.9	F	2.827	460.8	F	*	0.516	7.1	A
		PM	1.962	307.6	F	3.357	770.7	F	*	1.052	51.3	D
16	I-15 SB ON/OFF RAMPS & SUMMIT AVE	AM	1.156	78.9	E	1.160	80.4	F	*	0.983	37.0	D
		PM	0.792	18.7	B	0.817	19.7	B		0.749	17.1	B
17	I-15 NB ON/OFF RAMPS & SUMMIT AVE	AM	0.816	19.2	B	0.829	19.8	B		0.682	14.6	B
		PM	1.312	124.6	F	1.319	129.9	F	*	0.982	34.9	C
18	RIVERSIDE AVE & SIERRA AVE	AM	1.457	136.2	F	2.739	570.2	F	*	0.659	11.9	B
		PM	1.728	186.2	F	4.067	906.9	F	*	0.982	36.7	D

* Denotes a significant project traffic impact, prior to mitigation.

[1] Volume over capacity ratio not provided for two-way, STOP sign-controlled intersections.

Table 12 (Cont.)
Intersection Level of Service Summary
Future (2030) Traffic Conditions, With Project plus Mitigation

No.	Intersection	Peak Hour	Without Project V/C	Without Project Delay	Without Project LOS	With Project V/C	With Project Delay	With Project LOS		With Project + Mitigation V/C	With Project + Mitigation Delay	With Project + Mitigation LOS
22	RIVERSIDE AVE & LINDEN AVE	AM	[1]	40.4	E	1.193	100.5	F	*	0.592	12.7	B
		PM	[1]	32.1	D	1.663	270.7	F	*	0.864	25.1	C
43	SR-210 FWY WB ON/OFF RAMPS &	AM	0.708	16.9	B	0.902	22.8	C		0.811	18.3	B
	RIVERSIDE AVE	PM	0.776	17.3	B	1.057	56.4	E	*	0.957	31.2	C
44	SR-210 FWY EB ON/OFF RAMPS &	AM	1.398	157.2	F	1.703	258.3	F	*	1.020	42.3	D
	RIVERSIDE AVE	PM	1.344	128.6	F	1.606	201.7	F	*	1.033	43.6	D
47	SR-210 FWY WB ON/OFF RAMPS &	AM	0.969	26.8	C	1.031	35.6	D		0.653	11.8	B
	STATE ST	PM	1.497	174.5	F	1.667	229.0	F	*	0.975	29.7	C
48	SR-210 FWY EB ON/OFF RAMPS &	AM	0.745	33.6	C	0.861	36.6	D		0.702	22.5	C
	STATE ST	PM	1.116	71.7	E	1.184	88.7	F	*	0.873	25.2	C
49	HIGHLAND AVE & STATE ST	AM	1.163	115.9	F	1.208	133.9	F	*	0.820	26.8	C
		PM	1.374	195.1	F	1.484	234.1	F	*	0.909	44.3	D
55	EASTON ST & AYALA DR	AM	0.858	31.7	C	0.916	34.6	C		0.719	20.3	C
		PM	1.176	83.9	F	1.256	100.2	F	*	1.057	52.7	D
59	BASELINE RD AND ALDER AVE	AM	0.765	29.5	C	0.786	32.3	C		0.786	31.1	C
		PM	1.044	66.2	E	1.106	80.5	F	*	0.998	51.2	D
72	RIALTO AVE & CEDAR AVE	AM	0.811	30.7	C	0.828	31.4	C		0.828	29.8	C
		PM	1.030	59.1	E	1.042	61.3	E	*	0.974	45.0	D
74	MERRILL AVE & CEDAR AVE	AM	0.888	21.8	C	0.896	22.1	C		0.896	21.6	C
		PM	1.080	55.1	E	1.088	57.1	E	*	1.033	47.2	D

* Denotes a significant project traffic impact, prior to mitigation.

[1] Volume over capacity ratio not provided for two-way, STOP sign-controlled intersections.

Table 13
Traffic Analysis Recommended Transportation Improvement Costs

Intersection	Improvement Measure Number	Improvement Measure Category	2003 Base Cost	Added Items (50%)	Inflation	2007 Cost	Project Percentage	Project Portion
1	1	New Signal	$ 90,000	$ 45,000	$ 16,200	$ 151,200	12.4%	$ 18,749
3	1	New Signal	$ 90,000	$ 45,000	$ 16,200	$ 151,200	13.2%	$ 19,958
4	1	New Signal	$ 90,000	$ 45,000	$ 16,200	$ 151,200	10.8%	$ 16,330
5	1	New Signal	$ 90,000	$ 45,000	$ 16,200	$ 151,200	7.2%	$ 10,886
7	1	Add Signal Phase	$ 25,000	$ 12,500	$ 4,500	$ 42,000	4.4%	$ 1,848
	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 9,000	$ 84,000	4.4%	$ 3,696
10	1	New Signal	$ 90,000	$ 45,000	$ 16,200	$ 151,200	32.6%	$ 49,291
	2	Added Turn Lane(s)	$ 100,000	$ 50,000	$ 18,000	$ 168,000	32.6%	$ 54,768
	2	Added Thru Lane(s)	$ 200,000	$ 100,000	$ 36,000	$ 336,000	32.6%	$ 109,536
11	1	New Signal	$ 90,000	$ 45,000	$ 16,200	$ 151,200	33.3%	$ 50,350
	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 9,000	$ 84,000	33.3%	$ 27,972
	2	Added Thru Lane(s)	$ 200,000	$ 100,000	$ 36,000	$ 336,000	33.3%	$ 111,888
12	1	New Signal	$ 90,000	$ 45,000	$ 16,200	$ 151,200	41.1%	$ 62,143
	3	Added Turn Lane(s)	$ 150,000	$ 75,000	$ 27,000	$ 252,000	41.1%	$ 103,572
	1	Added Thru Lane(s)	$ 100,000	$ 50,000	$ 18,000	$ 168,000	41.1%	$ 69,048
13	1	New Signal	$ 90,000	$ 45,000	$ 16,200	$ 151,200	65.8%	$ 99,490
	2	Added Turn Lane(s)	$ 100,000	$ 50,000	$ 18,000	$ 168,000	65.8%	$ 110,544
	1	Added Thru Lane(s)	$ 100,000	$ 50,000	$ 18,000	$ 168,000	65.8%	$ 110,544
16	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 9,000	$ 84,000	100.0%	$ 84,000
17	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 9,000	$ 84,000	29.9%	$ 25,116
18	1	New Signal	$ 90,000	$ 45,000	$ 16,200	$ 151,200	67.8%	$ 102,514
	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 9,000	$ 84,000	67.8%	$ 56,952
	1	Added Thru Lane(s)	$ 100,000	$ 50,000	$ 18,000	$ 168,000	67.8%	$ 113,904
22	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 9,000	$ 84,000	84.0%	$ 70,560
	1	Added Thru Lane(s)	$ 100,000	$ 50,000	$ 18,000	$ 168,000	84.0%	$ 141,120

Table 13 (Cont.)
Traffic Analysis Recommended Transportation Improvement Costs

Intersection	Improvement Measure Number	Improvement Measure Category	2003 Base Cost	Added Items (50%)	Inflation	2007 Cost	Project Percentage	Project Portion
43	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 9,000	$ 84,000	27.5%	$ 23,100
44	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 9,000	$ 84,000	16.7%	$ 14,028
47	2	Added Turn Lane(s)	$ 100,000	$ 50,000	$ 18,000	$ 168,000	7.4%	$ 12,432
48	1	Add Signal Phase	$ 25,000	$ 12,500	$ 4,500	$ 42,000	4.2%	$ 1,764
	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 9,000	$ 84,000	4.2%	$ 3,528
49	2	Added Turn Lane(s)	$ 100,000	$ 50,000	$ 18,000	$ 168,000	19.7%	$ 33,096
55	1	Add Signal Phase	$ 25,000	$ 12,500	$ 4,500	$ 42,000	28.5%	$ 11,970
	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 9,000	$ 84,000	28.5%	$ 23,940
59	1	Added Thru Lane(s)	$ 100,000	$ 50,000	$ 18,000	$ 168,000	28.2%	$ 47,376
72	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 9,000	$ 84,000	2.3%	$ 1,932
74	1	Added Turn Lane(s)	$ 50,000	$ 25,000	$ 9,000	$ 84,000	3.5%	$ 2,940
Intersection Total						**$ 4,930,800**	**36.5%**	**$ 1,800,884**

Sierra Avenue - Improve this arterial to provide two through lanes in each direction between Riverside Avenue and just north of Glen Helen Parkway.

Riverside Avenue – This roadway currently provides one to two through lanes in each direction between Sierra Avenue and Ayala Drive. Widen and restripe this roadway to provide two through lanes in each direction for this section of roadway.

Freeway Study Segments

As described previously, there is a cumulatively significant impact at eight freeway study segments at the future year 2030 to which the project contributes. Freeway segment improvements are identified within the SanBAG CMP, which contains a list of approved traffic improvements to be implemented pursuant to an approved implementation program. The CMP freeway improvements were assumed in the analysis of all future traffic conditions. Those CMP freeway improvements that are located in the study area are described below:

- Add a high-occupancy-vehicle (HOV) lane in the northbound and southbound directions on Interstate 15 between Interstate 215 and Interstate 10;
- Add a mainline lane in the northbound and southbound directions on Interstate 215 between Interstate 15 and State Route 259;
- Improve Interstate 215 between State Route 259 and Interstate 10 to provide four mainline and one HOV lane in the northbound and southbound directions;
- Improve State Route 210 between Interstate 15 and Highland Avenue to provide a total of three mainline lanes and one HOV lane in the westbound and eastbound directions;

- Add a mainline lane on State Route 30 between Highland Avenue and Interstate 10 in the westbound and eastbound directions.

In addition to the freeway improvements from the SanBAG CMP, other physical improvements to address the cumulative impact of overall regional growth could include the addition of one freeway lane on the following segments:

12. I-215 betw Highland Ave and Massachusetts Ave (Northbound and Southbound)
13. I-215 betw Massachusetts Ave and SR-259 (Northbound and Southbound)
14. I-215 betw SR-259 and Baseline St (Northbound Only)
15. I-215 betw Baseline St and 5th St (Northbound and Southbound)

17 I-215 betw 2nd St and Mill St (Northbound and Southbound)

24 SR-210 betw Riverside Ave and Pepper Ave (Eastbound Only)

25 SR-210 betw Pepper Ave and State St (Westbound and Eastbound)

26 SR-210 betw State St and I-215 (Westbound and Eastbound)

The effectiveness of the suggested freeway improvements is shown in Table 14. As this table shows, the implementation of the freeway improvements would reduce the level of service of all study freeway segments to an acceptable level of service (i.e. LOS E or better), except for the I-215 Freeway between Baseline Street and 5th Street in the northbound direction. It should be noted that this freeway segment is currently operating at LOS E and is expected to operate at LOS F with or without the proposed project. In order to improve the level of service at this location to a LOS E or better, it is recommended that local jurisdictions in the surrounding area implement a trip reduction program (e.g. Transportation Demand Management (TDM) program) for all cumulative developments.

Table 14

Future (2030) Freeway LOS Summary, With Project and Mitigation

No.	Location	Peak Hour	Direction	No. of Lanes	Total Capacity	Daily Volume	Peak Hour Volume	V/C	LOS	
12	I-215 Fwy between	AM	NB	4	9200	134,900	2,980	0.32	A	
	Highland Ave and		SB	4	9200		7,230	0.79	C	
	Massachusetts Ave	PM	NB	4	9200		7,750	0.84	D	
			SB	4	9200		4,760	0.52	A	
13	I-215 Fwy between	AM	NB	4	9200	137,000	3,080	0.33	A	
	Massachusetts Ave and		SB	4	9200		7,230	0.79	C	
	State Route 259 Fwy	PM	NB	4	9200		7,950	0.86	D	
			SB	4	9200		4,760	0.52	A	
14	I-215 Fwy between	AM	NB	5+1HOV	13100	160,700	5,480	0.42	A	
	State Route 259 Fwy and		SB	4+1HOV	10800		10,230	0.95	E	
	Baseline St	PM	NB	5+1HOV	13100		10,920	0.83	D	
			SB	4+1HOV	10800		7,860	0.73	C	
15	I-215 Fwy between	AM	NB	5+1HOV	13100	262,800	6,680	0.51	A	
	Baseline St and 5th St		SB	5+1HOV	13100		11,930	0.91	E	
		PM	NB	5+1HOV	13100		13,420	1.02	F	**
			SB	5+1HOV	13100		9,260	0.71	C	
17	I-215 Fwy between	AM	NB	5+1HOV	13100	268,100	7,860	0.60	A	
	2nd St and Mill St		SB	5+1HOV	13100		11,040	0.84	D	
		PM	NB	5+1HOV	13100		12,630	0.96	E	
			SB	5+1HOV	13100		10,530	0.80	C	
24	State Route 210 Fwy between	AM	WB	4+1HOV	10800	196,000	6,710	0.62	B	
	Riverside Ave and		EB	4+1HOV	10800		6,620	0.61	B	
	Pepper Ave	PM	WB	4+1HOV	10800		8,150	0.75	C	
			EB	4+1HOV	10800		8,590	0.80	C	
25	State Route 210 Fwy between	AM	WB	4+1HOV	10800	203,700	7,080	0.66	B	
	Pepper Ave and State St		EB	4+1HOV	10800		6,770	0.63	B	
		PM	WB	4+1HOV	10800		8,770	0.81	D	
			EB	4+1HOV	10800		8,630	0.80	C	
26	State Route 210 Fwy between	AM	WB	4	9200	180,000	6,260	0.68	B	
	State St and		EB	4	9200		6,340	0.69	B	
	Barstow Fwy (I-215)	PM	WB	4	9200		7,080	0.77	C	
			EB	4	9200		8,110	0.88	D	

** Denotes a remaining level of deficiency (I.e. LOS F) after the capacity is increased to the degree feasible. It is recommended that local jurisdictions implement a trip reduction program (e.g. TDM Program) for cumulative developments in the surrounding area.

APPENDIX A

POST-PROCESSING PROCEDURES

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Lytle Creek Ranch Project
Post-Processing Procedures

Existing (2007) Traffic Volumes

Existing turning-movement volumes at the study intersections are based on current (2007) AM and PM peak-hour traffic counts, which were collected by The Traffic Solutions and National Data & Surveying Services, both traffic data collection companies.

Future 2030 "Without Project" Traffic Volumes

Future-year 2030 "Without Project" link volumes were forecasted using the transportation model (EVTM). The traffic volume forecasts in this scenario include cumulative traffic volumes but do not include vehicle trips contributed by the Lytle Creek Ranch project.

Future-year 2030 "Without Project" traffic volumes were calculated using a modified version of the B-Turn program. The B-Turn program files used for the analysis are BTRNAMWO.XLS for the AM peak-hour and BTRNPMWO.XLS for the PM peak-hour. Each B-Turn program file contains four worksheets (BTurns, CountData, ModelVols, and ProjectedVolumes). Each worksheet can be thought of as a page of data or a page of calculations. These four worksheets are described in detail below.

1. BTurns – The original B-Turns program that was provided by SanBAG. The existing turning-movement counts and projected link volumes are entered into this worksheet. The program calculates future turning-movements based on existing turning-movement proportions.

2. CountData – The existing (2007) turning-movement volumes for the study intersections are entered into this worksheet. The existing volumes are used as turning proportions (ratios) for estimating the future turning-movement volumes. However, the existing proportions had to be manually adjusted for several reasons. First, some study intersections do not currently exist. Therefore, turning proportions

had to be assumed at these intersections. Generally, it was assumed that future turning volumes at intersections that do not currently exist would have similar turning proportions as the existing turning volumes at the adjacent intersections. It was also assumed that some future approaches would have turning volume proportions similar to the average turning proportions in the study area. Thus, by adding the existing AM and PM turning volumes at all existing study intersections, it was estimated that 19.5 percent, 60 percent and 20.5 percent were the proportions making left turns, through movements and right turns, respectively.

A few additional manual adjustments were also necessary to insure that the forecasted turning-movement volumes reflected the expected future traffic patterns in the area. For example, the SR-210 off-ramps were assumed to have different turning proportions than typical urban intersections. At ramp junctions, it was reasoned that no vehicles would exit and then immediately re-enter the freeway, so the off-ramp to on-ramp volumes at a ramp junction were set to zero. Left and right turn proportions were adjusted according to the land uses located on the north and south sides of the freeway. Additionally, as development occurs and the street system is expanded to accommodate the additional travel demand in the study area, new segments of roadway will be built which connect to some of the existing study intersections. To illustrate, assume that an existing study intersection has three approaches, one from the east, one from the west, and one from the south, but there is no approach from the north. Furthermore, if this intersection has four approaches in the future-year scenarios (i.e. the north approach is built), then it would be inappropriate to use the existing turning-movement proportions to distribute the future traffic volumes at this intersection without adjusting these proportions to accommodate this new approach. Therefore, for the future-year scenarios, the turning proportions were adjusted to rectify this shortcoming at the study intersections that have additional approaches in the future-year scenarios.

3. <u>ModelVols</u> – EVTM link volumes are entered into this worksheet. The B-Turn program uses the model link volumes in this worksheet along with the existing

turning-movement counts from worksheet CountData to calculate the future forecasted turning-movement volumes at the study intersections.

The EVTM peak-period link volumes were converted to peak-hour volumes by using peak-hour to peak-period factors. The conversion from peak-period to peak-hour volumes was accomplished prior to loading the EVTM link volumes into the ModelVols worksheet of the BTurns model. The peak-period model volumes are listed in the below listed files

File Name	Scenario Title
AM2030WO	Future 2030 AM Traffic Volumes, Without Project
PM2030WO	Future 2030 PM Traffic Volumes, Without Project

4. ProjectedVolumes – The future-year turning-movement volumes forecasts are stored in this worksheet. A macro called "Calcvolumes" calculates the forecasted turning-movement volumes at all 75 intersections. Actually, this macro calculates the future-year turning-movement volumes for the first intersection in the spreadsheet, then repeats the set of commands using the data for the second intersection, and so on until the calculations are complete for all study intersections. This macro uses the turning-movement proportions (from the *CountData* worksheet) along with the EVTM link volumes (in the *ModelVols* worksheet) to calculate the future-year turning-movement volumes. These calculations are done in the *BTurns* worksheet. The results from the *BTurns* pivot-point model are copied to the *ProjectedVolumes* worksheet. To run this macro (in Excel), click on "Tools" at the top of the screen, then select "Macro", select "Macro" again, then select the macro name "CalcVolumes."

A review of the forecasted turning-movement volumes (obtained from the B-turns pivot-point model) and the EVTM volumes plots revealed that the model forecasted very low or no volumes on some links in the study area. In these instances, the existing turning-movement volumes were used instead of the forecasted future-year turning-movement volumes. In addition, the turning-movement volumes at the intersections of Sierra Avenue at Summit Avenue and at Sierra Lakes Parkway had to be readjusted. In the model, the vehicle trips that were generated by the zone

representing the region west of Sierra Avenue and in the vicinity of Summit Avenue and Sierra Lakes Parkway were loaded solely onto Summit Avenue. Traffic volumes from this zone were readjusted to reflect the existing roadway connections west of Sierra Avenue. This adjustment better reflected actual loading of traffic onto these streets by the traffic generators in this area.

Future 2030 "With Project" Traffic Volumes

Future 2030 "With Project" traffic volumes were calculated by adding the Lytle Creek Ranch traffic volumes to the 2030 "Without Project" traffic volumes. The project turning volumes were based on the model's assignment of the project trips. However, it should be noted that the project traffic volumes were manually redistributed to each of the proposed project roadways north of Riverside Avenue based on the distribution of the project land use locations on the north side of Riverside Avenue.

APPENDIX B

B-TURNS CALCULATION WORKSHEETS

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LYTLE CREEK RANCH PROJECT
B-Turns Worksheets for
2030 AM Without Project Scenario

2030 AM Peak Hour Without Project Model Link Volumes(Adjusted)

IS-No.	N-I/B 1	N-O/B 2	S-I/B 3	S-O/B 4	E-I/B 5	E-O/B 6	W-I/B 7	W-O/B 8
1	88	352	431	112	0	0	195	250
2	0	0	314	22	57	144	70	276
3	481	399	352	88	276	70	205	757
4	151	592	508	333	0	215	480	0
5	111	187	592	151	482	321	96	621
6	454	2157	2329	982	0	446	801	0
7	649	616	2157	454	191	0	0	1927
8	0	253	22	0	5	13	252	14
9	464	0	0	21	14	252	271	476
10	0	0	525	224	1058	0	216	1575
11	22	0	0	0	1575	216	194	1575
12	0	1601	267	0	1575	194	518	565
13	220	0	0	425	565	518	791	633
14	0	0	37	714	968	195	160	256
15	0	0	117	179	256	160	118	152
16	0	0	64	340	57	59	331	51
17	0	0	70	137	51	331	332	50
18	283	174	633	791	0	0	508	458
19	532	282	0	0	523	530	410	649
20	28	74	0	0	649	410	382	575
21	24	69	0	0	575	382	422	569
22	42	115	0	0	912	450	419	808
23	88	273	0	0	789	396	424	632
24	0	0	78	26	632	424	457	801
25	60	171	78	26	801	457	426	660
26	618	1370	1370	618	0	0	0	0
27	498	397	174	222	0	0	293	346
28	276	368	74	28	348	207	82	178
29	11	33	69	24	25	49	0	0
30	466	787	397	498	201	33	0	0
31	179	157	90	173	0	0	90	30
32	176	566	468	141	7	9	106	42
33	519	647	795	531	201	33	12	148
34	395	763	373	288	148	12	290	142
35	3	34	165	246	142	290	380	120
36	503	997	556	168	312	269	183	119
37	865	594	647	519	0	208	212	402
38	1134	654	594	865	392	178	0	423
39	590	627	763	395	0	618	286	0
40	759	546	627	590	338	0	0	588
41	595	1100	997	503	0	601	612	0
42	798	728	1100	595	347	0	0	922
43	576	1731	1370	618	0	504	906	0
44	1635	1111	1731	576	374	0	0	2052
45	315	751	199	184	0	303	725	0
46	749	934	751	315	294	0	0	545
47	1311	975	1879	1234	0	1445	464	0
48	675	969	975	1311	1387	776	17	0
49	1234	1879	1085	749	125	94	926	647
50	14	44	162	95	647	926	872	630
51	184	192	168	222	630	872	1033	729
52	201	336	356	292	746	1083	957	548
53	1252	651	654	1134	52	150	12	36
54	758	549	546	759	36	14	100	119
55	662	651	728	798	79	119	250	152
56	1111	1020	1111	1635	457	128	179	75
57	112	63	0	0	75	179	73	17
58	968	845	706	950	560	207	135	367
59	695	468	485	787	603	231	337	633
60	746	599	430	614	456	291	328	455
61	112	253	362	101	472	346	313	559
62	785	931	938	871	576	463	510	544
63	580	780	971	554	670	497	490	880
64	225	492	751	431	844	491	494	900
65	1059	1243	1262	993	765	570	787	1067
66	468	635	752	612	1024	575	561	983
67	834	1100	937	750	1012	460	487	960
68	139	361	366	172	995	437	448	979
69	899	1146	1061	871	990	624	690	1000
70	1012	1365	1231	1161	791	387	611	732
71	492	680	662	498	1044	559	379	839
72	679	999	1156	806	1104	440	316	1010
73	136	565	427	153	954	364	338	772
74	761	1021	990	688	390	193	136	374
75	153	515	540	152	268	195	156	255

2007 AM Peak Hour Existing Conditions Model Link Volumes (Adjusted)

N-I/B 1	N-O/B 2	S-I/B 3	S-O/B 4	E-I/B 5	E-O/B 6	W-I/B 7	W-O/B 8
21	114	181	38	0	0	46	96
0	0	26	66	27	43	77	21
46	209	114	21	21	77	182	55
65	197	753	92	0	596	67	0
60	125	197	65	29	16	65	147
443	1591	1439	724	0	101	533	0
502	497	1591	443	179	0	0	1332
0	202	8	0	1	0	201	8
154	0	0	12	8	201	213	161
0	0	0	0	0	0	0	0
66	22	0	0	0	0	22	66
0	311	192	0	66	22	321	245
79	0	0	275	245	321	548	277
0	0	0	0	95	36	36	95
0	0	0	0	95	36	36	95
0	0	68	432	327	98	195	58
0	0	78	69	58	195	99	18
107	120	277	548	0	0	442	157
543	200	0	0	157	442	332	386
9	9	0	0	386	332	323	378
34	180	0	0	378	323	489	397
106	100	0	0	569	445	432	562
155	119	0	0	547	413	461	630
0	0	71	22	630	461	446	760
202	562	71	22	760	446	841	795
834	1149	1149	834	0	0	0	0
306	455	127	109	0	0	0	0
0	0	9	9	107	140	147	114
21	46	180	34	65	186	0	0
288	526	455	306	44	8	0	0
113	351	109	121	0	0	297	47
153	450	141	50	60	224	535	164
337	516	532	325	44	8	8	37
83	790	2	5	37	8	797	116
84	79	356	141	116	797	546	85
82	182	526	155	132	403	0	0
874	333	516	337	0	392	63	392
874	333	333	874	35	0	0	35
900	10	790	83	0	1598	0	0
819	389	10	900	460	0	0	0
82	182	182	82	0	0	0	0
82	182	182	82	0	0	0	0
834	1149	1149	834	0	0	0	0
834	1149	1149	834	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
312	910	612	1145	0	0	1130	0
385	401	910	312	0	804	223	1
1145	612	660	457	938	948	0	724
74	375	139	54	724	0	243	751
157	300	185	167	751	243	510	893
68	350	409	567	934	561	561	494
818	407	333	874	141	11	0	0
581	361	389	819	8	2	418	214
342	225	182	82	50	267	0	0
606	955	1149	834	68	53	804	785
52	26	0	0	785	804	804	811
760	725	614	740	363	264	267	275
315	269	375	614	437	325	771	691
279	158	211	373	585	636	718	625
113	193	349	137	663	732	748	812
618	953	1018	682	800	692	783	891
345	427	136	44	1105	701	851	1265
0	0	0	0	1143	880	880	1143
971	1118	1067	806	523	619	846	862
411	635	510	348	720	727	938	869
251	366	470	275	825	820	877	963
153	324	351	180	999	833	818	985
732	1192	1108	656	971	768	807	1002
869	1090	1078	1064	533	498	616	444
402	515	664	389	485	610	139	177
225	434	424	224	222	141	147	219
128	341	375	139	215	171	133	199
218	368	429	227	225	139	138	276
146	281	329	139	244	207	160	252

LYTLE CREEK RANCH PROJECT
B-Turns Worksheets for
2030 AM Without Project Scenario

2007 AM Peak Hour Existing Aggregated Count -- Link Volumes

IS-No.	N-I/B 1	N-O/B 2	S-I/B 3	S-O/B 4	E-I/B 5	E-O/B 6	W-I/B 7	W-O/B 8
1	149	161	203	116	0	0	71	146
2	0	0	223	54	3	5	54	221
3	43	106	152	143	216	46	167	283
4	602	748	1054	787	0	453	332	0
5	159	397	761	623	169	48	545	566
6	644	1415	1152	1483	0	277	1379	0
7	686	854	1399	627	309	0	0	913
8	0	83	14	0	0	6	86	11
9	90	0	0	13	14	91	89	89
10	0	0	0	0	119	62	62	119
11	36	16	0	0	119	62	74	151
12	0	564	539	0	382	169	468	656
13	163	0	0	375	657	463	694	676
14	0	0	0	0	30	51	51	30
15	40	25	0	0	30	51	12	6
16	0	0	545	1705	1526	865	1375	876
17	0	0	679	345	865	1375	1340	1164
18	183	434	725	707	0	0	644	411
19	371	100	0	0	355	649	390	367
20	212	101	0	0	407	354	363	527
21	159	229	0	0	595	365	509	669
22	72	119	0	0	680	575	614	672
23	433	413	0	0	663	651	949	981
24	0	0	94	25	950	938	859	940
25	232	285	181	115	958	846	852	977
26	807	841	810	786	58	48	0	0
27	425	808	808	425	0	0	0	0
28	19	84	169	137	155	71	179	230
29	419	502	283	264	240	176	0	0
30	484	886	808	425	209	190	0	0
31	464	641	522	487	11	31	205	43
32	327	357	223	221	140	207	324	229
33	745	1287	884	521	428	417	404	236
34	587	878	150	216	131	365	1074	483
35	141	184	579	393	515	986	628	300
36	420	435	654	567	308	380	0	0
37	1368	481	934	388	0	457	10	986
38	967	1049	509	1409	678	0	0	282
39	1278	46	892	510	0	1614	0	0
40	861	632	60	1296	1007	0	0	0
41	420	435	435	420	0	0	0	0
42	420	435	435	420	0	0	0	0
43	807	841	841	807	0	0	0	0
44	807	841	841	807	0	0	0	0
45	0	0	0	0	0	0	0	0
46	0	0	0	0	0	0	0	0
47	1092	939	939	1092	0	0	0	0
48	1092	939	939	1092	0	0	0	0
49	1092	939	251	293	1248	1017	0	342
50	224	351	275	383	290	0	416	471
51	286	345	64	47	504	415	626	673
52	210	425	615	500	730	758	677	549
53	1160	924	1021	993	310	574	0	0
54	492	441	641	833	278	572	982	547
55	921	1088	500	454	842	721	0	0
56	564	818	880	851	313	356	1301	1033
57	165	110	0	0	1045	1272	1200	1028
58	507	721	773	545	310	267	407	464
59	228	284	473	370	488	476	597	656
60	473	556	583	431	539	679	724	653
61	334	462	577	345	801	878	812	839
62	498	871	995	484	751	884	791	796
63	348	453	167	148	812	677	648	697
64	0	0	0	0	697	648	648	697
65	460	721	756	505	657	814	883	716
66	289	369	358	253	645	893	878	655
67	629	860	915	607	663	832	828	736
68	335	464	447	311	725	858	895	769
69	513	724	847	486	825	874	848	949
70	506	740	741	432	322	470	434	361
71	329	397	331	344	306	429	433	229
72	662	823	857	614	264	373	306	279
73	431	448	498	402	274	285	317	385
74	1183	1407	1674	1360	639	601	614	742
75	322	487	520	420	383	333	336	321

2030 AM Peak Hour Without Project Link Volumes

Use this table (these volumes) in BTRNAMWO for Model Volumes (Page: ModelVols).

	N-I/B 1	N-O/B 2	S-I/B 3	S-O/B 4	E-I/B 5	E-O/B 6	W-I/B 7	W-O/B 8
1	216	399	453	190	0	0	220	300
2	0	0	511	10	33	106	47	476
3	478	296	390	210	471	39	190	985
4	688	1143	809	1028	0	72	745	0
5	210	459	1156	709	622	353	576	1040
6	655	1981	2042	1741	0	622	1647	0
7	833	973	1965	638	321	0	0	1508
8	0	134	28	0	4	19	137	17
9	400	0	0	22	20	142	147	404
10	0	0	525	224	1177	62	278	1694
11	18	8	0	0	1694	278	246	1660
12	0	1854	614	0	1891	341	665	976
13	304	0	0	525	977	660	937	1032
14	0	0	37	714	903	210	175	191
15	40	25	117	179	191	175	94	63
16	0	0	541	1613	1256	826	1511	869
17	0	0	671	413	858	1511	1573	1196
18	359	488	1081	950	0	0	710	712
19	360	182	0	0	721	737	468	630
20	231	166	0	0	670	432	422	724
21	149	118	0	0	792	424	442	841
22	8	134	0	0	1023	580	601	918
23	366	567	0	0	905	634	912	983
24	0	0	101	29	952	901	870	981
25	90	143	188	119	999	857	437	842
26	591	1062	1031	570	58	48	0	0
27	617	750	855	538	0	0	293	346
28	295	452	234	156	396	138	114	294
29	409	489	172	254	200	39	0	0
30	662	1147	750	617	366	215	0	0
31	530	447	503	539	11	31	103	26
32	350	473	550	312	87	104	162	107
33	927	1418	1147	727	585	442	408	347
34	899	851	521	499	242	369	567	509
35	60	139	388	498	541	479	462	335
36	841	1250	684	580	488	246	183	119
37	1359	742	1065	570	0	273	159	996
38	1227	1370	770	1400	1035	178	0	423
39	968	663	865	822	0	634	286	0
40	801	789	677	986	885	0	0	588
41	933	1353	1250	841	0	601	612	0
42	1136	981	1353	933	347	0	0	922
43	549	1423	1062	591	0	504	906	0
44	1608	803	1423	549	374	0	0	2052
45	315	751	199	184	0	303	725	0
46	749	934	751	315	294	0	0	545
47	2091	1004	2206	1181	0	1445	464	0
48	1382	1507	1004	2091	1387	776	17	0
49	1181	2206	676	585	435	163	926	265
50	164	20	298	424	213	926	1045	350
51	313	237	47	102	383	1044	1149	509
52	343	411	562	225	542	1280	1073	603
53	1594	1168	1342	1253	221	713	12	36
54	669	629	798	773	306	584	664	452
55	1241	1514	1046	1170	871	573	250	152
56	1069	883	842	1652	702	431	676	323
57	225	147	0	0	335	647	469	234
58	715	841	865	755	507	210	275	556
59	608	483	583	543	654	382	163	598
60	940	997	802	672	410	334	334	483
61	333	522	590	309	610	492	377	586
62	665	849	915	673	527	655	518	449
63	583	806	1002	658	377	473	287	312
64	225	492	751	431	398	259	262	454
65	548	846	951	692	899	765	824	921
66	346	369	600	517	949	741	501	769
67	1212	1594	1382	1082	850	472	438	733
68	321	501	462	303	721	462	525	763
69	680	678	800	701	844	730	731	947
70	649	1015	894	529	580	359	429	649
71	419	562	329	453	865	378	673	891
72	1116	1388	1589	1196	1146	672	475	1070
73	439	672	550	416	1013	478	522	958
74	1726	2060	2235	1821	804	655	612	840
75	329	721	731	433	407	321	332	324

LYTLE CREEK RANCH PROJECT
B-Turns Worksheets for
2030 PM Without Project Scenario

2030 PM Peak Hour Without Project Model Link Volumes(Adjusted)

IS-No.	N-I/B 1	N-O/B 2	S-I/B 3	S-O/B 4	E-I/B 5	E-O/B 6	W-I/B 7	W-O/B 8
1	506	335	282	417	0	0	324	361
2	0	0	246	52	147	74	37	303
3	476	553	335	506	303	37	441	459
4	698	276	333	1154	0	192	591	0
5	182	189	276	698	574	85	510	571
6	1112	1894	1910	2834	0	369	2076	0
7	1141	760	1894	1112	514	0	0	1678
8	0	502	54	0	2	62	517	9
9	615	0	0	71	9	517	585	622
10	0	0	477	429	889	796	1210	1351
11	22	1	0	0	1351	1210	1188	1350
12	0	872	567	0	1350	1188	1180	1038
13	1406	0	0	702	1038	1180	795	1356
14	0	0	269	344	526	944	733	242
15	0	0	585	129	242	733	190	154
16	0	0	190	34	39	270	202	126
17	0	0	798	110	126	202	45	474
18	262	390	1356	795	0	0	533	966
19	508	812	0	0	1018	616	710	813
20	95	74	0	0	813	710	615	739
21	75	48	0	0	739	615	627	777
22	78	122	0	0	880	948	882	770
23	220	161	0	0	731	848	768	709
24	0	0	62	90	709	768	942	804
25	213	145	62	90	804	942	780	712
26	1605	1153	1153	1605	0	0	0	0
27	375	604	322	235	0	0	411	268
28	474	423	74	95	365	438	178	135
29	30	28	48	75	64	39	0	0
30	769	690	604	375	105	228	0	0
31	206	249	216	139	0	0	68	102
32	602	356	289	489	15	11	78	126
33	677	644	756	795	105	228	118	112
34	769	747	437	487	112	118	277	243
35	45	66	306	221	243	277	288	318
36	1153	701	340	587	319	388	141	277
37	734	706	644	677	0	220	533	308
38	883	1234	706	734	669	58	0	233
39	819	784	747	769	0	660	647	0
40	771	1100	784	819	723	0	0	358
41	792	949	701	1153	0	490	1100	0
42	1038	1132	949	792	805	0	0	868
43	880	1645	1153	1605	0	478	1695	0
44	1698	1411	1645	880	644	0	0	1696
45	758	854	273	845	0	455	1122	0
46	1114	1124	854	758	525	0	0	610
47	1581	877	2137	1474	0	2225	858	0
48	1202	1032	877	1581	1517	788	157	352
49	1474	2137	1051	1328	484	353	1440	630
50	407	84	143	196	630	1440	1440	900
51	242	226	243	302	900	1440	1631	1047
52	339	388	386	445	1112	1673	1528	857
53	932	1389	1234	883	129	109	119	32
54	804	1015	1100	771	33	199	218	170
55	918	916	1132	1038	183	134	281	426
56	1198	1201	1411	1698	454	422	636	377
57	246	276	0	0	377	636	445	157
58	1054	1172	1211	941	451	654	444	392
59	719	959	1047	764	545	696	783	675
60	874	884	804	696	600	788	649	558
61	400	318	393	452	592	684	725	656
62	1075	1002	1037	1071	724	874	896	785
63	882	859	944	1109	807	990	1228	902
64	595	416	743	855	895	1140	1126	948
65	1377	1082	1359	1463	799	1117	1300	1172
66	807	772	917	973	988	1272	1278	972
67	1100	1033	981	1102	918	1109	1136	889
68	576	339	425	555	843	1159	1045	836
69	1214	1085	1032	1141	972	1051	1065	1005
70	1553	1155	1150	1387	818	1040	1125	1064
71	833	792	811	772	1012	1287	1032	836
72	1107	955	1020	1147	876	1244	1107	765
73	727	380	384	648	802	1074	911	722
74	1089	1021	960	1100	326	465	481	268
75	653	390	394	712	316	376	372	258

2007 PM Peak Hour Existing Conditions Model Link Volumes (Adjusted)

IS-No.	N-I/B 1	N-O/B 2	S-I/B 3	S-O/B 4	E-I/B 5	E-O/B 6	W-I/B 7	W-O/B 8
1	67	98	123	132	0	0	101	61
2	0	0	20	66	47	37	66	31
3	176	161	98	67	31	66	133	144
4	563	155	389	676	0	284	164	0
5	129	137	155	563	41	16	514	122
6	975	1197	1221	2121	0	171	1294	0
7	780	569	1197	975	591	0	0	1025
8	0	275	4	0	0	1	275	4
9	226	0	0	22	4	275	297	229
10	0	0	0	0	59	0	0	59
11	54	77	0	0	59	0	77	112
12	0	154	346	0	112	77	130	358
13	403	0	0	313	358	130	412	729
14	0	0	0	0	80	126	126	80
15	0	0	0	0	80	126	126	80
16	0	0	91	174	167	362	354	77
17	0	0	465	82	77	354	35	125
18	154	159	729	412	0	0	257	570
19	396	771	0	0	570	257	500	441
20	17	5	0	0	441	500	482	435
21	141	71	0	0	435	482	534	557
22	163	134	0	0	552	687	679	572
23	211	218	0	0	542	655	772	651
24	0	0	56	90	651	772	895	694
25	557	395	56	90	694	895	993	951
26	1382	1101	1101	1382	0	0	0	0
27	444	514	166	162	0	0	0	0
28	0	0	5	17	158	150	166	162
29	69	38	71	141	159	120	0	0
30	486	532	514	444	32	42	0	0
31	342	196	190	181	0	0	126	280
32	465	340	96	207	241	129	374	499
33	531	557	574	502	32	42	18	63
34	623	531	7	6	63	18	545	683
35	122	56	227	353	683	545	421	499
36	242	141	369	554	396	312	0	0
37	730	516	557	531	0	204	166	204
38	730	516	516	730	273	0	0	273
39	1019	2	531	623	0	924	0	0
40	405	1024	2	1019	1635	0	0	0
41	242	141	141	242	0	0	0	0
42	242	141	141	242	0	0	0	0
43	1382	1101	1101	1382	0	0	0	0
44	1382	1101	1101	1382	0	0	0	0
45	0	0	0	0	0	0	0	0
46	0	0	0	0	0	0	0	0
47	581	970	737	1552	0	0	1205	0
48	680	358	970	581	0	1189	503	25
49	1552	737	616	760	1051	1221	0	501
50	138	628	115	162	501	0	570	534
51	328	276	218	417	534	570	1026	844
52	190	239	353	509	900	1093	1054	655
53	656	844	516	730	442	40	0	0
54	496	703	1024	405	109	4	111	628
55	343	497	141	242	356	101	0	0
56	1068	855	1101	1382	119	80	841	812
57	47	73	0	0	812	841	874	819
58	874	945	983	819	401	500	338	331
59	386	511	740	518	502	533	910	976
60	285	372	503	344	712	713	731	803
61	284	238	280	355	817	767	897	919
62	1027	895	1046	1141	874	983	1054	982
63	469	460	97	163	1063	1192	1404	1217
64	0	0	0	0	1202	1331	1331	1202
65	1108	1052	1079	1247	863	774	1082	1058
66	698	646	594	710	946	888	1066	1060
67	414	328	399	515	1041	986	1142	1166
68	356	265	319	439	1129	1163	1096	1034
69	1216	1069	1041	1157	1024	1070	1071	1055
70	1070	1053	1107	1098	805	794	805	843
71	658	606	643	724	899	843	427	455
72	476	344	317	455	313	366	345	286
73	399	285	269	412	305	349	378	304
74	388	302	345	472	290	307	390	332
75	325	242	292	396	329	327	307	288

LYTLE CREEK RANCH PROJECT
B-Turns Worksheets for
2030 PM Without Project Scenario

2007 PM Peak Hour Existing Aggregated Count -- Link Volumes

IS-No.	N-I/B 1	N-O/B 2	S-I/B 3	S-O/B 4	E-I/B 5	E-O/B 6	W-I/B 7	W-O/B 8
1	448	126	131	481	16	3	205	190
2	0	0	122	161	35	31	162	127
3	490	92	134	451	128	140	269	338
4	795	487	732	1127	0	447	534	0
5	520	174	490	801	248	196	329	416
6	648	1706	1473	1661	0	322	1568	0
7	1142	944	1754	601	257	0	0	1608
8	0	125	15	0	8	2	120	16
9	106	0	0	31	16	119	130	102
10	0	0	0	0	151	152	152	151
11	338	47	0	0	151	152	116	406
12	0	295	298	0	380	192	347	538
13	255	0	0	699	550	349	770	527
14	0	0	0	0	44	44	44	44
15	32	36	0	0	44	44	20	16
16	0	0	559	818	1053	1592	1859	1061
17	0	0	1489	701	1065	1837	1703	1719
18	485	318	541	763	0	0	490	435
19	202	236	0	0	373	470	412	281
20	172	147	0	0	287	391	414	335
21	158	145	0	0	340	430	507	430
22	77	139	0	0	517	499	585	541
23	439	275	0	0	541	540	682	847
24	0	0	21	72	850	653	662	808
25	242	112	83	105	797	710	732	927
26	1026	1074	968	1030	207	97	0	0
27	1087	599	599	1087	0	0	0	0
28	321	162	143	258	57	113	202	190
29	377	308	139	180	229	257	0	0
30	1031	688	599	1087	353	208	0	0
31	466	385	345	396	4	9	150	175
32	1224	386	210	640	290	281	370	787
33	1732	1257	722	1027	1108	998	548	828
34	944	809	220	219	527	326	885	1222
35	96	175	455	383	1063	772	484	768
36	767	265	406	1277	665	296	0	0
37	1488	529	757	1019	0	234	28	491
38	1129	976	511	1520	1790	0	0	1104
39	1517	95	792	959	0	1255	0	0
40	632	740	101	1533	1540	0	0	0
41	767	265	265	767	0	0	0	0
42	767	265	265	767	0	0	0	0
43	1026	1074	1074	1026	0	0	0	0
44	1026	1074	1074	1026	0	0	0	0
45	0	0	0	0	0	0	0	0
46	0	0	0	0	0	0	0	0
47	932	1227	1227	932	0	0	0	0
48	932	1227	1227	932	0	0	0	0
49	932	1227	345	235	1434	966	0	283
50	359	487	255	556	284	0	652	507
51	582	322	109	139	502	673	761	820
52	426	258	362	759	889	782	855	733
53	1042	1044	951	1101	346	194	0	0
54	403	599	774	628	1253	167	461	1497
55	1113	2190	563	1467	2651	670	0	0
56	1150	775	1144	1078	567	427	1152	1733
57	217	180	0	0	1661	1108	1006	1596
58	805	857	921	910	602	483	628	706
59	355	541	748	445	685	671	817	948
60	504	769	947	456	1023	771	824	1302
61	365	312	361	361	1258	932	874	1253
62	1058	914	901	1272	1346	962	953	1110
63	393	255	100	145	1221	930	896	1280
64	0	0	0	0	1280	896	896	1280
65	996	1019	893	963	1377	919	1054	1419
66	435	388	444	393	1291	993	905	1301
67	862	883	734	866	1239	891	984	1179
68	554	390	342	555	1232	973	1054	1264
69	1092	885	1056	944	1360	1146	1003	1536
70	1166	847	987	992	918	778	533	987
71	481	465	408	426	895	490	399	802
72	880	876	890	864	722	397	299	654
73	492	415	382	572	671	316	366	608
74	1641	1313	1492	1721	1247	789	805	1362
75	375	420	412	458	758	419	441	689

2030 PM Peak Hour Without Project Link Volumes

Use this table (these volumes) in BTRNPMWO for Model Volumes (Page: ModelVols).

	N-I/B 1	N-O/B 2	S-I/B 3	S-O/B 4	E-I/B 5	E-O/B 6	W-I/B 7	W-O/B 8
1	887	363	290	766	16	3	428	490
2	0	0	348	147	135	68	133	399
3	790	484	371	890	400	111	577	653
4	930	608	676	1605	0	355	961	0
5	573	226	611	936	781	265	325	865
6	785	2403	2162	2374	0	520	2350	0
7	1503	1135	2451	738	180	0	0	2261
8	0	352	65	0	10	63	362	21
9	495	0	0	80	21	361	418	495
10	0	0	477	429	981	948	1362	1443
11	306	24	0	0	1443	1362	1227	1644
12	0	1013	519	0	1618	1303	1397	1218
13	1258	0	0	1088	1230	1399	1153	1154
14	0	0	269	344	490	862	651	206
15	32	36	585	129	206	651	84	90
16	0	0	658	678	925	1500	1707	1110
17	0	0	1822	729	1114	1685	1713	2068
18	593	549	1168	1146	0	0	766	831
19	314	277	0	0	821	829	622	653
20	250	216	0	0	659	601	547	639
21	92	122	0	0	644	563	600	650
22	39	127	0	0	845	760	788	739
23	448	218	0	0	730	733	678	905
24	0	0	27	72	908	649	709	918
25	121	56	89	105	907	757	519	688
26	1249	1126	1020	1253	207	97	0	0
27	1018	689	755	1160	0	0	411	268
28	795	585	212	336	264	401	214	163
29	338	298	116	114	134	176	0	0
30	1314	846	689	1018	426	394	0	0
31	330	438	371	354	4	9	92	88
32	1361	402	403	922	64	163	74	414
33	1878	1344	904	1320	1181	1184	648	877
34	1090	1025	650	700	576	426	617	782
35	19	185	534	251	623	504	351	587
36	1678	825	377	1310	588	372	141	277
37	1492	719	844	1165	0	250	395	595
38	1282	1694	701	1524	2186	58	0	233
39	1317	877	1008	1105	0	991	647	0
40	998	816	883	1333	628	0	0	358
41	1317	1073	825	1678	0	490	1100	0
42	1563	1256	1073	1317	805	0	0	868
43	524	1618	1126	1249	0	478	1695	0
44	1342	1384	1618	524	644	0	0	1696
45	758	854	273	845	0	455	1122	0
46	1114	1124	854	758	525	0	0	610
47	1932	1134	2627	854	0	2225	858	0
48	1454	1901	1134	1932	1517	788	157	352
49	854	2627	780	803	867	98	1440	412
50	628	244	283	590	413	1440	1522	873
51	496	272	134	24	868	1543	1366	1023
52	575	407	395	695	1101	1362	1329	935
53	1318	1589	1669	1254	33	263	119	32
54	711	911	850	994	1177	362	568	1039
55	1113	2190	1132	1467	1363	703	281	426
56	1280	1121	1454	1394	902	769	947	1298
57	416	383	0	0	1226	903	577	934
58	985	1084	1149	1032	652	637	734	767
59	688	989	1055	691	728	834	690	647
60	1093	1281	1248	808	911	846	742	1057
61	481	392	474	458	1033	849	702	990
62	1106	1021	892	1202	1196	853	795	913
63	806	654	947	1091	965	728	720	965
64	595	416	743	855	973	705	691	1026
65	1265	1049	1173	1179	1313	1262	1272	1533
66	544	514	767	656	1333	1377	1117	1213
67	1548	1588	1316	1453	1116	1014	978	902
68	774	464	448	671	946	969	1003	1066
69	1090	901	1047	928	1308	1127	997	1486
70	1649	949	1030	1281	931	1024	853	1208
71	656	651	576	474	1008	934	1004	1183
72	1511	1487	1593	1556	1285	1275	1061	1133
73	820	510	497	808	1168	1041	899	1026
74	2342	2032	2107	2349	1283	947	896	1298
75	703	568	514	774	745	468	506	659

APPENDIX C

EXISTING (2007) TRAFFIC COUNTS

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VEHICLE TURNING MOVEMENT COUNT SUMMARY

Prepared by: National Data & Surveying Services
Project # 07-3029-001

N/S STREET: Devore Rd

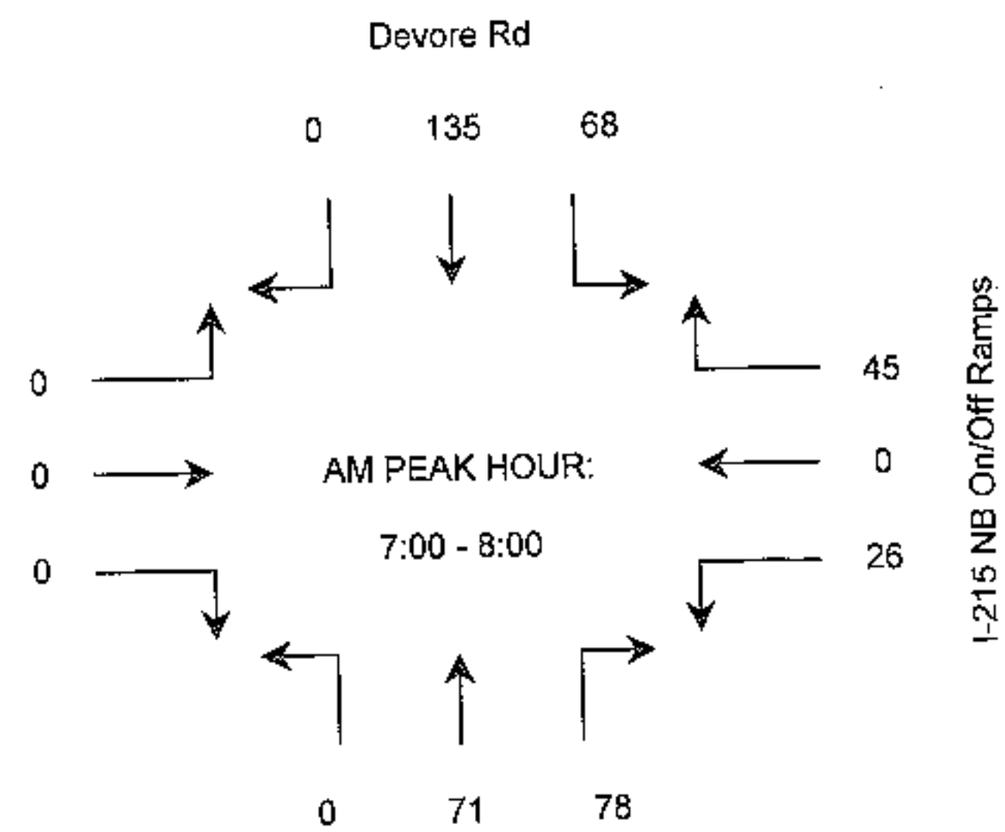
E/W STREET: I-215 NB On/Off Ramps

PERIOD: AM Peak Hour

DATE: WEDNESDAY 1/24/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	7	0	6	0	0	0	0	19	16	21	30	0	99
7:15 - 7:30	5	0	13	0	0	0	0	13	19	18	36	0	104
7:30 - 7:45	3	0	12	0	0	0	0	14	29	16	35	0	109
7:45 - 8:00	11	0	14	0	0	0	0	25	14	13	34	0	111
8:00 - 8:15	5	0	10	0	0	0	0	20	11	16	20	0	82
8:15 - 8:30	4	0	23	0	0	0	0	16	12	20	21	0	96
8:30 - 8:45	2	0	29	0	0	0	0	18	16	16	40	0	121
8:45 - 9:00	5	0	21	0	0	0	0	18	7	10	36	0	97

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	26	0	45	0	0	0	0	71	78	68	135	0	423 *
7:15 - 8:15	24	0	49	0	0	0	0	72	73	63	125	0	406
7:30 - 8:30	23	0	59	0	0	0	0	75	66	65	110	0	398
7:45 - 8:45	22	0	76	0	0	0	0	79	53	65	115	0	410
8:00 - 9:00	16	0	83	0	0	0	0	72	46	62	117	0	396

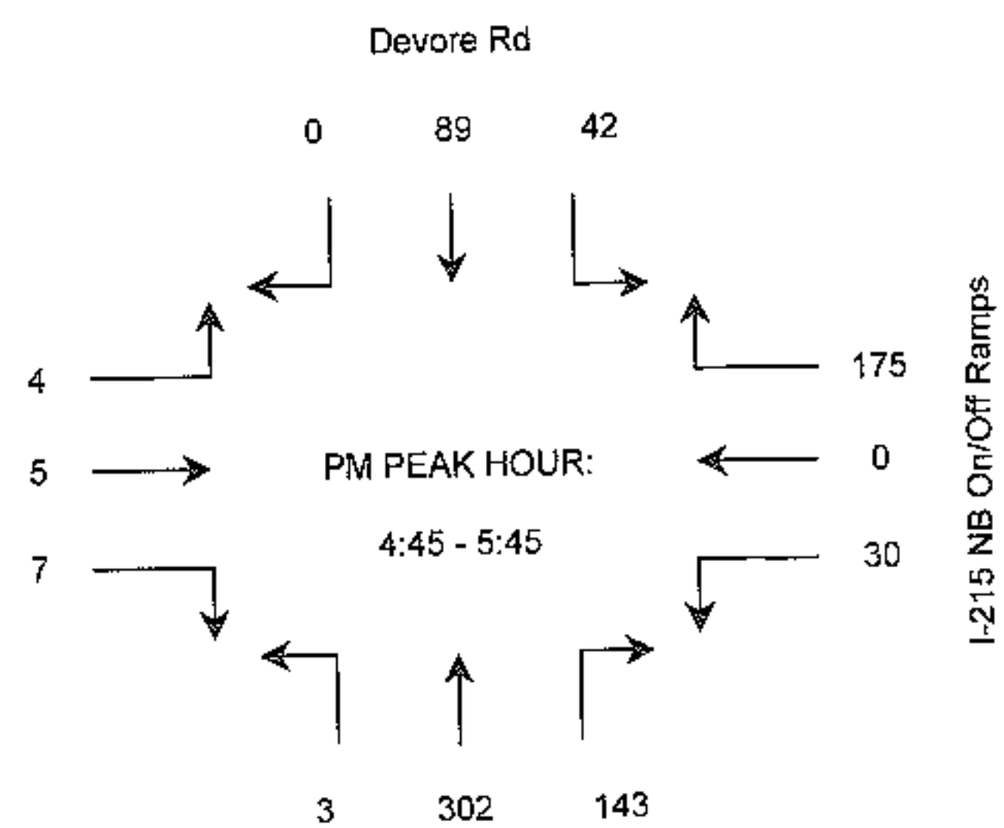


PERIOD: PM Peak Hour

DATE: WEDNESDAY 1/24/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	10	0	24	3	2	0	2	39	44	15	25	0	164
4:15 - 4:30	12	1	20	0	0	2	1	61	49	12	21	0	179
4:30 - 4:45	7	0	24	1	0	2	1	42	39	6	29	0	151
4:45 - 5:00	8	0	55	1	1	1	1	73	39	5	19	0	203
5:00 - 5:15	5	0	40	1	1	0	0	90	30	8	23	0	198
5:15 - 5:30	9	0	36	1	1	3	0	60	40	13	21	0	184
5:30 - 5:45	8	0	44	1	2	3	2	79	34	16	26	0	215
5:45 - 6:00	13	0	22	0	0	0	3	40	34	4	26	0	142

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	37	1	123	5	3	5	5	215	171	38	94	0	697
4:15 - 5:15	32	1	139	3	2	5	3	266	157	31	92	0	731
4:30 - 5:30	29	0	155	4	3	6	2	265	148	32	92	0	736
4:45 - 5:45	30	0	175	4	5	7	3	302	143	42	89	0	800 *
5:00 - 6:00	35	0	142	3	4	6	5	269	138	41	96	0	739



VEHICLE TURNING MOVEMENT COUNT SUMMARY

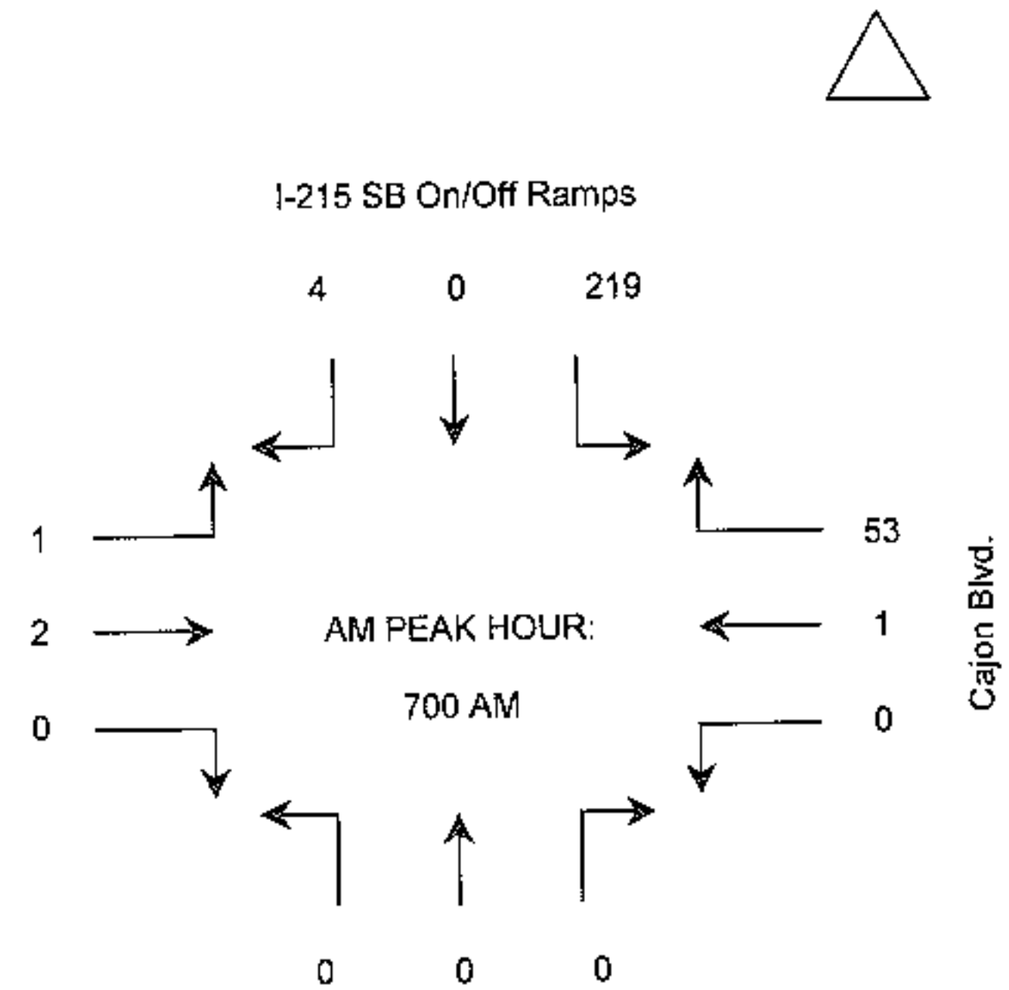
Prepared by: National Data & Surveying Services
Project # 07-3029-002

N/S STREET: I-215 SB On/Off Ramps **E/W STREET:** Cajon Blvd.

PERIOD: AM Peak Hour **DATE:** WEDNESDAY 1/24/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	0	1	17	0	0	0	0	0	0	44	0	3	65
7:15 - 7:30	0	0	21	0	0	0	0	0	0	36	0	0	57
7:30 - 7:45	0	0	8	1	1	0	0	0	0	67	0	1	78
7:45 - 8:00	0	0	7	0	1	0	0	0	0	72	0	0	80
8:00 - 8:15	0	2	9	0	0	0	0	0	0	36	0	0	47
8:15 - 8:30	0	1	11	0	1	0	0	0	0	25	0	1	39
8:30 - 8:45	0	0	18	0	0	0	0	0	0	27	0	0	45
8:45 - 9:00	0	2	25	0	1	0	0	0	0	22	0	1	51

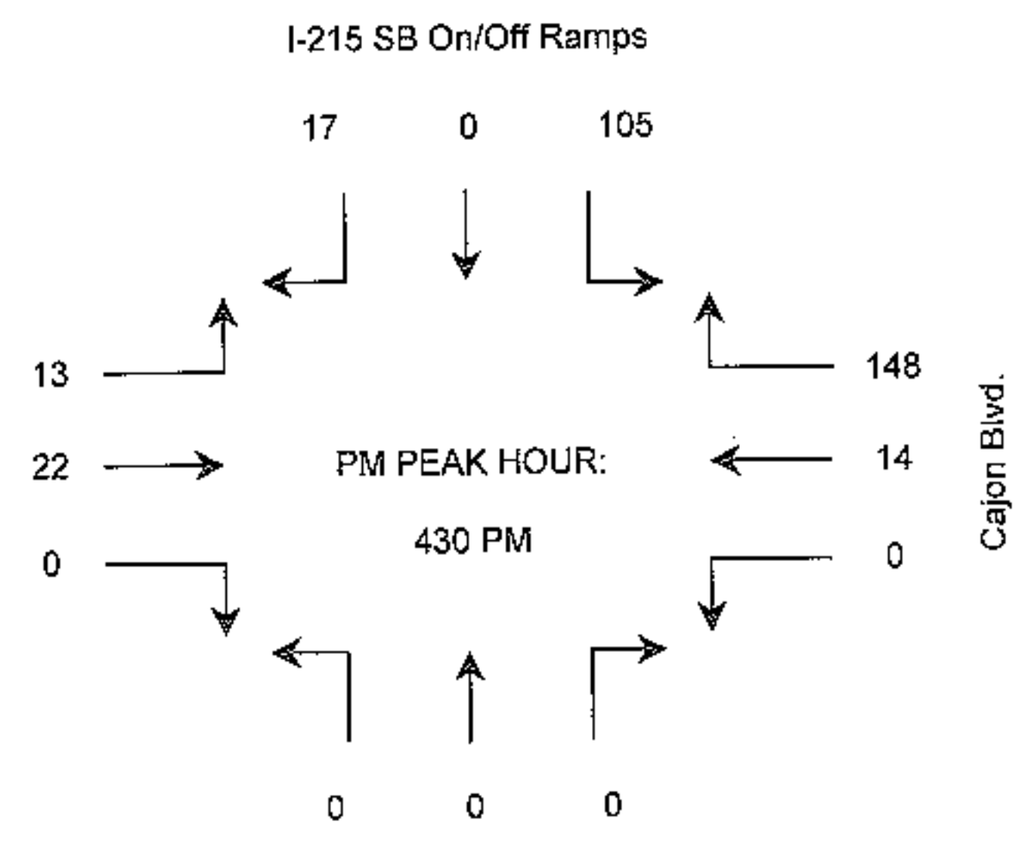
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	0	1	53	1	2	0	0	0	0	219	0	4	280 *
7:15 - 8:15	0	2	45	1	2	0	0	0	0	211	0	1	262
7:30 - 8:30	0	3	35	1	3	0	0	0	0	200	0	2	244
7:45 - 8:45	0	3	45	0	2	0	0	0	0	160	0	1	211
8:00 - 9:00	0	5	63	0	2	0	0	0	0	110	0	2	182



PERIOD: PM Peak Hour **DATE:** WEDNESDAY 1/24/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	0	0	26	2	6	0	0	0	0	22	0	2	58
4:15 - 4:30	0	3	26	3	5	0	0	0	0	29	0	6	72
4:30 - 4:45	0	4	44	3	6	0	0	0	0	29	0	7	93
4:45 - 5:00	0	2	37	3	6	0	0	0	0	26	0	3	77
5:00 - 5:15	0	6	36	4	5	0	0	0	0	22	0	4	77
5:15 - 5:30	0	2	31	3	5	0	0	0	0	28	0	3	72
5:30 - 5:45	0	5	31	1	7	0	0	0	0	22	0	2	68
5:45 - 6:00	0	5	21	2	9	0	0	0	0	19	0	3	59

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	0	9	133	11	23	0	0	0	0	106	0	18	300
4:15 - 5:15	0	15	143	13	22	0	0	0	0	106	0	20	319 *
4:30 - 5:30	0	14	148	13	22	0	0	0	0	105	0	17	319 *
4:45 - 5:45	0	15	135	11	23	0	0	0	0	98	0	12	294
5:00 - 6:00	0	18	119	10	26	0	0	0	0	91	0	12	276



VEHICLE TURNING MOVEMENT COUNT SUMMARY

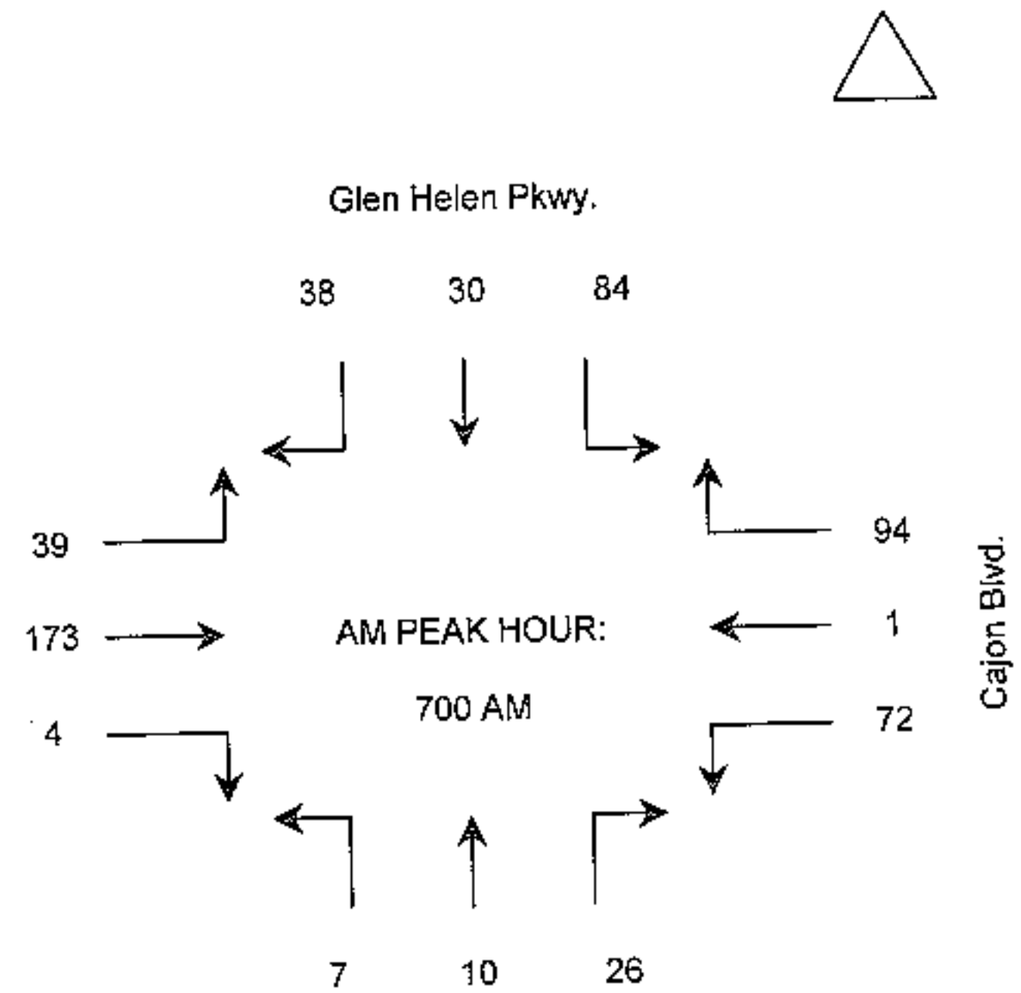
Prepared by: National Data & Surveying Services
Project # 07-3029-003

N/S STREET: Glen Helen Pkwy. **E/W STREET:** Cajon Blvd.

PERIOD: AM Peak Hour **DATE:** WEDNESDAY 1/24/2007

15-MINUTE TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
7:00 - 7:15	24	0	20	13	28	2	2	1	2	15	5	17	129
7:15 - 7:30	23	0	21	6	30	1	1	2	7	17	11	11	130
7:30 - 7:45	14	0	29	6	47	0	2	5	10	30	5	5	153
7:45 - 8:00	11	1	24	14	68	1	2	2	7	22	9	5	166
8:00 - 8:15	12	0	19	10	27	0	1	1	6	12	7	14	109
8:15 - 8:30	8	2	19	8	19	1	1	1	15	9	2	12	97
8:30 - 8:45	10	0	27	2	24	0	0	3	10	17	5	19	117
8:45 - 9:00	5	1	17	5	21	2	4	4	7	16	7	21	110

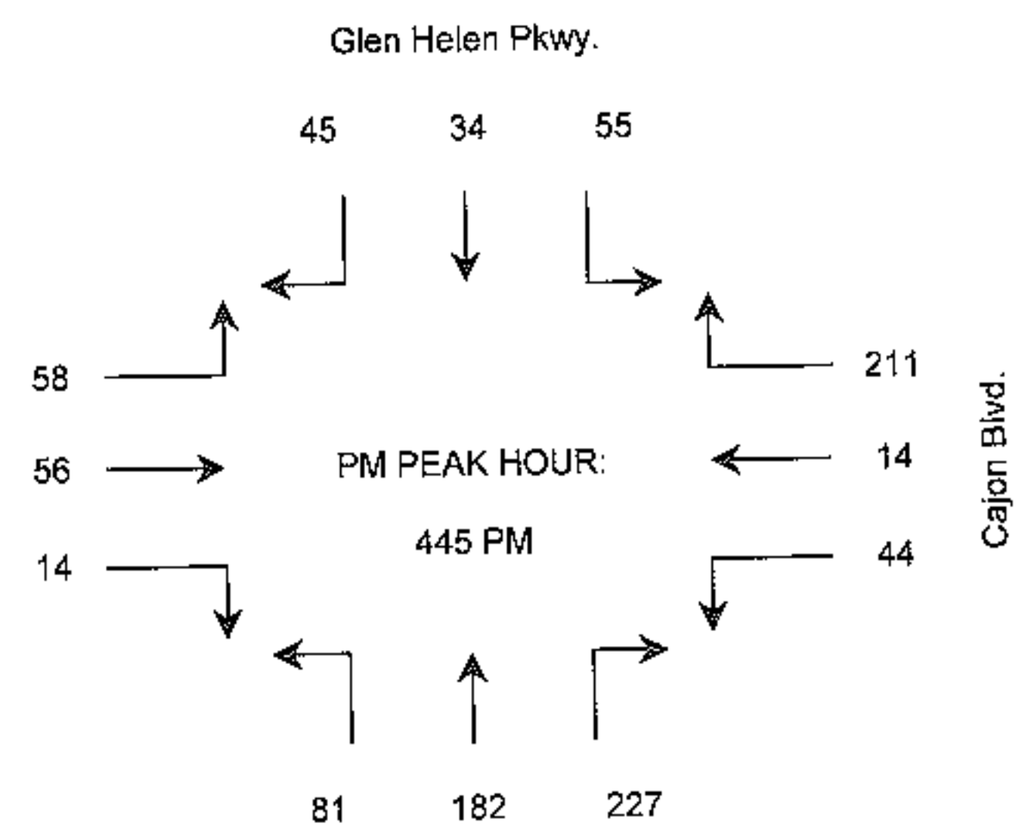
1-HOUR TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
7:00 - 8:00	72	1	94	39	173	4	7	10	26	84	30	38	578 *
7:15 - 8:15	60	1	93	36	172	2	6	10	30	81	32	35	558
7:30 - 8:30	45	3	91	38	161	2	6	9	38	73	23	36	525
7:45 - 8:45	41	3	89	34	138	2	4	7	38	60	23	50	489
8:00 - 9:00	35	3	82	25	91	3	6	9	38	54	21	66	433



PERIOD: PM Peak Hour **DATE:** WEDNESDAY 1/24/2007

15-MINUTE TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
4:00 - 4:15	18	2	48	13	15	3	23	26	56	9	12	12	237
4:15 - 4:30	18	1	52	17	11	1	25	41	67	13	7	10	263
4:30 - 4:45	12	3	40	11	12	7	21	28	49	11	6	12	212
4:45 - 5:00	16	3	43	17	12	8	18	41	37	16	6	9	226
5:00 - 5:15	14	3	46	20	10	2	24	52	76	12	7	9	275
5:15 - 5:30	8	4	58	12	12	3	21	46	35	13	8	11	231
5:30 - 5:45	6	4	64	9	22	1	18	43	79	14	13	16	289
5:45 - 6:00	10	5	46	13	16	2	5	16	24	12	10	17	176

1-HOUR TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
4:00 - 5:00	64	9	183	58	50	19	87	136	209	49	31	43	938
4:15 - 5:15	60	10	181	65	45	18	88	162	229	52	26	40	976
4:30 - 5:30	50	13	187	60	46	20	84	167	197	52	27	41	944
4:45 - 5:45	44	14	211	58	56	14	81	182	227	55	34	45	1,021 *
5:00 - 6:00	38	16	214	54	60	8	68	157	214	51	38	53	971



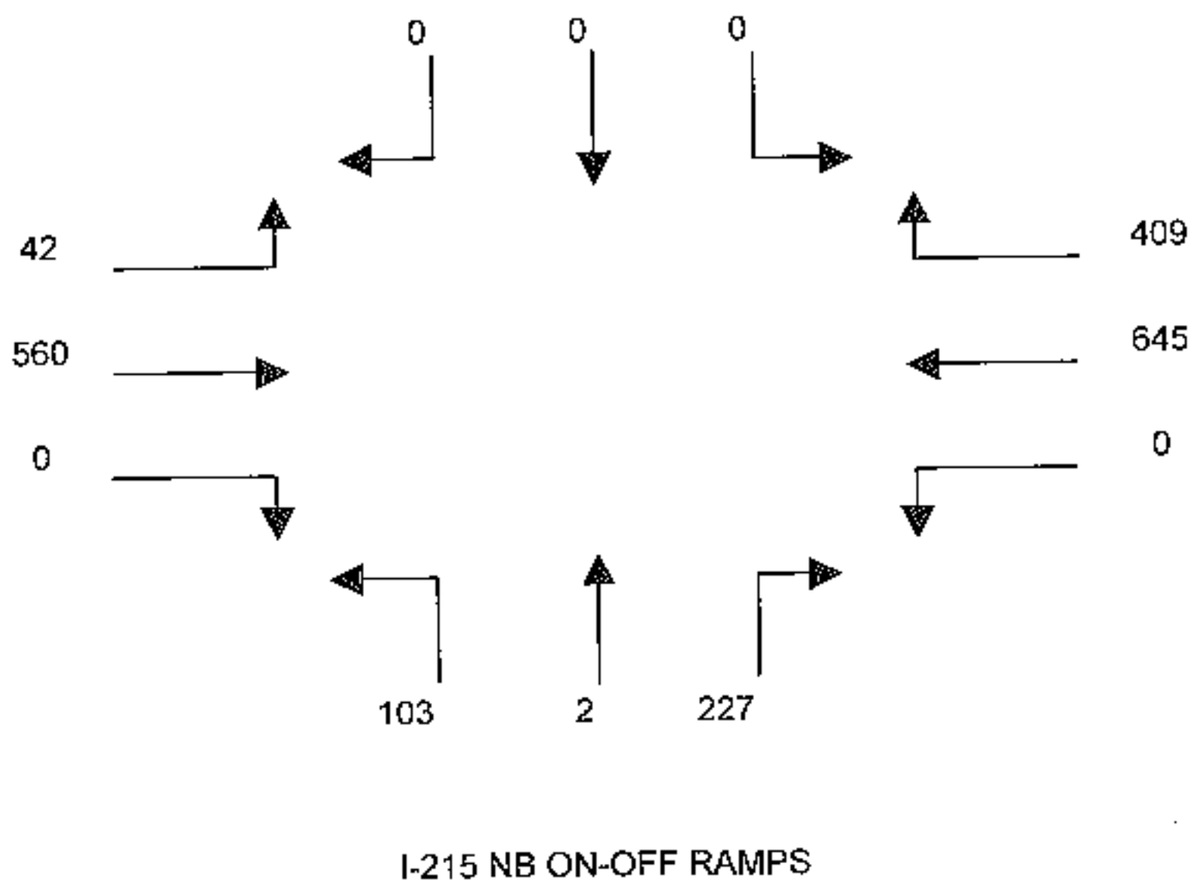
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: THURSDAY, MARCH 15, 2007
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S I-215 NB ON-OFF RAMPS
E/W PALM AVENUE
FILE NUMBER: 1-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	0	0	0	67	164	0	72	0	32	0	94	10
715-730	0	0	0	123	192	0	62	1	24	0	124	7
730-745	0	0	0	107	169	0	51	1	21	0	172	11
745-800	0	0	0	112	120	0	42	0	26	0	170	14
800-815	0	0	0	86	102	0	38	2	21	0	117	8
815-830	0	0	0	78	95	0	57	0	20	0	111	7
830-845	0	0	0	58	82	0	50	1	16	0	102	5
845-900	0	0	0	50	84	0	53	0	22	0	91	8

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	0	0	0	409	645	0	227	2	103	0	560	42	1988
715-815	0	0	0	428	583	0	193	4	92	0	583	40	1923
730-830	0	0	0	383	486	0	188	3	88	0	570	40	1758
745-845	0	0	0	334	399	0	187	3	83	0	500	34	1540
800-900	0	0	0	272	363	0	198	3	79	0	421	28	1364

A.M. PEAK HOUR
0700-0800



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

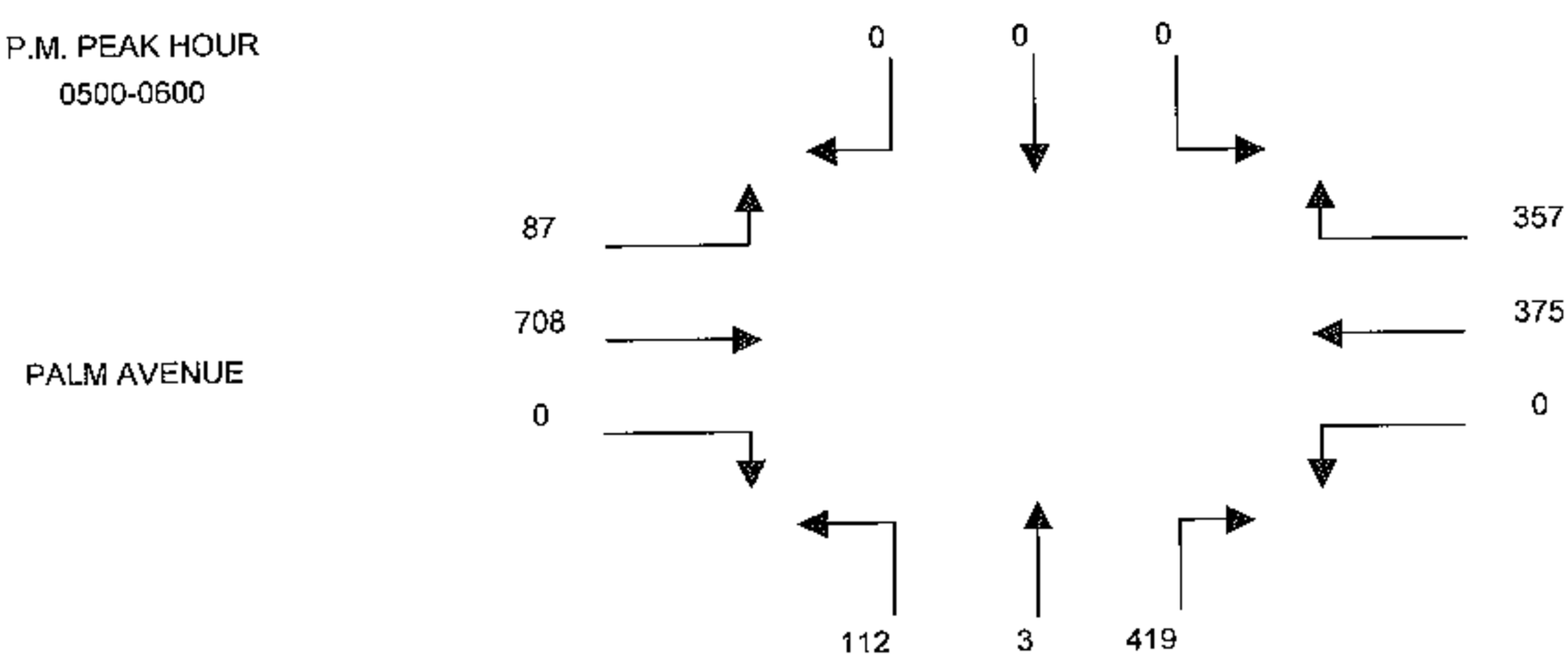
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: THURSDAY, MARCH 15, 2007
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S I-215 NB ON-OFF RAMPS
E/W PALM AVENUE
FILE NUMBER: 1-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	0	0	0	90	89	0	97	1	17	0	123	34
415-430	0	0	0	81	75	0	84	0	12	0	167	55
430-445	0	0	0	104	90	0	101	0	13	0	154	30
445-500	0	0	0	79	85	0	97	0	14	0	174	25
500-515	0	0	0	104	90	0	102	2	20	0	168	24
515-530	0	0	0	90	93	0	100	0	28	0	175	27
530-545	0	0	0	68	101	0	96	0	39	0	177	15
545-600	0	0	0	95	91	0	121	1	25	0	188	21

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	0	0	0	354	339	0	379	1	56	0	618	144	1891
415-515	0	0	0	368	340	0	384	2	59	0	663	134	1950
430-530	0	0	0	377	358	0	400	2	75	0	671	106	1989
445-545	0	0	0	341	369	0	395	2	101	0	694	91	1993
500-600	0	0	0	357	375	0	419	3	112	0	708	87	2061

P.M. PEAK HOUR
0500-0600



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

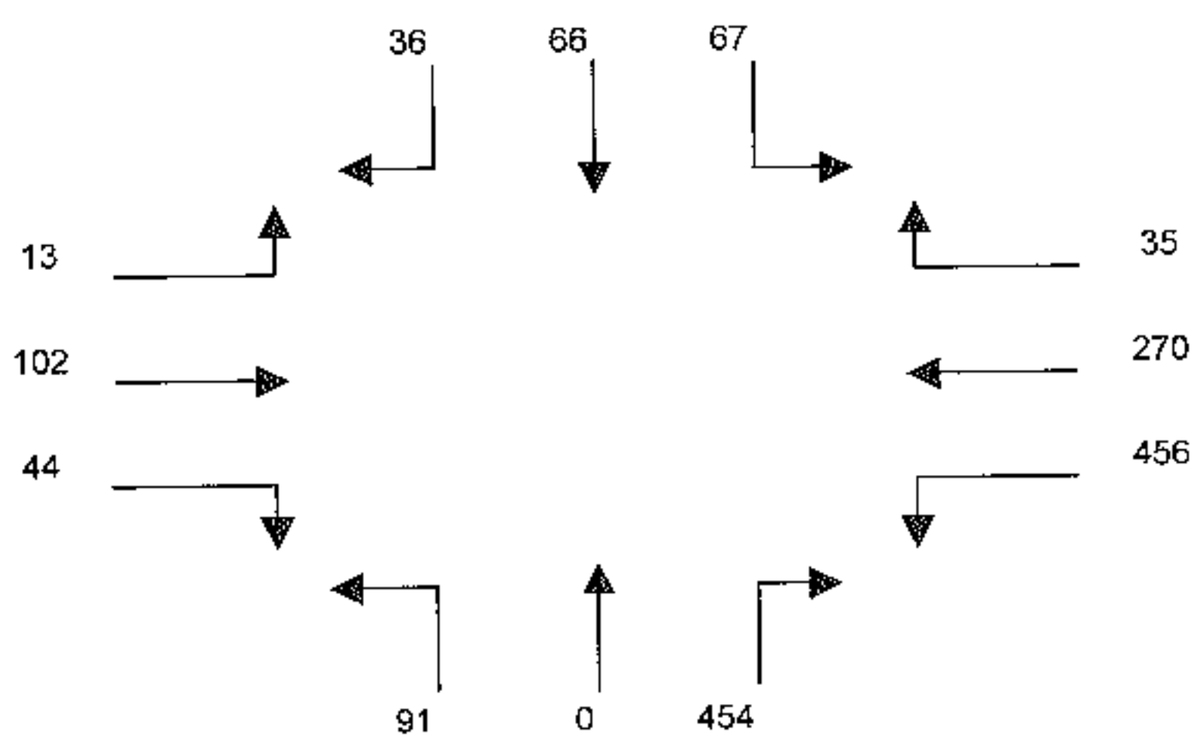
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: THURSDAY, MARCH 15, 2007
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S I-215 SB ON-OFF RAMPS / KENDALL DRIVE
E/W PALM AVENUE
FILE NUMBER: 2-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	4	16	10	6	67	118	77	0	18	10	26	1
715-730	7	19	14	7	57	142	95	0	29	9	20	3
730-745	11	12	29	9	65	118	139	0	24	10	29	5
745-800	14	19	14	13	81	78	143	0	20	15	27	4
800-815	11	10	8	10	52	78	102	0	23	10	39	7
815-830	10	16	7	5	30	58	76	0	16	11	21	6
830-845	10	10	8	4	24	67	68	1	23	17	34	9
845-900	13	16	5	6	46	88	59	1	34	18	34	6

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	36	66	67	35	270	456	454	0	91	44	102	13	1634
715-815	43	60	65	39	255	416	479	0	96	44	115	19	1631
730-830	46	57	58	37	228	332	460	0	83	46	116	22	1485
745-845	45	55	37	32	187	281	389	1	82	53	121	26	1309
800-900	44	52	28	25	152	291	305	2	96	56	128	28	1207

A.M. PEAK HOUR
0700-0800



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

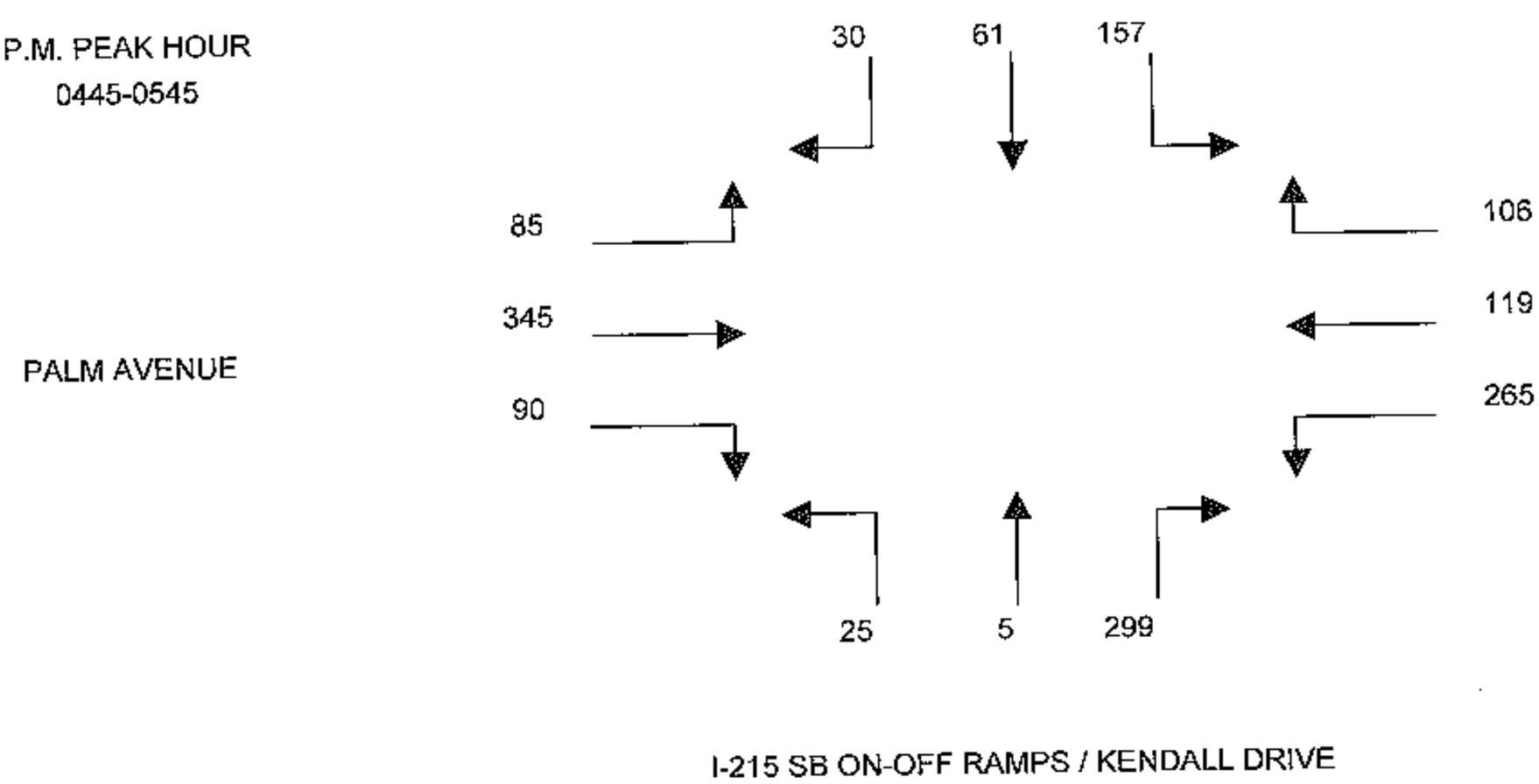
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: THURSDAY, MARCH 15, 2007
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S I-215 SB ON-OFF RAMPS / KENDALL DRIVE
E/W PALM AVENUE
FILE NUMBER: 2-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	7	29	33	21	32	39	75	0	8	36	58	17
415-430	9	21	41	30	30	50	87	1	10	39	82	15
430-445	5	23	36	25	25	57	81	1	9	40	70	10
445-500	12	15	42	20	30	58	84	2	8	33	92	16
500-515	6	14	30	18	21	62	79	0	6	20	100	15
515-530	6	19	46	25	30	75	66	3	7	22	73	20
530-545	6	13	39	43	38	70	70	0	4	15	80	34
545-600	7	11	40	39	34	51	80	0	5	19	70	28

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	33	88	152	96	117	204	327	4	35	148	302	58	1564
415-515	32	73	149	93	106	227	331	4	33	132	344	56	1580
430-530	29	71	154	88	106	252	310	6	30	115	335	61	1557
445-545	30	61	157	106	119	265	299	5	25	90	345	85	1587
500-600	25	57	155	125	123	258	295	3	22	76	323	97	1559

P.M. PEAK HOUR
0445-0545



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

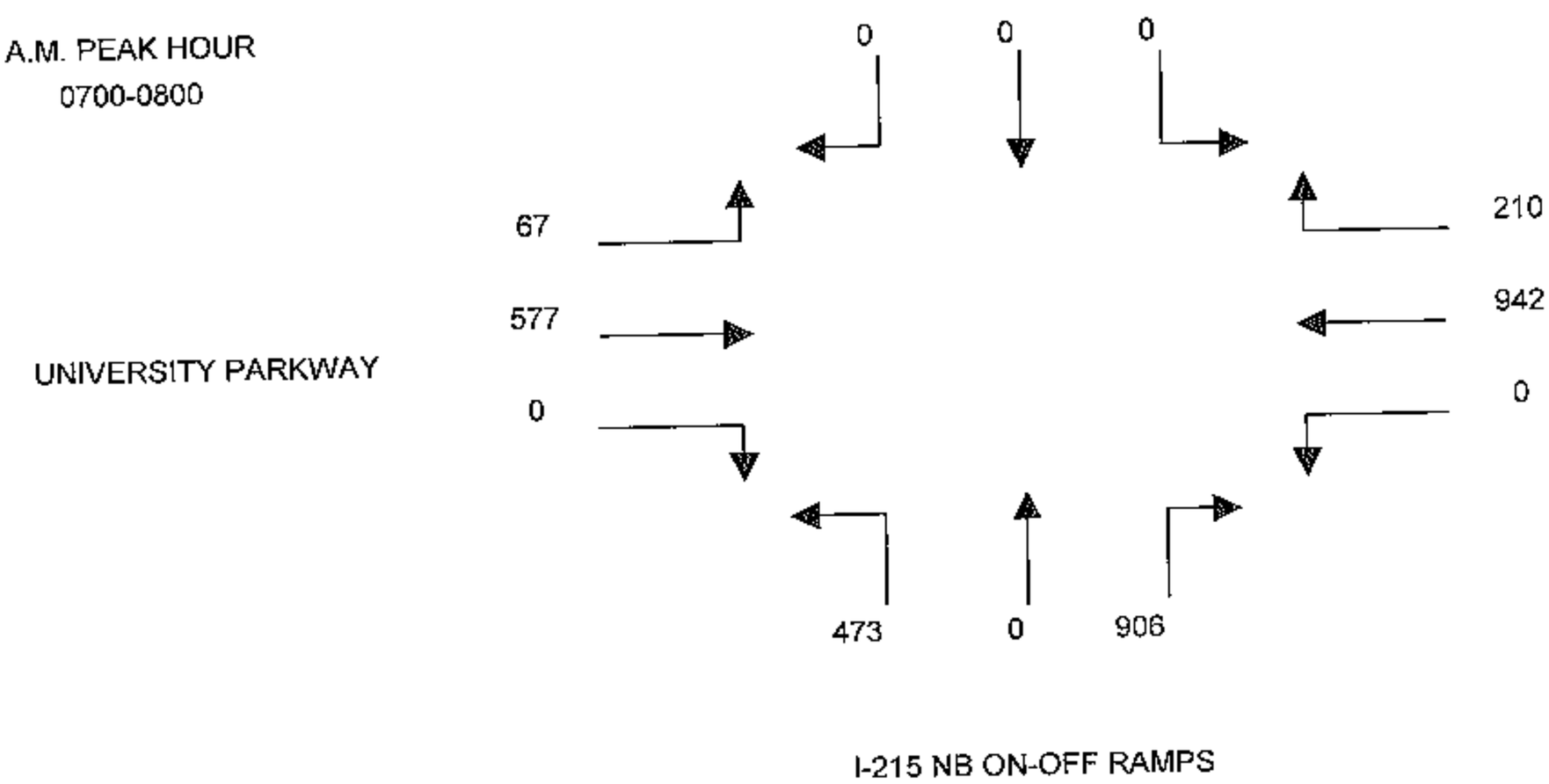
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: THURSDAY, MARCH 15, 2007
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S I-215 NB ON-OFF RAMPS
E/W UNIVERSITY PARKWAY
FILE NUMBER: 3-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	0	0	0	59	229	0	239	0	112	0	137	14
715-730	0	0	0	42	240	0	254	0	162	0	159	14
730-745	0	0	0	59	263	0	214	0	107	0	133	19
745-800	0	0	0	50	210	0	199	0	92	0	148	20
800-815	0	0	0	52	215	0	222	0	137	0	126	13
815-830	0	0	0	39	230	0	201	0	122	0	131	13
830-845	0	0	0	50	184	0	180	0	127	0	106	8
845-900	0	0	0	41	200	0	166	0	112	0	95	11

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	0	0	0	210	942	0	906	0	473	0	577	67	3175
715-815	0	0	0	203	928	0	889	0	498	0	566	66	3150
730-830	0	0	0	200	918	0	836	0	458	0	538	65	3015
745-845	0	0	0	191	839	0	802	0	478	0	511	54	2875
800-900	0	0	0	182	829	0	769	0	498	0	458	45	2781

A.M. PEAK HOUR
0700-0800



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

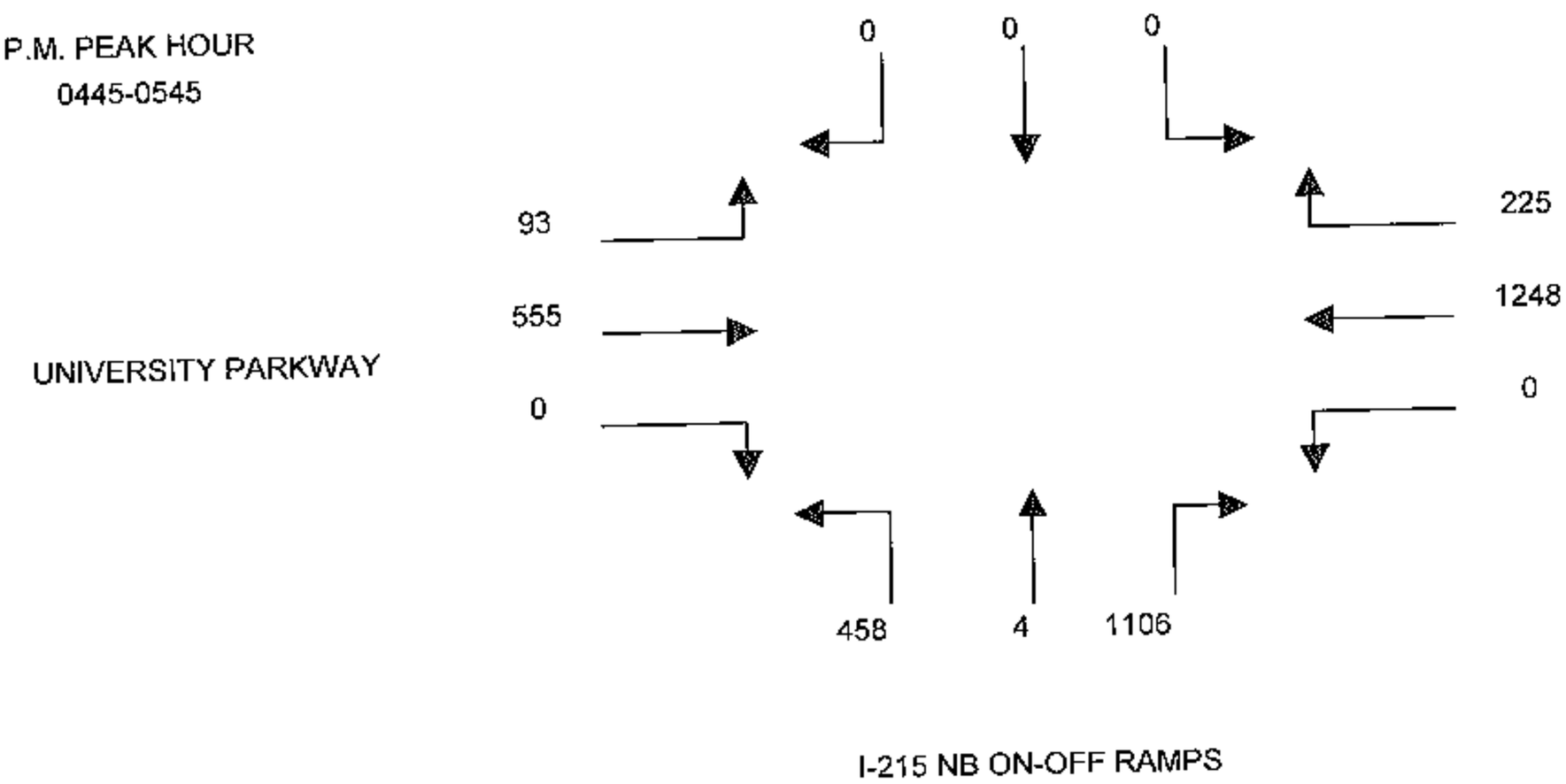
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: THURSDAY, MARCH 15, 2007
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S I-215 NB ON-OFF RAMPS
E/W UNIVERSITY PARKWAY
FILE NUMBER: 3-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	0	0	0	55	283	0	233	0	87	0	134	27
415-430	0	0	0	61	322	0	252	0	123	0	155	27
430-445	0	0	0	57	289	0	270	1	107	0	135	20
445-500	0	0	0	62	319	0	275	1	123	0	153	22
500-515	0	0	0	59	284	0	276	0	102	0	144	21
515-530	0	0	0	51	305	0	266	2	119	0	148	28
530-545	0	0	0	53	340	0	289	1	114	0	110	22
545-600	0	0	0	45	341	0	272	0	115	0	137	23

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	0	0	0	235	1213	0	1030	2	440	0	577	96	3593
415-515	0	0	0	239	1214	0	1073	2	455	0	587	90	3660
430-530	0	0	0	229	1197	0	1087	4	451	0	580	91	3639
445-545	0	0	0	225	1248	0	1106	4	458	0	555	93	3689
500-600	0	0	0	208	1270	0	1103	3	450	0	539	94	3667

P.M. PEAK HOUR
0445-0545



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

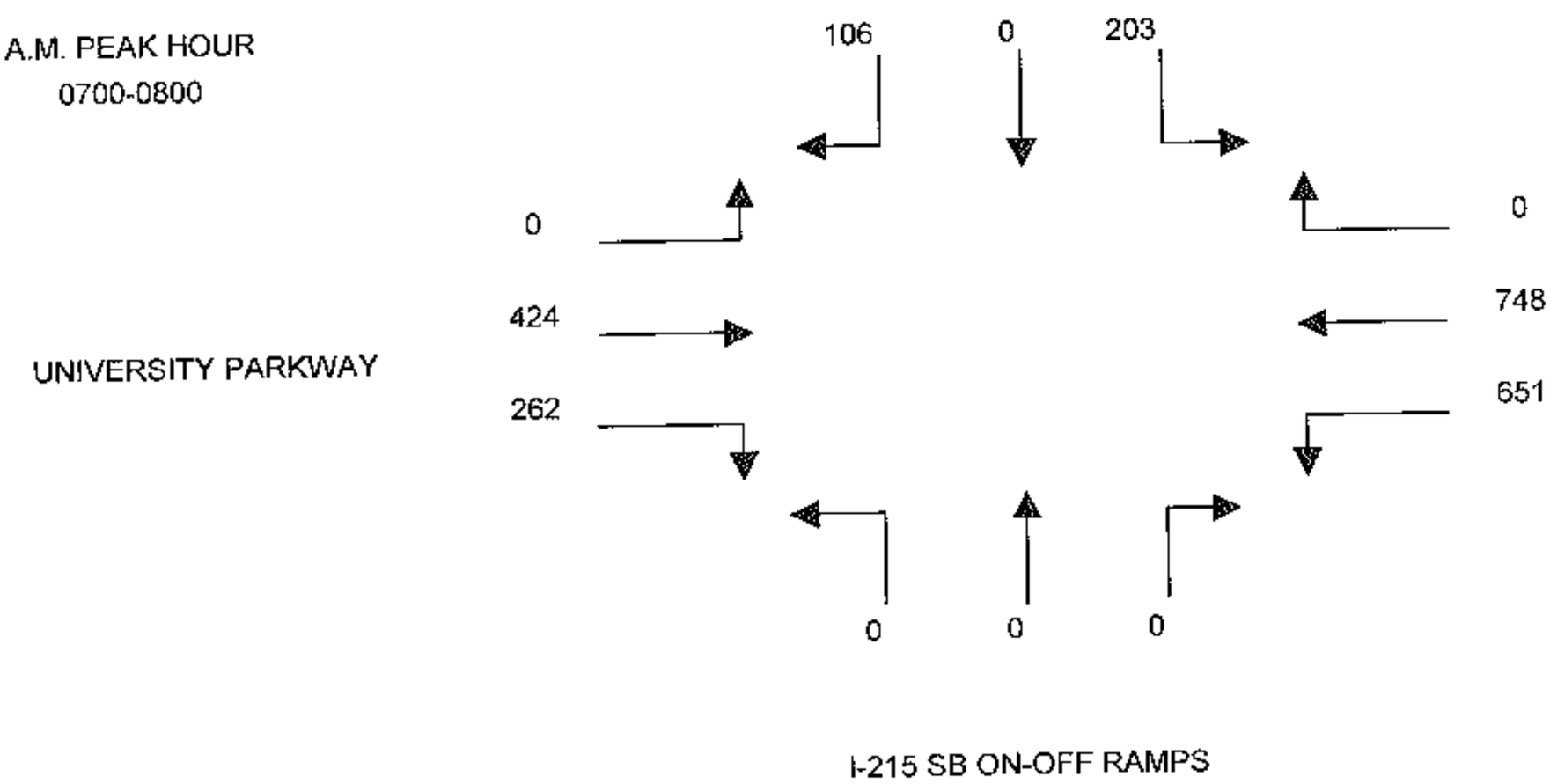
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: THURSDAY, MARCH 15, 2007
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION: I-215 SB ON-OFF RAMPS
E/W UNIVERSITY PARKWAY
FILE NUMBER: 4-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	27	0	41	0	173	135	0	0	0	61	85	0
715-730	26	0	51	0	164	182	0	0	0	65	100	0
730-745	24	0	58	0	199	174	0	0	0	71	117	0
745-800	29	0	53	0	212	160	0	0	0	65	122	0
800-815	23	0	43	0	168	141	0	0	0	54	74	0
815-830	17	0	31	0	159	142	0	0	0	57	85	0
830-845	20	0	24	0	160	157	0	0	0	58	99	0
845-900	22	0	36	0	195	181	0	0	0	78	93	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	106	0	203	0	748	651	0	0	0	262	424	0	2394
715-815	102	0	205	0	743	657	0	0	0	255	413	0	2375
730-830	93	0	185	0	738	617	0	0	0	247	398	0	2278
745-845	89	0	151	0	699	600	0	0	0	234	380	0	2153
800-900	82	0	134	0	682	621	0	0	0	247	351	0	2117

A.M. PEAK HOUR
0700-0800



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

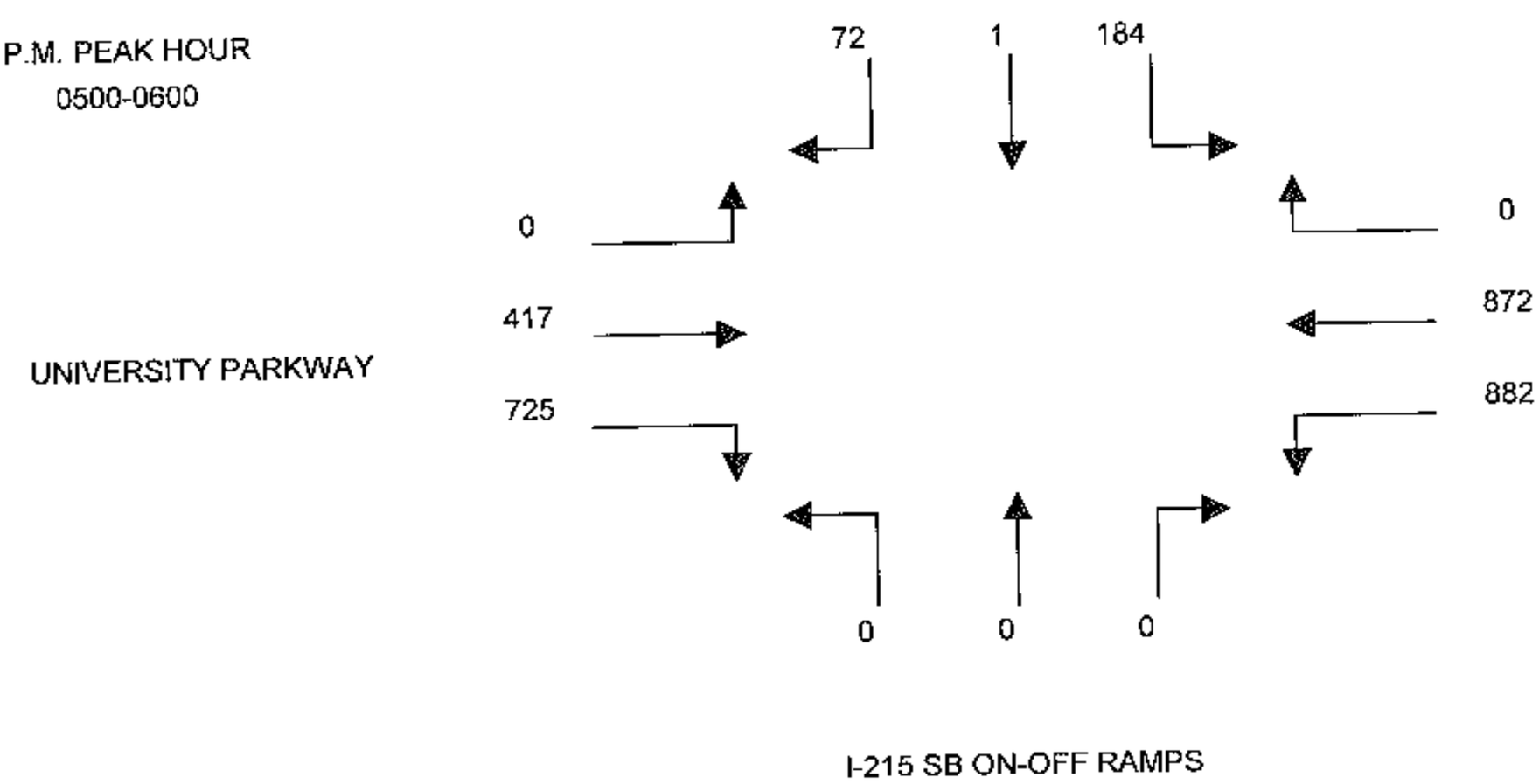
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: THURSDAY, MARCH 15, 2007
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S I-215 SB ON-OFF RAMPS
E/W UNIVERSITY PARKWAY
FILE NUMBER: 4-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	24	0	38	0	219	267	0	0	0	144	130	0
415-430	22	0	41	0	189	228	0	0	0	147	163	0
430-445	20	1	38	0	182	179	0	0	0	179	142	0
445-500	19	0	37	0	217	206	0	0	0	176	111	0
500-515	25	0	44	0	205	228	0	0	0	175	114	0
515-530	20	0	37	0	248	202	0	0	0	179	128	0
530-545	16	1	51	0	192	220	0	0	0	177	89	0
545-600	11	0	52	0	227	232	0	0	0	194	86	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	85	1	154	0	807	880	0	0	0	646	546	0	3119
415-515	86	1	160	0	793	841	0	0	0	677	530	0	3088
430-530	84	1	156	0	852	815	0	0	0	709	495	0	3112
445-545	80	1	169	0	862	856	0	0	0	707	442	0	3117
500-600	72	1	184	0	872	882	0	0	0	725	417	0	3153

P.M. PEAK HOUR
0500-0600



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

VEHICLE TURNING MOVEMENT COUNT SUMMARY

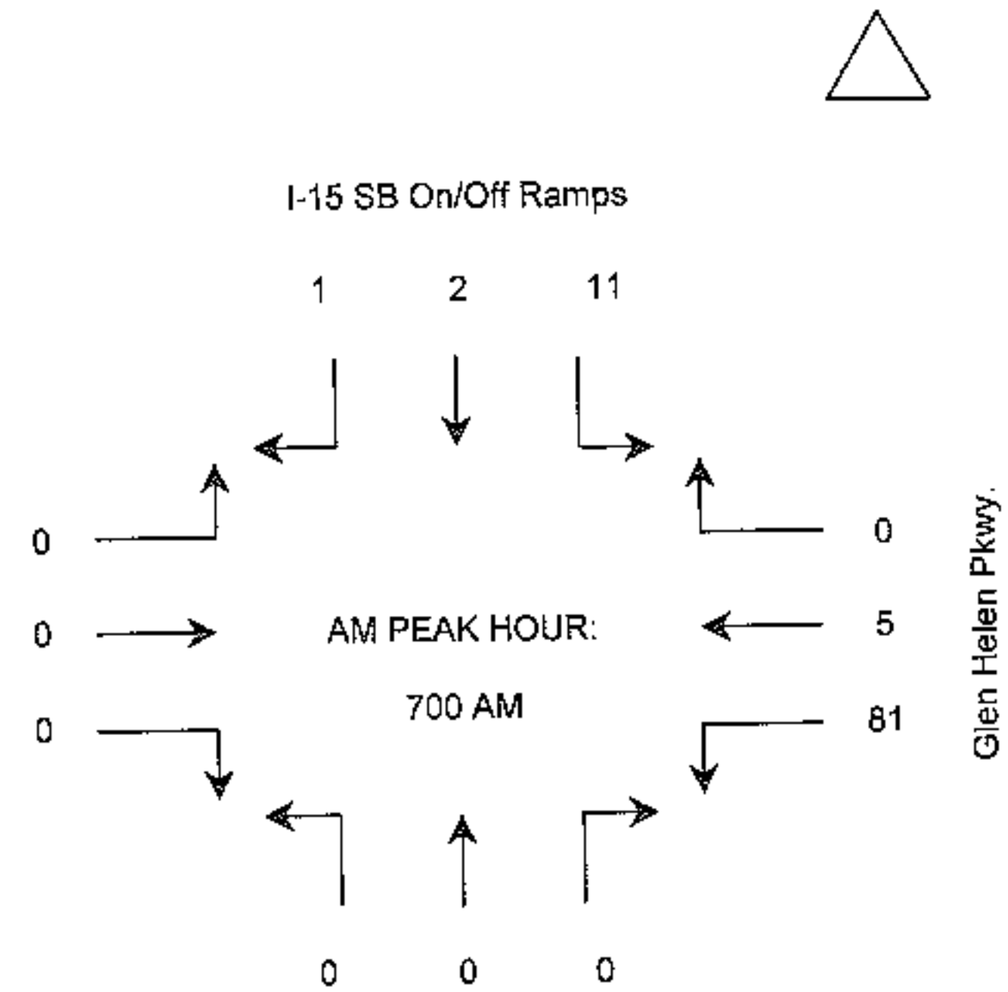
Prepared by: National Data & Surveying Services
Project # 07-3029-004

N/S STREET: I-15 SB On/Off Ramps **E/W STREET:** Glen Helen Pkwy.

PERIOD: AM Peak Hour **DATE:** THURSDAY 1/25/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	15	1	0	0	0	0	0	0	0	2	0	1	19
7:15 - 7:30	19	0	0	0	0	0	0	0	0	4	0	0	23
7:30 - 7:45	23	1	0	0	0	0	0	0	0	3	2	0	29
7:45 - 8:00	24	3	0	0	0	0	0	0	0	2	0	0	29
8:00 - 8:15	9	2	0	0	2	0	0	0	0	3	0	1	17
8:15 - 8:30	18	1	0	0	0	2	0	0	0	2	0	0	23
8:30 - 8:45	21	0	0	0	1	0	0	0	0	3	0	0	25
8:45 - 9:00	15	1	0	0	0	1	0	0	0	5	1	0	23

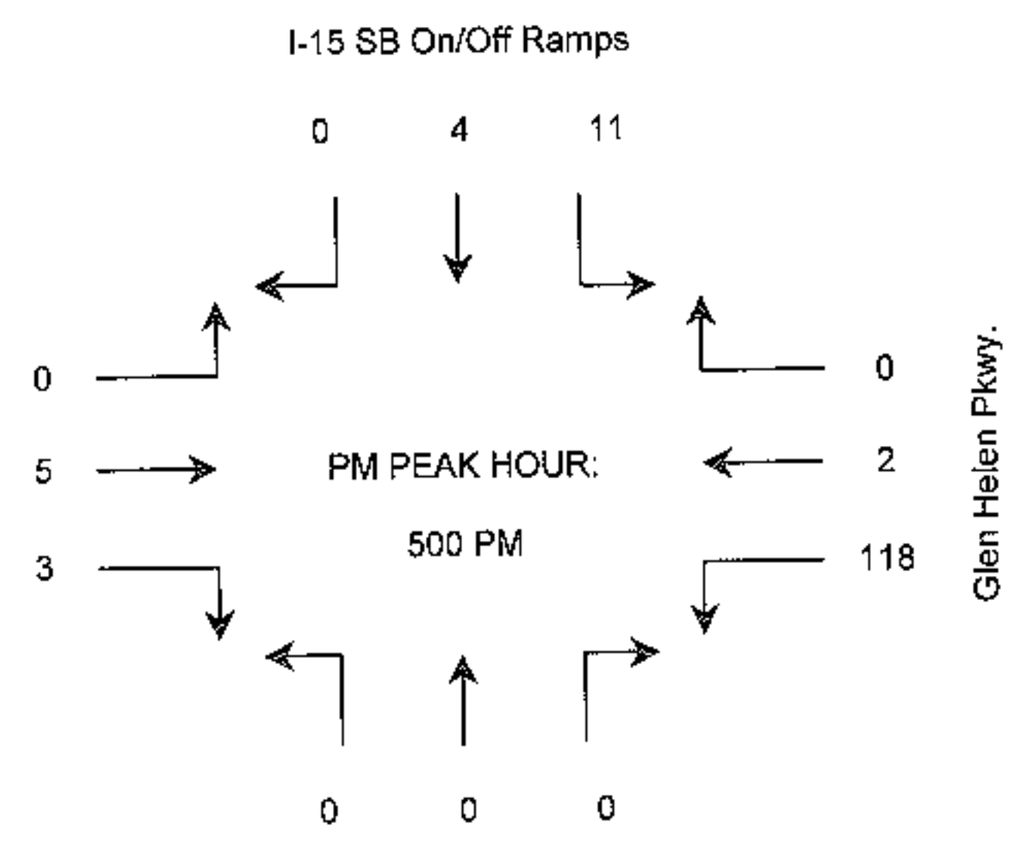
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	81	5	0	0	0	0	0	0	0	11	2	1	100 *
7:15 - 8:15	75	6	0	0	2	0	0	0	0	12	2	1	98
7:30 - 8:30	74	7	0	0	2	2	0	0	0	10	2	1	98
7:45 - 8:45	72	6	0	0	3	2	0	0	0	10	0	1	94
8:00 - 9:00	63	4	0	0	3	3	0	0	0	13	1	1	88



PERIOD: PM Peak Hour **DATE:** THURSDAY 1/25/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	28	0	0	0	1	0	0	0	0	5	3	1	38
4:15 - 4:30	28	0	0	0	1	0	0	0	0	3	1	0	33
4:30 - 4:45	16	1	0	0	1	0	0	0	0	3	0	1	22
4:45 - 5:00	36	0	0	0	1	0	0	0	0	3	0	0	40
5:00 - 5:15	24	0	0	0	5	3	0	0	0	0	1	0	33
5:15 - 5:30	25	1	0	0	0	0	0	0	0	6	0	0	32
5:30 - 5:45	29	1	0	0	0	0	0	0	0	0	3	0	33
5:45 - 6:00	40	0	0	0	0	0	0	0	0	5	0	0	45

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	108	1	0	0	4	0	0	0	0	14	4	2	133
4:15 - 5:15	104	1	0	0	8	3	0	0	0	9	2	1	128
4:30 - 5:30	101	2	0	0	7	3	0	0	0	12	1	1	127
4:45 - 5:45	114	2	0	0	6	3	0	0	0	9	4	0	138
5:00 - 6:00	118	2	0	0	5	3	0	0	0	11	4	0	143 *



VEHICLE TURNING MOVEMENT COUNT SUMMARY

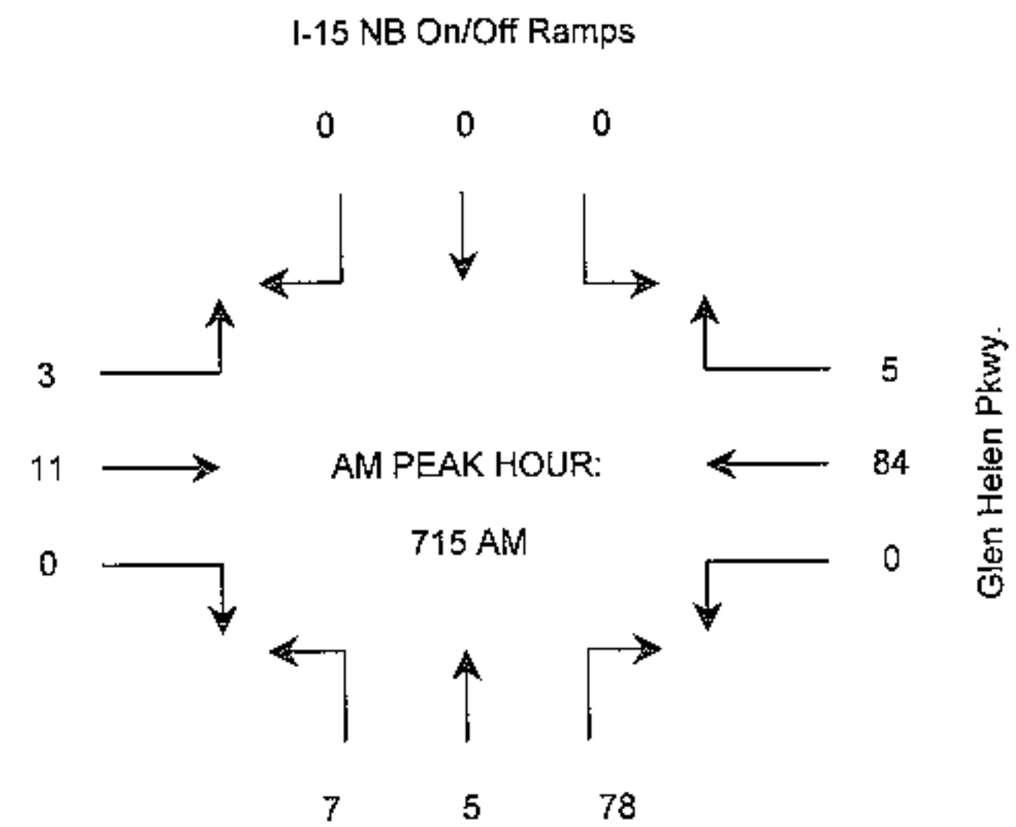
Prepared by: National Data & Surveying Services
Project # 07-3029-005

N/S STREET: I-15 NB On/Off Ramps **E/W STREET:** Glen Helen Pkwy.

PERIOD: AM Peak Hour **DATE:** THURSDAY 1/25/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	0	14	1	1	2	0	1	0	15	0	0	0	34
7:15 - 7:30	0	19	1	1	3	0	0	1	20	0	0	0	45
7:30 - 7:45	0	24	0	1	2	0	0	2	19	0	0	0	48
7:45 - 8:00	0	23	2	1	2	0	3	2	19	0	0	0	52
8:00 - 8:15	0	18	2	0	4	0	4	0	20	0	0	0	48
8:15 - 8:30	0	17	3	0	1	0	1	0	11	0	0	0	33
8:30 - 8:45	0	15	2	0	3	0	3	1	15	0	0	0	39
8:45 - 9:00	0	11	4	1	5	0	2	0	21	0	0	0	44

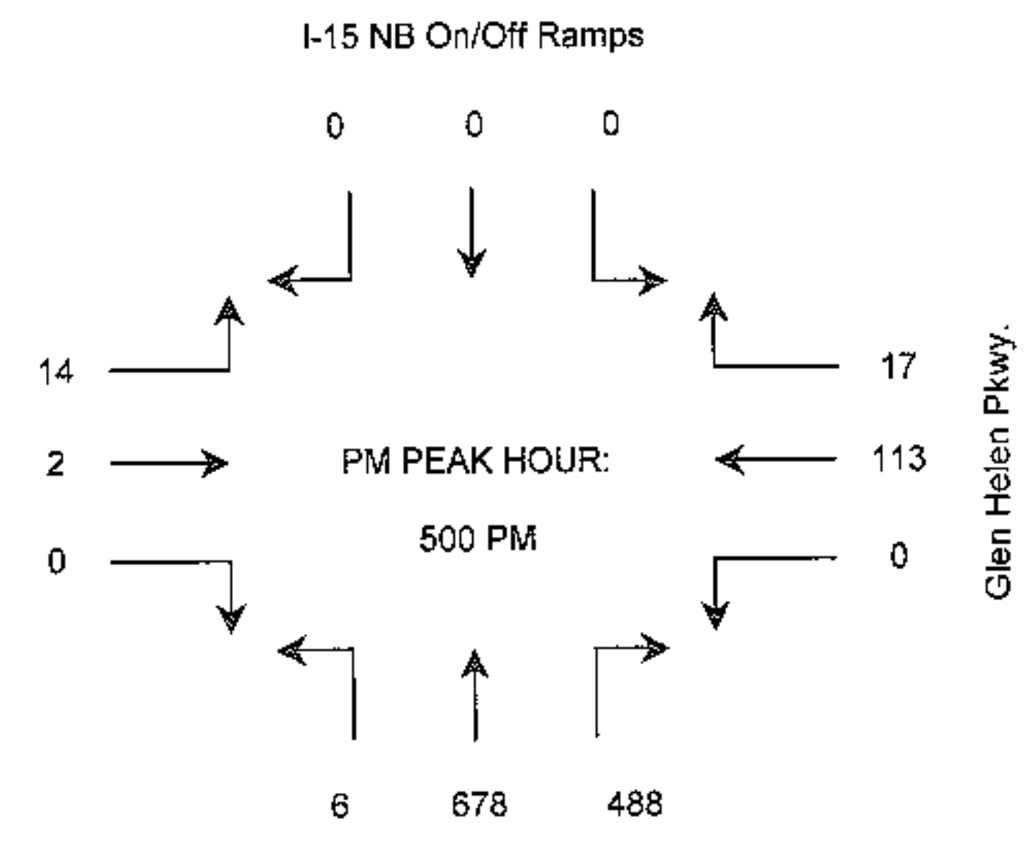
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	0	80	4	4	9	0	4	5	73	0	0	0	179
7:15 - 8:15	0	84	5	3	11	0	7	5	78	0	0	0	193 *
7:30 - 8:30	0	82	7	2	9	0	8	4	69	0	0	0	181
7:45 - 8:45	0	73	9	1	10	0	11	3	65	0	0	0	172
8:00 - 9:00	0	61	11	1	13	0	10	1	67	0	0	0	164



PERIOD: PM Peak Hour **DATE:** THURSDAY 1/25/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	0	24	7	3	3	0	2	153	136	0	0	0	328
4:15 - 4:30	0	22	5	2	2	0	2	130	119	0	0	0	282
4:30 - 4:45	0	15	8	5	0	0	1	140	108	0	0	0	277
4:45 - 5:00	0	32	0	2	2	0	2	143	117	0	0	0	298
5:00 - 5:15	0	23	5	6	0	0	0	177	117	0	0	0	328
5:15 - 5:30	0	24	0	5	1	0	1	174	127	0	0	0	332
5:30 - 5:45	0	31	9	0	0	0	4	168	125	0	0	0	337
5:45 - 6:00	0	35	3	3	1	0	1	159	119	0	0	0	321

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	0	93	20	12	7	0	7	566	480	0	0	0	1,185
4:15 - 5:15	0	92	18	15	4	0	5	590	461	0	0	0	1,185
4:30 - 5:30	0	94	13	18	3	0	4	634	469	0	0	0	1,235
4:45 - 5:45	0	110	14	13	3	0	7	662	486	0	0	0	1,295
5:00 - 6:00	0	113	17	14	2	0	6	678	488	0	0	0	1,318 *



VEHICLE TURNING MOVEMENT COUNT SUMMARY

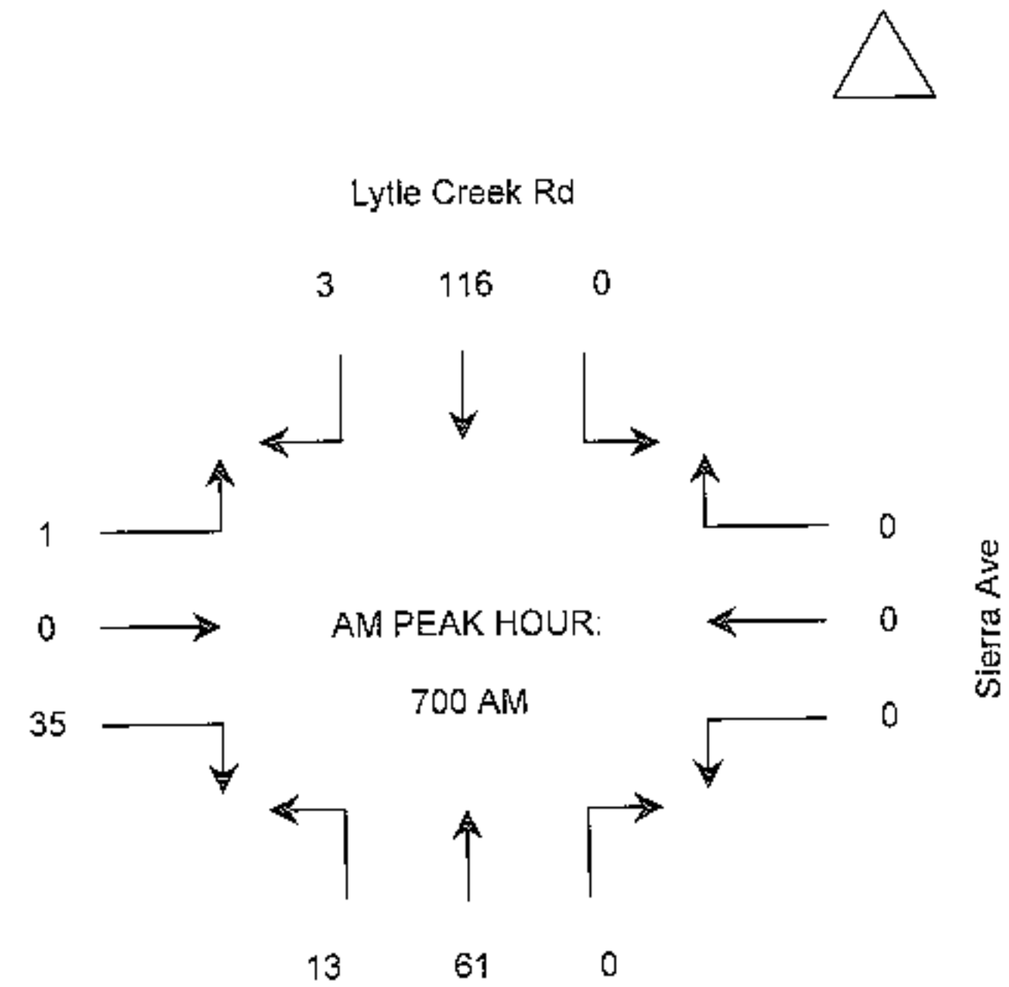
Prepared by: National Data & Surveying Services
Project # 07-3108-001

N/S STREET: Sierra Ave **E/W STREET:** Lytle Creek Rd

PERIOD: AM Peak Hour **DATE:** WEDNESDAY 3/21/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	0	0	0	1	0	3	4	12	0	0	30	0	50
7:15 - 7:30	0	0	0	0	0	12	2	12	0	0	37	2	65
7:30 - 7:45	0	0	0	0	0	9	0	13	0	0	28	1	51
7:45 - 8:00	0	0	0	0	0	11	7	24	0	0	21	0	63
8:00 - 8:15	0	0	0	0	0	9	2	19	0	0	16	1	47
8:15 - 8:30	0	0	0	0	0	4	1	6	0	0	11	0	22
8:30 - 8:45	0	0	0	0	0	4	7	20	0	0	30	0	61
8:45 - 9:00	0	0	0	0	0	6	1	8	0	0	21	1	37

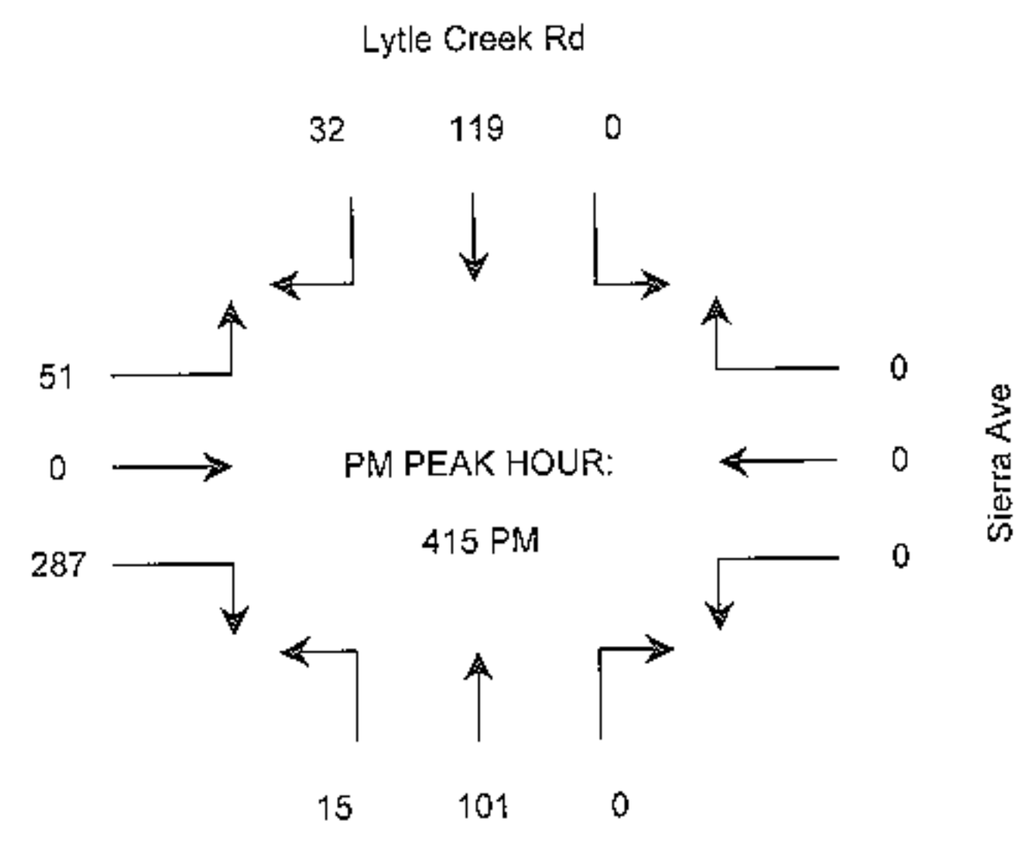
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	0	0	0	1	0	35	13	61	0	0	116	3	229 *
7:15 - 8:15	0	0	0	0	0	41	11	68	0	0	102	4	226
7:30 - 8:30	0	0	0	0	0	33	10	62	0	0	76	2	183
7:45 - 8:45	0	0	0	0	0	28	17	69	0	0	78	1	193
8:00 - 9:00	0	0	0	0	0	23	11	53	0	0	78	2	167



PERIOD: PM Peak Hour **DATE:** WEDNESDAY 3/21/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	0	0	0	8	0	28	3	24	0	0	36	9	108
4:15 - 4:30	0	0	0	10	0	52	2	25	0	0	59	7	155
4:30 - 4:45	0	0	0	12	0	90	4	35	0	0	27	12	180
4:45 - 5:00	0	0	0	16	0	67	6	19	0	0	15	6	129
5:00 - 5:15	0	0	0	13	0	78	3	22	0	0	18	7	141
5:15 - 5:30	0	0	0	14	0	46	5	35	0	0	22	4	126
5:30 - 5:45	0	0	0	13	0	60	7	21	0	0	20	3	124
5:45 - 6:00	0	0	0	11	0	43	1	26	0	0	28	1	110

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	0	0	0	46	0	237	15	103	0	0	137	34	572
4:15 - 5:15	0	0	0	51	0	287	15	101	0	0	119	32	605 *
4:30 - 5:30	0	0	0	55	0	281	18	111	0	0	82	29	576
4:45 - 5:45	0	0	0	56	0	251	21	97	0	0	75	20	520
5:00 - 6:00	0	0	0	51	0	227	16	104	0	0	88	15	501



VEHICLE TURNING MOVEMENT COUNT SUMMARY

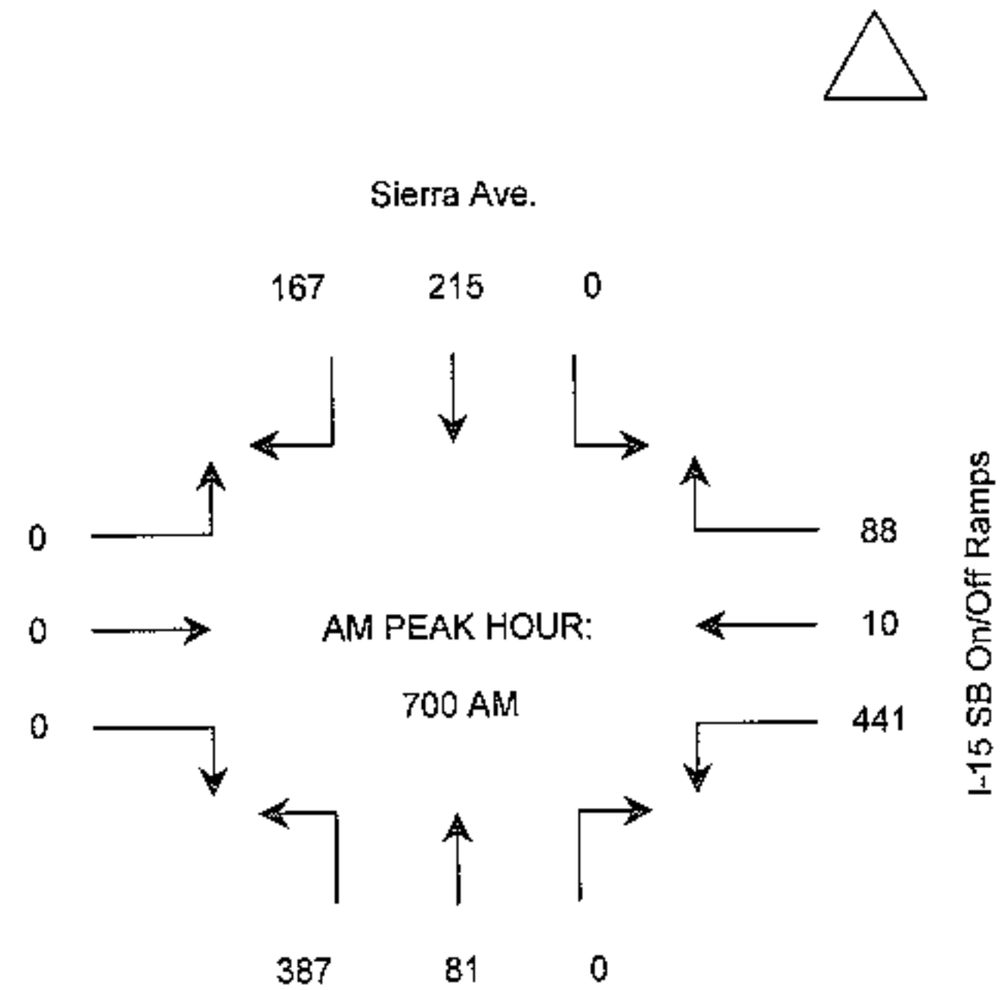
Prepared by: National Data & Surveying Services
Project # 07-3029-006

N/S STREET: Sierra Ave. **E/W STREET:** I-15 SB On/Off Ramps

PERIOD: AM Peak Hour **DATE:** THURSDAY 1/25/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	109	2	19	0	0	0	77	17	0	0	53	34	311
7:15 - 7:30	106	2	23	0	0	0	119	23	0	0	43	52	368
7:30 - 7:45	122	2	20	0	0	0	87	16	0	0	68	43	358
7:45 - 8:00	104	4	26	0	0	0	104	25	0	0	51	38	352
8:00 - 8:15	119	3	26	0	0	0	67	13	0	0	54	24	306
8:15 - 8:30	102	5	33	0	0	0	82	24	0	0	38	29	313
8:30 - 8:45	111	3	40	0	0	0	58	16	0	0	35	36	299
8:45 - 9:00	102	2	37	0	0	0	70	23	0	0	23	23	280

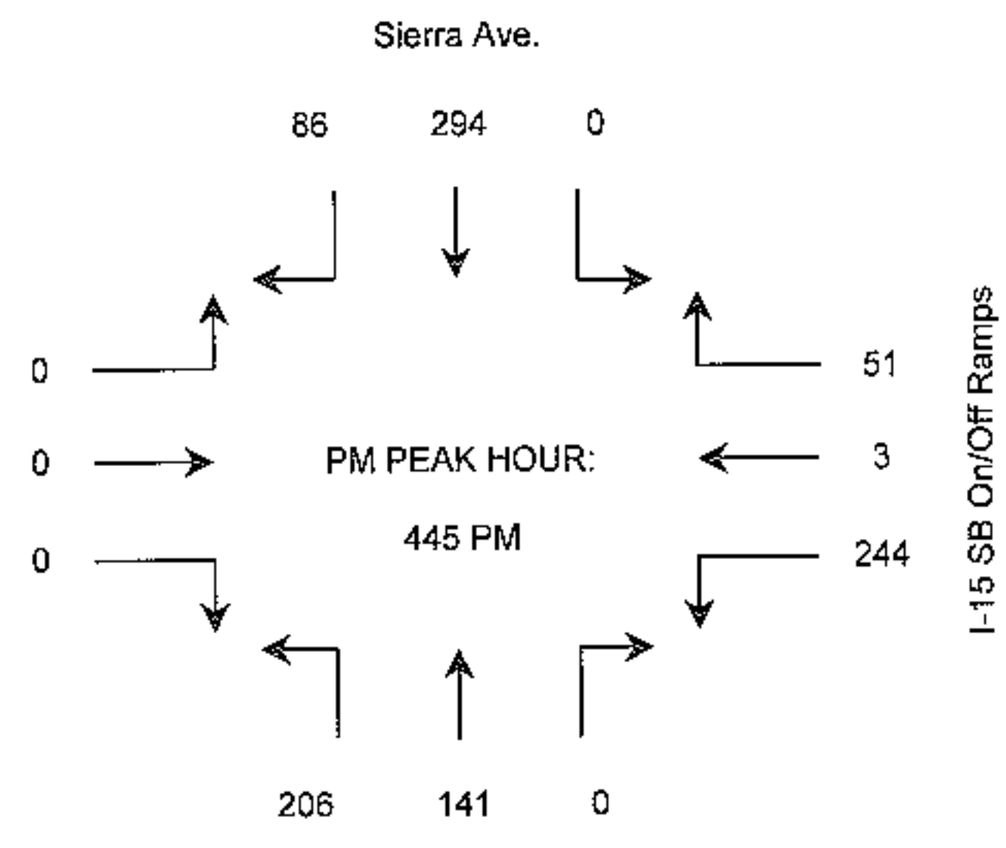
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	441	10	88	0	0	0	387	81	0	0	215	167	1,389 *
7:15 - 8:15	451	11	95	0	0	0	377	77	0	0	216	157	1,384
7:30 - 8:30	447	14	105	0	0	0	340	78	0	0	211	134	1,329
7:45 - 8:45	436	15	125	0	0	0	311	78	0	0	178	127	1,270
8:00 - 9:00	434	13	136	0	0	0	277	76	0	0	150	112	1,198



PERIOD: PM Peak Hour **DATE:** THURSDAY 1/25/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	53	0	11	0	0	0	30	23	0	0	52	19	188
4:15 - 4:30	68	1	8	0	0	0	36	34	0	0	66	26	239
4:30 - 4:45	59	0	10	0	0	0	54	41	0	0	57	15	236
4:45 - 5:00	65	0	13	0	0	0	47	39	0	0	65	17	246
5:00 - 5:15	63	1	13	0	0	0	58	45	0	0	73	23	276
5:15 - 5:30	54	2	14	0	0	0	55	34	0	0	78	19	256
5:30 - 5:45	62	0	11	0	0	0	46	23	0	0	78	27	247
5:45 - 6:00	57	0	15	0	0	0	47	17	0	0	81	16	233

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	245	1	42	0	0	0	167	137	0	0	240	77	909
4:15 - 5:15	255	2	44	0	0	0	195	159	0	0	261	81	997
4:30 - 5:30	241	3	50	0	0	0	214	159	0	0	273	74	1,014
4:45 - 5:45	244	3	51	0	0	0	206	141	0	0	294	86	1,025 *
5:00 - 6:00	236	3	53	0	0	0	206	119	0	0	310	85	1,012



VEHICLE TURNING MOVEMENT COUNT SUMMARY

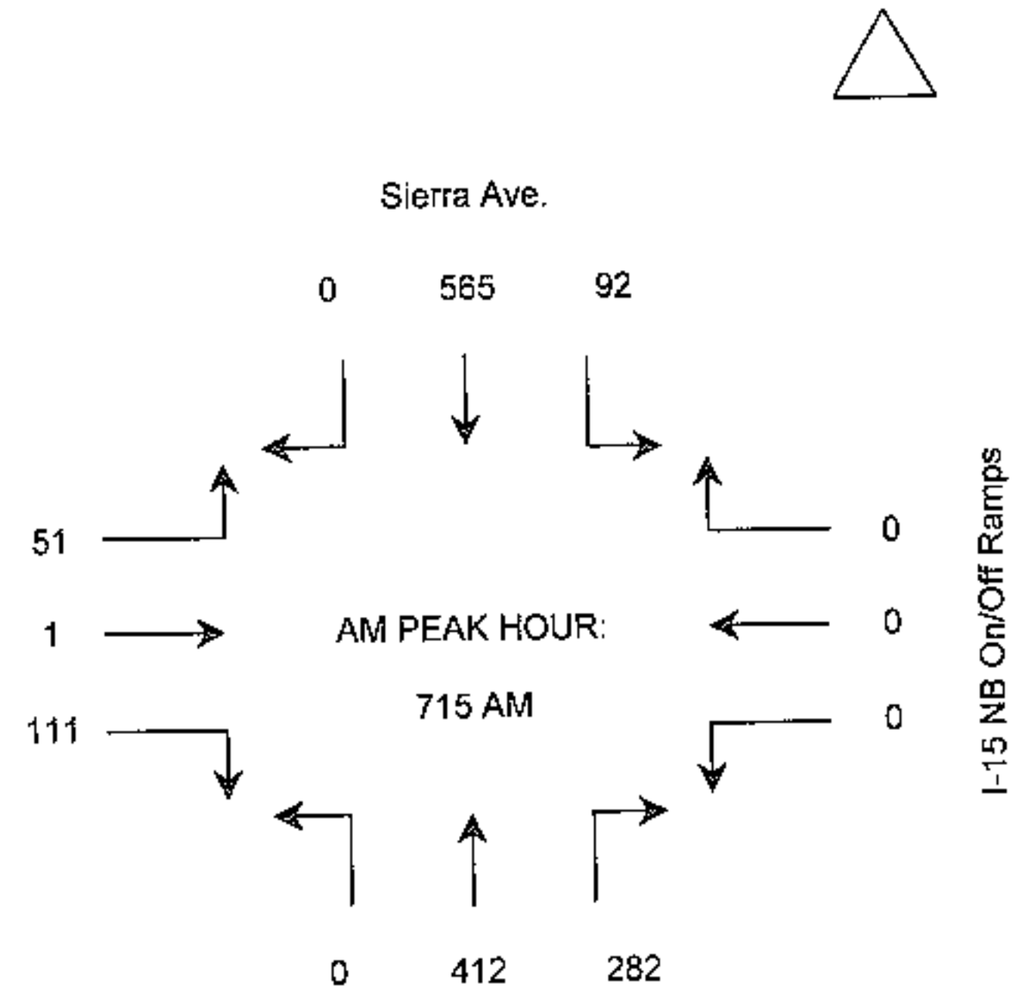
Prepared by: National Data & Surveying Services
Project # 07-3029-007

N/S STREET: Sierra Ave. **E/W STREET:** I-15 NB On/Off Ramps

PERIOD: AM Peak Hour **DATE:** WEDNESDAY 01/24/2007

15-MINUTE TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
7:00 - 7:15	0	0	0	9	0	24	0	94	59	13	147	0	346
7:15 - 7:30	0	0	0	16	0	31	0	125	61	16	133	0	382
7:30 - 7:45	0	0	0	11	0	28	0	96	73	29	157	0	394
7:45 - 8:00	0	0	0	15	1	27	0	104	79	17	134	0	377
8:00 - 8:15	0	0	0	9	0	25	0	87	69	30	141	0	361
8:15 - 8:30	0	0	0	17	0	23	0	70	50	23	115	0	298
8:30 - 8:45	0	0	0	11	0	27	0	64	48	22	119	0	291
8:45 - 9:00	0	0	0	23	0	26	0	72	50	19	106	0	296

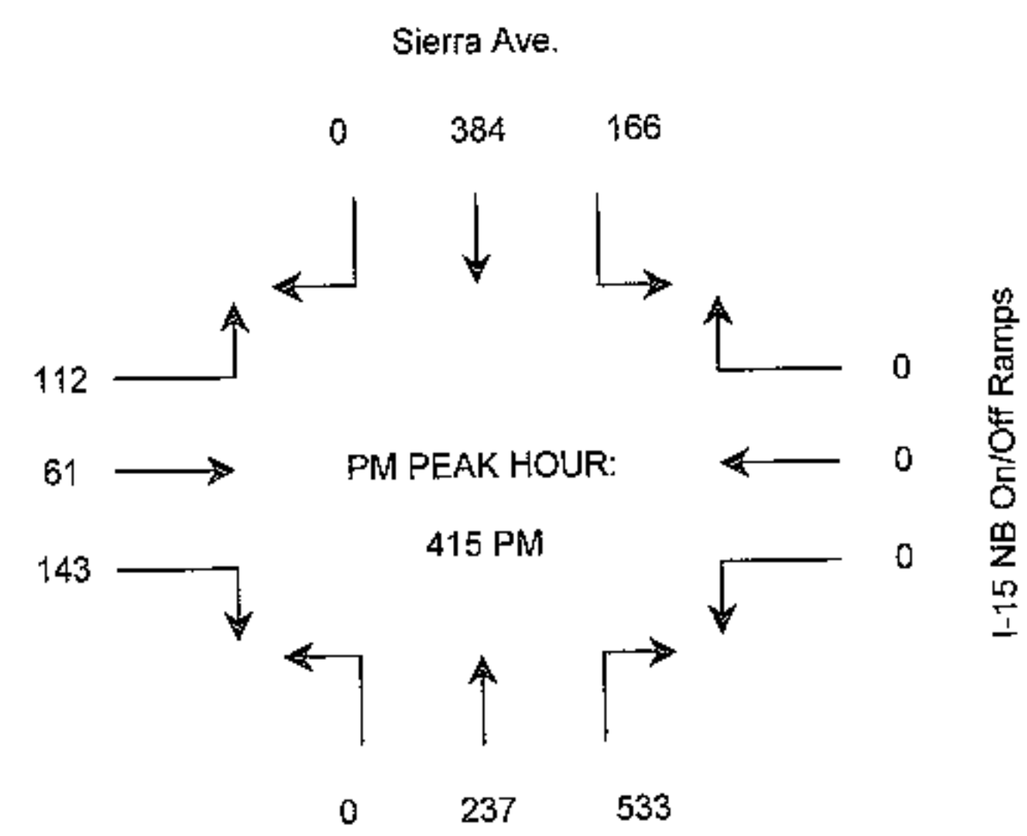
1-HOUR TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
7:00 - 8:00	0	0	0	51	1	110	0	419	272	75	571	0	1,499
7:15 - 8:15	0	0	0	51	1	111	0	412	282	92	565	0	1,514 *
7:30 - 8:30	0	0	0	52	1	103	0	357	271	99	547	0	1,430
7:45 - 8:45	0	0	0	52	1	102	0	325	246	92	509	0	1,327
8:00 - 9:00	0	0	0	60	0	101	0	293	217	94	481	0	1,246



PERIOD: PM Peak Hour **DATE:** WEDNESDAY 01/24/2007

15-MINUTE TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
4:00 - 4:15	0	0	0	17	19	34	0	41	119	41	96	0	367
4:15 - 4:30	0	0	0	25	16	40	0	53	127	45	85	0	391
4:30 - 4:45	0	0	0	31	13	34	0	62	135	38	109	0	422
4:45 - 5:00	0	0	0	26	15	43	0	64	139	46	111	0	444
5:00 - 5:15	0	0	0	30	17	26	0	58	132	37	79	0	379
5:15 - 5:30	0	0	0	33	11	33	0	51	115	41	94	0	378
5:30 - 5:45	0	0	0	27	13	30	0	52	98	43	63	0	326
5:45 - 6:00	0	0	0	21	9	23	0	49	87	34	71	0	294

1-HOUR TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
4:00 - 5:00	0	0	0	99	63	151	0	220	520	170	401	0	1,624
4:15 - 5:15	0	0	0	112	61	143	0	237	533	166	384	0	1,636 *
4:30 - 5:30	0	0	0	120	56	136	0	235	521	162	393	0	1,623
4:45 - 5:45	0	0	0	116	56	132	0	225	484	167	347	0	1,527
5:00 - 6:00	0	0	0	111	50	112	0	210	432	155	307	0	1,377



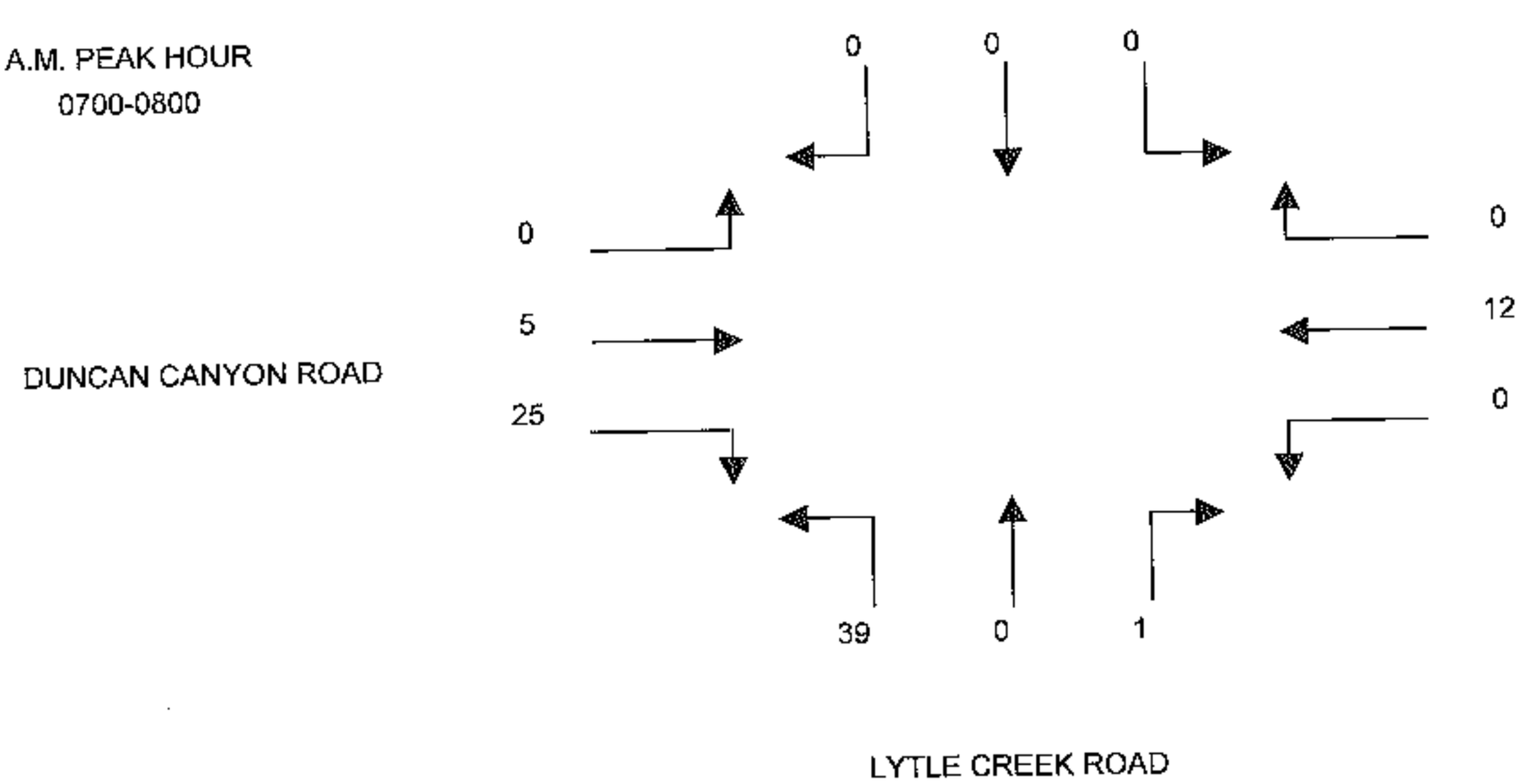
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: THURSDAY, MARCH 15, 2007
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S LYTLE CREEK ROAD
E/W DUNCAN CANYON ROAD
FILE NUMBER: 5-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	0	0	0	0	4	0	1	0	15	8	3	0
715-730	0	0	0	0	4	0	0	0	10	6	0	0
730-745	0	0	0	0	2	0	0	0	7	6	0	0
745-800	0	0	0	0	2	0	0	0	7	5	2	0
800-815	0	0	0	0	3	0	0	0	8	7	4	0
815-830	0	0	0	0	5	0	1	0	6	5	0	0
830-845	0	0	0	0	2	0	0	0	7	5	3	0
845-900	0	0	0	0	3	1	0	0	6	6	2	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	0	0	0	0	12	0	1	0	39	25	5	0	82
715-815	0	0	0	0	11	0	0	0	32	24	6	0	73
730-830	0	0	0	0	12	0	1	0	28	23	6	0	70
745-845	0	0	0	0	12	0	1	0	28	22	9	0	72
800-900	0	0	0	0	13	1	1	0	27	23	9	0	74

A.M. PEAK HOUR
0700-0800



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

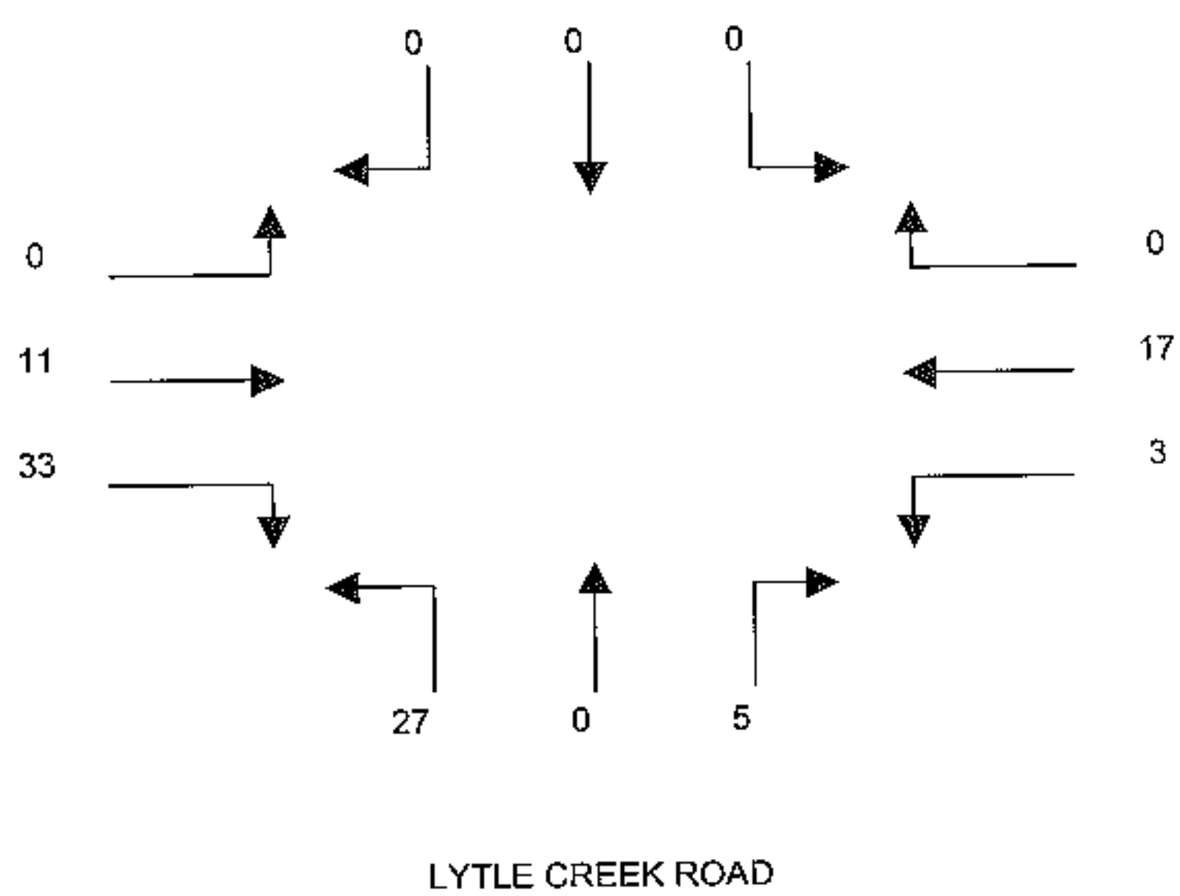
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: THURSDAY, MARCH 15, 2007
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S LYTLE CREEK ROAD
E/W DUNCAN CANYON ROAD
FILE NUMBER: 5-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	0	0	0	0	2	1	2	0	9	9	2	0
415-430	0	0	0	0	5	0	1	0	5	5	3	0
430-445	0	0	0	0	4	2	0	0	8	8	2	0
445-500	0	0	0	0	6	0	2	0	5	11	4	0
500-515	0	0	0	0	5	1	1	0	5	7	2	0
515-530	0	0	0	0	3	0	1	0	4	5	3	0
530-545	0	0	0	0	4	0	2	0	9	8	3	0
545-600	0	0	0	0	4	1	0	0	3	8	4	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	0	0	0	0	17	3	5	0	27	33	11	0	96
415-515	0	0	0	0	20	3	4	0	23	31	11	0	92
430-530	0	0	0	0	18	3	4	0	22	31	11	0	89
445-545	0	0	0	0	18	1	6	0	23	31	12	0	91
500-600	0	0	0	0	16	2	4	0	21	28	12	0	83

P.M. PEAK HOUR
0400-0500



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

VEHICLE TURNING MOVEMENT COUNT SUMMARY

Prepared by: National Data & Surveying Services

Project # 07-3112-001

N/S STREET: I-15 SB on/off ramps

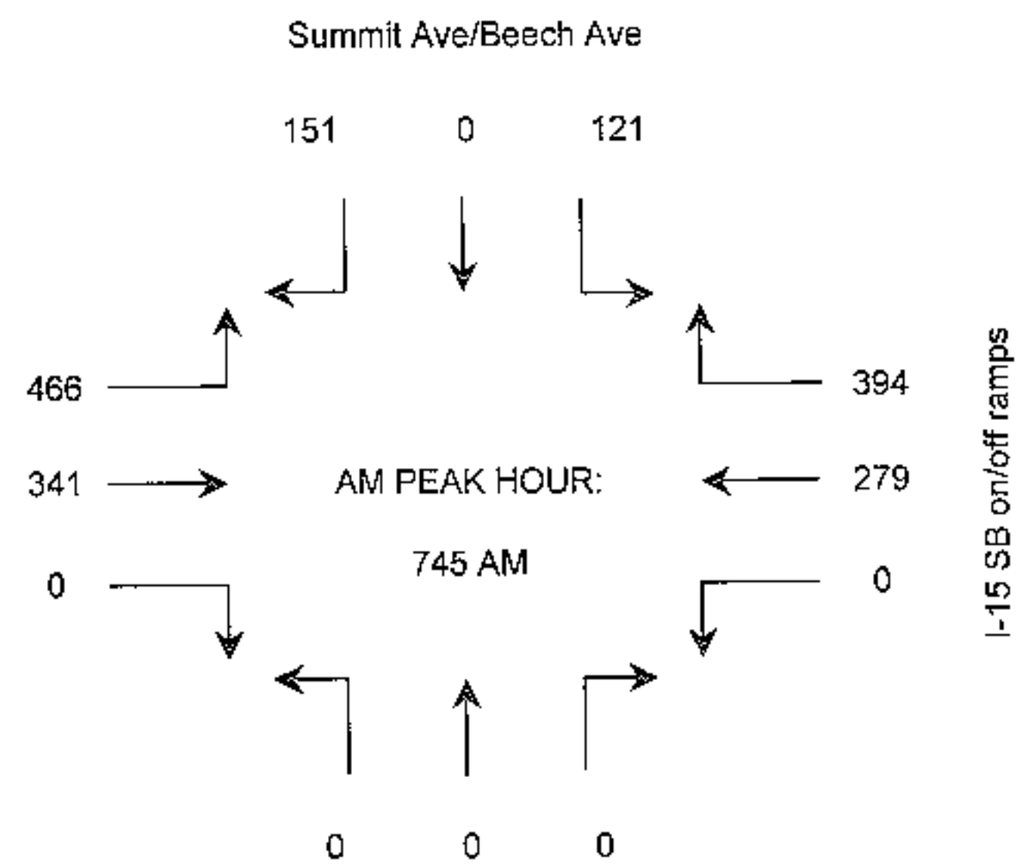
E/W STREET: Summit Ave/Beech Ave

PERIOD: AM Peak Hour

DATE: WEDNESDAY 3/21/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	0	84	108	97	56	0	0	0	0	38	0	42	425
7:15 - 7:30	0	72	111	114	84	0	0	0	0	27	0	43	451
7:30 - 7:45	0	63	130	120	67	0	0	0	0	30	0	37	447
7:45 - 8:00	0	72	108	106	62	0	0	0	0	29	0	34	411
8:00 - 8:15	0	66	103	122	67	0	0	0	0	35	0	40	433
8:15 - 8:30	0	73	97	114	88	0	0	0	0	31	0	41	444
8:30 - 8:45	0	68	86	124	124	0	0	0	0	26	0	36	464
8:45 - 9:00	0	61	73	92	89	0	0	0	0	23	0	33	371

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	0	291	457	437	269	0	0	0	0	124	0	156	1,734
7:15 - 8:15	0	273	452	462	280	0	0	0	0	121	0	154	1,742
7:30 - 8:30	0	274	438	462	284	0	0	0	0	125	0	152	1,735
7:45 - 8:45	0	279	394	466	341	0	0	0	0	121	0	151	1,752 *
8:00 - 9:00	0	268	359	452	368	0	0	0	0	115	0	150	1,712

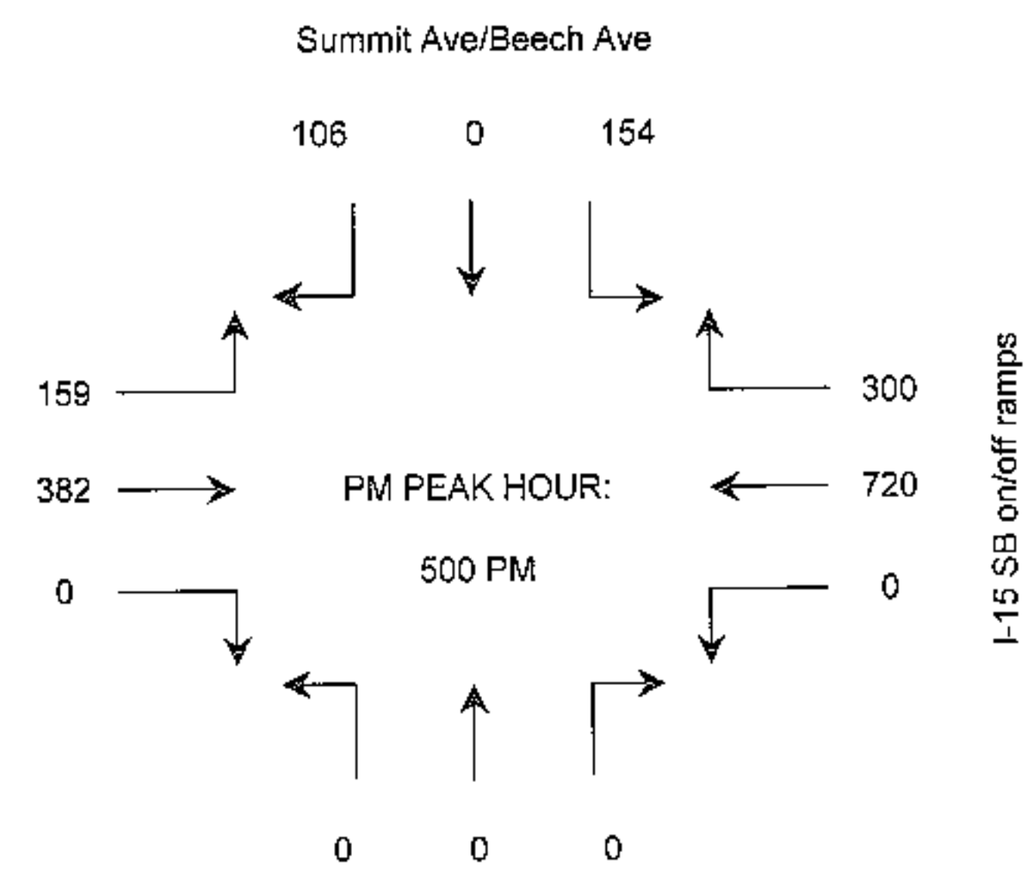


PERIOD: PM Peak Hour

DATE: WEDNESDAY 3/21/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	0	165	44	31	94	0	0	0	0	35	0	29	398
4:15 - 4:30	0	147	53	37	85	0	0	0	0	42	0	32	396
4:30 - 4:45	0	161	61	40	91	0	0	0	0	39	0	41	433
4:45 - 5:00	0	154	54	39	95	0	0	0	0	44	0	37	423
5:00 - 5:15	0	174	85	43	95	0	0	0	0	49	0	36	482
5:15 - 5:30	0	168	76	33	97	0	0	0	0	40	0	34	448
5:30 - 5:45	0	200	69	44	91	0	0	0	0	33	0	14	451
5:45 - 6:00	0	178	70	39	99	0	0	0	0	32	0	22	440

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	0	627	212	147	365	0	0	0	0	160	0	139	1,650
4:15 - 5:15	0	636	253	159	366	0	0	0	0	174	0	146	1,734
4:30 - 5:30	0	657	276	155	378	0	0	0	0	172	0	148	1,786
4:45 - 5:45	0	696	284	159	378	0	0	0	0	166	0	121	1,804
5:00 - 6:00	0	720	300	159	382	0	0	0	0	154	0	106	1,821 *



VEHICLE TURNING MOVEMENT COUNT SUMMARY

Prepared by: National Data & Surveying Services

Project # 07-3112-002

N/S STREET: I-15 NB on/off ramps

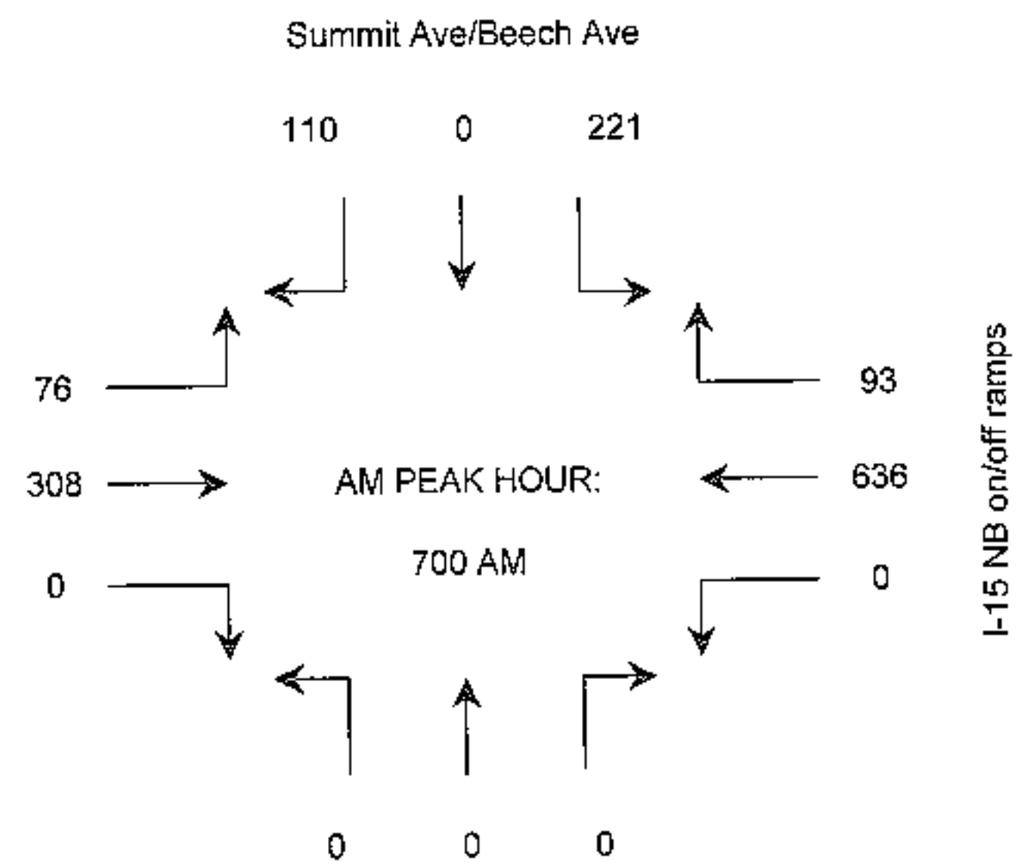
E/W STREET: Summit Ave/Beech Ave

PERIOD: AM Peak Hour

DATE: WEDNESDAY 3/21/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	0	163	18	18	71	0	0	0	0	53	0	21	344
7:15 - 7:30	0	156	25	22	85	0	0	0	0	62	0	33	383
7:30 - 7:45	0	164	23	16	78	0	0	0	0	51	0	25	357
7:45 - 8:00	0	153	27	20	74	0	0	0	0	55	0	31	360
8:00 - 8:15	0	146	22	15	80	0	0	0	0	45	0	27	335
8:15 - 8:30	0	141	25	25	99	0	0	0	0	49	0	26	365
8:30 - 8:45	0	124	23	19	137	0	0	0	0	54	0	26	383
8:45 - 9:00	0	102	28	19	87	0	0	0	0	84	0	37	357

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	0	636	93	76	308	0	0	0	0	221	0	110	1,444 *
7:15 - 8:15	0	619	97	73	317	0	0	0	0	213	0	116	1,435
7:30 - 8:30	0	604	97	76	331	0	0	0	0	200	0	109	1,417
7:45 - 8:45	0	564	97	79	390	0	0	0	0	203	0	110	1,443
8:00 - 9:00	0	513	98	78	403	0	0	0	0	232	0	116	1,440

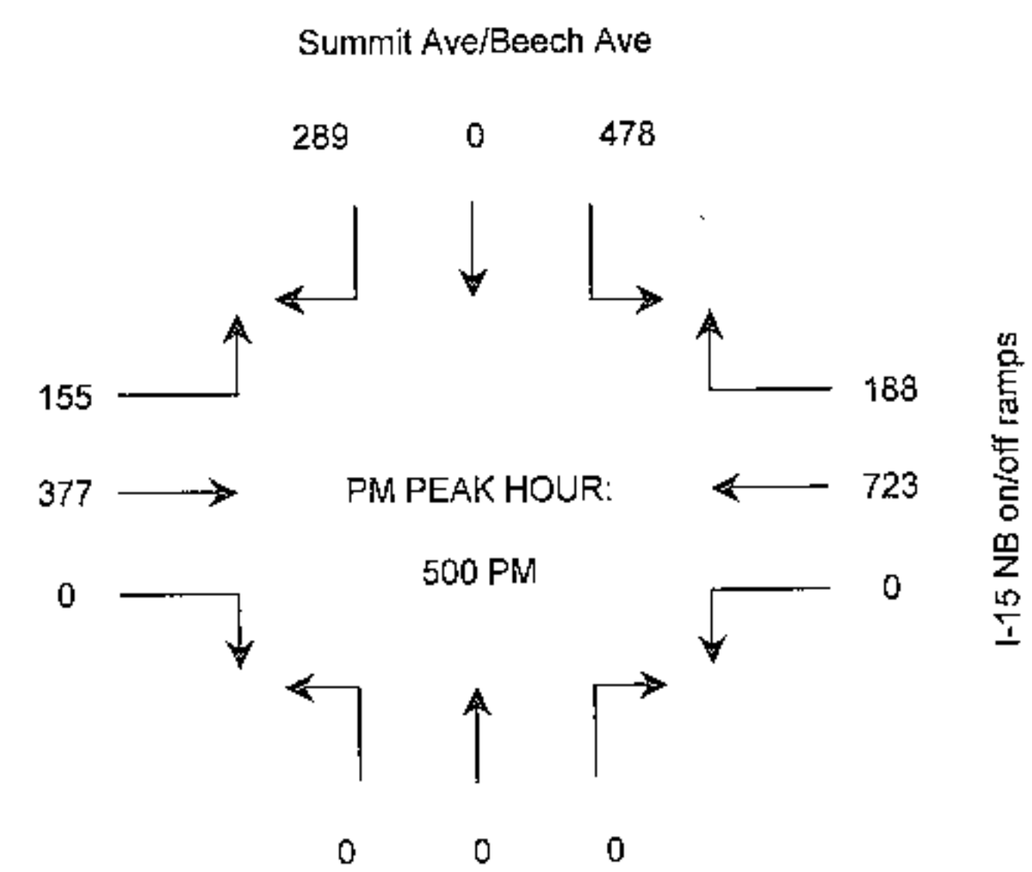


PERIOD: PM Peak Hour

DATE: WEDNESDAY 3/21/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	0	153	58	28	106	0	0	0	0	106	0	58	509
4:15 - 4:30	0	144	51	37	94	0	0	0	0	116	0	58	500
4:30 - 4:45	0	143	50	38	95	0	0	0	0	131	0	69	526
4:45 - 5:00	0	139	54	42	93	0	0	0	0	123	0	61	512
5:00 - 5:15	0	177	49	41	100	0	0	0	0	135	0	74	576
5:15 - 5:30	0	168	52	45	94	0	0	0	0	127	0	76	562
5:30 - 5:45	0	200	45	38	89	0	0	0	0	114	0	69	555
5:45 - 6:00	0	178	42	31	94	0	0	0	0	102	0	70	517

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	0	579	213	145	388	0	0	0	0	476	0	246	2,047
4:15 - 5:15	0	603	204	158	382	0	0	0	0	505	0	262	2,114
4:30 - 5:30	0	627	205	166	382	0	0	0	0	516	0	280	2,176
4:45 - 5:45	0	684	200	166	376	0	0	0	0	499	0	280	2,205
5:00 - 6:00	0	723	188	155	377	0	0	0	0	478	0	289	2,210 *



VEHICLE TURNING MOVEMENT COUNT SUMMARY

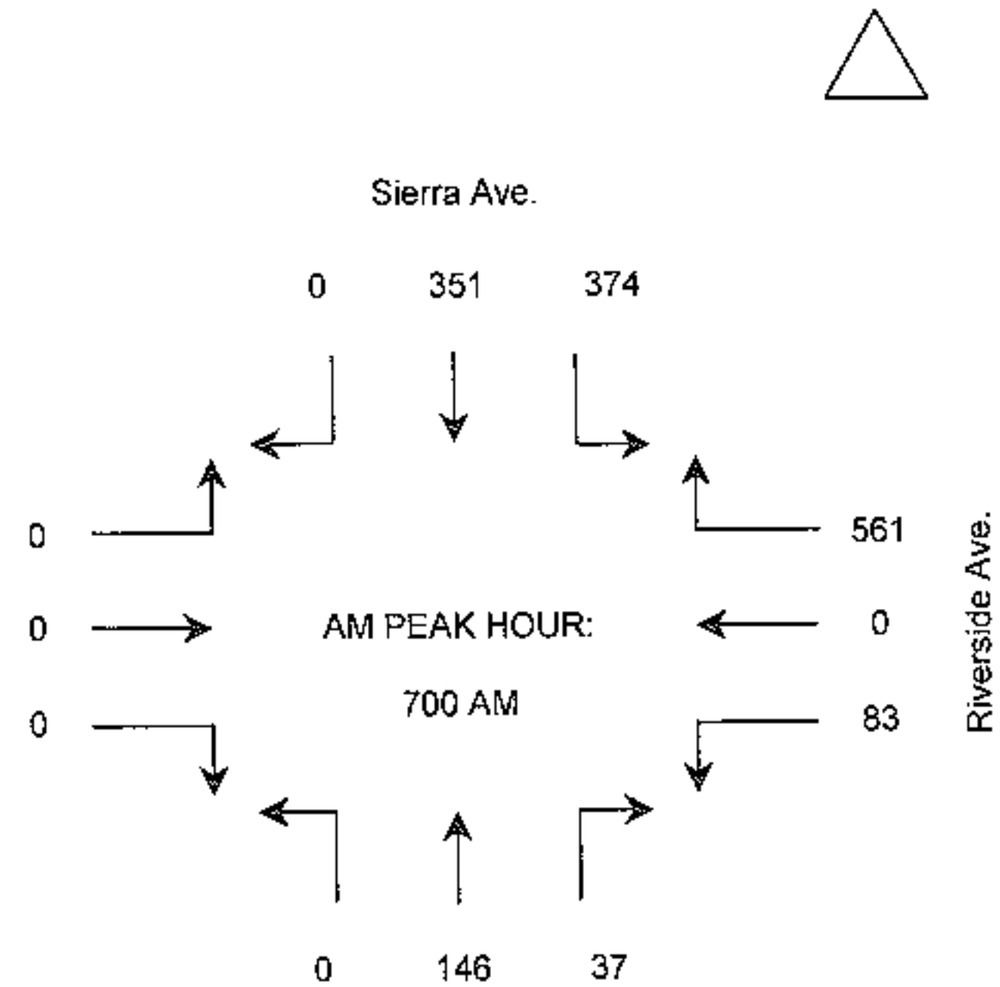
Prepared by: National Data & Surveying Services
Project # 07-3029-008

N/S STREET: Sierra Ave. **E/W STREET:** Riverside Ave.

PERIOD: AM Peak Hour **DATE:** WEDNESDAY 01/24/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	21	0	121	0	0	0	0	37	10	89	94	0	372
7:15 - 7:30	14	0	149	0	0	0	0	45	9	97	88	0	402
7:30 - 7:45	36	0	138	0	0	0	0	38	11	101	93	0	417
7:45 - 8:00	12	0	153	0	0	0	0	26	7	87	76	0	361
8:00 - 8:15	11	0	125	0	0	0	0	33	8	78	81	0	336
8:15 - 8:30	17	0	107	0	0	0	0	12	5	52	59	0	252
8:30 - 8:45	19	0	99	0	0	0	0	17	4	63	69	0	271
8:45 - 9:00	17	0	91	0	0	0	0	12	3	57	71	0	251

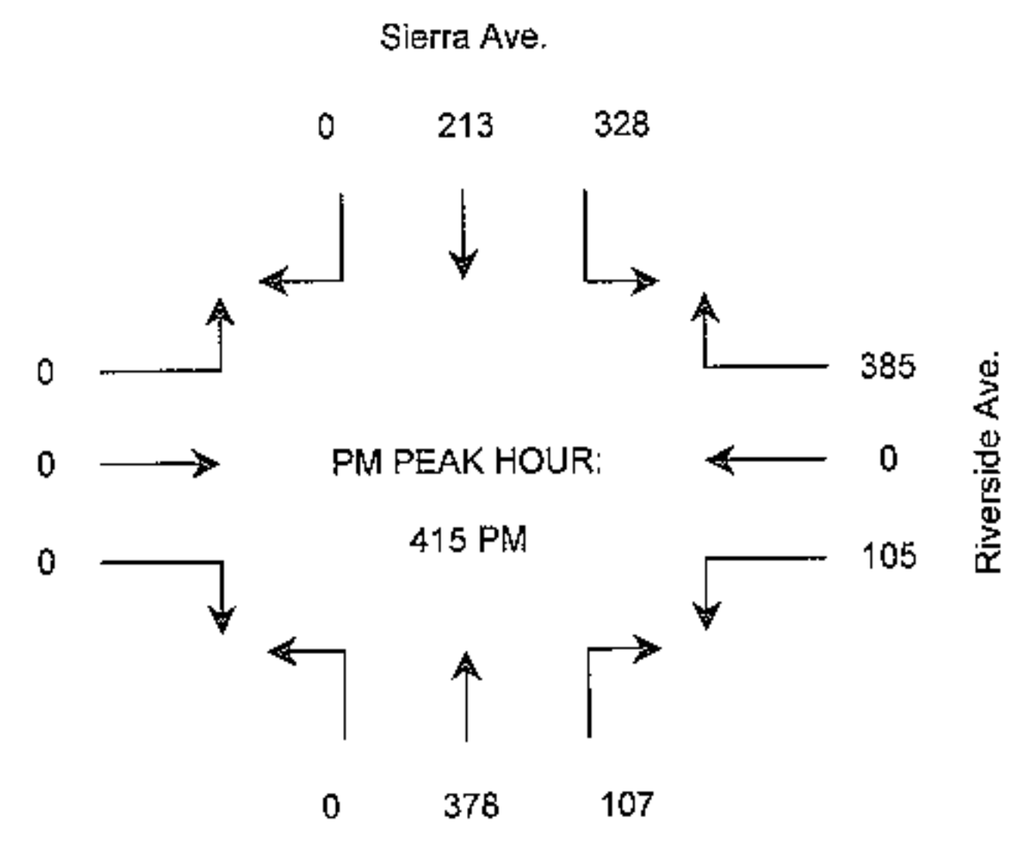
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	83	0	561	0	0	0	0	146	37	374	351	0	1,552 *
7:15 - 8:15	73	0	565	0	0	0	0	142	35	363	338	0	1,516
7:30 - 8:30	76	0	523	0	0	0	0	109	31	318	309	0	1,366
7:45 - 8:45	59	0	484	0	0	0	0	88	24	280	285	0	1,220
8:00 - 9:00	64	0	422	0	0	0	0	74	20	250	280	0	1,110



PERIOD: PM Peak Hour **DATE:** WEDNESDAY 01/24/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	12	0	91	0	0	0	0	71	28	78	46	0	326
4:15 - 4:30	17	0	106	0	0	0	0	91	26	97	56	0	393
4:30 - 4:45	21	0	89	0	0	0	0	109	25	75	57	0	376
4:45 - 5:00	36	0	91	0	0	0	0	96	29	82	54	0	388
5:00 - 5:15	31	0	99	0	0	0	0	82	27	74	46	0	359
5:15 - 5:30	28	0	83	0	0	0	0	74	29	64	52	0	330
5:30 - 5:45	32	0	75	0	0	0	0	87	15	66	48	0	323
5:45 - 6:00	24	0	62	0	0	0	0	76	11	47	33	0	253

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	86	0	377	0	0	0	0	367	108	332	213	0	1,483
4:15 - 5:15	105	0	385	0	0	0	0	378	107	328	213	0	1,516 *
4:30 - 5:30	116	0	362	0	0	0	0	361	110	295	209	0	1,453
4:45 - 5:45	127	0	348	0	0	0	0	339	100	286	200	0	1,400
5:00 - 6:00	115	0	319	0	0	0	0	319	82	251	179	0	1,265



VEHICLE TURNING MOVEMENT COUNT SUMMARY

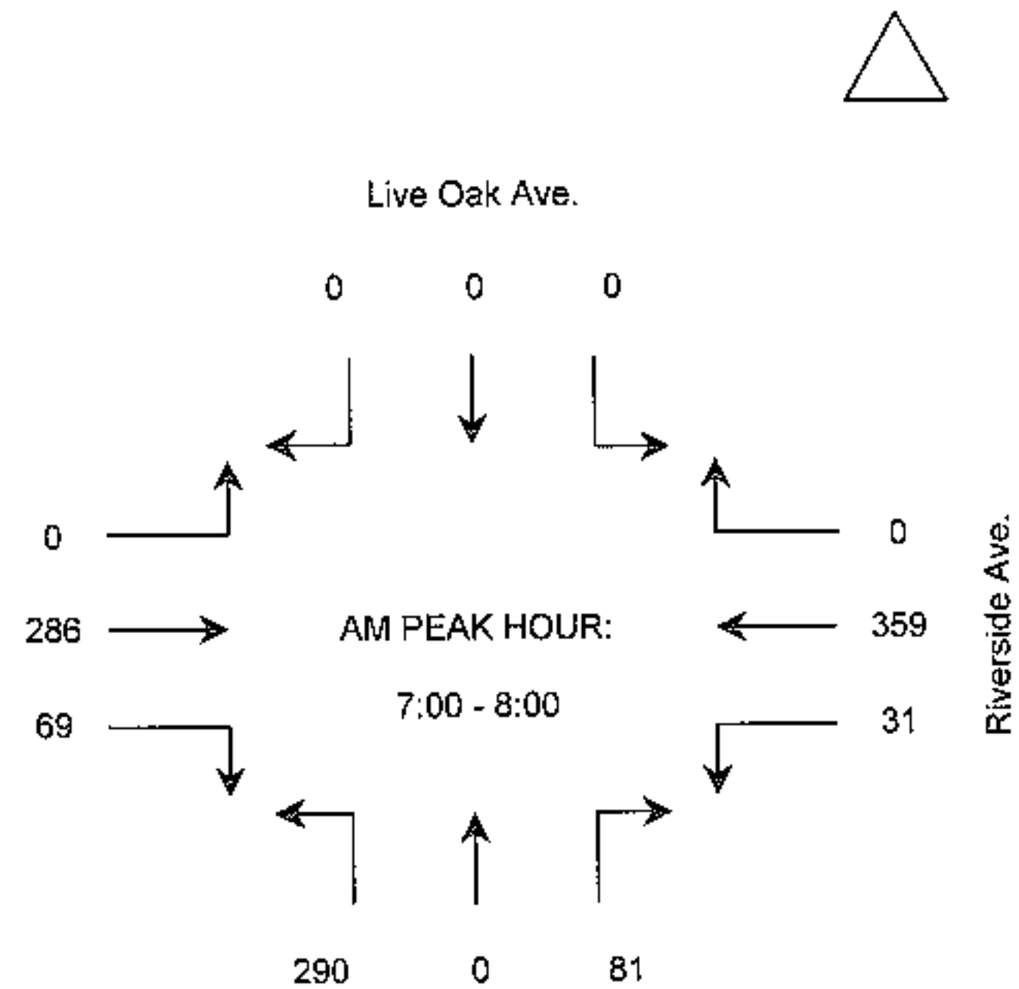
Prepared by: National Data & Surveying Services
Project # 07-3029-009

N/S STREET: Live Oak Ave. **E/W STREET:** Riverside Ave.

PERIOD: AM Peak Hour **DATE:** WEDNESDAY 1/24/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	12	97	0	0	71	17	87	0	23	0	0	0	307
7:15 - 7:30	9	106	0	0	82	21	92	0	21	0	0	0	331
7:30 - 7:45	4	86	0	0	69	19	63	0	18	0	0	0	259
7:45 - 8:00	6	70	0	0	64	12	48	0	19	0	0	0	219
8:00 - 8:15	4	75	0	0	71	18	54	0	17	0	0	0	239
8:15 - 8:30	5	72	0	0	58	14	59	0	16	0	0	0	224
8:30 - 8:45	4	75	0	0	57	13	41	0	15	0	0	0	205
8:45 - 9:00	4	58	0	0	88	23	39	0	9	0	0	0	221

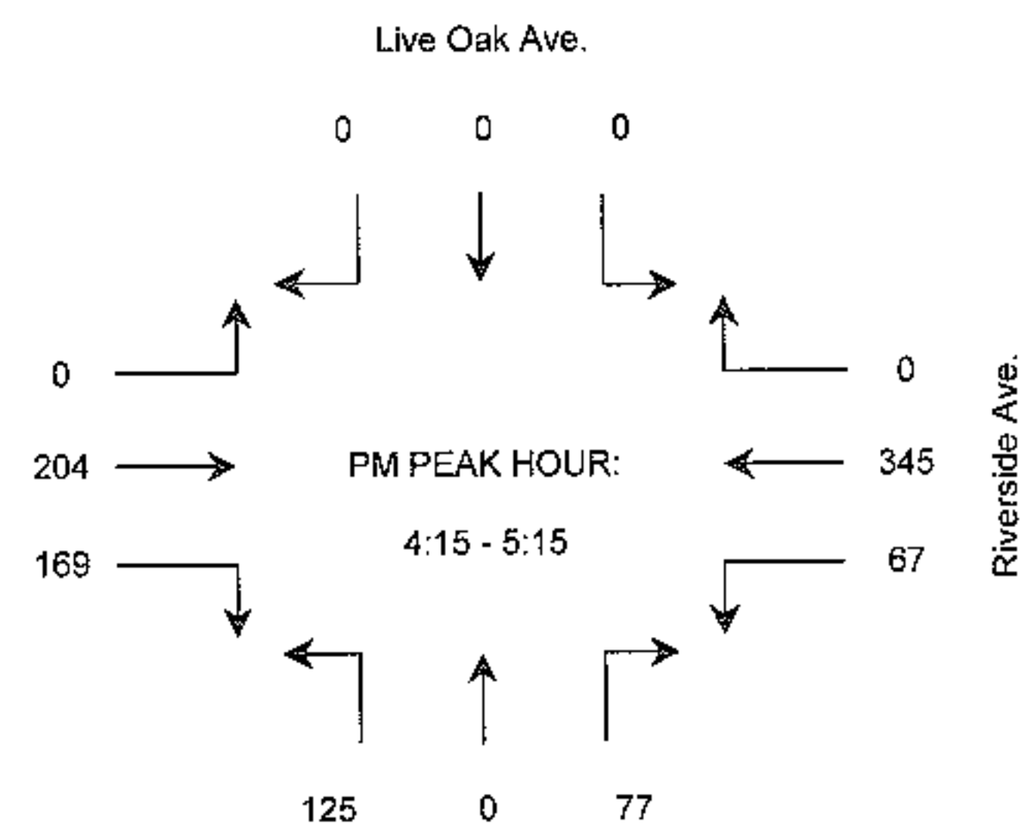
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	31	359	0	0	286	69	290	0	81	0	0	0	1,116 *
7:15 - 8:15	23	337	0	0	286	70	257	0	75	0	0	0	1,048
7:30 - 8:30	19	303	0	0	262	63	224	0	70	0	0	0	941
7:45 - 8:45	19	292	0	0	250	57	202	0	67	0	0	0	887
8:00 - 9:00	17	280	0	0	274	68	193	0	57	0	0	0	889



PERIOD: PM PEAK HOUR **DATE:** WEDNESDAY 1/24/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	13	74	0	0	61	18	17	0	17	0	0	0	200
4:15 - 4:30	26	91	0	0	62	25	31	0	25	0	0	0	260
4:30 - 4:45	14	82	0	0	54	43	26	0	18	0	0	0	237
4:45 - 5:00	16	92	0	0	42	42	34	0	16	0	0	0	242
5:00 - 5:15	11	80	0	0	46	59	34	0	18	0	0	0	248
5:15 - 5:30	8	79	0	0	58	46	28	0	8	0	0	0	227
5:30 - 5:45	7	82	0	0	56	40	19	0	13	0	0	0	217
5:45 - 6:00	12	87	0	0	74	32	14	0	20	0	0	0	239

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	69	339	0	0	219	128	108	0	76	0	0	0	939
4:15 - 5:15	67	345	0	0	204	169	125	0	77	0	0	0	987 *
4:30 - 5:30	49	333	0	0	200	190	122	0	60	0	0	0	954
4:45 - 5:45	42	333	0	0	202	187	115	0	55	0	0	0	934
5:00 - 6:00	38	328	0	0	234	177	95	0	59	0	0	0	931



VEHICLE TURNING MOVEMENT COUNT SUMMARY

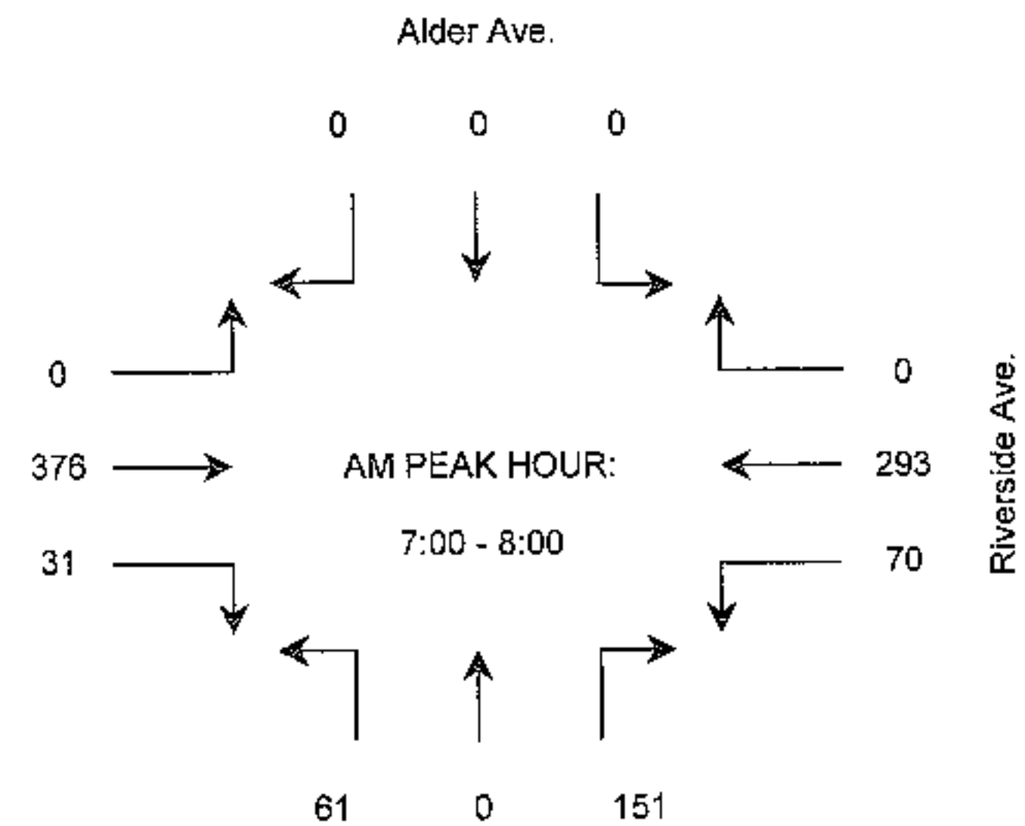
Prepared by: National Data & Surveying Services
Project # 07-3029-010

N/S STREET: Alder Ave. **E/W STREET:** Riverside Ave.

PERIOD: AM Peak Hour **DATE:** WEDNESDAY 01/24/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	17	68	0	0	88	9	12	0	37	0	0	0	231
7:15 - 7:30	15	66	0	0	103	6	14	0	30	0	0	0	234
7:30 - 7:45	20	78	0	0	103	6	17	0	35	0	0	0	259
7:45 - 8:00	18	81	0	0	82	10	18	0	49	0	0	0	258
8:00 - 8:15	10	75	0	0	84	7	14	0	29	0	0	0	219
8:15 - 8:30	9	47	0	0	71	10	12	0	24	0	0	0	173
8:30 - 8:45	11	70	0	0	59	9	23	0	24	0	0	0	196
8:45 - 9:00	4	62	0	0	54	4	13	0	13	0	0	0	150

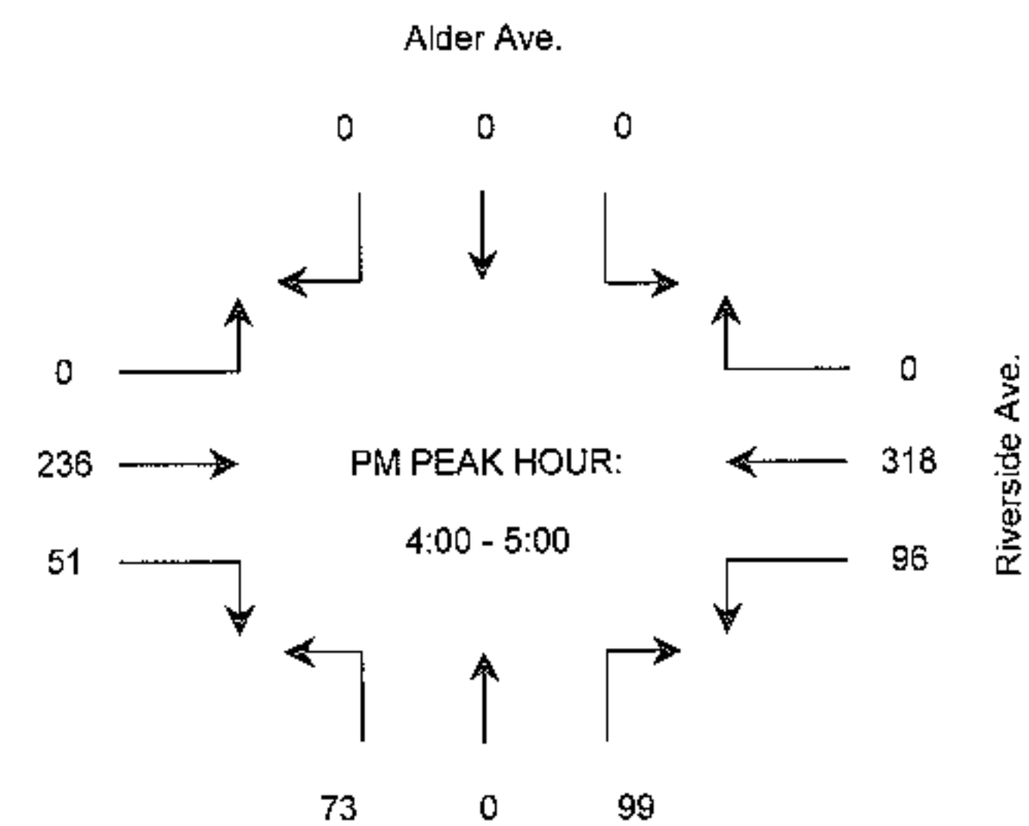
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	70	293	0	0	376	31	61	0	151	0	0	0	982 *
7:15 - 8:15	63	300	0	0	372	29	63	0	143	0	0	0	970
7:30 - 8:30	57	281	0	0	340	33	61	0	137	0	0	0	909
7:45 - 8:45	48	273	0	0	296	36	67	0	126	0	0	0	846
8:00 - 9:00	34	254	0	0	268	30	62	0	90	0	0	0	738



PERIOD: PM Peak Hour **DATE:** WEDNESDAY 01/24/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	36	76	0	0	63	17	15	0	14	0	0	0	221
4:15 - 4:30	23	94	0	0	73	16	17	0	17	0	0	0	240
4:30 - 4:45	20	73	0	0	51	11	24	0	41	0	0	0	220
4:45 - 5:00	17	75	0	0	49	7	17	0	27	0	0	0	192
5:00 - 5:15	20	80	0	0	62	6	16	0	26	0	0	0	210
5:15 - 5:30	23	83	0	0	55	6	10	0	21	0	0	0	198
5:30 - 5:45	24	83	0	0	68	11	10	0	19	0	0	0	215
5:45 - 6:00	17	75	0	0	82	12	7	0	28	0	0	0	221

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	96	318	0	0	236	51	73	0	99	0	0	0	873 *
4:15 - 5:15	80	322	0	0	235	40	74	0	111	0	0	0	862
4:30 - 5:30	80	311	0	0	217	30	67	0	115	0	0	0	820
4:45 - 5:45	84	321	0	0	234	30	53	0	93	0	0	0	815
5:00 - 6:00	84	321	0	0	267	35	43	0	94	0	0	0	844



VEHICLE TURNING MOVEMENT COUNT SUMMARY

Prepared by: National Data & Surveying Services
Project # 07-3029-011

N/S STREET: Locust Ave

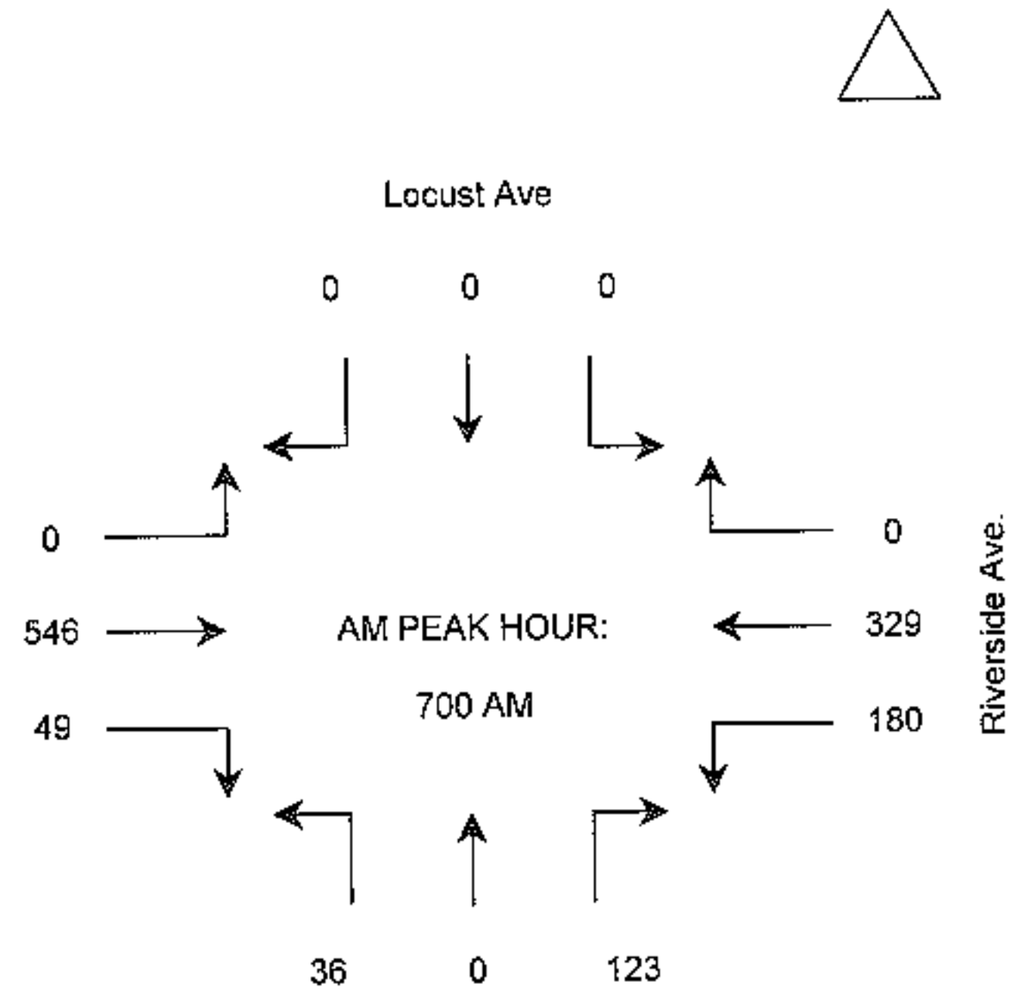
E/W STREET: Riverside Ave.

PERIOD: AM Peak Hour

DATE: WEDNESDAY 01/24/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	33	77	0	0	128	15	9	0	30	0	0	0	292
7:15 - 7:30	34	92	0	0	134	11	5	0	40	0	0	0	316
7:30 - 7:45	41	85	0	0	188	8	7	0	22	0	0	0	351
7:45 - 8:00	72	75	0	0	96	15	15	0	31	0	0	0	304
8:00 - 8:15	49	67	0	0	69	13	13	0	40	0	0	0	251
8:15 - 8:30	72	53	0	0	73	11	7	0	51	0	0	0	267
8:30 - 8:45	29	63	0	0	58	6	9	0	26	0	0	0	191
8:45 - 9:00	22	57	0	0	55	8	11	0	24	0	0	0	177

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	180	329	0	0	546	49	36	0	123	0	0	0	1,263 *
7:15 - 8:15	196	319	0	0	487	47	40	0	133	0	0	0	1,222
7:30 - 8:30	234	280	0	0	426	47	42	0	144	0	0	0	1,173
7:45 - 8:45	222	258	0	0	296	45	44	0	148	0	0	0	1,013
8:00 - 9:00	172	240	0	0	255	38	40	0	141	0	0	0	886

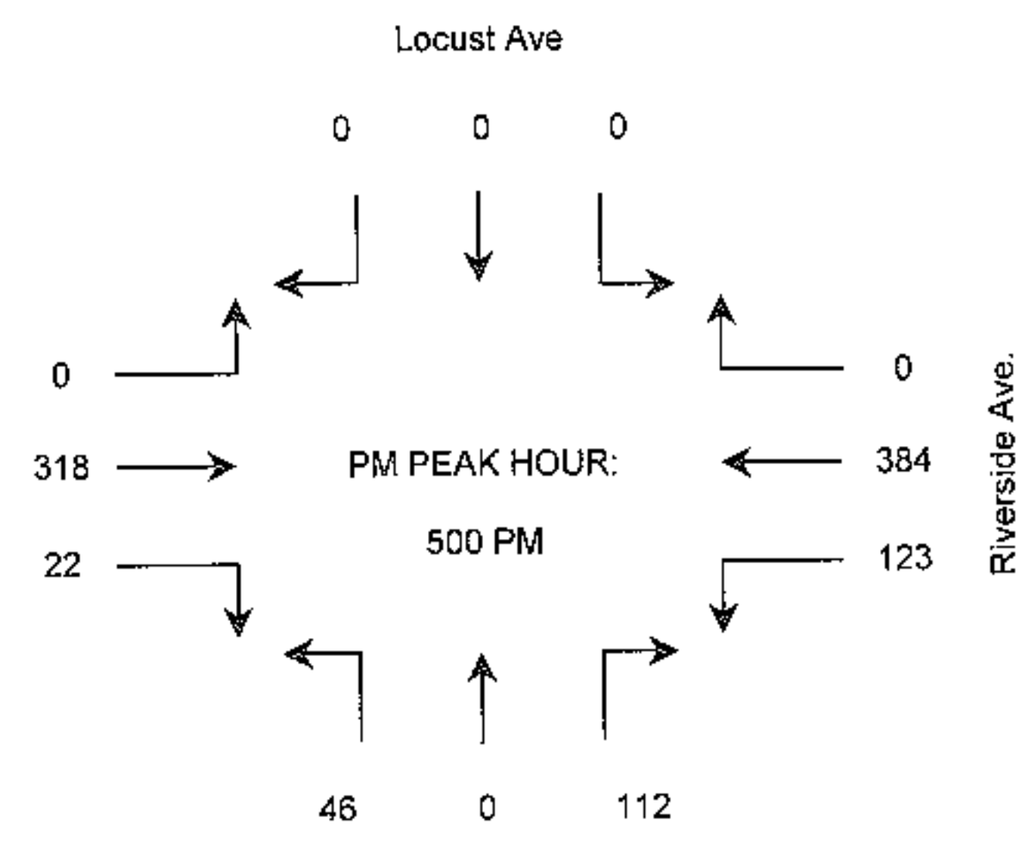


PERIOD: PM Peak Hour

DATE: WEDNESDAY 01/24/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	38	106	0	0	75	8	8	0	28	0	0	0	263
4:15 - 4:30	34	89	0	0	87	7	6	0	32	0	0	0	255
4:30 - 4:45	22	83	0	0	78	9	5	0	29	0	0	0	226
4:45 - 5:00	24	79	0	0	88	2	7	0	28	0	0	0	228
5:00 - 5:15	39	85	0	0	88	6	26	0	43	0	0	0	287
5:15 - 5:30	26	100	0	0	76	5	9	0	26	0	0	0	242
5:30 - 5:45	31	99	0	0	77	6	5	0	21	0	0	0	239
5:45 - 6:00	27	100	0	0	77	5	6	0	22	0	0	0	237

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	118	357	0	0	328	26	26	0	117	0	0	0	972
4:15 - 5:15	119	336	0	0	341	24	44	0	132	0	0	0	996
4:30 - 5:30	111	347	0	0	330	22	47	0	126	0	0	0	983
4:45 - 5:45	120	363	0	0	329	19	47	0	118	0	0	0	996
5:00 - 6:00	123	384	0	0	318	22	46	0	112	0	0	0	1,005 *



VEHICLE TURNING MOVEMENT COUNT SUMMARY

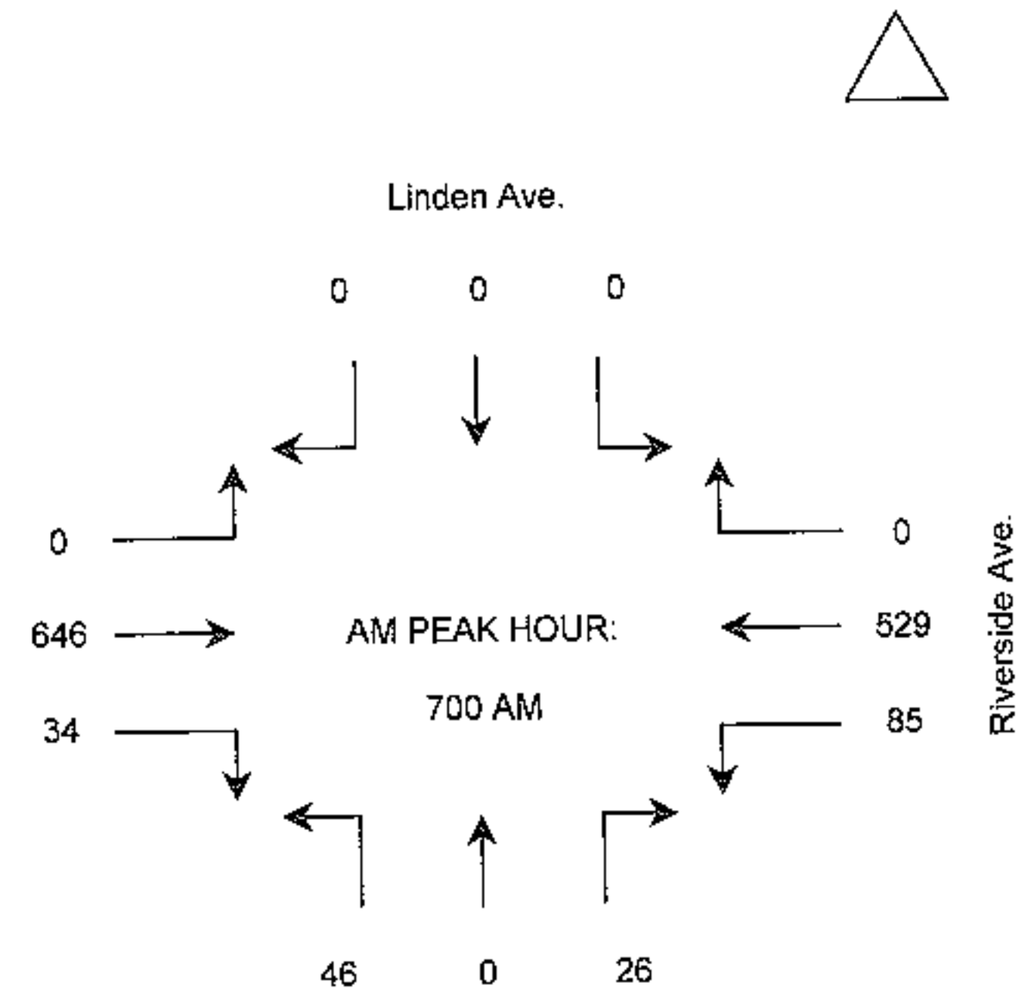
Prepared by: National Data & Surveying Services
Project # 07-3029-012

N/S STREET: Linden Ave. **E/W STREET:** Riverside Ave.

PERIOD: AM Peak Hour **DATE:** THURSDAY 1/25/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	12	167	0	0	174	5	13	0	3	0	0	0	374
7:15 - 7:30	21	150	0	0	199	9	15	0	6	0	0	0	400
7:30 - 7:45	28	110	0	0	156	9	8	0	6	0	0	0	317
7:45 - 8:00	24	102	0	0	117	11	10	0	11	0	0	0	275
8:00 - 8:15	20	97	0	0	103	6	9	0	12	0	0	0	247
8:15 - 8:30	19	98	0	0	100	3	4	0	18	0	0	0	242
8:30 - 8:45	9	78	0	0	82	6	4	0	9	0	0	0	188
8:45 - 9:00	12	62	0	0	70	5	4	0	14	0	0	0	167

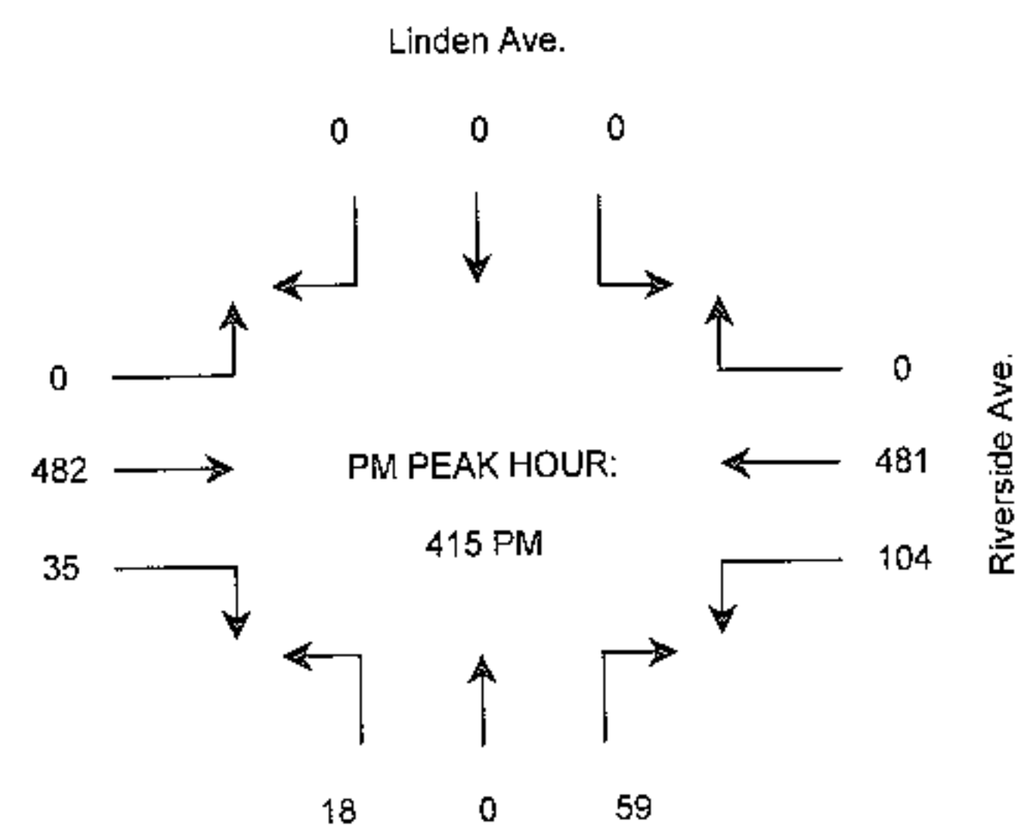
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	85	529	0	0	646	34	46	0	26	0	0	0	1,366 *
7:15 - 8:15	93	459	0	0	575	35	42	0	35	0	0	0	1,239
7:30 - 8:30	91	407	0	0	476	29	31	0	47	0	0	0	1,081
7:45 - 8:45	72	375	0	0	402	26	27	0	50	0	0	0	952
8:00 - 9:00	60	335	0	0	355	20	21	0	53	0	0	0	844



PERIOD: PM Peak Hour **DATE:** THURSDAY 1/25/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	32	107	0	0	116	10	5	0	15	0	0	0	285
4:15 - 4:30	26	121	0	0	133	12	7	0	12	0	0	0	311
4:30 - 4:45	29	120	0	0	131	8	4	0	15	0	0	0	307
4:45 - 5:00	27	109	0	0	117	6	6	0	11	0	0	0	276
5:00 - 5:15	22	131	0	0	101	9	1	0	21	0	0	0	285
5:15 - 5:30	33	104	0	0	86	4	4	0	24	0	0	0	255
5:30 - 5:45	34	102	0	0	79	10	7	0	28	0	0	0	260
5:45 - 6:00	41	98	0	0	72	9	5	0	23	0	0	0	248

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	114	457	0	0	497	36	22	0	53	0	0	0	1,179 *
4:15 - 5:15	104	481	0	0	482	35	18	0	59	0	0	0	1,179 *
4:30 - 5:30	111	464	0	0	435	27	15	0	71	0	0	0	1,123
4:45 - 5:45	116	446	0	0	383	29	18	0	84	0	0	0	1,076
5:00 - 6:00	130	435	0	0	338	32	17	0	96	0	0	0	1,048



VEHICLE TURNING MOVEMENT COUNT SUMMARY

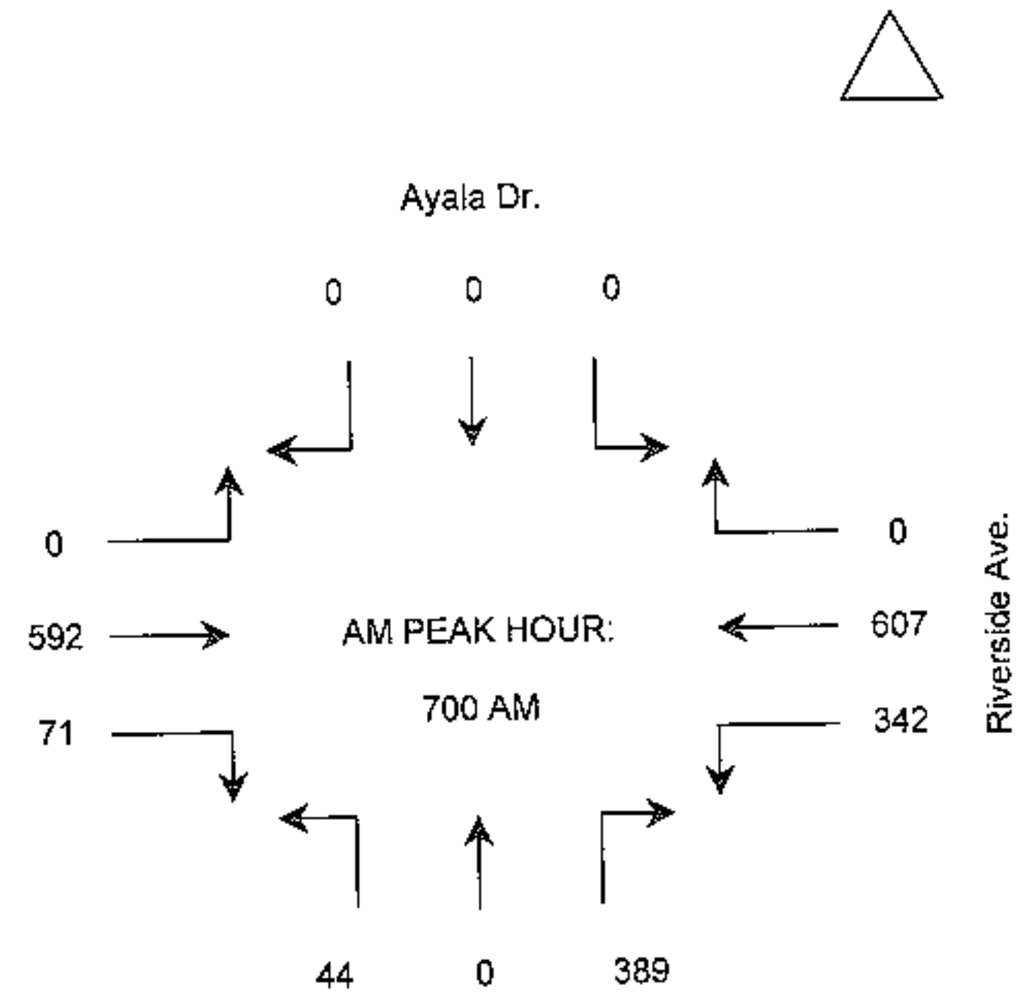
Prepared by: National Data & Surveying Services
Project # 07-3029-013

N/S STREET: Ayala Dr. **E/W STREET:** Riverside Ave.

PERIOD: AM Peak Hour **DATE:** THURSDAY 1/25/2007

15-MINUTE TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
7:00 - 7:15	70	183	0	0	154	18	9	0	101	0	0	0	535
7:15 - 7:30	121	180	0	0	198	21	10	0	156	0	0	0	686
7:30 - 7:45	90	121	0	0	131	20	13	0	84	0	0	0	459
7:45 - 8:00	61	123	0	0	109	12	12	0	48	0	0	0	365
8:00 - 8:15	59	103	0	0	99	11	21	0	47	0	0	0	340
8:15 - 8:30	63	91	0	0	101	13	25	0	45	0	0	0	338
8:30 - 8:45	52	75	0	0	85	10	13	0	35	0	0	0	270
8:45 - 9:00	49	69	0	0	81	7	9	0	38	0	0	0	253

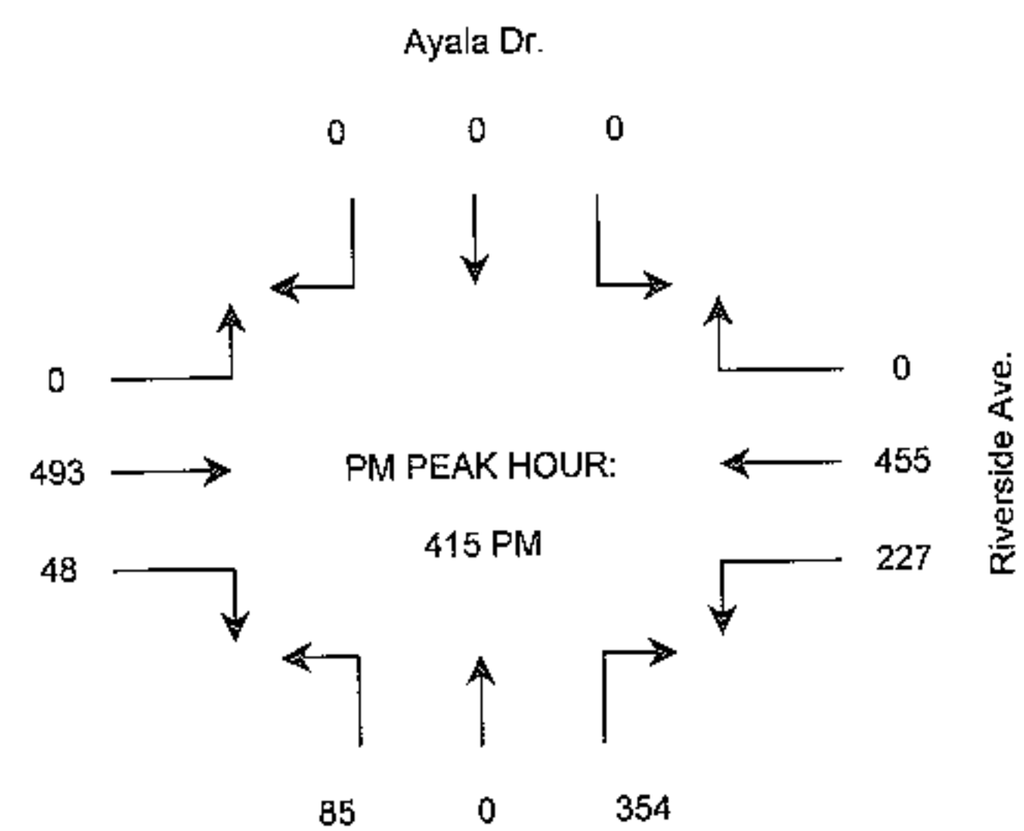
1-HOUR TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
7:00 - 8:00	342	607	0	0	592	71	44	0	389	0	0	0	2,045 *
7:15 - 8:15	331	527	0	0	537	64	56	0	335	0	0	0	1,850
7:30 - 8:30	273	438	0	0	440	56	71	0	224	0	0	0	1,502
7:45 - 8:45	235	392	0	0	394	46	71	0	175	0	0	0	1,313
8:00 - 9:00	223	338	0	0	366	41	68	0	165	0	0	0	1,201



PERIOD: PM Peak Hour **DATE:** THURSDAY 1/25/2007

15-MINUTE TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
4:00 - 4:15	45	122	0	0	122	19	18	0	74	0	0	0	400
4:15 - 4:30	53	119	0	0	130	15	22	0	89	0	0	0	428
4:30 - 4:45	56	115	0	0	140	14	23	0	81	0	0	0	429
4:45 - 5:00	57	112	0	0	112	8	21	0	90	0	0	0	400
5:00 - 5:15	61	109	0	0	111	11	19	0	94	0	0	0	405
5:15 - 5:30	53	127	0	0	105	9	9	0	89	0	0	0	392
5:30 - 5:45	44	132	0	0	101	12	10	0	99	0	0	0	398
5:45 - 6:00	39	137	0	0	91	10	11	0	93	0	0	0	381

1-HOUR TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
4:00 - 5:00	211	468	0	0	504	56	84	0	334	0	0	0	1,657
4:15 - 5:15	227	455	0	0	493	48	85	0	354	0	0	0	1,662 *
4:30 - 5:30	227	463	0	0	468	42	72	0	354	0	0	0	1,626
4:45 - 5:45	215	480	0	0	429	40	59	0	372	0	0	0	1,595
5:00 - 6:00	197	505	0	0	408	42	49	0	375	0	0	0	1,576



VEHICLE TURNING MOVEMENT COUNT SUMMARY

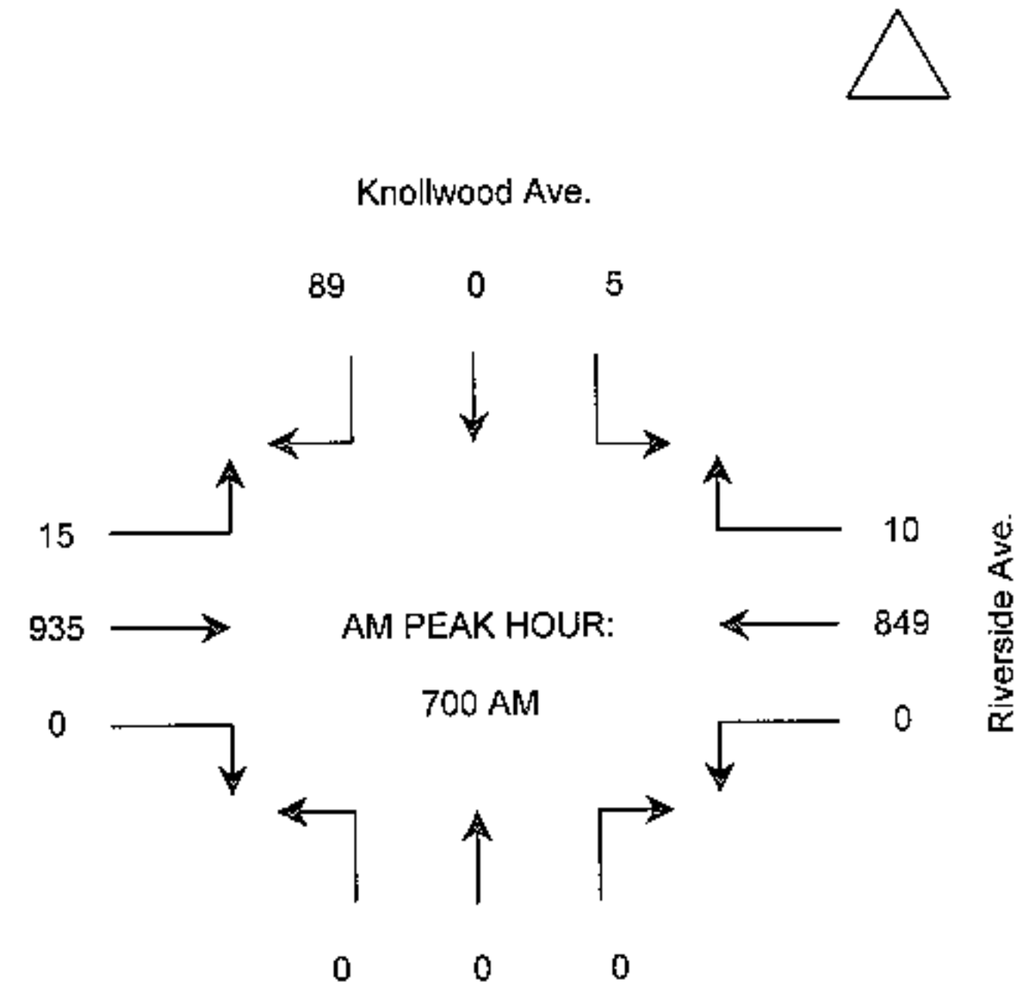
Prepared by: National Data & Surveying Services
Project # 07-3029-014

N/S STREET: Knollwood Ave. **E/W STREET:** Riverside Ave.

PERIOD: AM Peak Hour **DATE:** WEDNESDAY 1/24/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	0	268	2	3	248	0	0	0	0	1	0	13	535
7:15 - 7:30	0	232	4	3	320	0	0	0	0	2	0	37	598
7:30 - 7:45	0	193	1	5	206	0	0	0	0	1	0	22	428
7:45 - 8:00	0	156	3	4	161	0	0	0	0	1	0	17	342
8:00 - 8:15	0	158	1	8	126	0	0	0	0	5	0	14	312
8:15 - 8:30	0	132	0	2	133	0	0	0	0	2	0	12	281
8:30 - 8:45	0	120	1	0	117	0	0	0	0	3	0	12	253
8:45 - 9:00	0	112	0	4	171	0	0	0	0	0	0	12	299

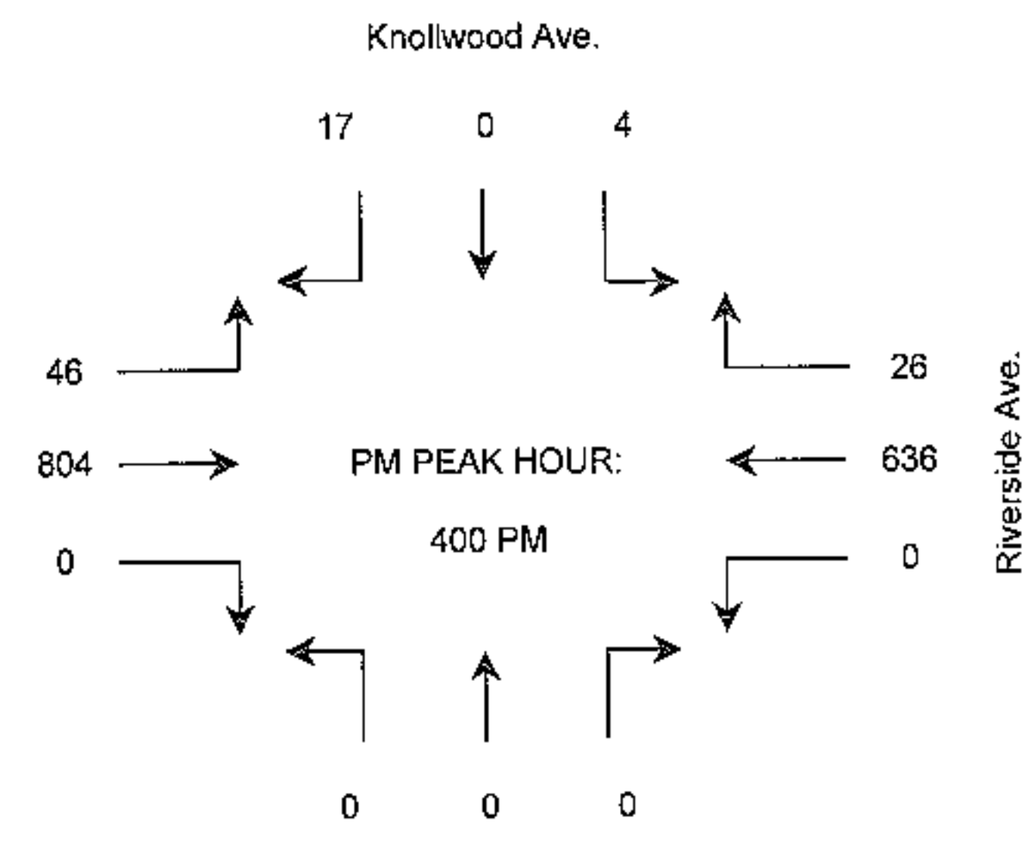
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	0	849	10	15	935	0	0	0	0	5	0	89	1,903 *
7:15 - 8:15	0	739	9	20	813	0	0	0	0	9	0	90	1,680
7:30 - 8:30	0	639	5	19	626	0	0	0	0	9	0	65	1,363
7:45 - 8:45	0	566	5	14	537	0	0	0	0	11	0	55	1,188
8:00 - 9:00	0	522	2	14	547	0	0	0	0	10	0	50	1,145



PERIOD: PM Peak Hour **DATE:** WEDNESDAY 1/24/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	0	160	7	12	194	0	0	0	0	1	0	4	378
4:15 - 4:30	0	153	6	11	203	0	0	0	0	2	0	3	378
4:30 - 4:45	0	159	8	14	210	0	0	0	0	1	0	5	397
4:45 - 5:00	0	164	5	9	197	0	0	0	0	0	0	5	380
5:00 - 5:15	0	159	7	6	195	0	0	0	0	1	0	1	369
5:15 - 5:30	0	181	3	4	185	0	0	0	0	0	0	4	377
5:30 - 5:45	0	181	7	12	192	0	0	0	0	5	0	2	399
5:45 - 6:00	0	180	1	5	185	0	0	0	0	2	0	1	374

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	0	636	26	46	804	0	0	0	0	4	0	17	1,533 *
4:15 - 5:15	0	635	26	40	805	0	0	0	0	4	0	14	1,524
4:30 - 5:30	0	663	23	33	787	0	0	0	0	2	0	15	1,523
4:45 - 5:45	0	685	22	31	769	0	0	0	0	6	0	12	1,525
5:00 - 6:00	0	701	18	27	757	0	0	0	0	8	0	8	1,519



VEHICLE TURNING MOVEMENT COUNT SUMMARY

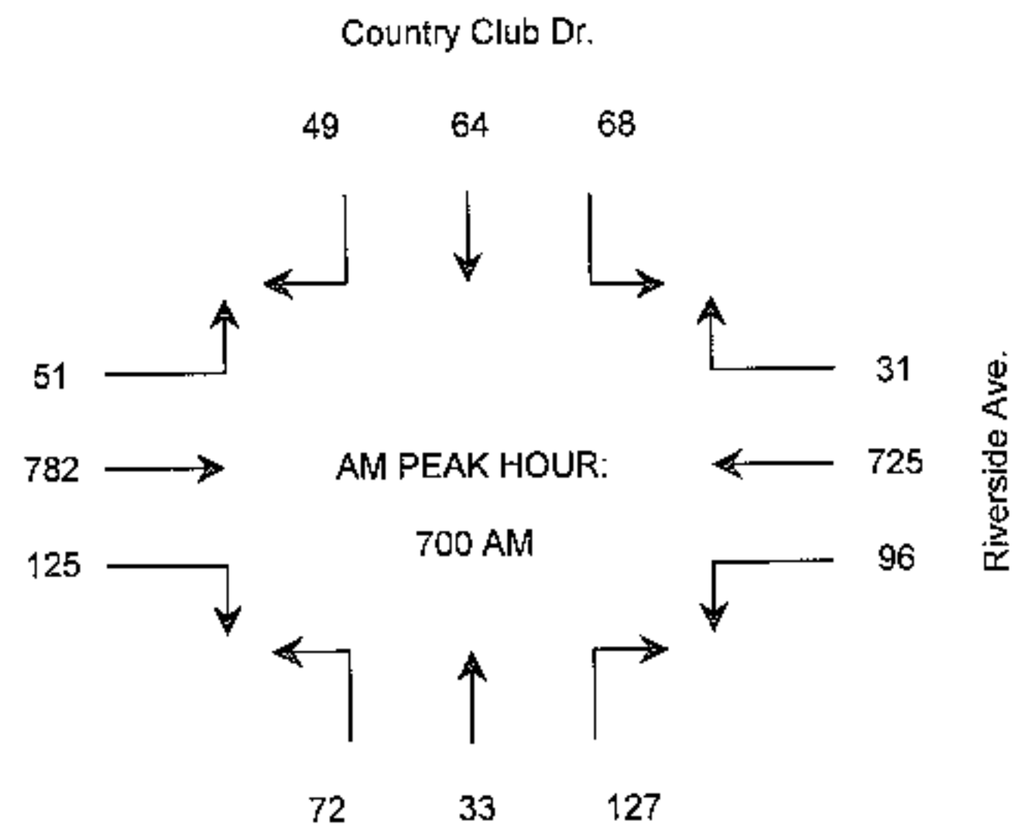
Prepared by: National Data & Surveying Services
Project # 07-3029-015

N/S STREET: Country Club Dr. **E/W STREET:** Riverside Ave.

PERIOD: AM Peak Hour **DATE:** WEDNESDAY 1/24/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	21	258	9	16	199	40	14	6	35	10	12	19	639
7:15 - 7:30	28	188	9	20	231	44	29	7	26	12	16	14	624
7:30 - 7:45	26	139	5	7	209	19	17	9	30	20	14	6	501
7:45 - 8:00	21	140	8	8	143	22	12	11	36	26	22	10	459
8:00 - 8:15	17	142	6	5	114	15	17	15	41	31	19	8	430
8:15 - 8:30	15	110	14	3	127	20	20	22	35	24	23	7	420
8:30 - 8:45	22	104	11	4	121	19	13	17	29	33	17	4	394
8:45 - 9:00	19	96	4	3	90	12	11	12	21	25	9	5	307

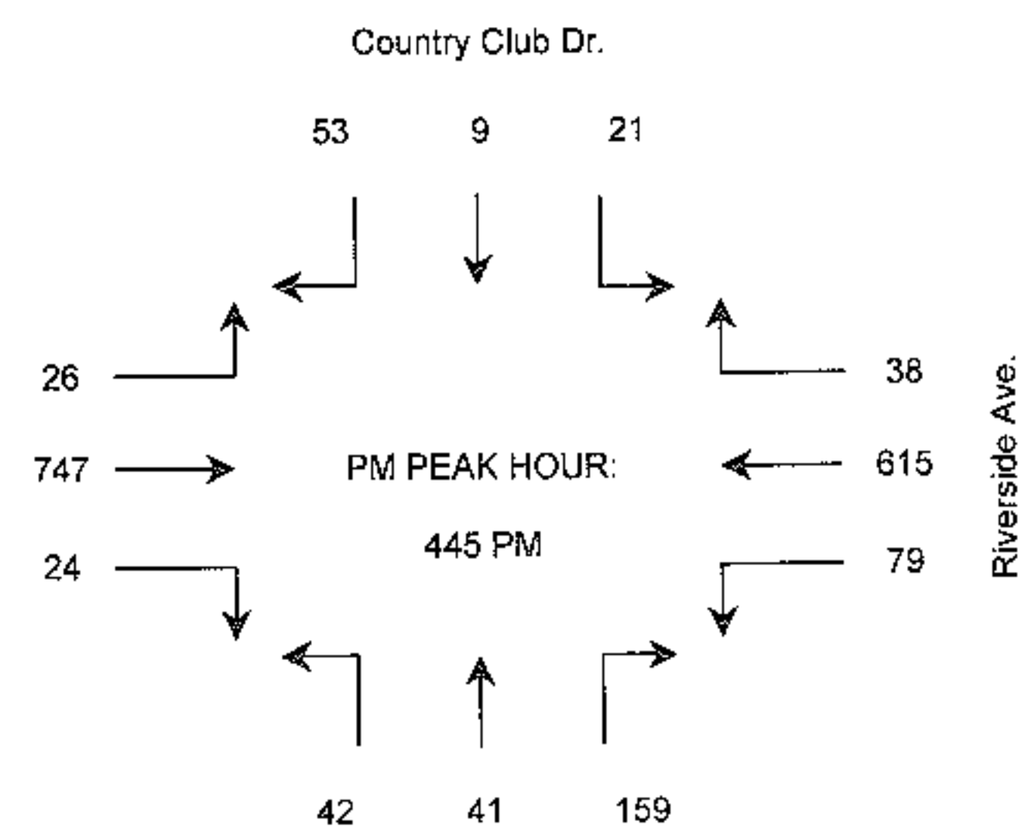
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	96	725	31	51	782	125	72	33	127	68	64	49	2,223 *
7:15 - 8:15	92	609	28	40	697	100	75	42	133	89	71	38	2,014
7:30 - 8:30	79	531	33	23	593	76	66	57	142	101	78	31	1,810
7:45 - 8:45	75	496	39	20	505	76	62	65	141	114	81	29	1,703
8:00 - 9:00	73	452	35	15	452	66	61	66	126	113	68	24	1,551



PERIOD: PM Peak Hour **DATE:** WEDNESDAY 1/24/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	26	159	4	5	176	12	8	5	48	10	2	7	462
4:15 - 4:30	21	155	9	3	187	9	7	5	45	2	2	4	449
4:30 - 4:45	27	148	11	2	189	11	10	7	41	4	5	7	462
4:45 - 5:00	16	149	7	5	188	4	10	10	42	3	1	6	441
5:00 - 5:15	24	149	10	8	183	8	8	9	39	6	3	14	461
5:15 - 5:30	19	154	12	6	190	5	13	13	41	5	3	18	479
5:30 - 5:45	20	163	9	7	186	7	11	9	37	7	2	15	473
5:45 - 6:00	21	159	6	4	175	7	9	5	31	5	2	15	439

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	90	611	31	15	740	36	35	27	176	19	10	24	1,814
4:15 - 5:15	88	601	37	18	747	32	35	31	167	15	11	31	1,813
4:30 - 5:30	86	600	40	21	750	28	41	39	163	18	12	45	1,843
4:45 - 5:45	79	615	38	26	747	24	42	41	159	21	9	53	1,854 *
5:00 - 6:00	84	625	37	25	734	27	41	36	148	23	10	62	1,852



VEHICLE TURNING MOVEMENT COUNT SUMMARY

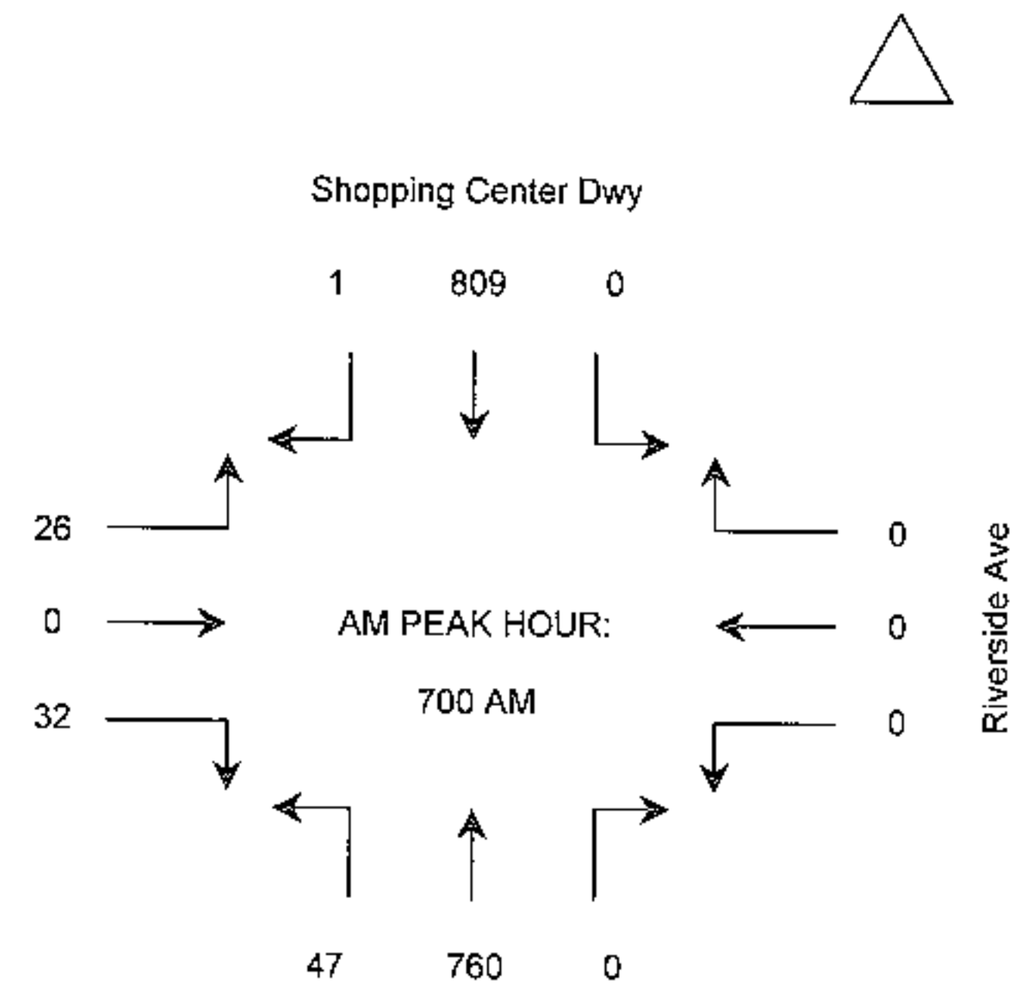
Prepared by: National Data & Surveying Services
Project # **07-3094-001**

N/S STREET: Riverside Ave **E/W STREET:** Shopping Center Dwy

PERIOD: AM Peak Hour **DATE:** TUESDAY 3/13/2007

15-MINUTE TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	0	0	0	4	0	7	17	204	0	0	184	0	416
7:15 - 7:30	0	0	0	7	0	16	14	223	0	0	208	1	469
7:30 - 7:45	0	0	0	8	0	2	4	151	0	0	175	0	340
7:45 - 8:00	0	0	0	7	0	7	12	182	0	0	242	0	450
8:00 - 8:15	0	0	0	3	0	8	4	171	0	0	196	3	385
8:15 - 8:30	0	0	0	5	0	9	2	165	0	0	183	1	365
8:30 - 8:45	0	0	0	2	0	13	6	121	0	0	161	1	304
8:45 - 9:00	0	0	0	6	0	17	11	128	0	0	150	5	317

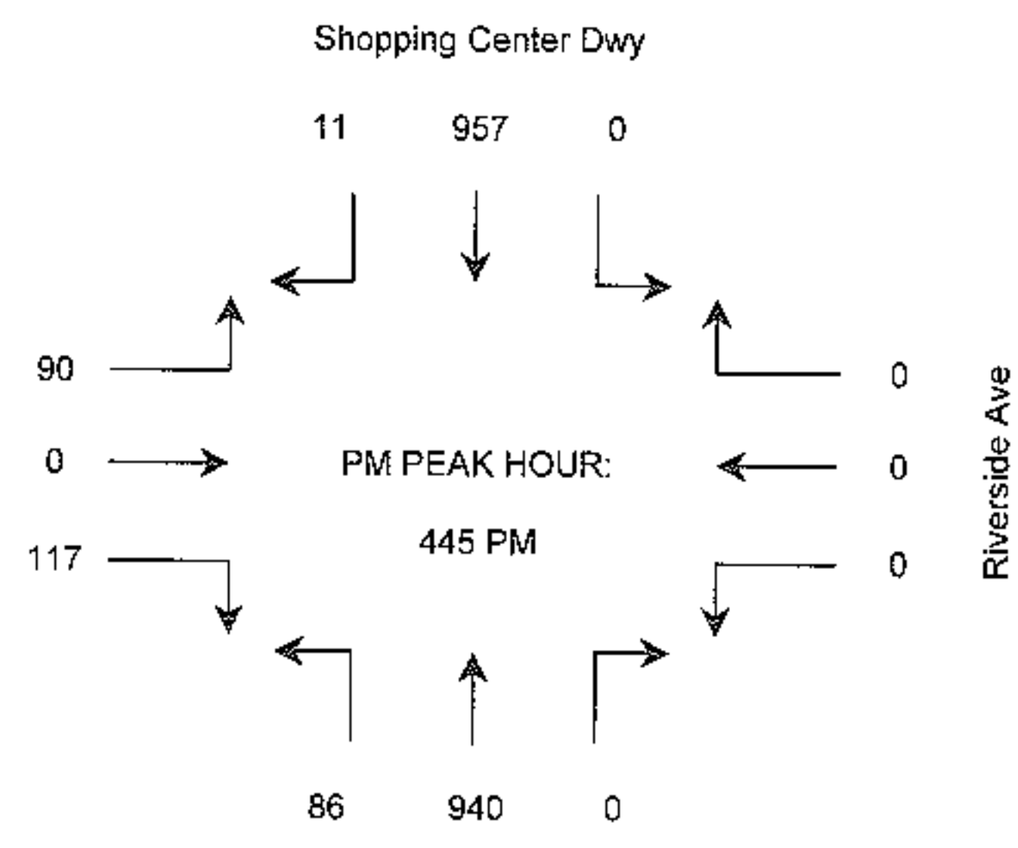
1-HOUR TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	0	0	0	26	0	32	47	760	0	0	809	1	1,675 *
7:15 - 8:15	0	0	0	25	0	33	34	727	0	0	821	4	1,644
7:30 - 8:30	0	0	0	23	0	26	22	669	0	0	796	4	1,540
7:45 - 8:45	0	0	0	17	0	37	24	639	0	0	782	5	1,504
8:00 - 9:00	0	0	0	16	0	47	23	585	0	0	690	10	1,371



PERIOD: PM Peak Hour **DATE:** TUESDAY 3/13/2007

15-MINUTE TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	0	0	0	11	0	21	12	201	0	0	187	3	435
4:15 - 4:30	0	0	0	17	0	17	14	143	0	0	259	1	451
4:30 - 4:45	0	0	0	13	0	30	17	204	0	0	218	0	482
4:45 - 5:00	0	0	0	26	0	22	24	244	0	0	262	2	580
5:00 - 5:15	0	0	0	24	0	27	15	224	0	0	253	4	547
5:15 - 5:30	0	0	0	18	0	33	27	246	0	0	248	2	574
5:30 - 5:45	0	0	0	22	0	35	20	226	0	0	194	3	500
5:45 - 6:00	0	0	0	10	0	18	15	202	0	0	170	2	417

1-HOUR TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	0	0	0	67	0	90	67	792	0	0	926	6	1,948
4:15 - 5:15	0	0	0	80	0	96	70	815	0	0	992	7	2,060
4:30 - 5:30	0	0	0	81	0	112	83	918	0	0	981	8	2,183
4:45 - 5:45	0	0	0	90	0	117	86	940	0	0	957	11	2,201 *
5:00 - 6:00	0	0	0	74	0	113	77	898	0	0	865	11	2,038



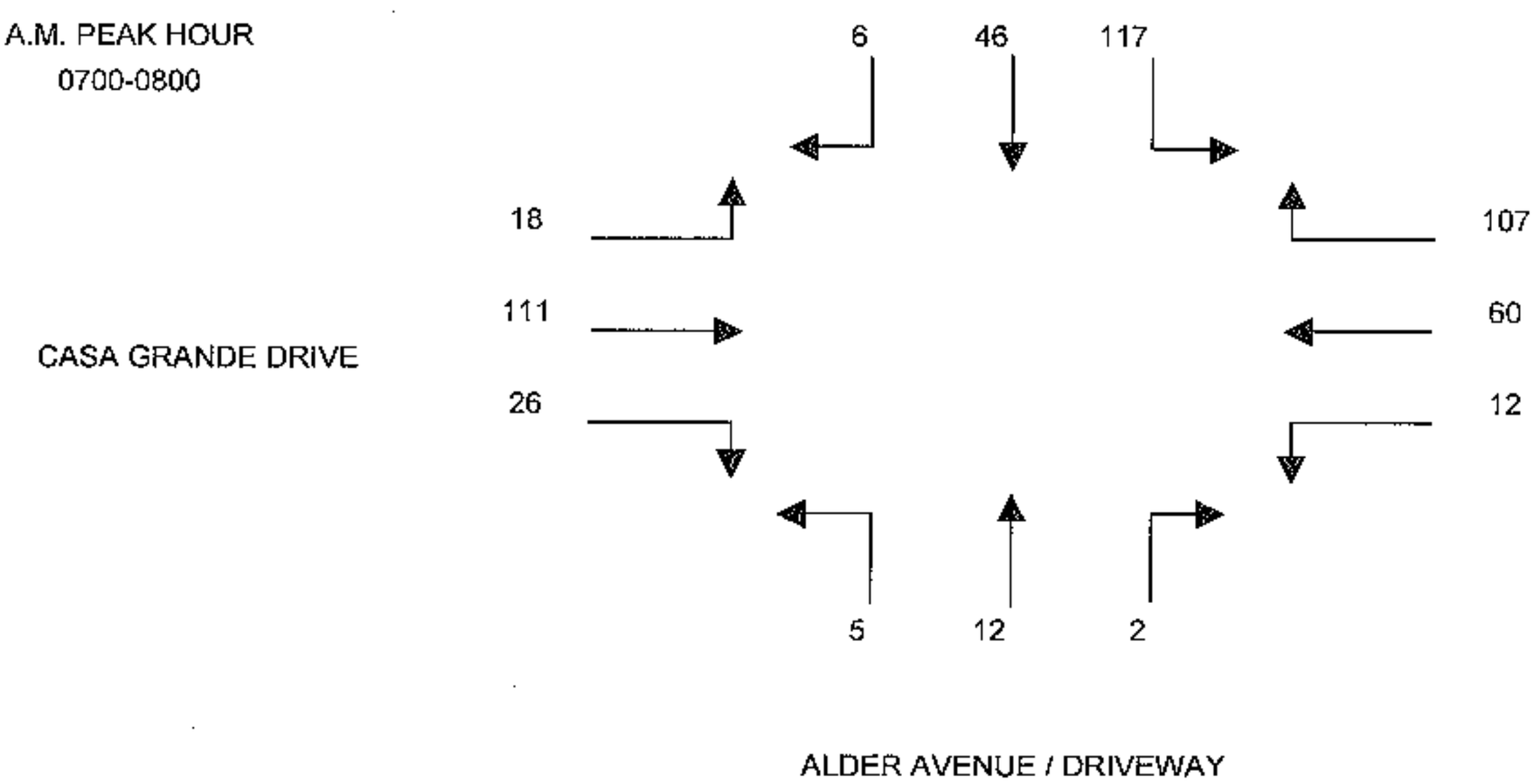
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: THURSDAY, MARCH 15, 2007
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S ALDER AVENUE / DRIVEWAY
E/W CASA GRANDE DRIVE
FILE NUMBER: 7-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	0	10	40	18	18	5	1	3	1	5	59	3
715-730	2	13	37	43	30	4	0	5	0	5	24	4
730-745	3	16	23	36	10	2	1	3	2	9	16	8
745-800	1	7	17	10	2	1	0	1	2	7	12	3
800-815	1	10	15	7	5	3	1	3	2	6	5	4
815-830	2	10	12	7	4	4	1	3	0	3	8	7
830-845	2	6	11	9	6	4	1	6	1	3	5	3
845-900	2	5	5	5	4	2	1	2	2	3	5	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	6	46	117	107	60	12	2	12	5	26	111	18	522
715-815	7	46	92	96	47	10	2	12	6	27	57	19	421
730-830	7	43	67	60	21	10	3	10	6	25	41	22	315
745-845	6	33	55	33	17	12	3	13	5	19	30	17	243
800-900	7	31	43	28	19	13	4	14	5	15	23	14	216

A.M. PEAK HOUR
0700-0800



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

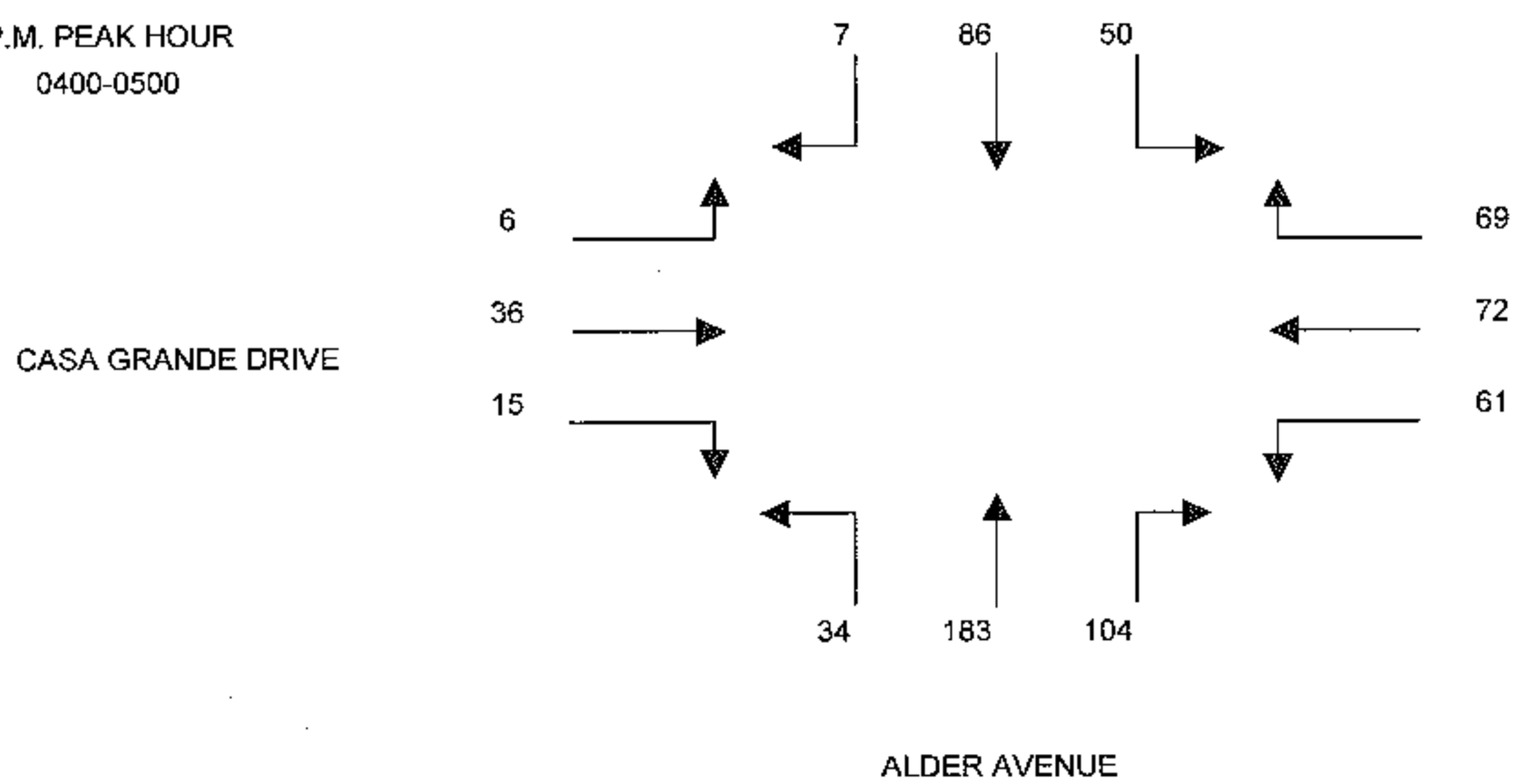
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: THURSDAY, MARCH 15, 2007
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S ALDER AVENUE
E/W CASA GRANDE DRIVE
FILE NUMBER: 7-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	2	30	9	18	11	27	3	20	5	2	12	0
415-430	3	32	10	17	19	26	10	36	10	6	5	2
430-445	1	12	17	17	20	5	77	97	10	3	9	4
445-500	1	12	14	17	22	3	14	30	9	4	10	0
500-515	2	12	10	15	22	2	6	30	12	6	13	2
515-530	3	5	10	17	29	1	5	32	12	3	6	2
530-545	5	7	7	18	24	1	6	25	11	5	9	3
545-600	3	9	4	21	26	0	6	28	12	3	10	1

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	7	86	50	69	72	61	104	183	34	15	36	6	723
415-515	7	68	51	66	83	36	107	193	41	19	37	8	716
430-530	7	41	51	66	93	11	102	189	43	16	38	8	665
445-545	11	36	41	67	97	7	31	117	44	18	38	7	514
500-600	13	33	31	71	101	4	23	115	47	17	38	8	501

P.M. PEAK HOUR
0400-0500



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

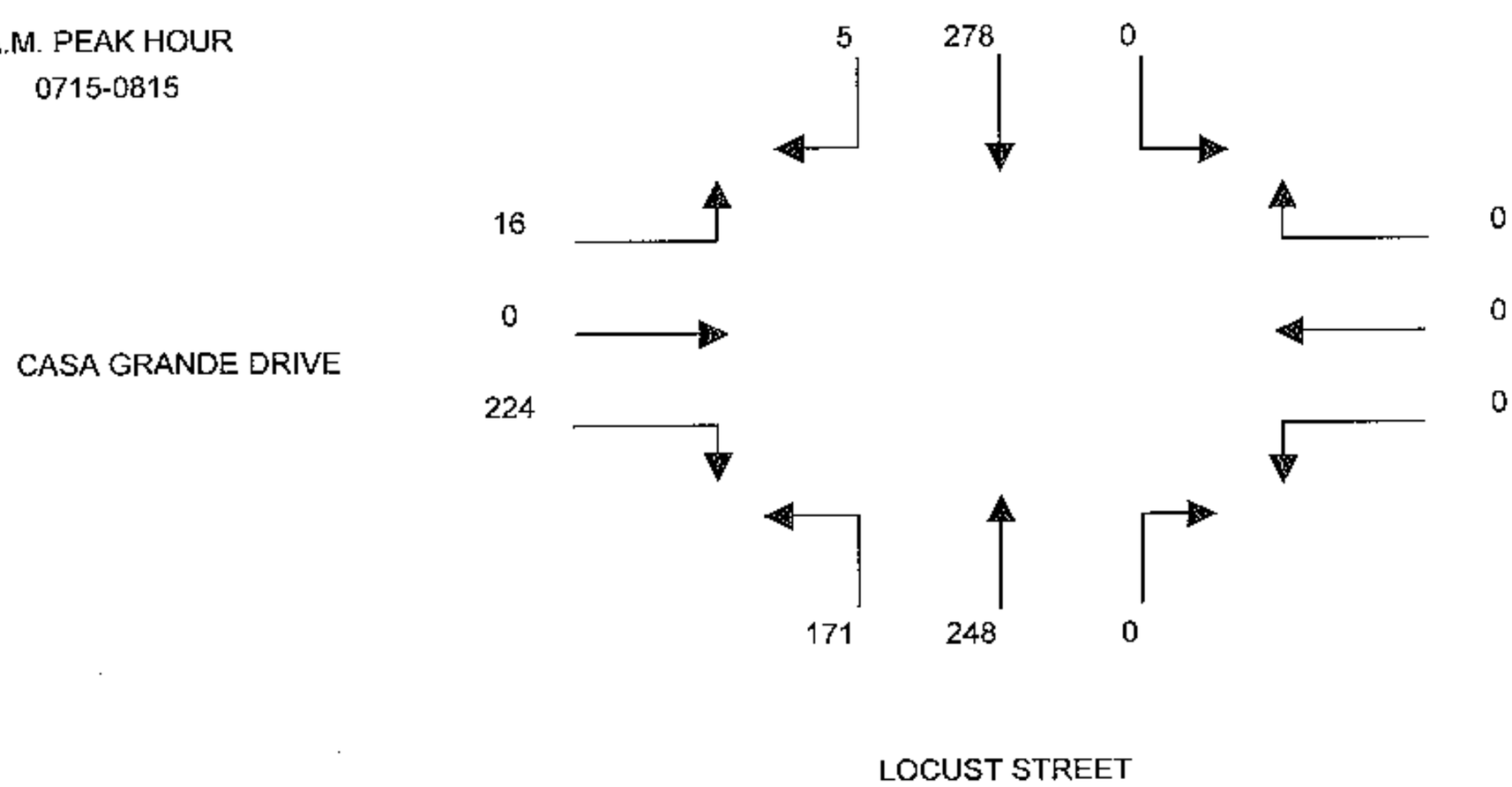
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: WEDNESDAY, MARCH 14, 2007
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S LOCUST STREET
E/W CASA GRANDE DRIVE
FILE NUMBER: 8-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	0	62	0	0	0	0	0	24	34	85	0	7
715-730	1	60	0	0	0	0	0	52	79	95	0	5
730-745	2	57	0	0	0	0	0	44	59	54	0	4
745-800	1	80	0	0	0	0	0	68	20	40	0	5
800-815	1	81	0	0	0	0	0	84	13	35	0	2
815-830	2	80	0	0	0	0	0	81	19	27	0	2
830-845	4	74	0	0	0	0	0	55	10	20	0	2
845-900	1	39	0	0	0	0	0	27	9	16	0	4

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	4	259	0	0	0	0	0	188	192	274	0	21	938
715-815	5	278	0	0	0	0	0	248	171	224	0	16	942
730-830	6	298	0	0	0	0	0	277	111	156	0	13	861
745-845	8	315	0	0	0	0	0	288	62	122	0	11	806
800-900	8	274	0	0	0	0	0	247	51	98	0	10	688

A.M. PEAK HOUR
0715-0815



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

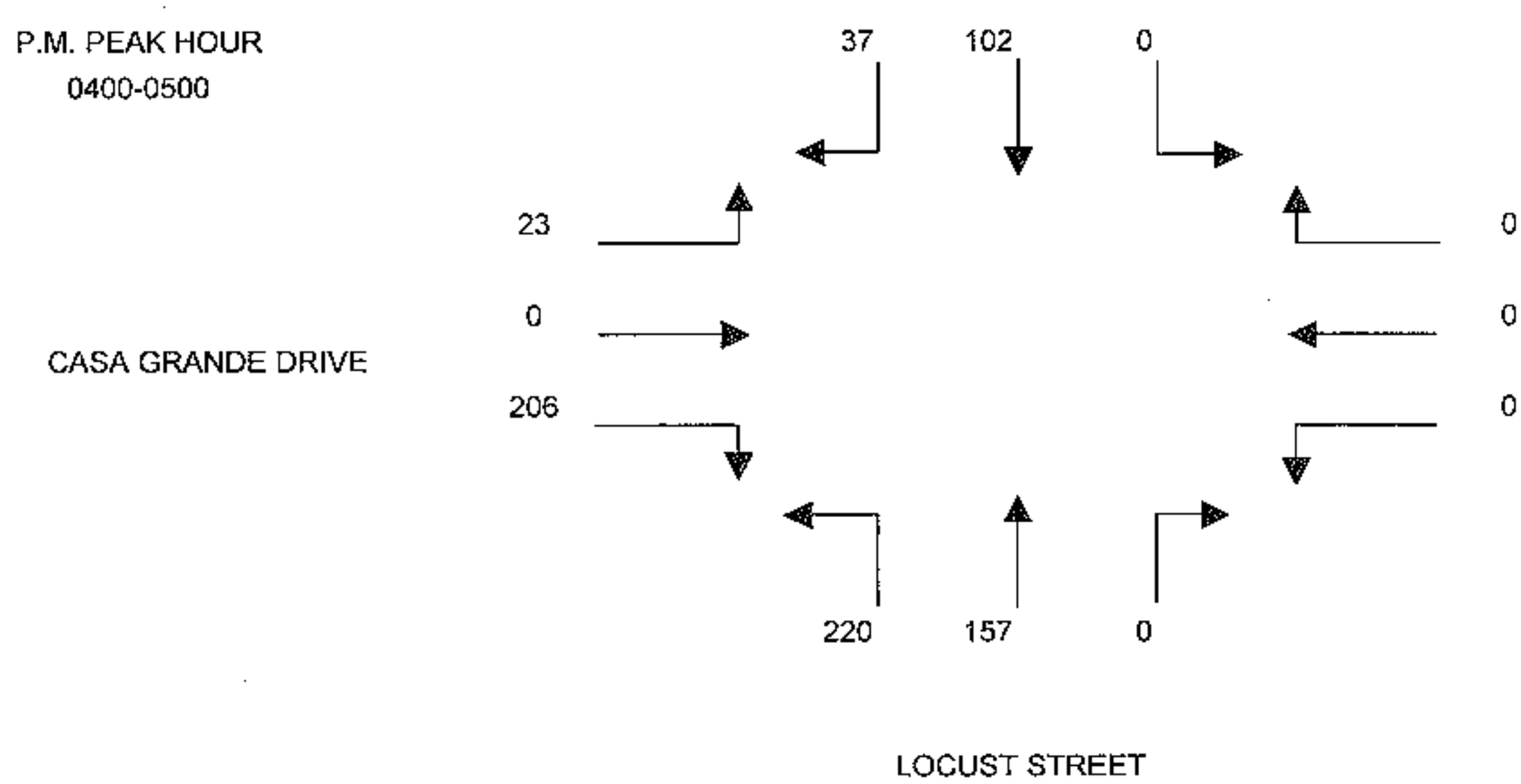
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: TUESDAY, MARCH 14, 2007
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S LOCUST STREET
E/W CASA GRANDE DRIVE
FILE NUMBER: 8-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	13	29	0	0	0	0	0	46	68	31	0	6
415-430	10	26	0	0	0	0	0	40	69	46	0	4
430-445	5	27	0	0	0	0	0	37	46	85	0	8
445-500	9	20	0	0	0	0	0	34	37	44	0	5
500-515	10	38	0	0	0	0	0	49	50	33	0	3
515-530	5	22	0	0	0	0	0	42	62	35	0	2
530-545	9	26	0	0	0	0	0	30	40	23	0	2
545-600	4	24	0	0	0	0	0	29	64	26	0	1

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	37	102	0	0	0	0	0	157	220	206	0	23	745
415-515	34	111	0	0	0	0	0	160	202	208	0	20	735
430-530	29	107	0	0	0	0	0	162	195	197	0	18	708
445-545	33	106	0	0	0	0	0	155	189	135	0	12	630
500-600	28	110	0	0	0	0	0	150	216	117	0	8	629

P.M. PEAK HOUR
0400-0500



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

VEHICLE TURNING MOVEMENT COUNT SUMMARY

Prepared by: National Data & Surveying Services

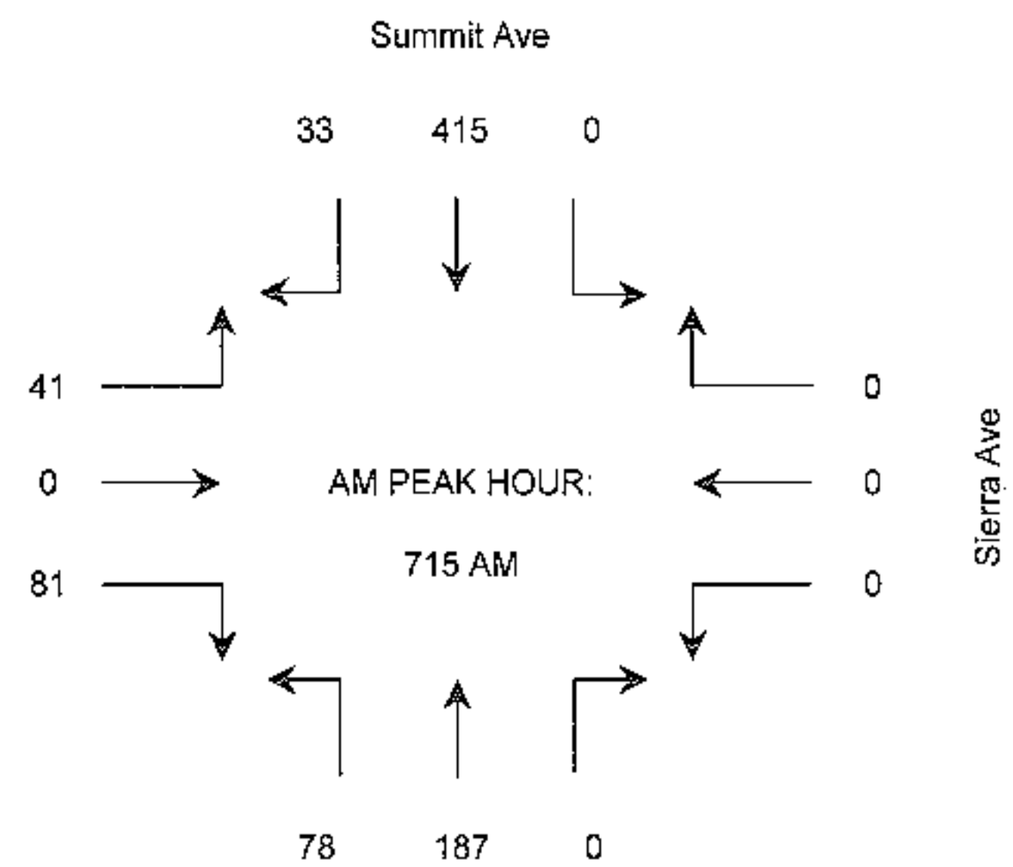
Project # **07-3112-003**

N/S STREET: Sierra Ave **E/W STREET:** Summit Ave

PERIOD: AM Peak Hour **DATE:** THURSDAY 3/22/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	0	0	0	5	0	13	11	33	0	0	106	4	172
7:15 - 7:30	0	0	0	10	0	21	24	47	0	0	123	9	234
7:30 - 7:45	0	0	0	14	0	28	30	41	0	0	112	11	236
7:45 - 8:00	0	0	0	7	0	19	14	43	0	0	94	5	182
8:00 - 8:15	0	0	0	10	0	13	10	56	0	0	86	8	183
8:15 - 8:30	0	0	0	8	0	16	17	39	0	0	77	5	162
8:30 - 8:45	0	0	0	9	0	11	12	48	0	0	75	6	161
8:45 - 9:00	0	0	0	11	0	14	15	44	0	0	78	9	171

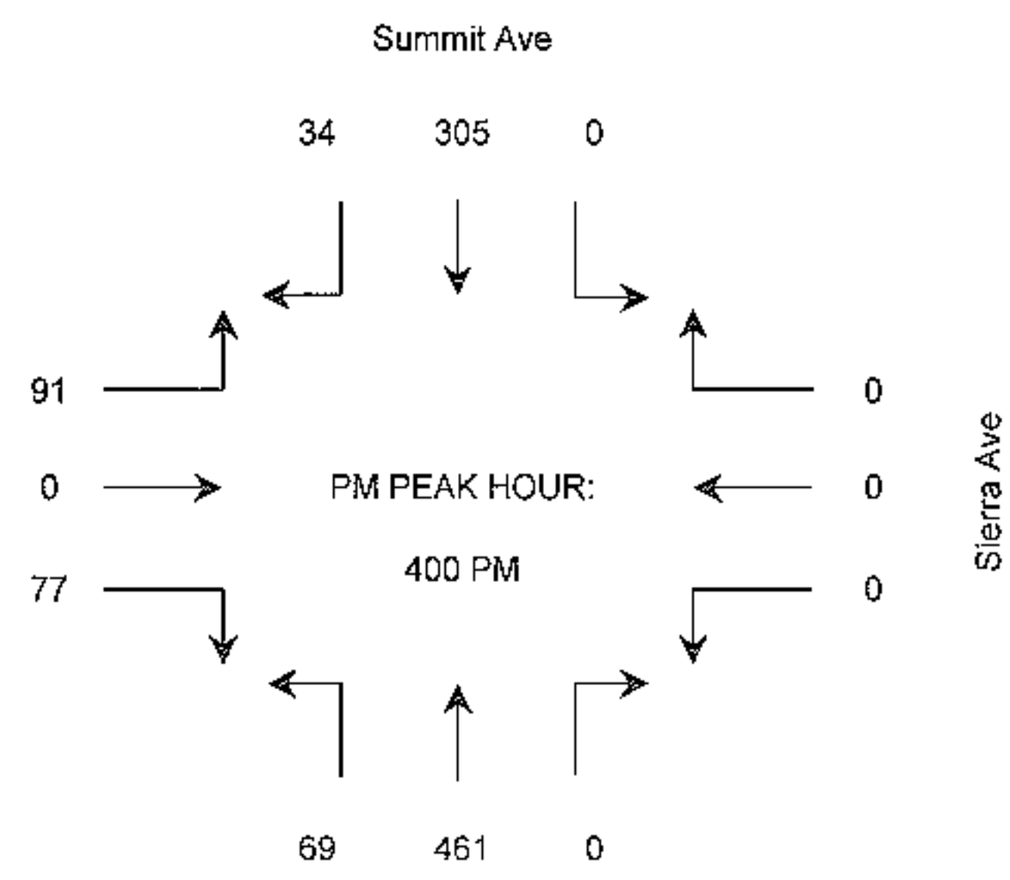
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	0	0	0	36	0	81	79	164	0	0	435	29	824
7:15 - 8:15	0	0	0	41	0	81	78	187	0	0	415	33	835 *
7:30 - 8:30	0	0	0	39	0	76	71	179	0	0	369	29	763
7:45 - 8:45	0	0	0	34	0	59	53	186	0	0	332	24	688
8:00 - 9:00	0	0	0	38	0	54	54	187	0	0	316	28	677



PERIOD: PM Peak Hour **DATE:** THURSDAY 3/22/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	0	0	0	21	0	23	15	108	0	0	88	8	263
4:15 - 4:30	0	0	0	22	0	15	18	121	0	0	77	10	263
4:30 - 4:45	0	0	0	27	0	20	22	126	0	0	72	5	272
4:45 - 5:00	0	0	0	21	0	19	14	106	0	0	68	11	239
5:00 - 5:15	0	0	0	30	0	24	19	116	0	0	61	7	257
5:15 - 5:30	0	0	0	25	0	17	18	109	0	0	52	9	230
5:30 - 5:45	0	0	0	29	0	22	18	105	0	0	53	10	237
5:45 - 6:00	0	0	0	21	0	17	16	100	0	0	60	8	222

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	0	0	0	91	0	77	69	461	0	0	305	34	1,037 *
4:15 - 5:15	0	0	0	100	0	78	73	469	0	0	278	33	1,031
4:30 - 5:30	0	0	0	103	0	80	73	457	0	0	253	32	998
4:45 - 5:45	0	0	0	105	0	82	69	436	0	0	234	37	963
5:00 - 6:00	0	0	0	105	0	80	71	430	0	0	226	34	946



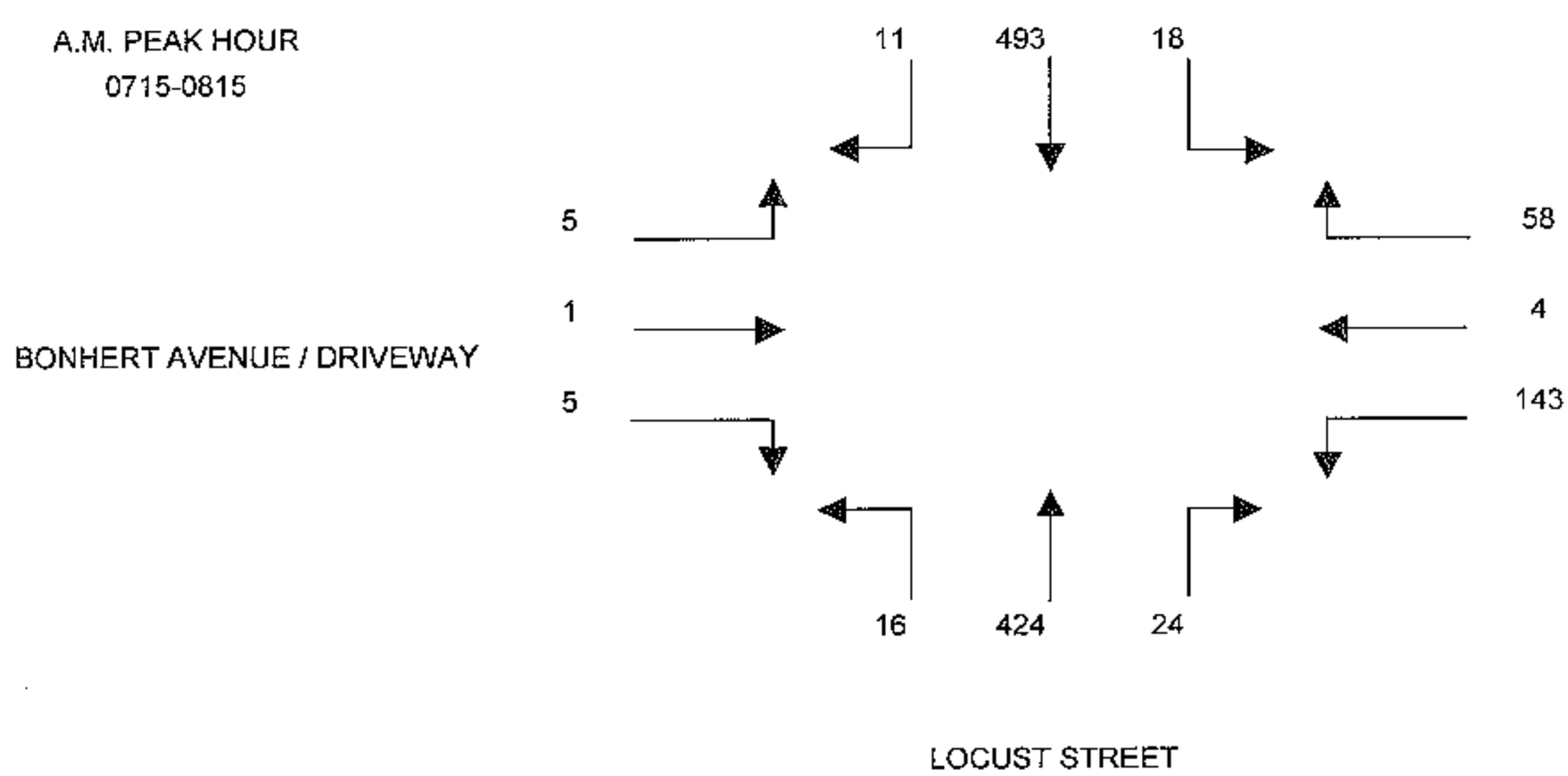
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: WEDNESDAY, MARCH 14, 2007
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S LOCUST STREET
E/W BONHERT AVENUE / DRIVEWAY
FILE NUMBER: 9-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	1	90	2	14	0	49	3	73	3	2	0	2
715-730	2	128	4	10	1	30	6	100	5	1	0	2
730-745	5	117	5	16	1	34	5	103	4	0	1	0
745-800	2	125	6	13	0	43	5	112	4	2	0	3
800-815	2	123	3	19	2	36	8	109	3	2	0	0
815-830	0	113	5	19	0	24	11	84	4	3	0	1
830-845	4	85	6	13	0	21	5	73	3	1	1	0
845-900	2	76	8	7	0	27	4	65	5	1	0	1

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	10	460	17	53	2	156	19	388	16	5	1	7	1134
715-815	11	493	18	58	4	143	24	424	16	5	1	5	1202
730-830	9	478	19	67	3	137	29	408	15	7	1	4	1177
745-845	8	446	20	64	2	124	29	378	14	8	1	4	1098
800-900	8	397	22	58	2	108	28	331	15	7	1	2	979

A.M. PEAK HOUR
0715-0815



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

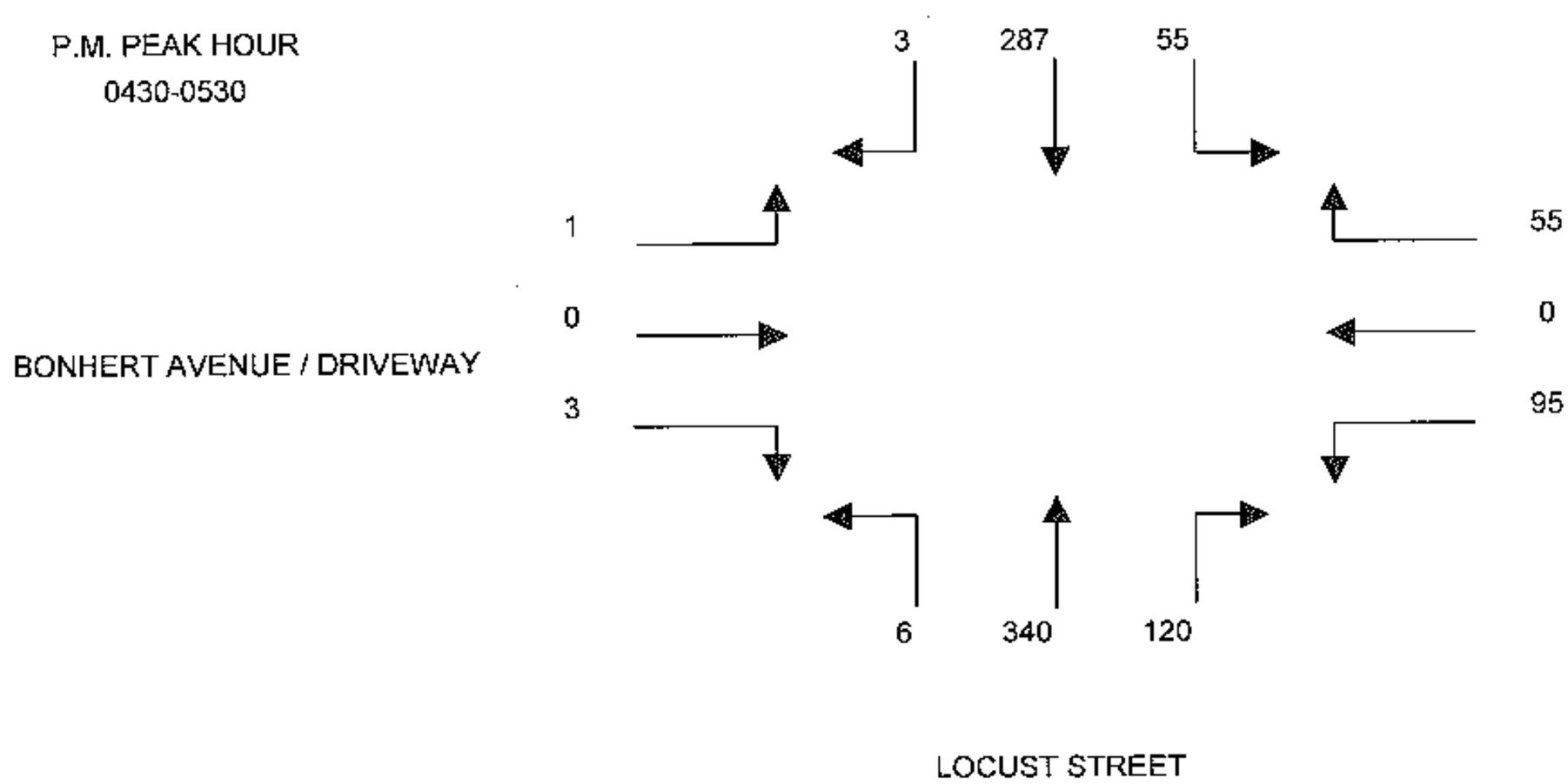
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: TUESDAY, MARCH 14, 2007
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S LOCUST STREET
E/W BONHERT AVENUE / DRIVEWAY
FILE NUMBER: 9-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	4	62	14	10	0	25	25	98	1	0	0	0
415-430	3	53	12	16	2	26	21	94	0	0	0	1
430-445	1	116	16	16	0	26	30	83	1	1	0	0
445-500	0	53	12	10	0	20	27	75	0	0	0	0
500-515	2	60	12	14	0	28	34	81	3	1	0	1
515-530	0	58	15	15	0	21	29	101	2	1	0	0
530-545	3	69	17	17	0	23	20	86	0	0	0	0
545-600	1	46	14	14	0	27	21	91	2	2	0	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	8	284	54	52	2	97	103	350	2	1	0	1	954
415-515	6	282	52	56	2	100	112	333	4	2	0	2	951
430-530	3	287	55	55	0	95	120	340	6	3	0	1	965
445-545	5	240	56	56	0	92	110	343	5	2	0	1	910
500-600	6	233	58	60	0	99	104	359	7	4	0	1	931

P.M. PEAK HOUR
0430-0530



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

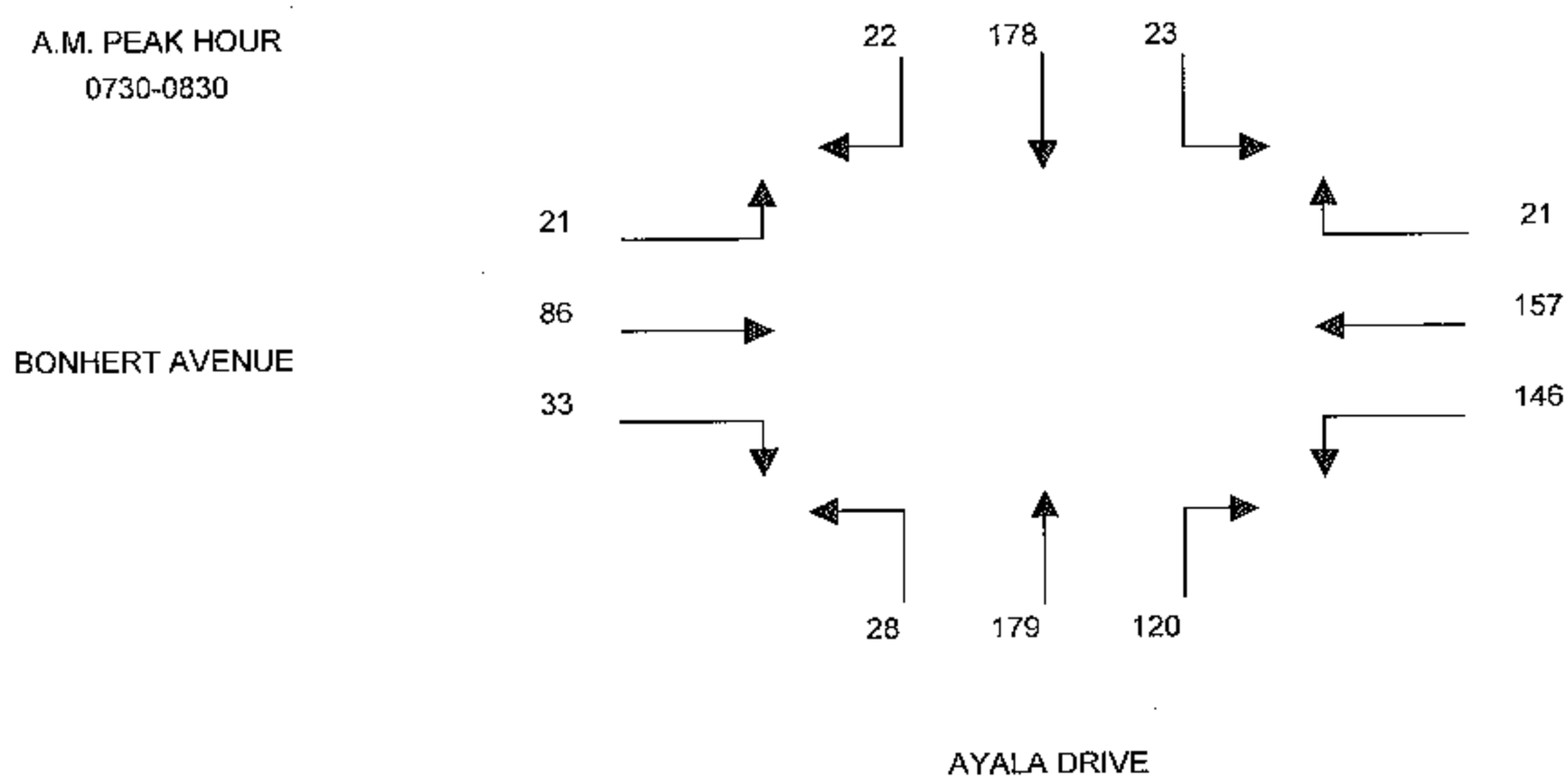
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: WEDNESDAY, MARCH 14, 2007
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S AYALA DRIVE
E/W BONHERT AVENUE
FILE NUMBER: 10-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	4	49	6	8	42	28	29	39	6	6	19	5
715-730	5	45	4	5	35	38	36	47	9	4	18	3
730-745	5	52	4	3	34	38	23	45	6	6	20	5
745-800	6	44	8	5	50	43	33	33	8	10	25	7
800-815	7	35	5	9	30	36	38	48	9	10	20	4
815-830	4	47	6	4	43	29	26	53	5	7	21	5
830-845	7	45	4	3	39	33	30	41	7	10	15	5
845-900	3	53	7	5	29	39	24	56	4	13	19	6

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	20	190	22	21	161	147	121	164	29	26	82	20	1003
715-815	23	176	21	22	149	155	130	173	32	30	83	19	1013
730-830	22	178	23	21	157	146	120	179	28	33	86	21	1014
745-845	24	171	23	21	162	141	127	175	29	37	81	21	1012
800-900	21	180	22	21	141	137	118	198	25	40	75	20	998

A.M. PEAK HOUR
0730-0830



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

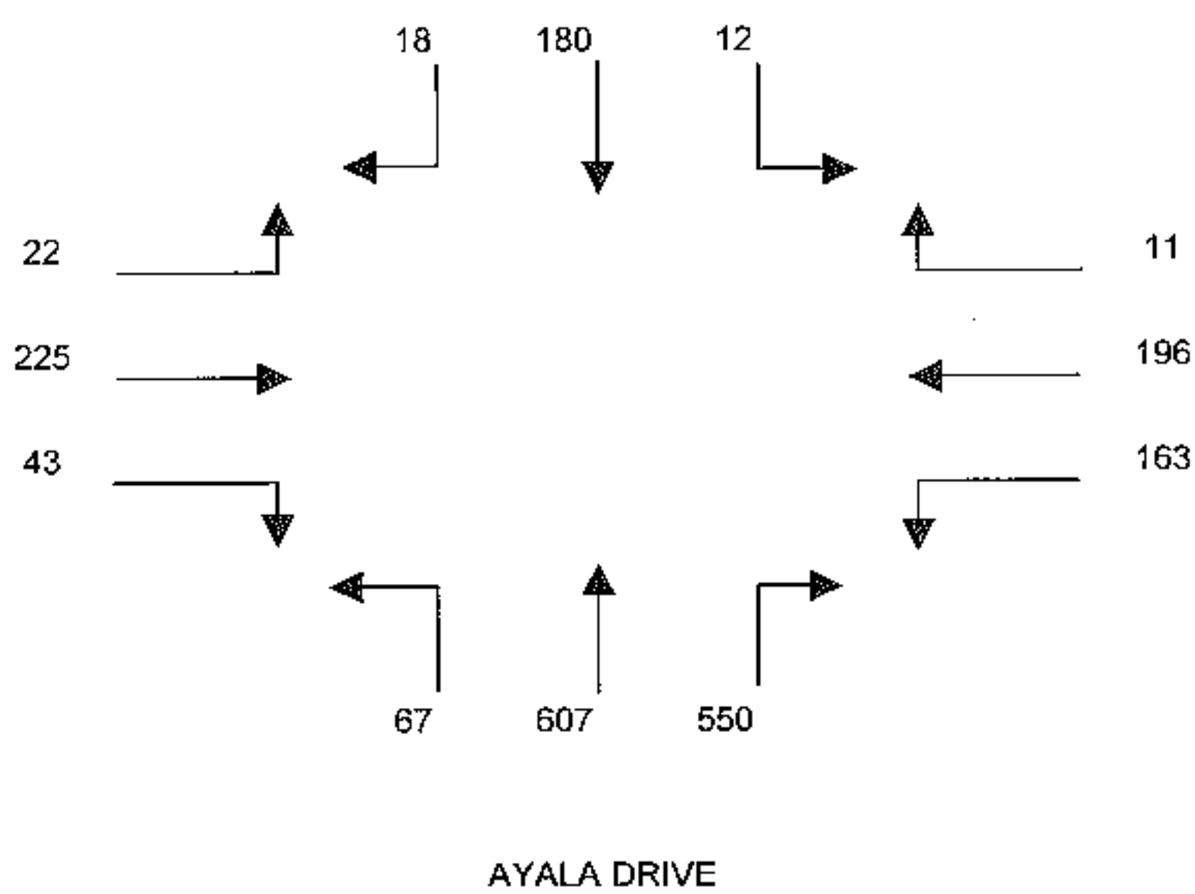
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: TUESDAY, MARCH 14, 2007
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S AYALA DRIVE
E/W BONHERT AVENUE
FILE NUMBER: 10-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	6	36	6	6	45	22	120	116	10	8	49	3
415-430	5	50	5	4	58	43	130	129	10	9	80	6
430-445	4	49	3	4	47	41	151	147	10	7	52	2
445-500	4	49	2	3	42	33	124	151	14	10	59	6
500-515	6	53	3	3	56	39	116	173	19	9	67	6
515-530	3	46	2	2	50	53	128	140	19	11	51	5
530-545	5	39	4	2	47	31	139	133	15	13	60	7
545-600	4	42	3	4	43	40	167	161	14	10	47	4

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	19	184	16	17	192	139	525	543	44	34	240	17	1970
415-515	19	201	13	14	203	156	521	600	53	35	258	20	2093
430-530	17	197	10	12	195	166	519	611	62	37	229	19	2074
445-545	18	187	11	10	195	156	507	597	67	43	237	24	2052
500-600	18	180	12	11	196	163	550	607	67	43	225	22	2094

P.M. PEAK HOUR
0500-0600



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

VEHICLE TURNING MOVEMENT COUNT SUMMARY

Prepared by: National Data & Surveying Services

Project # **07-3112-004**

N/S STREET: Sierra Ave

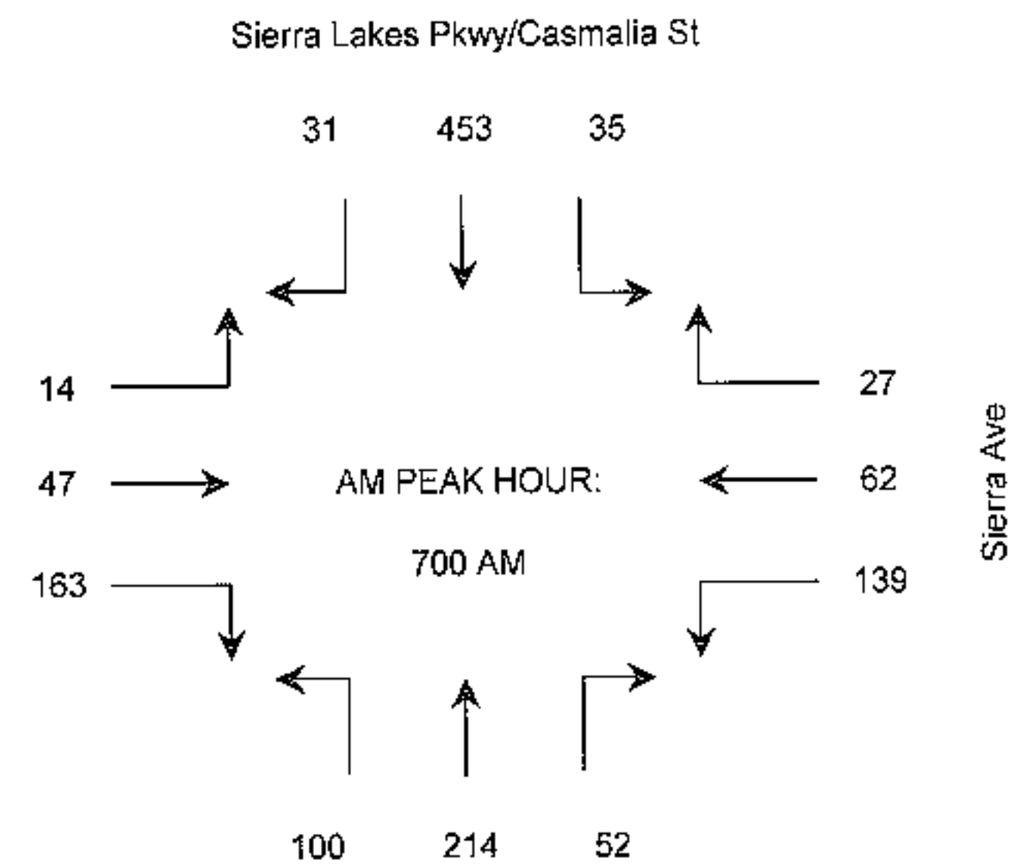
E/W STREET: Sierra Lakes Pkwy/Casmalia St

PERIOD: AM Peak Hour

DATE: THURSDAY 3/22/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	28	8	4	1	10	40	16	52	18	4	110	8	299
7:15 - 7:30	50	19	11	6	13	41	27	52	15	12	129	6	381
7:30 - 7:45	39	15	7	3	13	45	22	56	9	9	118	10	346
7:45 - 8:00	22	20	5	4	11	37	35	54	10	10	96	7	311
8:00 - 8:15	15	16	3	2	8	25	29	64	4	6	92	6	270
8:15 - 8:30	25	18	10	4	10	43	32	52	5	10	73	8	290
8:30 - 8:45	20	15	7	6	12	37	34	54	10	7	68	5	275
8:45 - 9:00	18	21	8	7	16	34	38	49	8	6	82	2	289

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	139	62	27	14	47	163	100	214	52	35	453	31	1,337 *
7:15 - 8:15	126	70	26	15	45	148	113	226	38	37	435	29	1,308
7:30 - 8:30	101	69	25	13	42	150	118	226	28	35	379	31	1,217
7:45 - 8:45	82	69	25	16	41	142	130	224	29	33	329	26	1,146
8:00 - 9:00	78	70	28	19	46	139	133	219	27	29	315	21	1,124

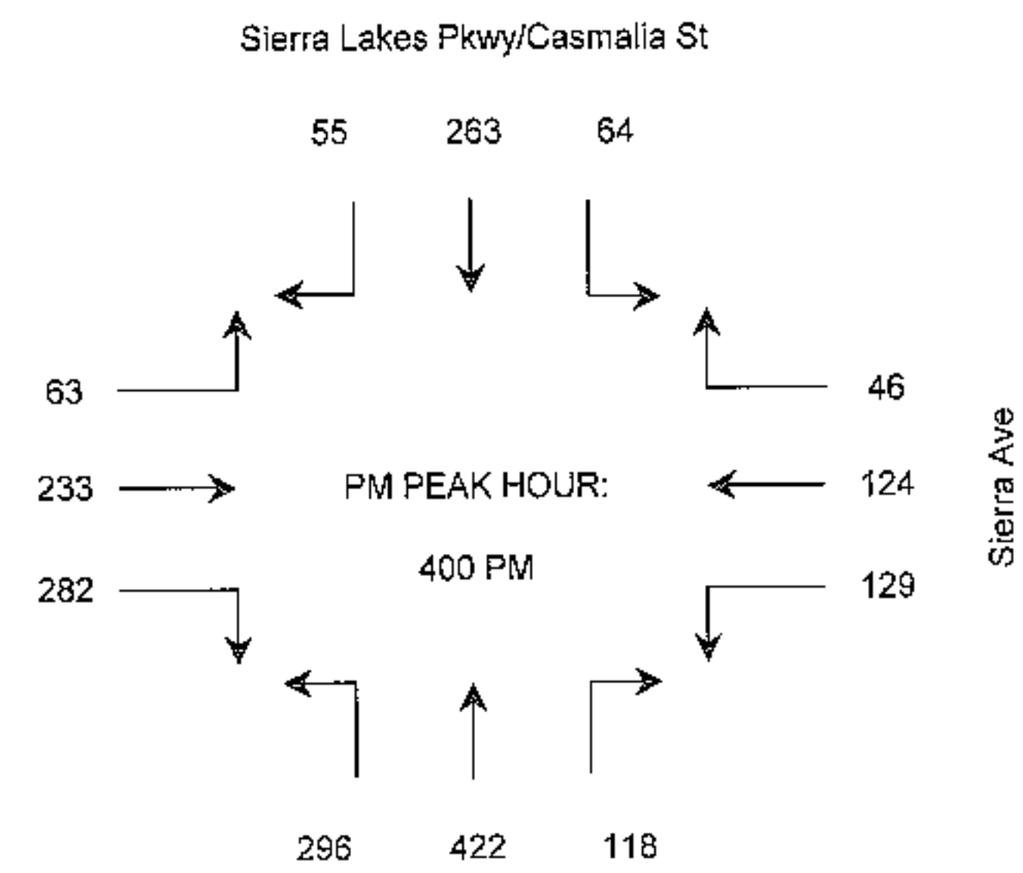


PERIOD: PM Peak Hour

DATE: THURSDAY 3/22/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	35	30	12	18	61	72	83	105	32	15	75	12	550
4:15 - 4:30	29	26	10	15	57	67	68	108	29	13	70	17	509
4:30 - 4:45	24	34	9	19	52	70	75	114	23	20	65	11	516
4:45 - 5:00	41	34	15	11	63	73	70	95	34	16	53	15	520
5:00 - 5:15	37	19	9	13	48	60	92	103	22	15	60	13	491
5:15 - 5:30	32	33	12	11	65	55	84	100	31	19	59	14	515
5:30 - 5:45	24	21	9	18	56	60	101	96	36	15	54	11	501
5:45 - 6:00	13	32	8	14	61	69	95	103	33	12	60	8	508

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	129	124	46	63	233	282	296	422	118	64	263	55	2,095 *
4:15 - 5:15	131	113	43	58	220	270	305	420	108	64	248	56	2,036
4:30 - 5:30	134	120	45	54	228	258	321	412	110	70	237	53	2,042
4:45 - 5:45	134	107	45	53	232	248	347	394	123	65	226	53	2,027
5:00 - 6:00	106	105	38	56	230	244	372	402	122	61	233	46	2,015



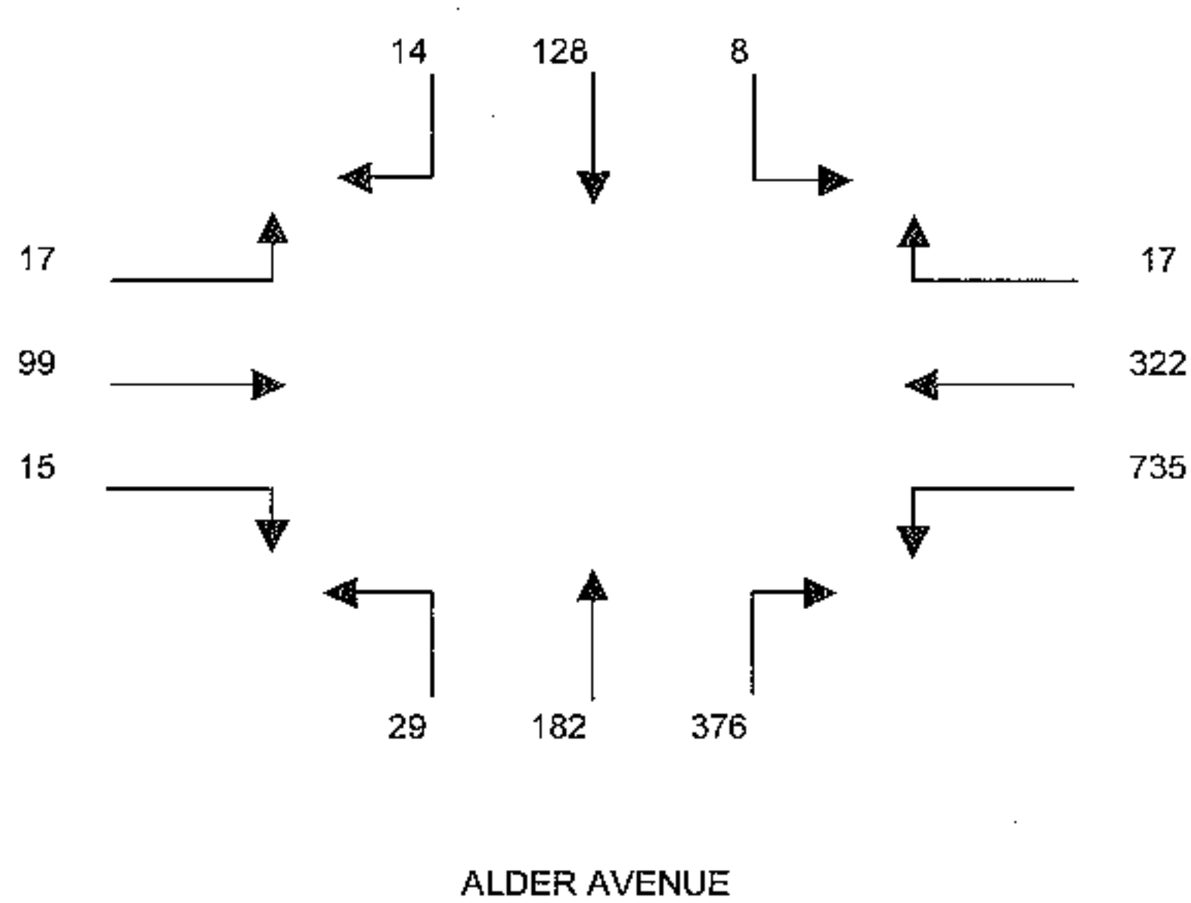
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: WEDNESDAY, MARCH 14, 2007
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S ALDER AVENUE
E/W CASMALIA STREET
FILE NUMBER: 11-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	4	22	1	2	51	164	73	16	9	2	22	2
715-730	0	39	2	5	98	185	103	25	8	2	39	6
730-745	2	27	2	2	101	223	94	51	10	4	27	5
745-800	5	34	3	5	64	170	90	52	7	7	20	3
800-815	7	28	1	5	59	157	89	54	4	2	13	3
815-830	5	33	1	5	52	175	67	49	4	2	11	3
830-845	4	39	1	3	55	153	75	52	7	1	8	2
845-900	5	35	3	6	59	130	63	45	4	2	11	3

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	11	122	8	14	314	742	360	144	34	15	108	16	1888
715-815	14	128	8	17	322	735	376	182	29	15	99	17	1942
730-830	19	122	7	17	276	725	340	206	25	15	71	14	1837
745-845	21	134	6	18	230	655	321	207	22	12	52	11	1689
800-900	21	135	6	19	225	615	294	200	19	7	43	11	1595

A.M. PEAK HOUR
0715-0815



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

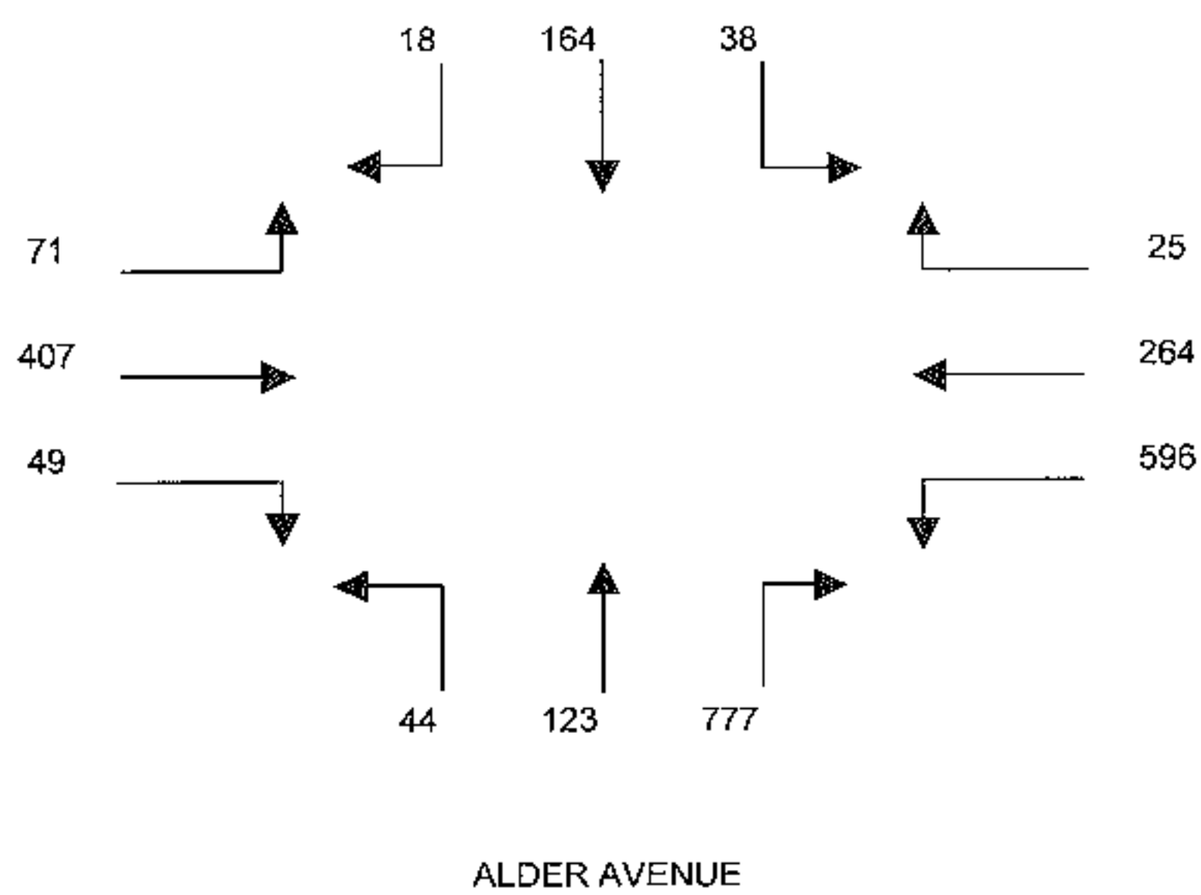
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: TUESDAY, MARCH 14, 2007
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S ALDER AVENUE
E/W CASMALIA STREET
FILE NUMBER: 11-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	10	30	9	7	33	143	176	50	11	12	78	18
415-430	9	40	7	8	49	152	185	55	8	12	99	14
430-445	7	40	7	5	54	134	180	59	7	8	78	18
445-500	6	60	6	10	58	129	179	33	12	10	88	19
500-515	6	57	9	6	92	143	183	30	10	14	104	13
515-530	7	31	12	4	61	138	199	43	11	14	87	16
530-545	2	38	7	6	63	161	210	27	11	13	110	20
545-600	3	38	10	9	48	154	185	23	12	8	106	22

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	32	170	29	30	194	558	720	197	38	42	343	69	2422
415-515	28	197	29	29	253	558	727	177	37	44	369	64	2512
430-530	26	188	34	25	265	544	741	165	40	46	357	66	2497
445-545	21	186	34	26	274	571	771	133	44	51	389	68	2568
500-600	18	164	38	25	264	596	777	123	44	49	407	71	2576

P.M. PEAK HOUR
0500-0600



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

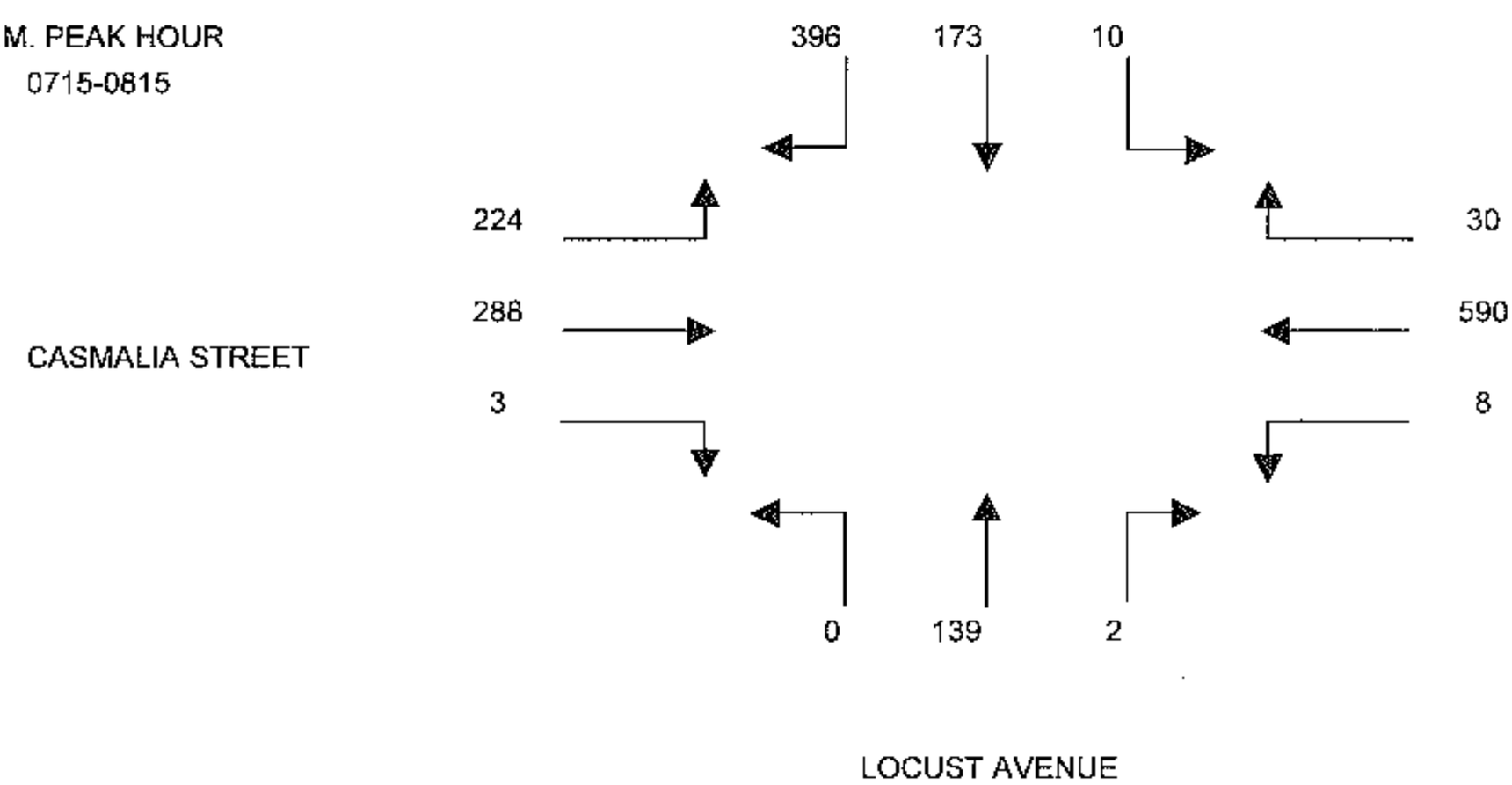
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: THURSDAY, MARCH 15, 2007
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S LOCUST AVENUE
E/W CASMALIA STREET
FILE NUMBER: 12-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	107	34	1	2	129	2	1	26	1	0	71	46
715-730	96	44	2	3	143	2	1	27	0	1	88	61
730-745	141	33	2	5	175	1	1	30	0	0	78	49
745-800	92	55	3	8	125	0	0	38	0	1	73	63
800-815	67	41	3	14	147	5	0	44	0	1	49	51
815-830	84	48	7	9	115	4	0	33	0	1	62	44
830-845	75	37	4	5	103	2	1	25	0	1	50	32
845-900	67	20	3	2	104	2	0	17	1	0	50	26

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	436	166	8	18	572	5	3	121	1	2	310	219	1861
715-815	396	173	10	30	590	8	2	139	0	3	288	224	1863
730-830	384	177	15	36	562	10	1	145	0	3	262	207	1802
745-845	318	181	17	36	490	11	1	140	0	4	234	190	1622
800-900	293	146	17	30	469	13	1	119	1	3	211	153	1456

A.M. PEAK HOUR
0715-0815



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

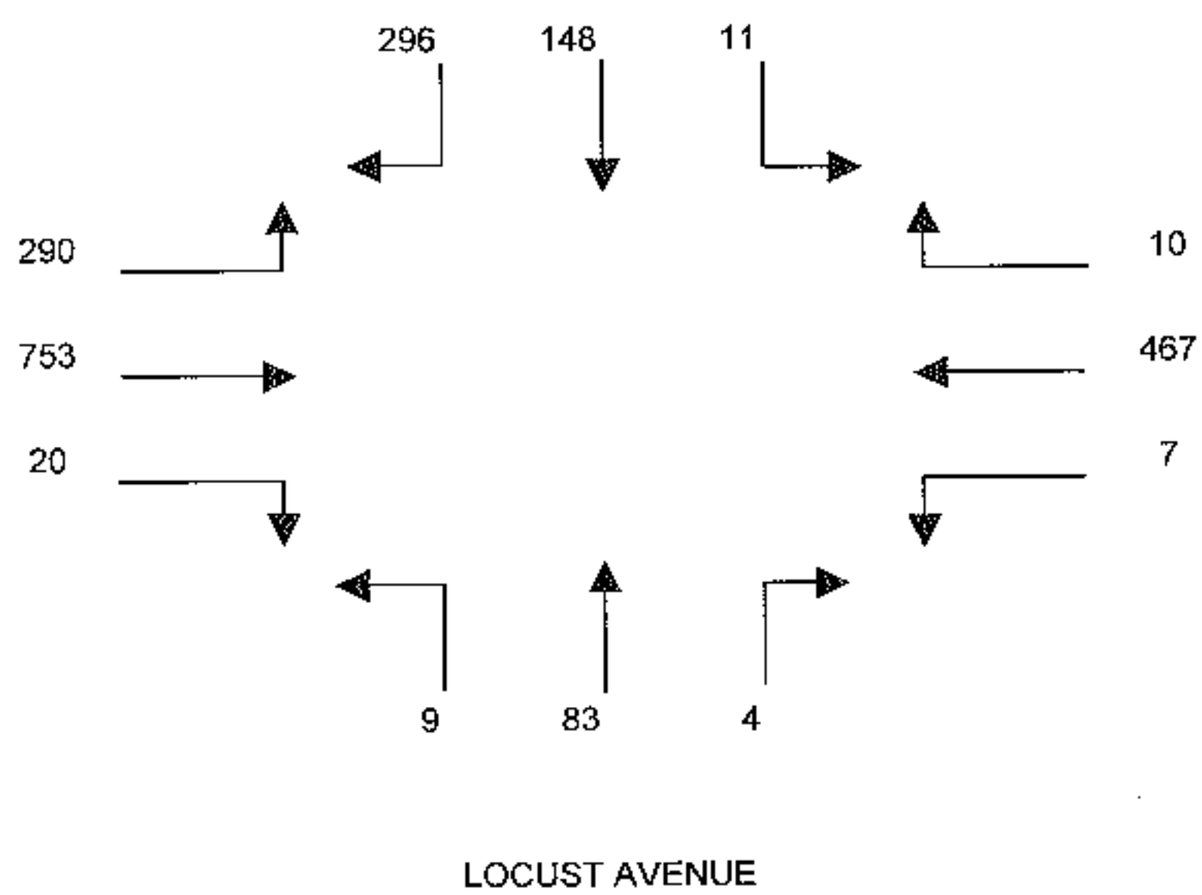
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: THURSDAY, MARCH 15, 2007
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S LOCUST AVENUE
E/W CASMALIA STREET
FILE NUMBER: 12-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	64	29	7	5	105	1	1	44	2	2	169	64
415-430	56	28	2	7	107	0	1	35	3	3	177	66
430-445	78	59	5	3	129	3	1	25	5	2	191	73
445-500	70	32	2	2	107	0	2	18	2	5	195	55
500-515	84	32	2	2	113	4	1	22	2	9	178	81
515-530	64	25	2	3	118	0	0	18	0	4	189	81
530-545	68	21	2	3	121	3	1	23	0	0	230	77
545-600	55	23	2	1	115	1	2	27	1	3	206	71

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	268	148	16	17	448	4	5	122	12	12	732	258	2042
415-515	288	151	11	14	456	7	5	100	12	19	741	275	2079
430-530	296	148	11	10	467	7	4	83	9	20	753	290	2098
445-545	286	110	8	10	459	7	4	81	4	18	792	294	2073
500-600	271	101	8	9	467	8	4	90	3	16	803	310	2090

P.M. PEAK HOUR
0430-0530



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

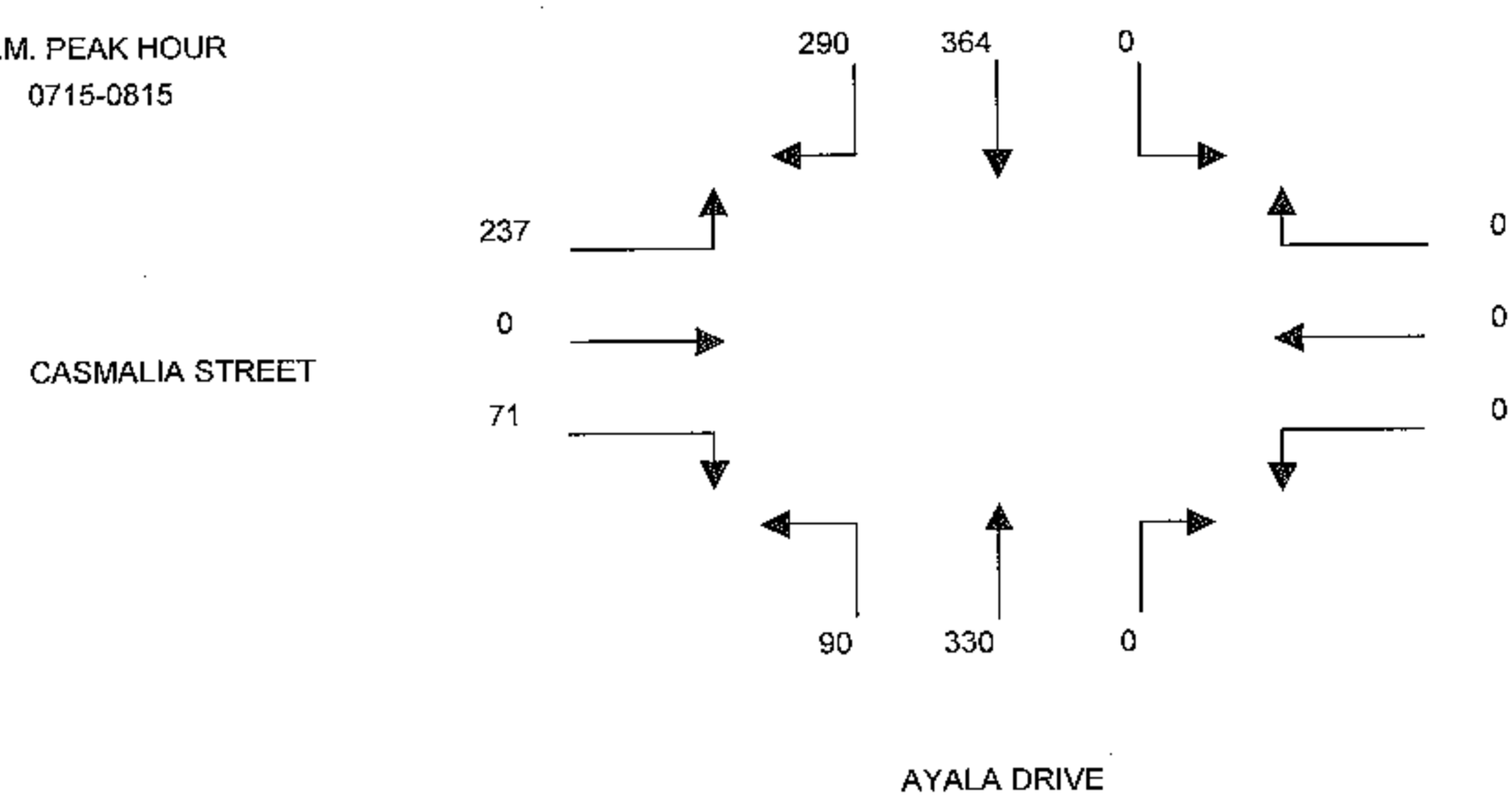
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: TUESDAY, MARCH 13, 2007
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S AYALA DRIVE
E/W CASMALIA STREET
FILE NUMBER: 13-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	68	87	0	0	0	0	0	86	28	19	0	37
715-730	88	115	0	0	0	0	0	106	32	22	0	51
730-745	79	96	0	0	0	0	0	60	20	20	0	61
745-800	57	83	0	0	0	0	0	75	15	13	0	61
800-815	66	70	0	0	0	0	0	89	23	16	0	64
815-830	64	66	0	0	0	0	0	54	15	23	0	38
830-845	60	38	0	0	0	0	0	41	14	18	0	40
845-900	52	25	0	0	0	0	0	41	8	10	0	44

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	292	381	0	0	0	0	0	327	95	74	0	210	1379
715-815	290	364	0	0	0	0	0	330	90	71	0	237	1382
730-830	266	315	0	0	0	0	0	278	73	72	0	224	1228
745-845	247	257	0	0	0	0	0	259	67	70	0	203	1103
800-900	242	199	0	0	0	0	0	225	60	67	0	186	979

A.M. PEAK HOUR
0715-0815



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

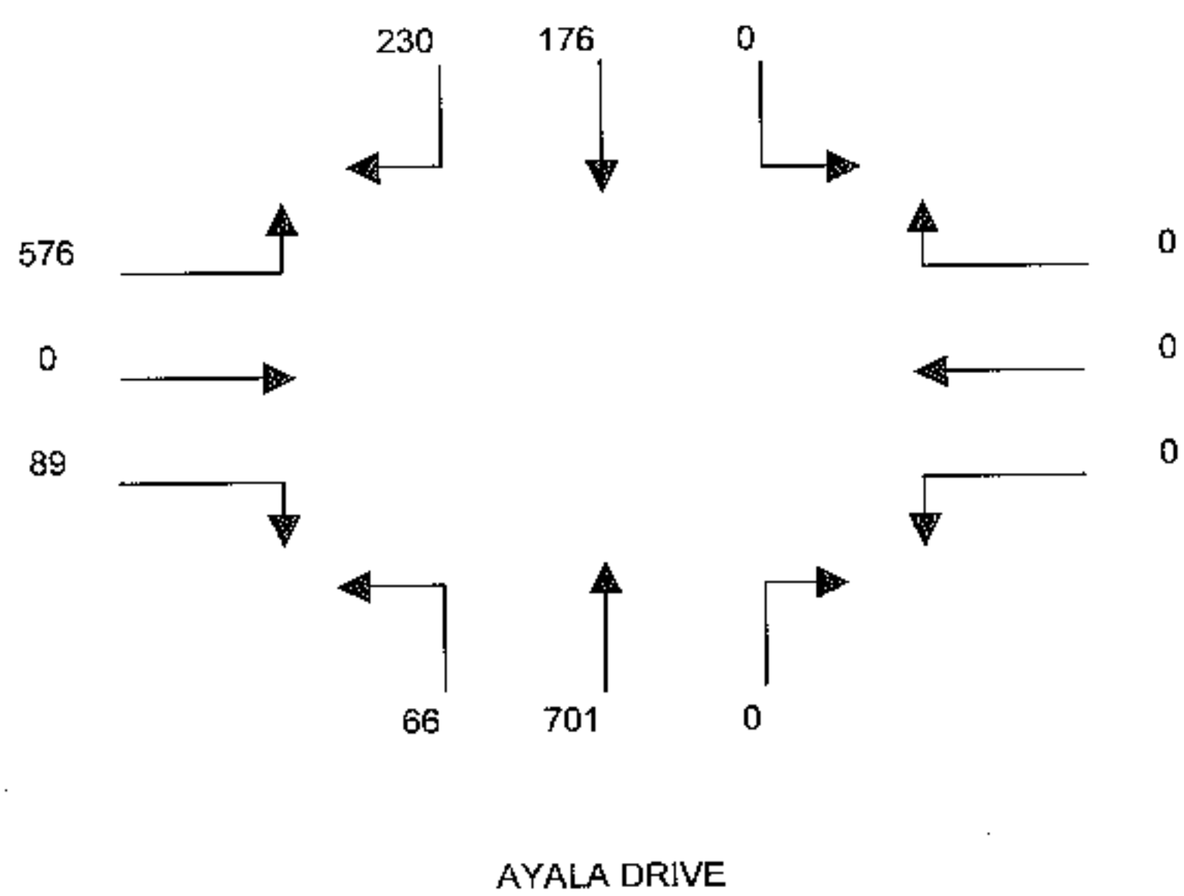
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: TUESDAY, MARCH 13, 2007
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S AYALA DRIVE
E/W CASMALIA STREET
FILE NUMBER: 13-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	37	36	0	0	0	0	0	141	23	23	0	115
415-430	56	36	0	0	0	0	0	180	23	19	0	109
430-445	47	36	0	0	0	0	0	210	14	16	0	133
445-500	45	33	0	0	0	0	0	157	15	17	0	119
500-515	71	54	0	0	0	0	0	155	15	22	0	154
515-530	51	47	0	0	0	0	0	166	16	19	0	141
530-545	58	38	0	0	0	0	0	173	20	27	0	137
545-600	50	37	0	0	0	0	0	207	15	21	0	144

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	185	141	0	0	0	0	0	688	75	75	0	476	1640
415-515	219	159	0	0	0	0	0	702	67	74	0	515	1736
430-530	214	170	0	0	0	0	0	688	60	74	0	547	1753
445-545	225	172	0	0	0	0	0	651	66	85	0	551	1750
500-600	230	176	0	0	0	0	0	701	66	89	0	576	1838

P.M. PEAK HOUR
0500-0600



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

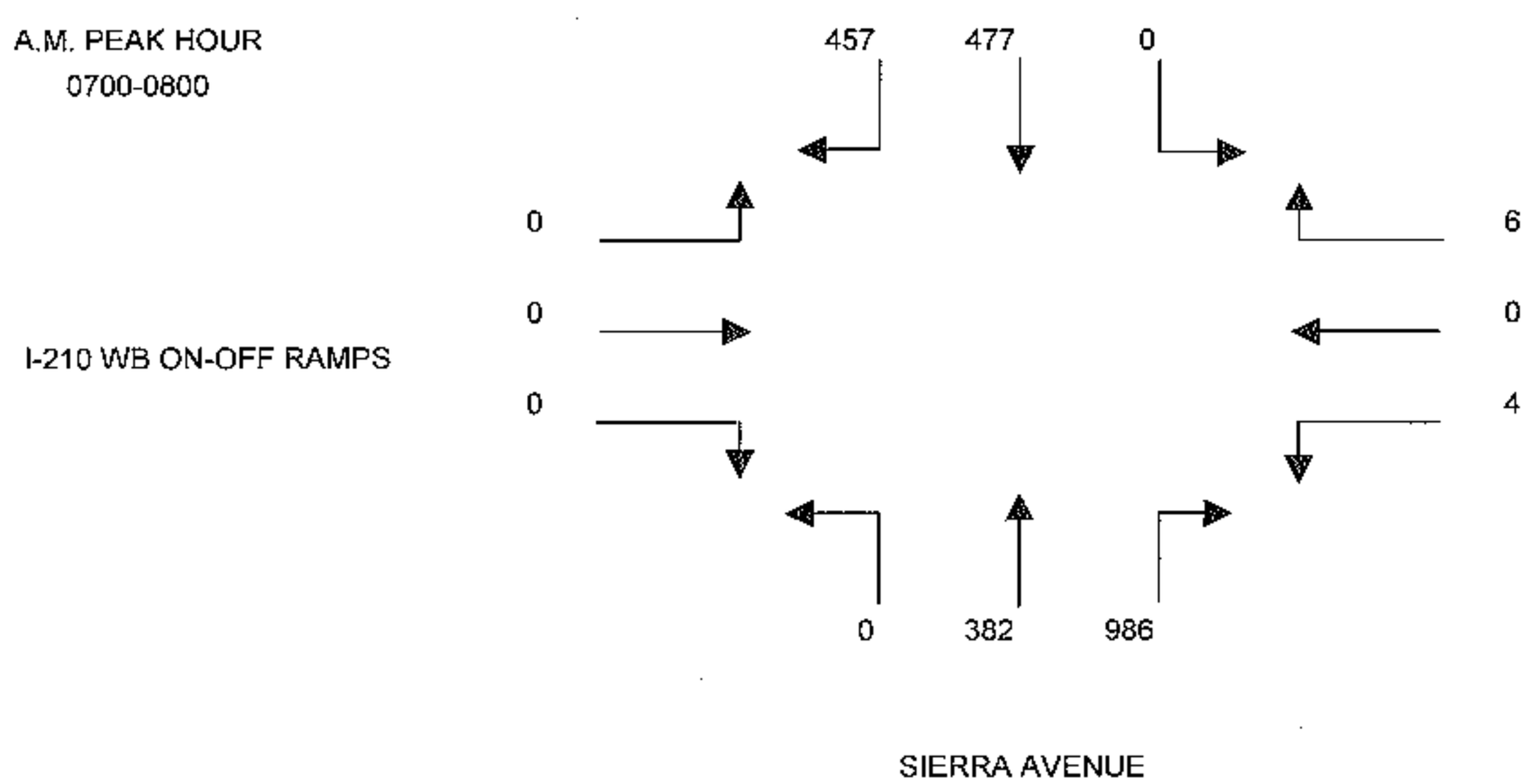
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: TUESDAY, MARCH 13, 2007
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S SIERRA AVENUE
E/W I-210 WB ON-OFF RAMPS
FILE NUMBER: 14-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	82	88	0	1	0	0	261	96	0	0	0	0
715-730	116	123	0	1	0	0	254	108	0	0	0	0
730-745	153	139	0	0	0	2	257	90	0	0	0	0
745-800	106	127	0	4	0	2	214	88	0	0	0	0
800-815	51	107	0	2	0	0	157	95	0	0	0	0
815-830	53	100	0	4	0	1	133	87	0	0	0	0
830-845	49	97	0	2	0	0	129	100	0	0	0	0
845-900	44	93	0	2	0	3	92	99	0	0	0	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	457	477	0	6	0	4	986	382	0	0	0	0	2312
715-815	426	496	0	7	0	4	882	381	0	0	0	0	2196
730-830	363	473	0	10	0	5	761	360	0	0	0	0	1972
745-845	259	431	0	12	0	3	633	370	0	0	0	0	1708
800-900	197	397	0	10	0	4	511	381	0	0	0	0	1500

A.M. PEAK HOUR
0700-0800



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

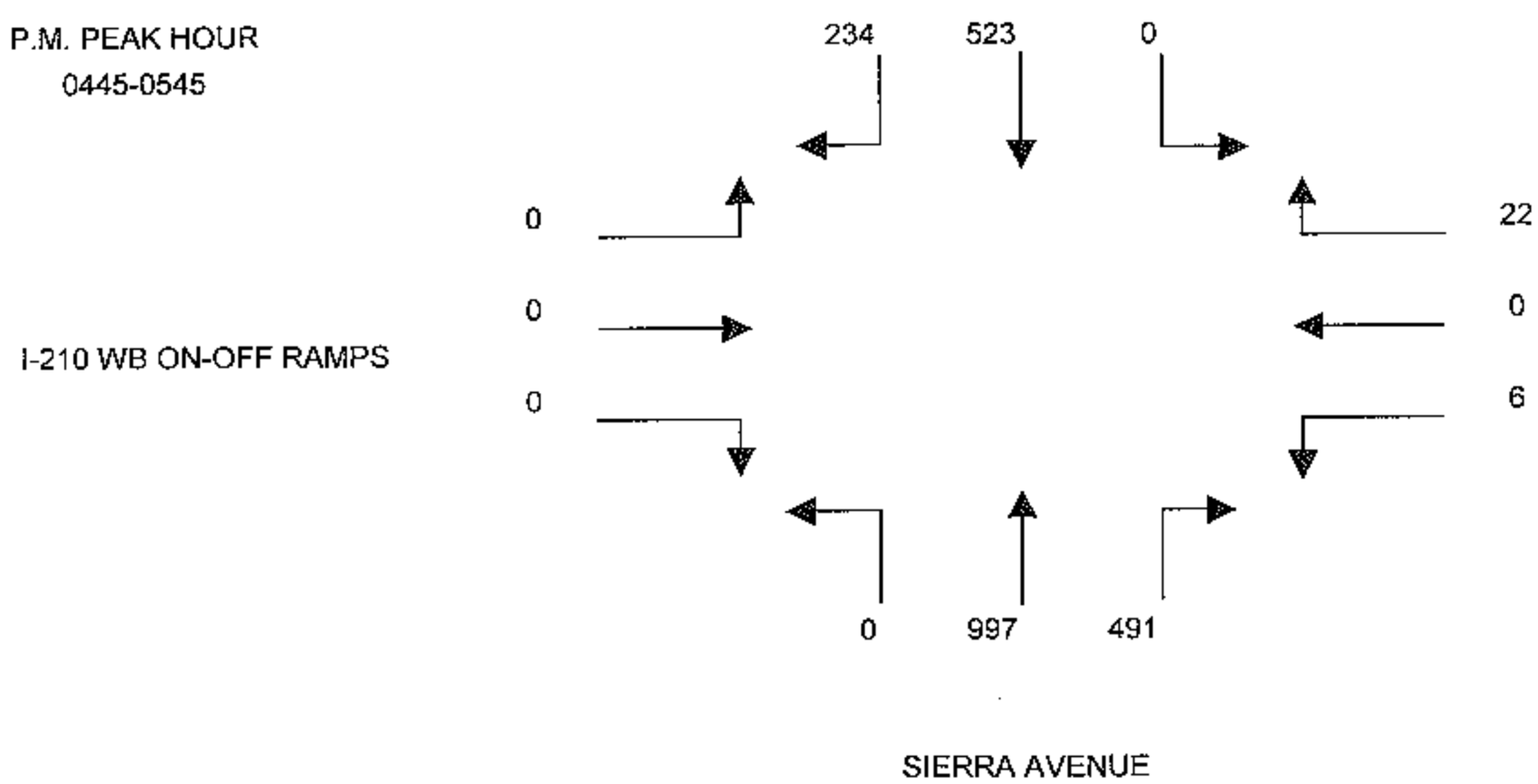
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: TUESDAY, MARCH 13, 2007
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S SIERRA AVENUE
E/W I-210 WB ON-OFF RAMPS
FILE NUMBER: 14-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	38	99	0	6	0	2	106	190	0	0	0	0
415-430	32	107	0	6	0	2	110	224	0	0	0	0
430-445	58	145	0	6	0	1	111	193	0	0	0	0
445-500	70	133	0	10	0	2	115	229	0	0	0	0
500-515	50	130	0	5	0	1	125	260	0	0	0	0
515-530	54	129	0	3	0	3	142	253	0	0	0	0
530-545	60	131	0	4	0	0	109	255	0	0	0	0
545-600	51	118	0	5	0	1	114	219	0	0	0	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	198	484	0	28	0	7	442	836	0	0	0	0	1995
415-515	210	515	0	27	0	6	461	906	0	0	0	0	2125
430-530	232	537	0	24	0	7	493	935	0	0	0	0	2228
445-545	234	523	0	22	0	6	491	997	0	0	0	0	2273
500-600	215	508	0	17	0	5	490	987	0	0	0	0	2222

P.M. PEAK HOUR
0445-0545



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

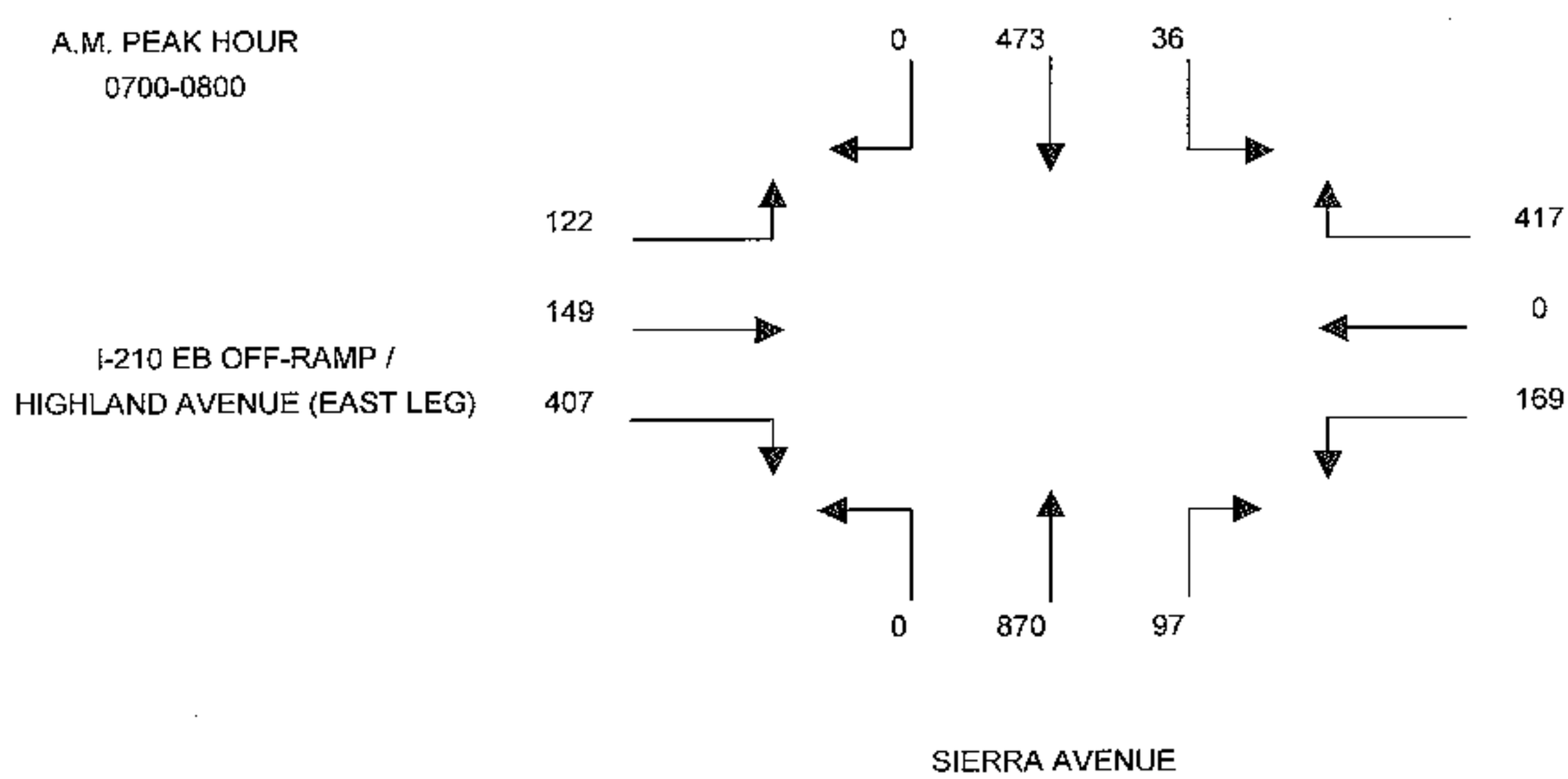
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: TUESDAY, MARCH 13, 2007
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S SIERRA AVENUE
E/W I-210 EB OFF - RAMP / HIGHLAND AVENUE (EAST LEG)
FILE NUMBER: 15-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	0	99	6	107	0	55	24	210	0	84	34	35
715-730	0	107	11	118	0	69	39	227	0	103	46	28
730-745	0	144	10	121	0	32	23	233	0	95	30	26
745-800	0	123	9	71	0	13	11	200	0	125	39	33
800-815	0	111	8	39	0	16	8	160	0	101	41	35
815-830	0	89	9	43	0	19	8	163	0	94	24	26
830-845	0	91	6	33	0	12	5	182	0	75	20	35
845-900	0	103	3	28	0	6	8	154	0	81	22	29

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	0	473	36	417	0	169	97	870	0	407	149	122	2740
715-815	0	485	38	349	0	130	81	820	0	424	156	122	2605
730-830	0	467	36	274	0	80	50	756	0	415	134	120	2332
745-845	0	414	32	186	0	60	32	705	0	395	124	129	2077
800-900	0	394	26	143	0	53	29	659	0	351	107	125	1887

A.M. PEAK HOUR
0700-0800



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

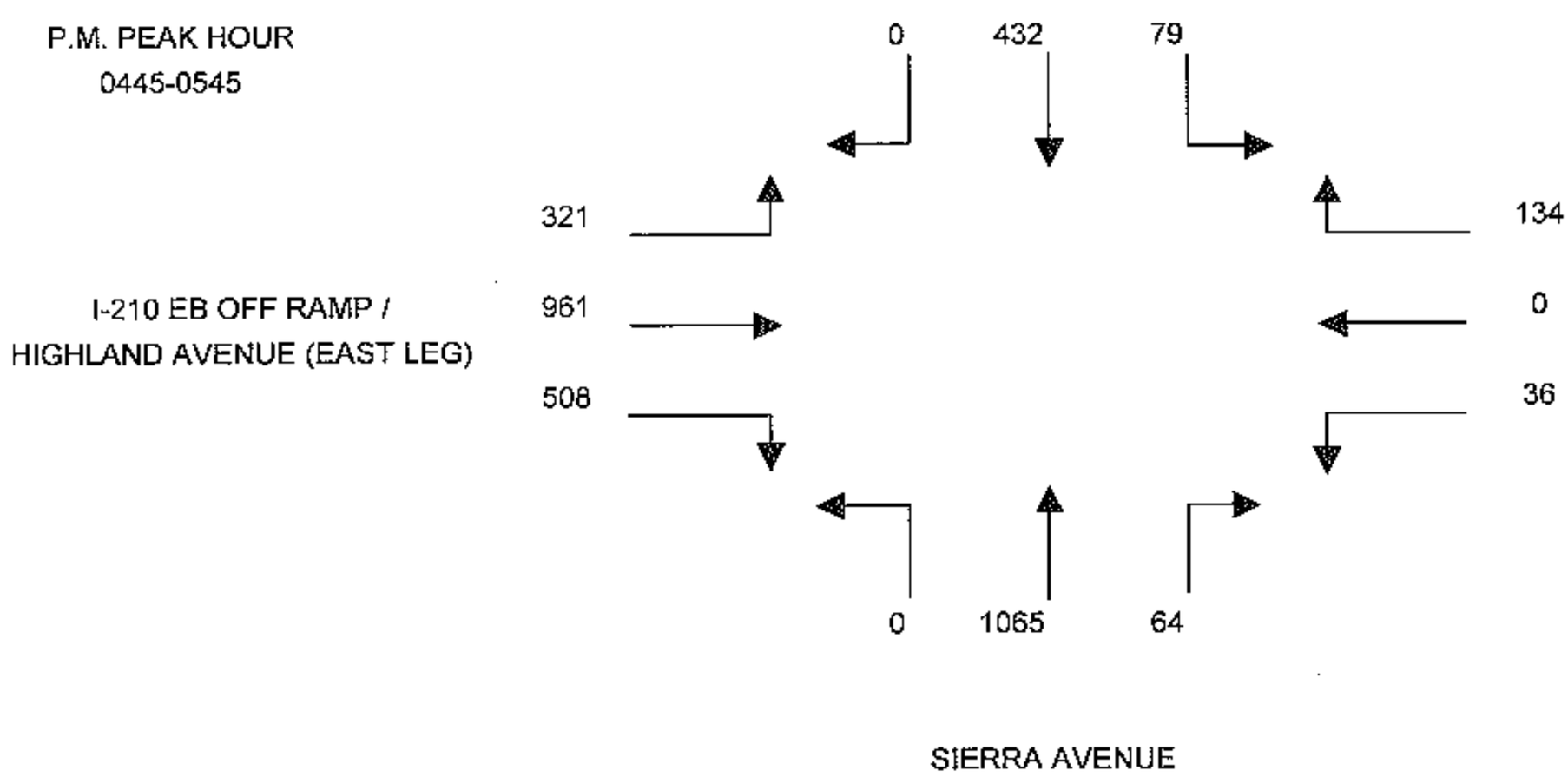
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: TUESDAY, MARCH 13, 2007
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S SIERRA AVENUE
E/W I-210 EB OFF RAMP / HIGHLAND AVENUE (EAST LEG)
FILE NUMBER: 15-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	0	85	14	25	0	16	16	193	0	73	218	64
415-430	0	90	15	31	0	13	10	224	0	85	222	77
430-445	0	104	21	24	0	12	17	226	0	118	217	67
445-500	0	124	24	40	0	7	15	249	0	126	233	90
500-515	0	102	15	39	0	11	16	255	0	114	203	77
515-530	0	105	21	29	0	10	17	290	0	133	263	66
530-545	0	101	19	26	0	8	16	271	0	135	262	88
545-600	0	109	10	32	0	8	11	232	0	134	198	88

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	0	403	74	120	0	48	58	892	0	402	890	298	3185
415-515	0	420	75	134	0	43	58	954	0	443	875	311	3313
430-530	0	435	81	132	0	40	65	1020	0	491	916	300	3480
445-545	0	432	79	134	0	36	64	1065	0	508	961	321	3600
500-600	0	417	65	126	0	37	60	1048	0	516	926	319	3514

P.M. PEAK HOUR
0445-0545



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

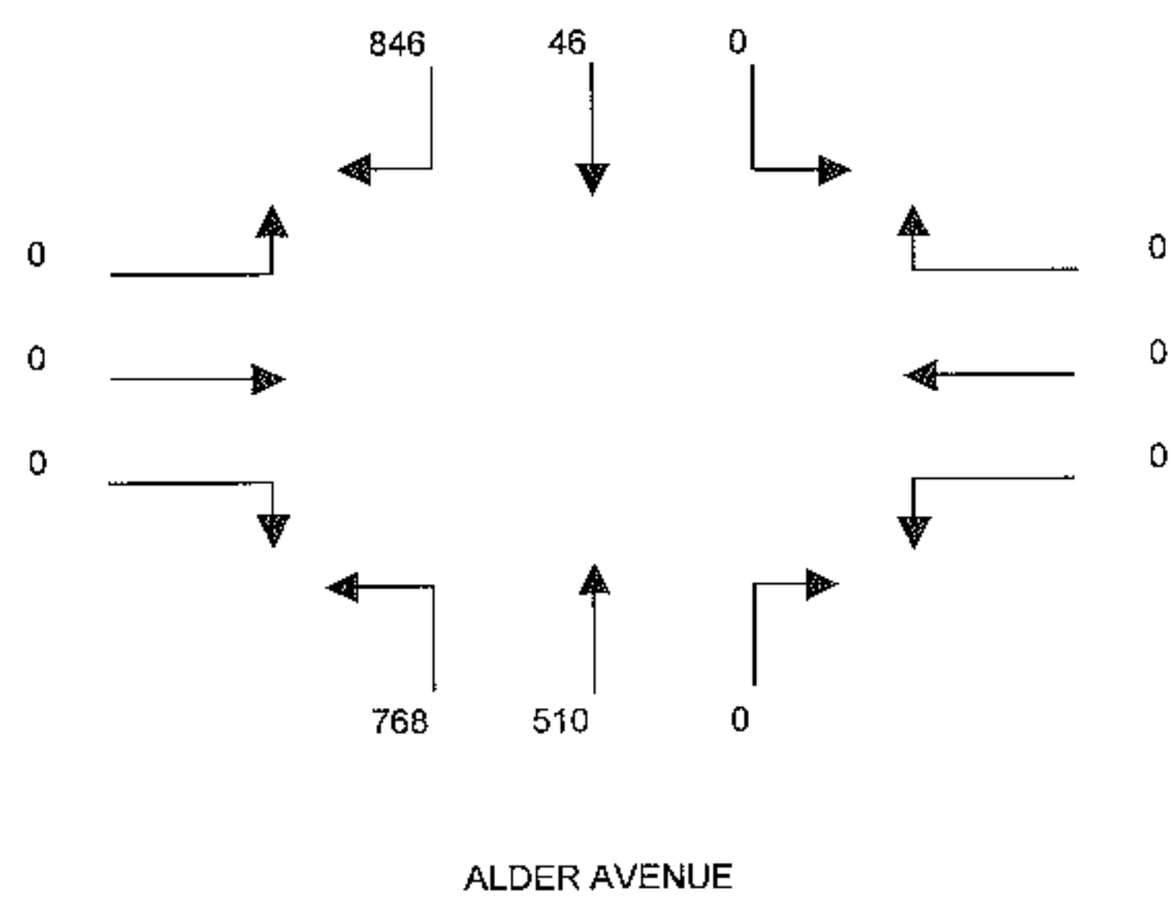
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: WEDNESDAY, MARCH 14, 2007
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S ALDER AVENUE
E/W I-210 WB ON - RAMP
FILE NUMBER: 16-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	221	11	0	0	0	0	0	100	204	0	0	0
715-730	177	11	0	0	0	0	0	126	194	0	0	0
730-745	219	13	0	0	0	0	0	126	179	0	0	0
745-800	229	11	0	0	0	0	0	158	191	0	0	0
800-815	187	19	0	0	0	0	0	153	148	0	0	0
815-830	203	16	0	0	0	0	0	120	138	0	0	0
830-845	156	21	0	0	0	0	0	101	168	0	0	0
845-900	147	22	0	0	0	0	0	118	146	0	0	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	846	46	0	0	0	0	0	510	768	0	0	0	2170
715-815	812	54	0	0	0	0	0	563	712	0	0	0	2141
730-830	838	59	0	0	0	0	0	557	656	0	0	0	2110
745-845	775	67	0	0	0	0	0	532	645	0	0	0	2019
800-900	693	78	0	0	0	0	0	492	600	0	0	0	1863

A.M. PEAK HOUR
0700-0800



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

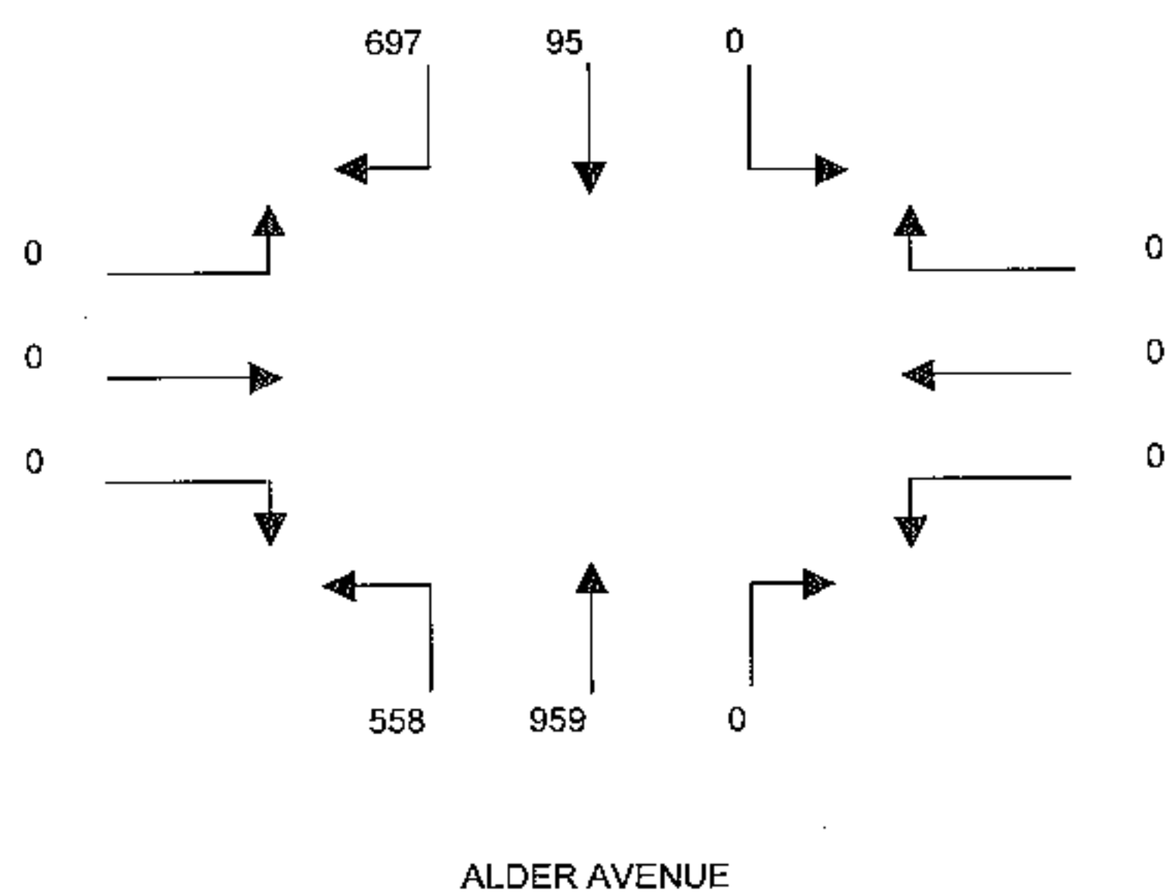
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: WEDNESDAY, MARCH 14, 2007
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S ALDER AVENUE
E/W I-210 WB ON-RAMP
FILE NUMBER: 16-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	132	34	0	0	0	0	0	240	130	0	0	0
415-430	144	28	0	0	0	0	0	237	128	0	0	0
430-445	181	37	0	0	0	0	0	240	146	0	0	0
445-500	166	29	0	0	0	0	0	251	127	0	0	0
500-515	188	37	0	0	0	0	0	227	142	0	0	0
515-530	140	21	0	0	0	0	0	221	133	0	0	0
530-545	179	22	0	0	0	0	0	266	140	0	0	0
545-600	190	15	0	0	0	0	0	245	143	0	0	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	623	128	0	0	0	0	0	968	531	0	0	0	2250
415-515	679	131	0	0	0	0	0	955	543	0	0	0	2308
430-530	675	124	0	0	0	0	0	939	548	0	0	0	2286
445-545	673	109	0	0	0	0	0	965	542	0	0	0	2289
500-600	697	95	0	0	0	0	0	959	558	0	0	0	2309

P.M. PEAK HOUR
0500-0600



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

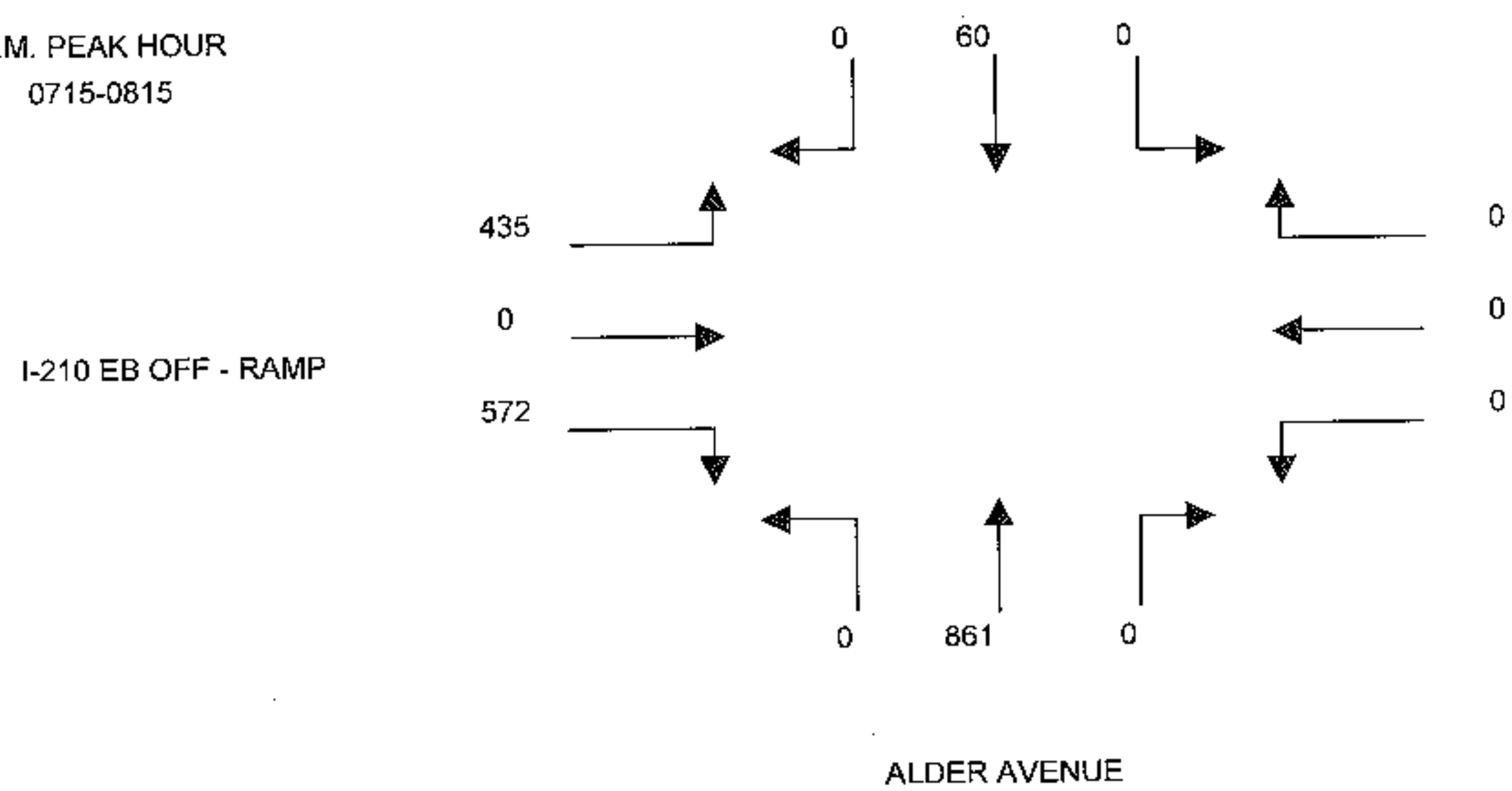
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: WEDNESDAY, MARCH 14, 2007
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S ALDER AVENUE
E/W I-210 EB OFF - RAMP
FILE NUMBER: 17-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	0	11	0	0	0	0	0	215	0	124	0	80
715-730	0	13	0	0	0	0	0	227	0	138	0	93
730-745	0	14	0	0	0	0	0	186	0	148	0	125
745-800	0	12	0	0	0	0	0	229	0	149	0	111
800-815	0	21	0	0	0	0	0	219	0	137	0	106
815-830	0	18	0	0	0	0	0	170	0	134	0	89
830-845	0	20	0	0	0	0	0	175	0	79	0	95
845-900	0	24	0	0	0	0	0	174	0	89	0	88

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	0	50	0	0	0	0	0	857	0	559	0	409	1875
715-815	0	60	0	0	0	0	0	861	0	572	0	435	1928
730-830	0	65	0	0	0	0	0	804	0	568	0	431	1868
745-845	0	71	0	0	0	0	0	793	0	499	0	401	1764
800-900	0	83	0	0	0	0	0	738	0	439	0	378	1638

A.M. PEAK HOUR
0715-0815



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

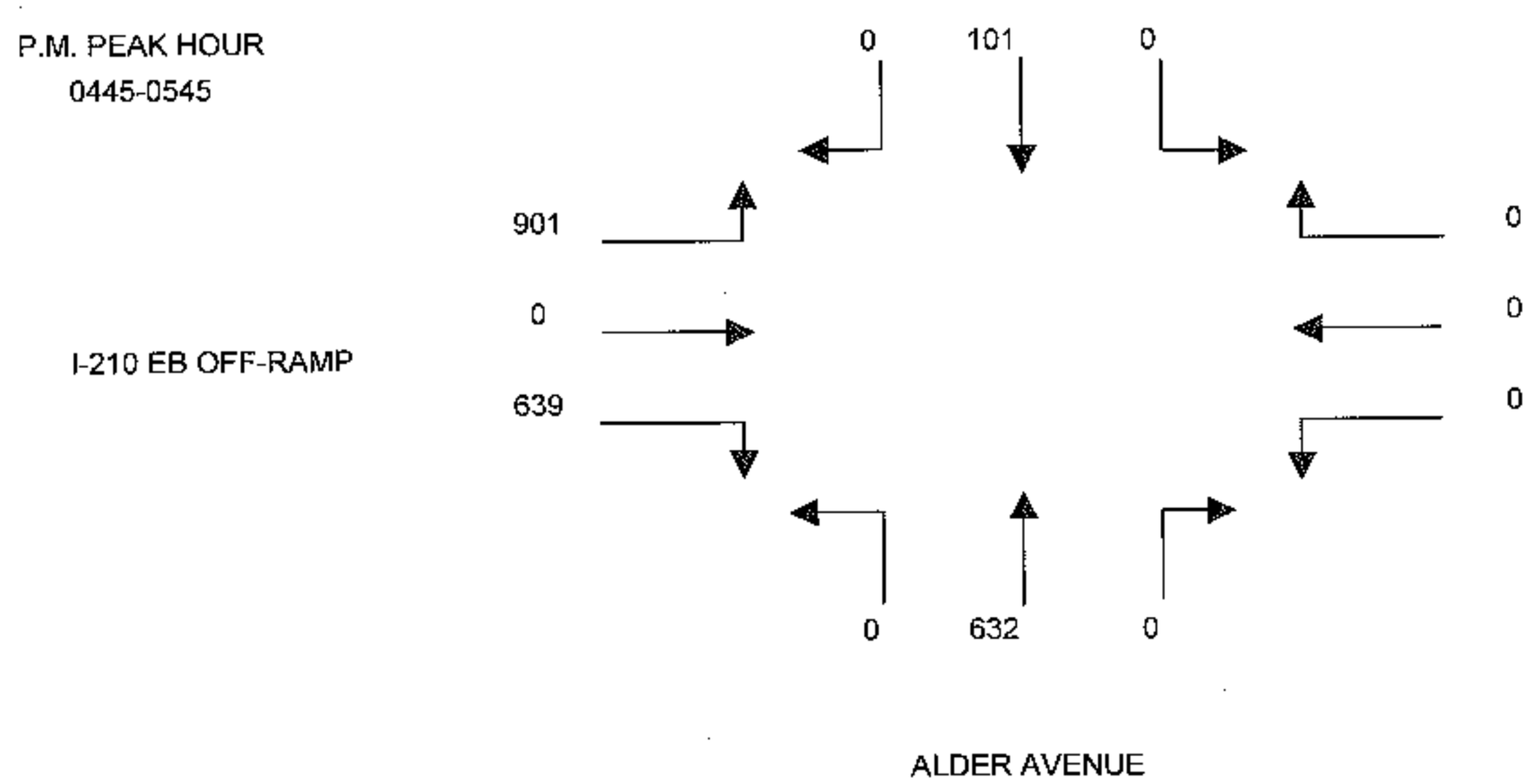
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: WEDNESDAY, MARCH 14, 2007
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S ALDER AVENUE
E/W I-210 EB OFF-RAMP
FILE NUMBER: 17-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	0	34	0	0	0	0	0	106	0	123	0	249
415-430	0	33	0	0	0	0	0	137	0	149	0	234
430-445	0	37	0	0	0	0	0	155	0	156	0	257
445-500	0	29	0	0	0	0	0	158	0	162	0	227
500-515	0	33	0	0	0	0	0	142	0	156	0	205
515-530	0	20	0	0	0	0	0	159	0	155	0	207
530-545	0	19	0	0	0	0	0	173	0	166	0	262
545-600	0	13	0	0	0	0	0	144	0	160	0	243

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	0	133	0	0	0	0	0	556	0	590	0	967	2246
415-515	0	132	0	0	0	0	0	592	0	623	0	923	2270
430-530	0	119	0	0	0	0	0	614	0	629	0	896	2258
445-545	0	101	0	0	0	0	0	632	0	639	0	901	2273
500-600	0	85	0	0	0	0	0	618	0	637	0	917	2257

P.M. PEAK HOUR
0445-0545



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

VEHICLE TURNING MOVEMENT COUNT SUMMARY

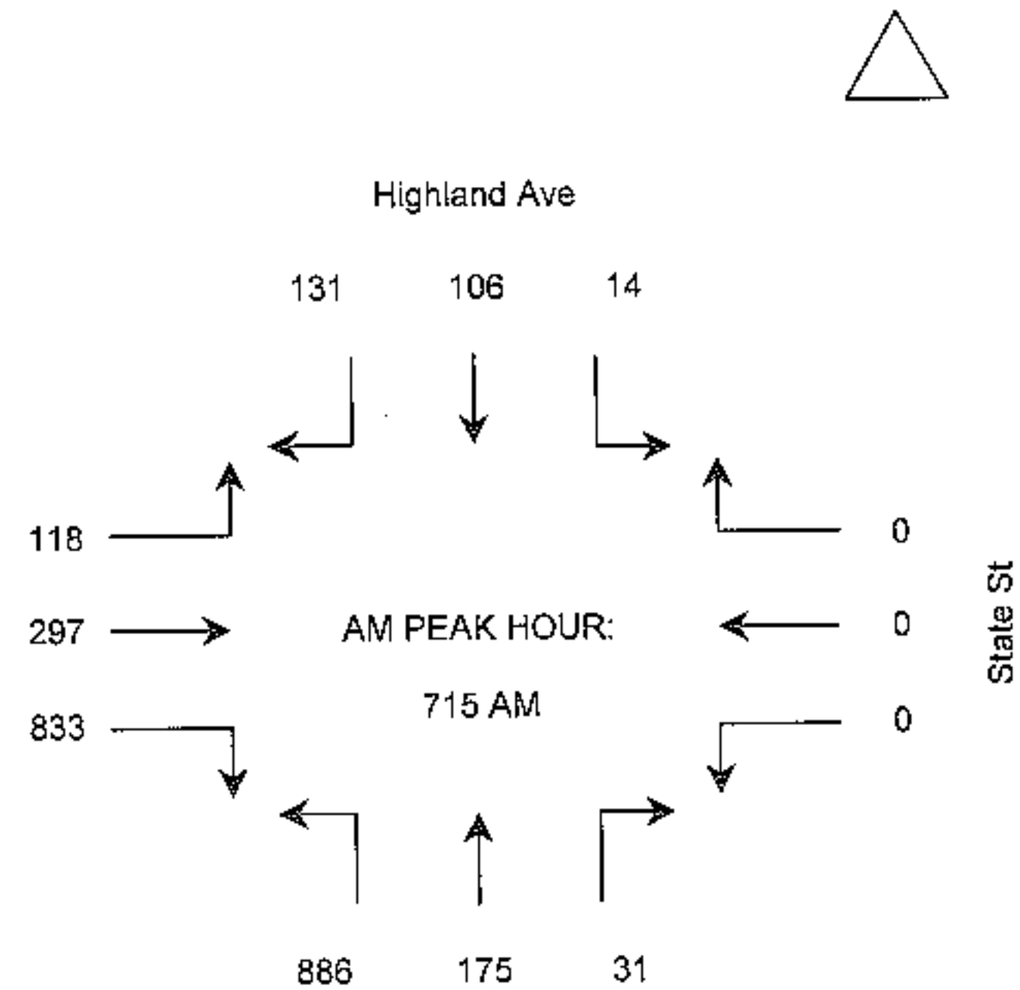
Prepared by: National Data & Surveying Services
Project # 07-3094-002

N/S STREET: State St **E/W STREET:** Highland Ave

PERIOD: AM Peak Hour **DATE:** TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	0	0	0	19	68	170	235	25	11	4	42	38	612
7:15 - 7:30	0	0	0	28	66	236	240	30	9	4	31	39	683
7:30 - 7:45	0	0	0	26	87	199	232	50	11	2	20	32	659
7:45 - 8:00	0	0	0	28	77	195	203	49	6	3	25	27	613
8:00 - 8:15	0	0	0	36	67	203	211	46	5	5	30	33	636
8:15 - 8:30	0	0	0	24	59	189	205	32	4	5	21	36	575
8:30 - 8:45	0	0	0	27	50	178	196	29	4	4	28	32	548
8:45 - 9:00	0	0	0	21	45	182	179	26	4	4	22	23	506

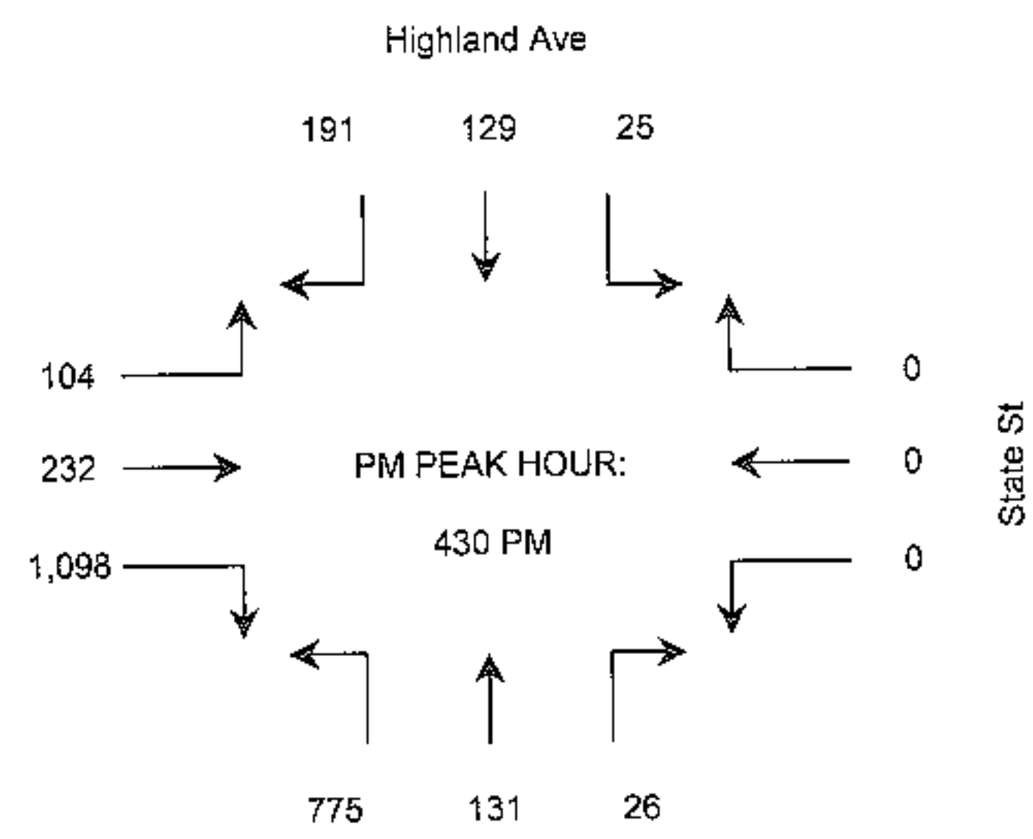
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	0	0	0	101	298	800	910	154	37	13	118	136	2,567
7:15 - 8:15	0	0	0	118	297	833	886	175	31	14	106	131	2,591 *
7:30 - 8:30	0	0	0	114	290	786	851	177	26	15	96	128	2,483
7:45 - 8:45	0	0	0	115	253	765	815	156	19	17	104	128	2,372
8:00 - 9:00	0	0	0	108	221	752	791	133	17	18	101	124	2,265



PERIOD: PM Peak Hour **DATE:** TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	0	0	0	23	66	254	171	35	12	3	30	46	640
4:15 - 4:30	0	0	0	12	59	263	159	30	7	3	32	42	607
4:30 - 4:45	0	0	0	29	57	286	162	39	7	4	36	53	673
4:45 - 5:00	0	0	0	30	66	279	198	34	8	7	28	46	696
5:00 - 5:15	0	0	0	24	57	264	211	27	5	9	34	50	681
5:15 - 5:30	0	0	0	21	52	269	204	31	6	5	31	42	661
5:30 - 5:45	0	0	0	26	45	254	189	28	8	6	25	39	620
5:45 - 6:00	0	0	0	18	59	232	172	24	6	5	28	36	580

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	0	0	0	94	248	1,082	690	138	34	17	126	187	2,616
4:15 - 5:15	0	0	0	95	239	1,092	730	130	27	23	130	191	2,657
4:30 - 5:30	0	0	0	104	232	1,098	775	131	26	25	129	191	2,711 *
4:45 - 5:45	0	0	0	101	220	1,066	802	120	27	27	118	177	2,658
5:00 - 6:00	0	0	0	89	213	1,019	776	110	25	25	118	167	2,542



VEHICLE TURNING MOVEMENT COUNT SUMMARY

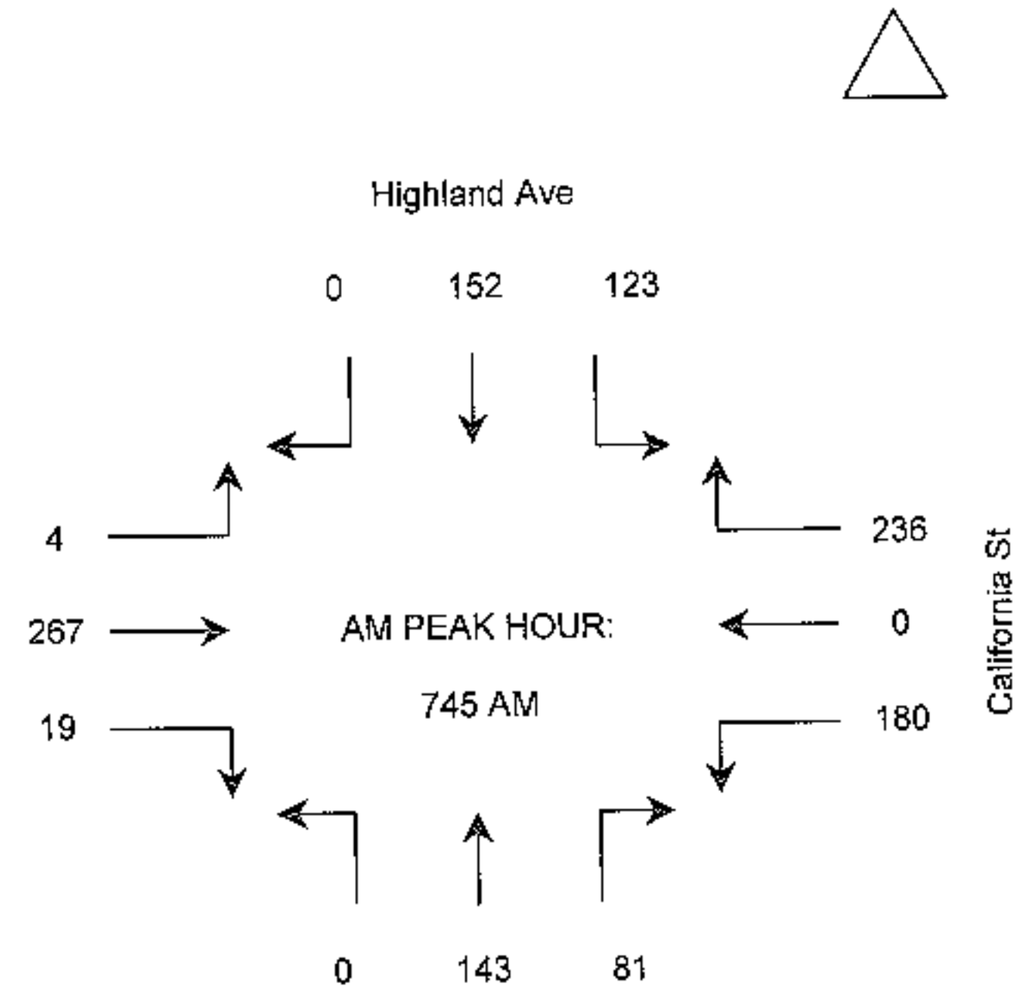
Prepared by: National Data & Surveying Services
Project # 07-3094-003

N/S STREET: California St **E/W STREET:** Highland Ave

PERIOD: AM Peak Hour **DATE:** TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	24	0	46	0	75	3	0	24	9	21	26	0	228
7:15 - 7:30	31	0	52	0	83	2	0	31	14	26	23	0	262
7:30 - 7:45	26	0	58	0	89	6	0	29	19	29	33	0	289
7:45 - 8:00	43	0	63	0	76	7	0	36	18	35	40	0	318
8:00 - 8:15	46	0	66	0	68	5	0	29	17	32	36	0	299
8:15 - 8:30	48	0	53	2	67	4	0	35	22	27	41	0	299
8:30 - 8:45	43	0	54	2	56	3	0	43	24	29	35	0	289
8:45 - 9:00	31	0	61	0	46	5	0	22	32	30	36	0	263

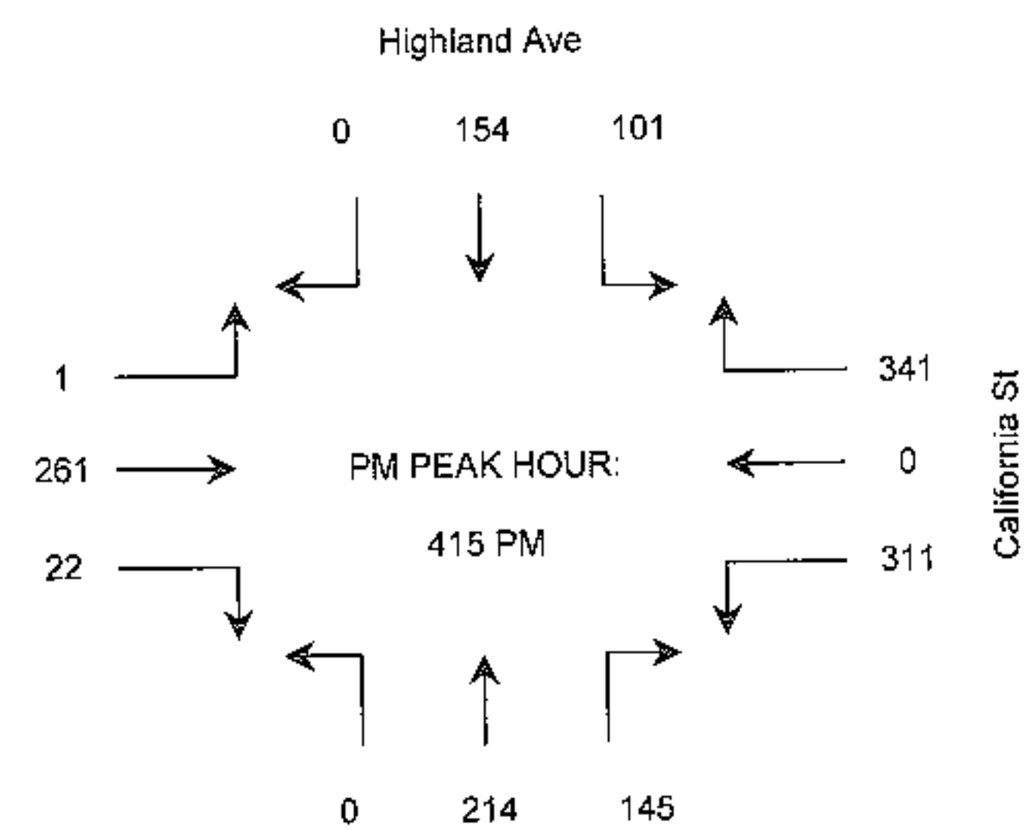
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	124	0	219	0	323	18	0	120	60	111	122	0	1,097
7:15 - 8:15	146	0	239	0	316	20	0	125	68	122	132	0	1,168
7:30 - 8:30	163	0	240	2	300	22	0	129	76	123	150	0	1,205 *
7:45 - 8:45	180	0	236	4	267	19	0	143	81	123	152	0	1,205 *
8:00 - 9:00	168	0	234	4	237	17	0	129	95	118	148	0	1,150



PERIOD: PM Peak Hour **DATE:** TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	68	0	75	0	72	4	0	57	29	21	34	0	360
4:15 - 4:30	74	0	80	0	60	7	0	60	34	26	42	0	383
4:30 - 4:45	80	0	89	0	69	7	0	49	40	23	40	0	397
4:45 - 5:00	83	0	81	1	71	5	0	53	37	30	37	0	398
5:00 - 5:15	74	0	91	0	61	3	0	52	34	22	35	0	372
5:15 - 5:30	92	0	91	0	55	5	0	45	29	22	39	0	378
5:30 - 5:45	52	0	84	0	61	3	0	41	24	18	31	0	314
5:45 - 6:00	52	0	92	0	73	7	0	53	32	34	43	0	386

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	305	0	325	1	272	23	0	219	140	100	153	0	1,538
4:15 - 5:15	311	0	341	1	261	22	0	214	145	101	154	0	1,550 *
4:30 - 5:30	329	0	352	1	256	20	0	199	140	97	151	0	1,545
4:45 - 5:45	301	0	347	1	248	16	0	191	124	92	142	0	1,462
5:00 - 6:00	270	0	358	0	250	18	0	191	119	96	148	0	1,450



VEHICLE TURNING MOVEMENT COUNT SUMMARY

Prepared by: National Data & Surveying Services
Project # 07-3094-004

N/S STREET: Medical Center Dr

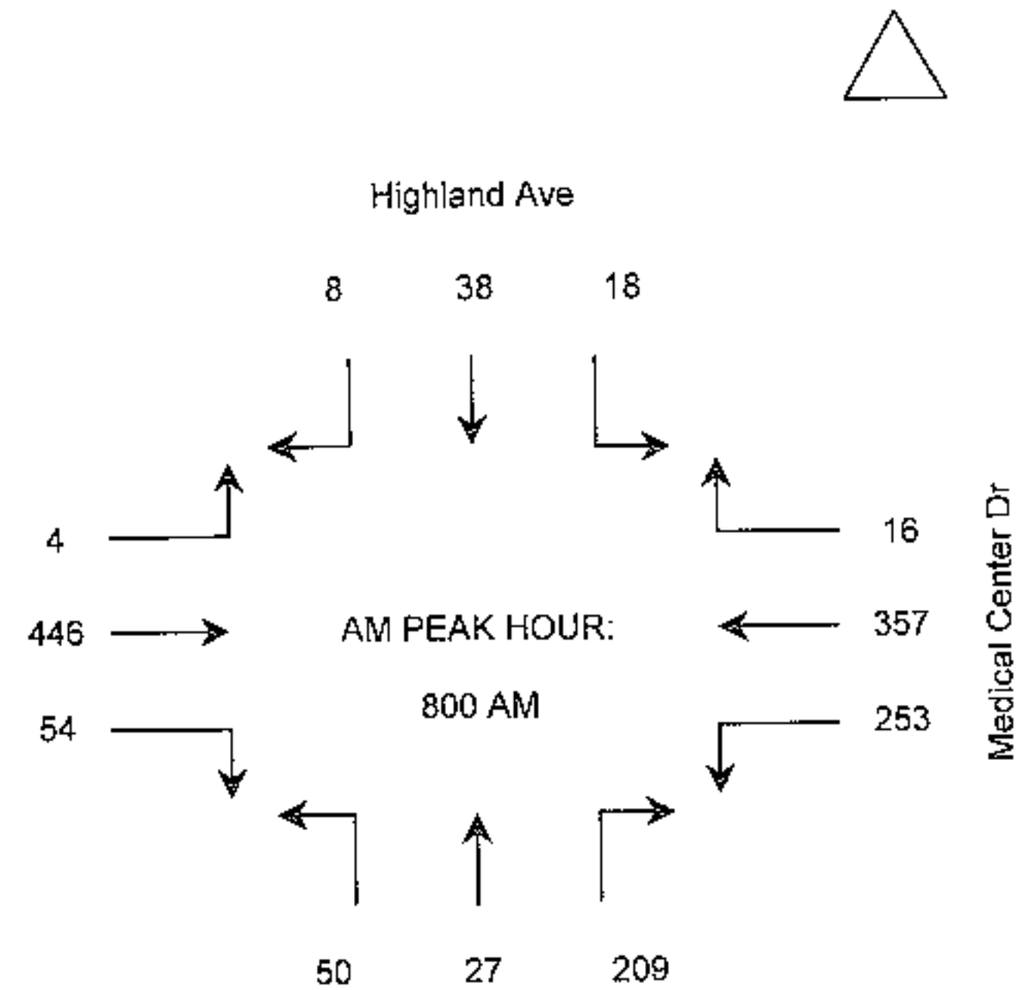
E/W STREET: Highland Ave

PERIOD: AM Peak Hour

DATE: TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	53	58	4	5	79	7	10	7	45	3	19	3	293
7:15 - 7:30	71	63	3	2	91	5	8	9	59	1	28	3	343
7:30 - 7:45	58	71	1	0	103	11	16	21	59	6	27	4	377
7:45 - 8:00	54	88	2	0	116	11	9	20	51	5	19	1	376
8:00 - 8:15	60	100	2	1	113	10	12	12	42	4	9	1	366
8:15 - 8:30	59	74	6	1	98	11	16	6	51	5	9	1	337
8:30 - 8:45	60	85	2	2	122	16	9	7	63	2	12	2	382
8:45 - 9:00	74	98	6	0	113	17	13	2	53	7	8	4	395

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	236	280	10	7	389	34	43	57	214	15	93	11	1,389
7:15 - 8:15	243	322	8	3	423	37	45	62	211	16	83	9	1,462
7:30 - 8:30	231	333	11	2	430	43	53	59	203	20	64	7	1,456
7:45 - 8:45	233	347	12	4	449	48	46	45	207	16	49	5	1,461
8:00 - 9:00	253	357	16	4	446	54	50	27	209	18	38	8	1,480 *

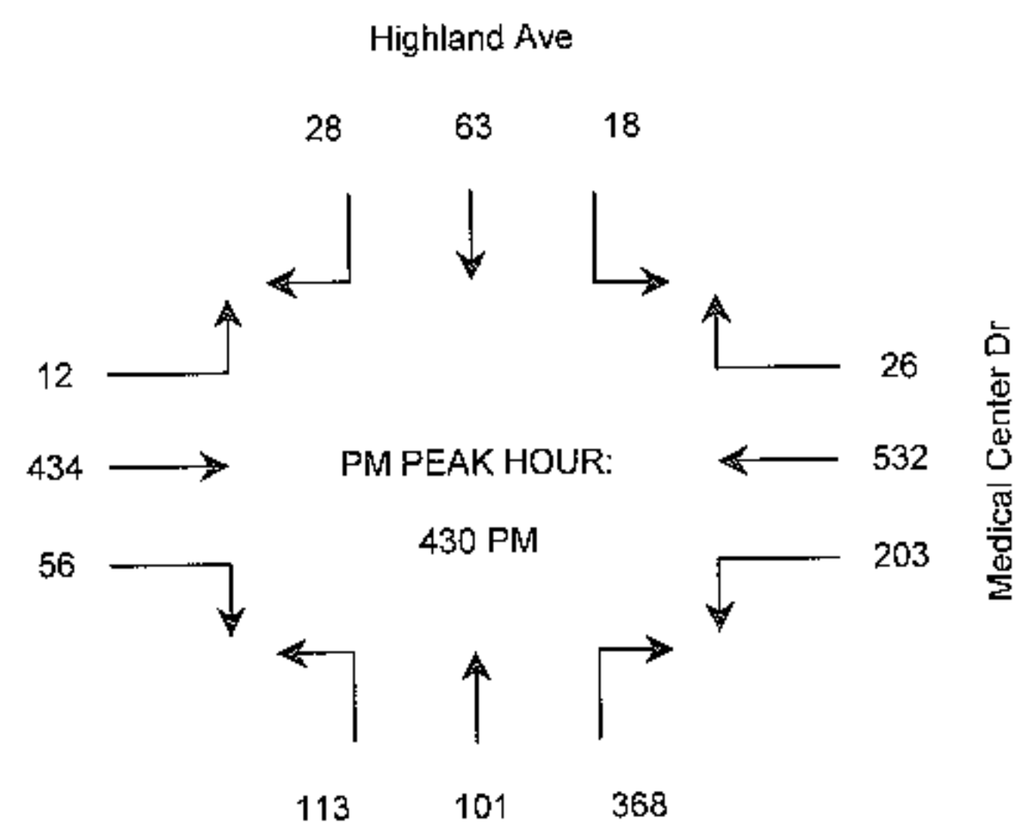


PERIOD: PM Peak Hour

DATE: TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	37	87	3	2	99	11	19	28	80	8	11	4	389
4:15 - 4:30	42	110	5	5	118	15	21	27	78	7	18	3	449
4:30 - 4:45	39	126	8	4	119	12	38	25	86	4	19	8	488
4:45 - 5:00	51	135	8	3	121	17	28	26	102	4	13	8	516
5:00 - 5:15	52	122	5	3	97	19	24	31	101	8	17	6	485
5:15 - 5:30	61	149	5	2	97	8	23	19	79	2	14	6	465
5:30 - 5:45	40	117	6	6	117	13	27	28	92	1	16	1	464
5:45 - 6:00	44	147	6	4	125	10	28	26	102	3	18	4	517

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	169	458	24	14	457	55	106	106	346	23	61	23	1,842
4:15 - 5:15	184	493	26	15	455	63	111	109	367	23	67	25	1,938
4:30 - 5:30	203	532	26	12	434	56	113	101	368	18	63	28	1,954 *
4:45 - 5:45	204	523	24	14	432	57	102	104	374	15	60	21	1,930
5:00 - 6:00	197	535	22	15	436	50	102	104	374	14	65	17	1,931



VEHICLE TURNING MOVEMENT COUNT SUMMARY

Prepared by: National Data & Surveying Services
Project # 07-3094-005

N/S STREET: Mt Vernon Ave

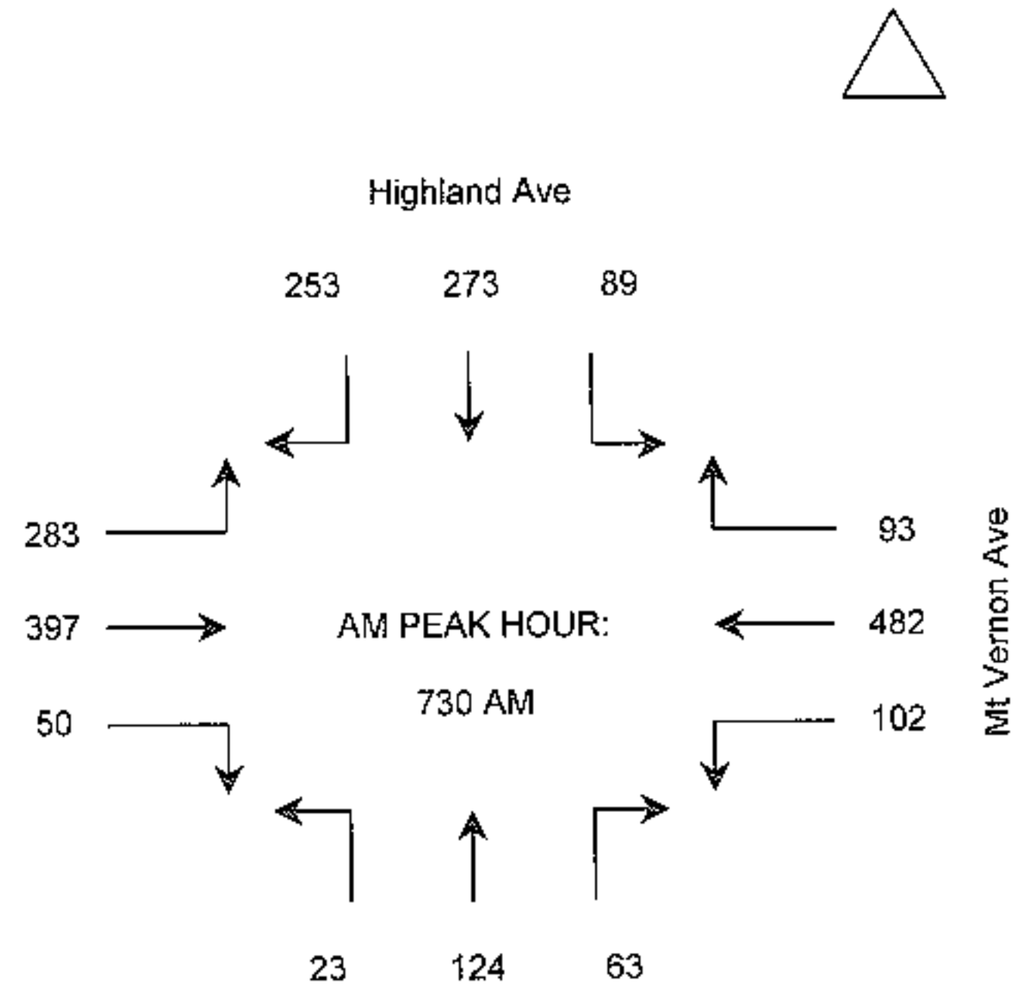
E/W STREET: Highland Ave

PERIOD: AM Peak Hour

DATE: TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	9	80	10	44	74	6	6	22	11	21	44	41	368
7:15 - 7:30	12	85	10	45	82	8	8	33	26	28	48	43	428
7:30 - 7:45	27	128	23	82	107	14	6	39	26	25	73	61	611
7:45 - 8:00	27	114	16	82	100	15	6	43	16	18	111	58	606
8:00 - 8:15	35	153	29	57	102	9	7	20	9	28	59	66	574
8:15 - 8:30	13	87	25	62	88	12	4	22	12	18	30	68	441
8:30 - 8:45	8	94	13	75	102	10	5	24	20	11	26	56	444
8:45 - 9:00	10	100	12	71	83	12	7	21	15	15	35	30	411

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	75	407	59	253	363	43	26	137	79	92	276	203	2,013
7:15 - 8:15	101	480	78	266	391	46	27	135	77	99	291	228	2,219
7:30 - 8:30	102	482	93	283	397	50	23	124	63	89	273	253	2,232 *
7:45 - 8:45	83	448	83	276	392	46	22	109	57	75	226	248	2,065
8:00 - 9:00	66	434	79	265	375	43	23	87	56	72	150	220	1,870

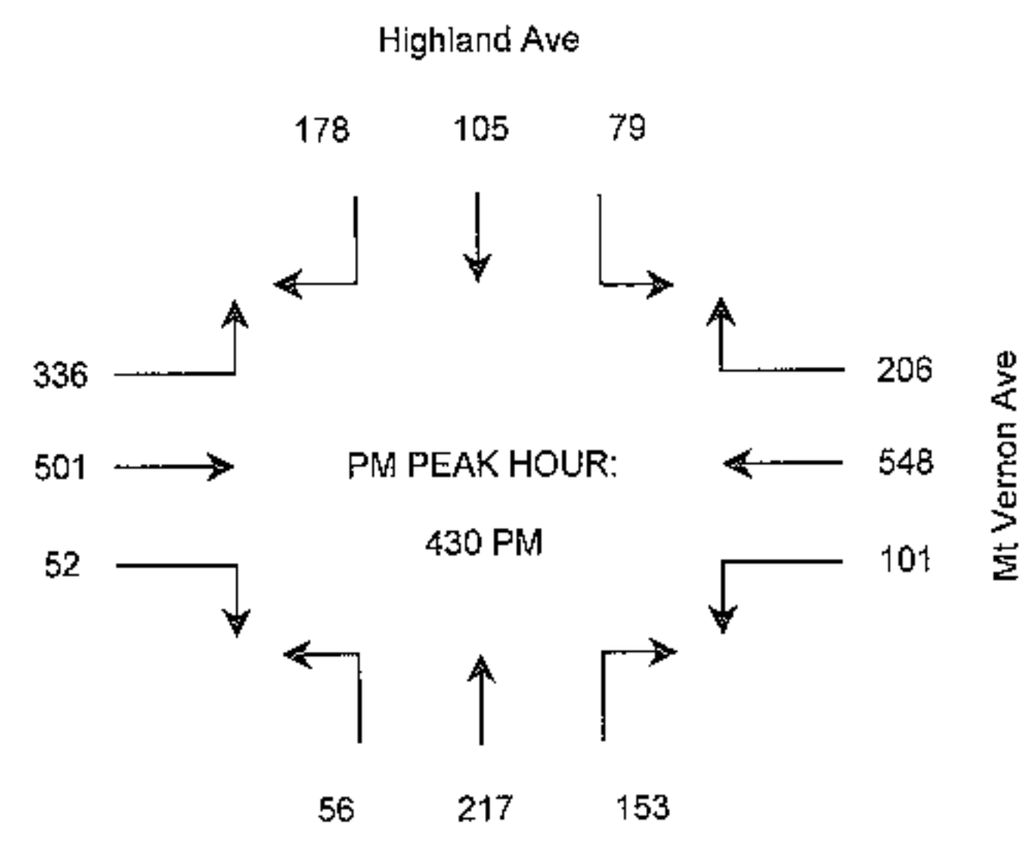


PERIOD: PM Peak Hour

DATE: TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	27	118	44	71	96	11	9	32	36	17	30	24	515
4:15 - 4:30	31	128	51	78	114	17	10	39	34	22	32	27	583
4:30 - 4:45	16	123	50	83	134	13	13	59	43	18	23	43	618
4:45 - 5:00	36	149	52	78	121	14	12	47	39	17	30	52	647
5:00 - 5:15	22	132	54	76	124	11	14	50	34	22	22	45	606
5:15 - 5:30	27	144	50	99	122	14	17	61	37	22	30	38	661
5:30 - 5:45	19	119	51	69	118	11	7	56	22	13	27	44	556
5:45 - 6:00	29	123	58	84	126	18	14	70	38	13	23	53	649

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	110	518	197	310	465	55	44	177	152	74	115	146	2,363
4:15 - 5:15	105	532	207	315	493	55	49	195	150	79	107	167	2,454
4:30 - 5:30	101	548	206	336	501	52	56	217	153	79	105	178	2,532 *
4:45 - 5:45	104	544	207	322	485	50	50	214	132	74	109	179	2,470
5:00 - 6:00	97	518	213	328	490	54	52	237	131	70	102	180	2,472



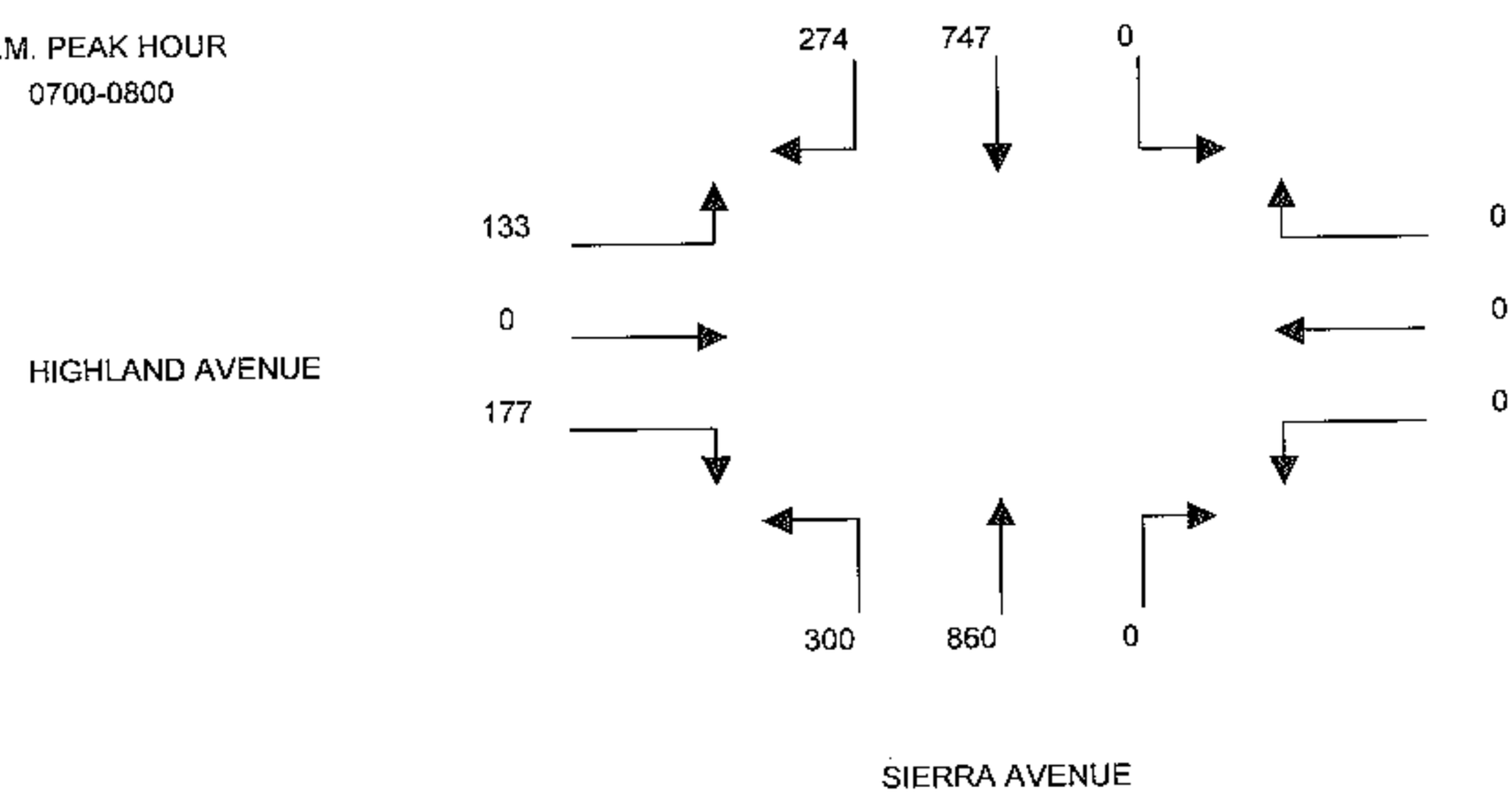
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: TUESDAY, MARCH 13, 2007
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S SIERRA AVENUE
E/W HIGHLAND AVENUE
FILE NUMBER: 20-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	70	154	0	0	0	0	0	194	98	34	0	23
715-730	111	187	0	0	0	0	0	245	150	74	0	55
730-745	69	189	0	0	0	0	0	216	39	48	0	35
745-800	24	217	0	0	0	0	0	205	13	21	0	20
800-815	20	208	0	0	0	0	0	140	12	10	0	10
815-830	24	174	0	0	0	0	0	152	18	13	0	7
830-845	17	162	0	0	0	0	0	167	10	16	0	9
845-900	12	145	0	0	0	0	0	159	14	12	0	12

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	274	747	0	0	0	0	0	860	300	177	0	133	2491
715-815	224	801	0	0	0	0	0	806	214	153	0	120	2318
730-830	137	788	0	0	0	0	0	713	82	92	0	72	1884
745-845	85	761	0	0	0	0	0	664	53	60	0	46	1669
800-900	73	689	0	0	0	0	0	618	54	51	0	38	1523

A.M. PEAK HOUR
0700-0800



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

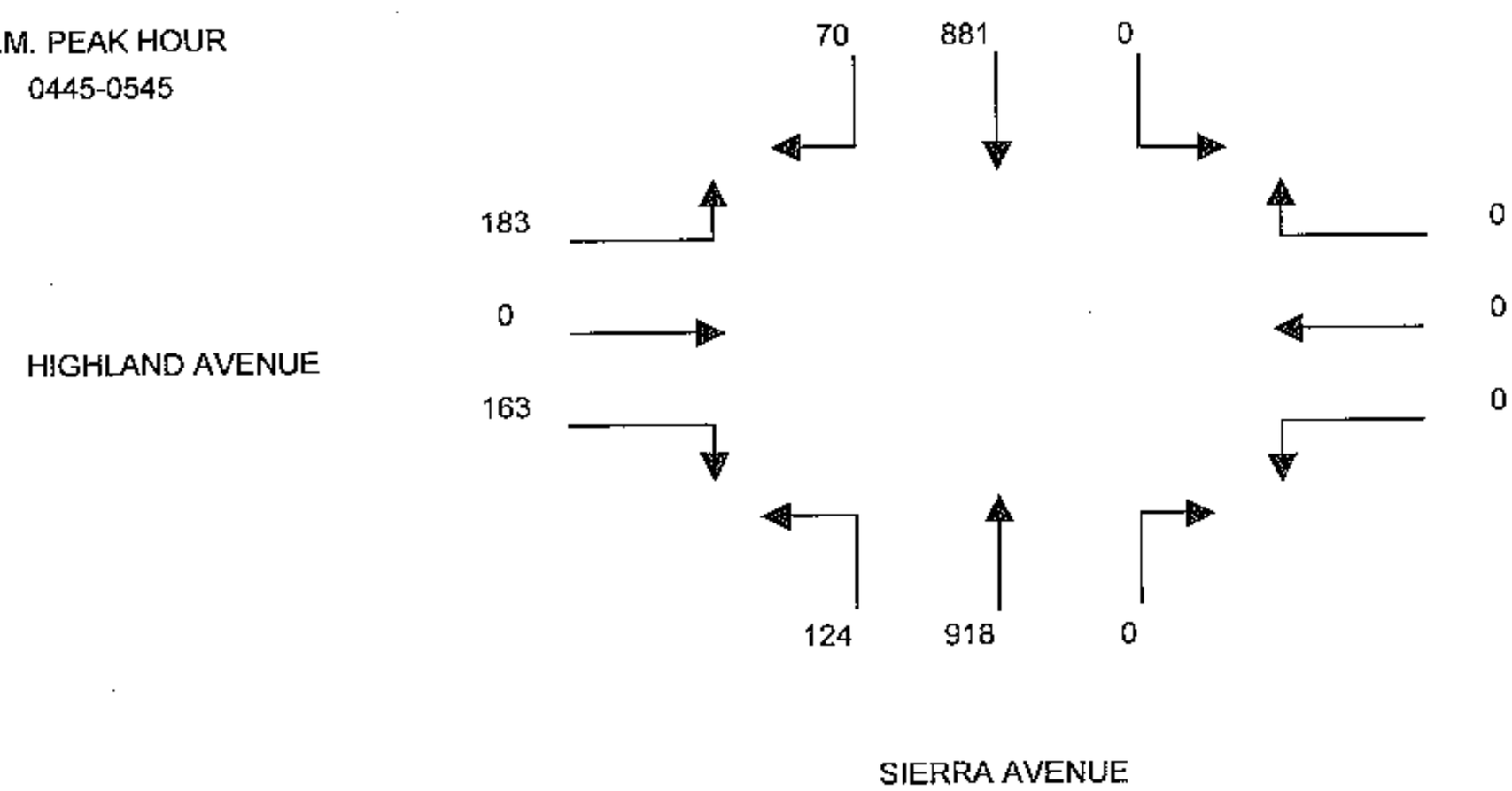
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: TUESDAY, MARCH 13, 2007
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S SIERRA AVENUE
E/W HIGHLAND AVENUE
FILE NUMBER: 20-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	8	180	0	0	0	0	0	169	13	33	0	22
415-430	9	205	0	0	0	0	0	198	22	40	0	28
430-445	13	179	0	0	0	0	0	183	21	41	0	48
445-500	17	218	0	0	0	0	0	233	25	49	0	43
500-515	15	227	0	0	0	0	0	209	25	30	0	42
515-530	17	249	0	0	0	0	0	232	39	33	0	61
530-545	21	187	0	0	0	0	0	244	35	51	0	37
545-600	15	219	0	0	0	0	0	227	21	31	0	34

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	47	782	0	0	0	0	0	783	81	163	0	141	1997
415-515	54	829	0	0	0	0	0	823	93	160	0	161	2120
430-530	62	873	0	0	0	0	0	857	110	153	0	194	2249
445-545	70	881	0	0	0	0	0	918	124	163	0	183	2339
500-600	68	882	0	0	0	0	0	912	120	145	0	174	2301

P.M. PEAK HOUR
0445-0545



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

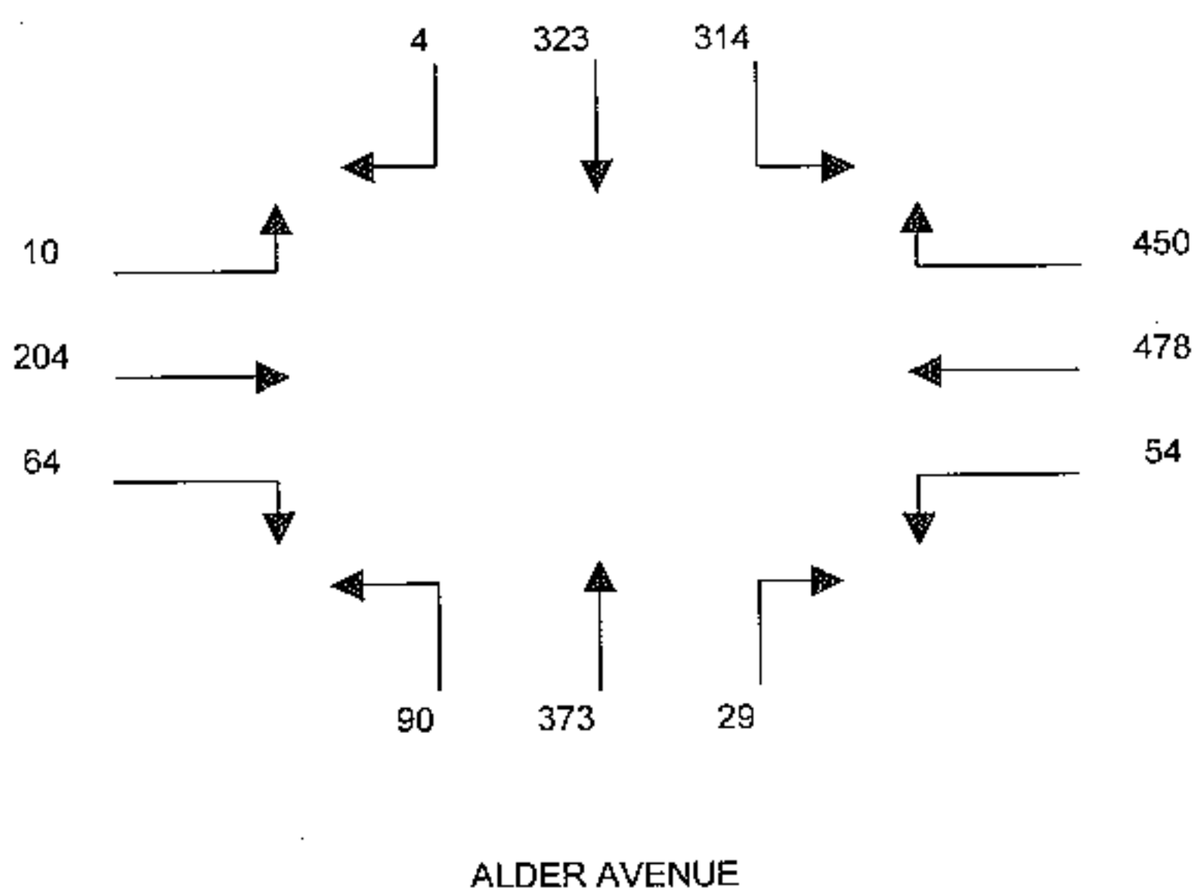
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: WEDNESDAY, MARCH 14, 2007
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S ALDER AVENUE
E/W EASTON STREET
FILE NUMBER: 21-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	2	62	70	100	152	15	9	94	43	15	49	1
715-730	0	70	73	115	118	13	7	74	28	23	58	4
730-745	2	82	87	132	137	14	7	116	12	16	53	3
745-800	0	109	84	103	71	12	6	89	7	10	44	2
800-815	1	85	72	99	56	10	6	87	4	11	35	7
815-830	2	73	68	92	46	8	3	87	4	9	25	3
830-845	0	57	66	87	61	11	3	89	7	7	29	5
845-900	2	66	69	69	51	8	3	81	8	12	21	3

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	4	323	314	450	478	54	29	373	90	64	204	10	2393
715-815	3	346	316	449	382	49	26	366	51	60	190	16	2254
730-830	5	349	311	426	310	44	22	379	27	46	157	15	2091
745-845	3	324	290	381	234	41	18	352	22	37	133	17	1852
800-900	5	281	275	347	214	37	15	344	23	39	110	18	1708

A.M. PEAK HOUR
0700-0800



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

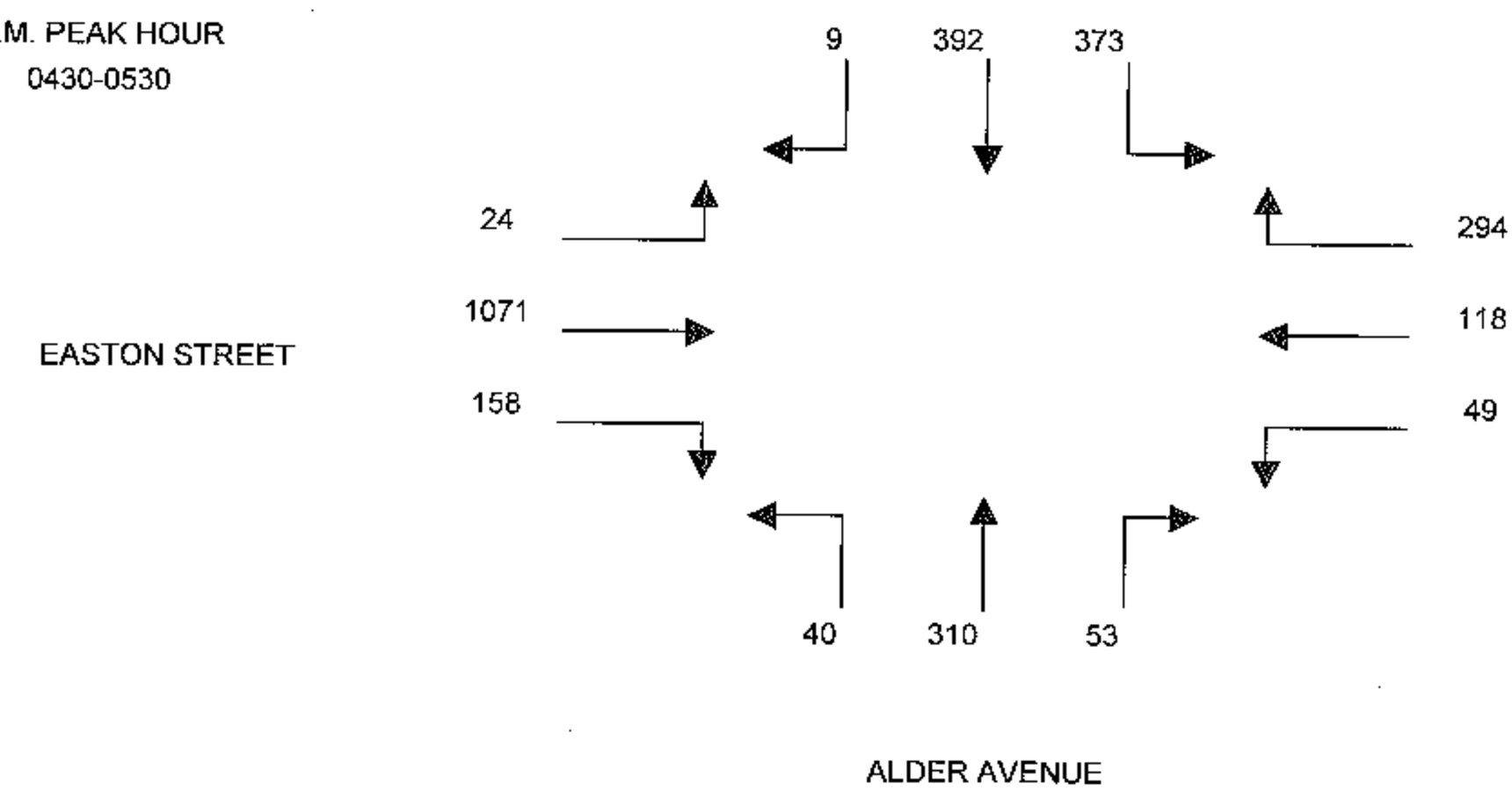
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: LYTLE CREEK RANCH - SAN BERNARDINO COUNTY
DATE: WEDNESDAY, MARCH 14, 2007
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S ALDER AVENUE
E/W EASTON STREET
FILE NUMBER: 21-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	3	84	68	35	20	17	10	75	6	41	207	2
415-430	2	100	86	51	32	21	13	98	10	33	206	4
430-445	4	95	93	71	29	15	18	72	12	40	245	5
445-500	2	106	99	74	25	12	14	77	11	42	240	10
500-515	1	98	92	66	35	12	12	85	9	39	281	5
515-530	2	93	89	83	29	10	9	76	8	37	305	4
530-545	3	84	98	77	27	12	10	81	10	31	202	9
545-600	1	98	88	64	33	8	8	75	9	21	226	5

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	11	385	346	231	106	65	55	322	39	156	898	21	2635
415-515	9	399	370	262	121	60	57	332	42	154	972	24	2802
430-530	9	392	373	294	118	49	53	310	40	158	1071	24	2891
445-545	8	381	378	300	116	46	45	319	38	149	1028	28	2836
500-600	7	373	367	290	124	42	39	317	36	128	1014	23	2760

P.M. PEAK HOUR
0430-0530



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

VEHICLE TURNING MOVEMENT COUNT SUMMARY

Prepared by: National Data & Surveying Services

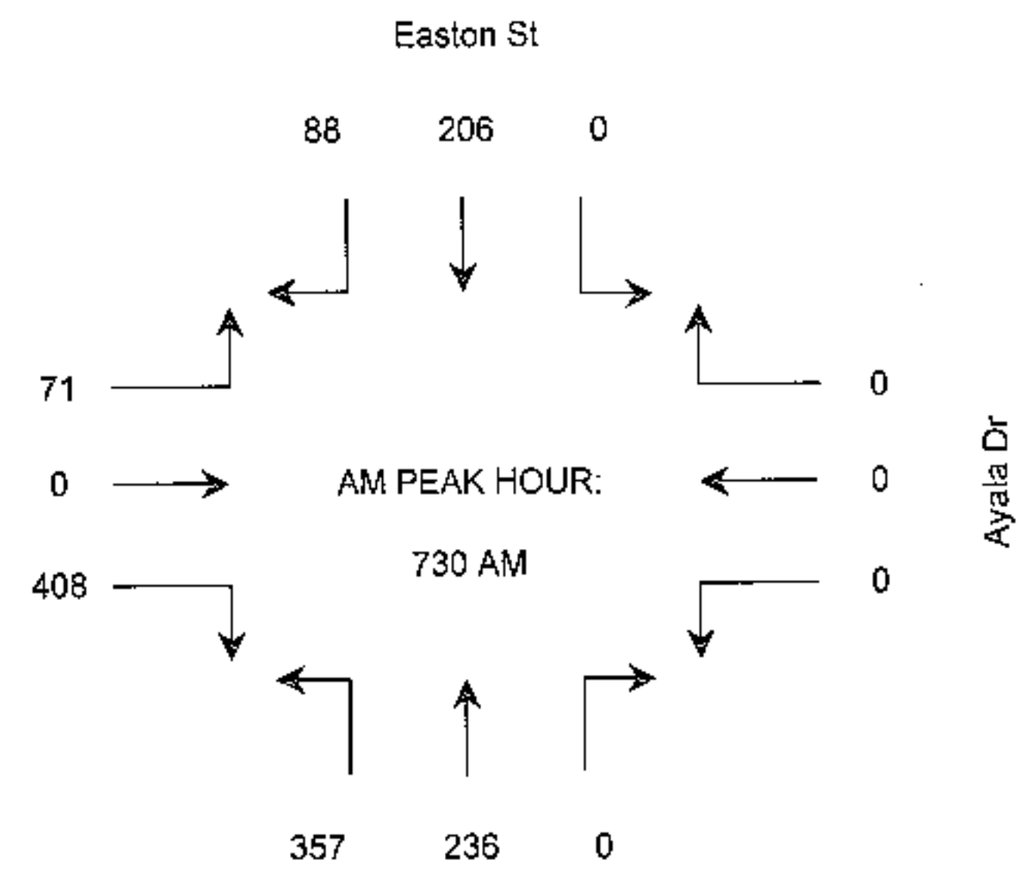
Project # **07-3112-005**

N/S STREET: Ayala Dr **E/W STREET:** Easton St

PERIOD: AM Peak Hour **DATE:** WEDNESDAY 3/21/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	0	0	0	9	0	69	29	16	0	0	38	13	174
7:15 - 7:30	0	0	0	11	0	82	47	24	0	0	47	17	228
7:30 - 7:45	0	0	0	17	0	97	62	46	0	0	53	24	299
7:45 - 8:00	0	0	0	24	0	112	83	51	0	0	44	18	332
8:00 - 8:15	0	0	0	20	0	102	120	78	0	0	48	25	393
8:15 - 8:30	0	0	0	10	0	97	92	61	0	0	61	21	342
8:30 - 8:45	0	0	0	14	0	98	73	35	0	0	35	10	265
8:45 - 9:00	0	0	0	9	0	71	75	29	0	0	34	12	230

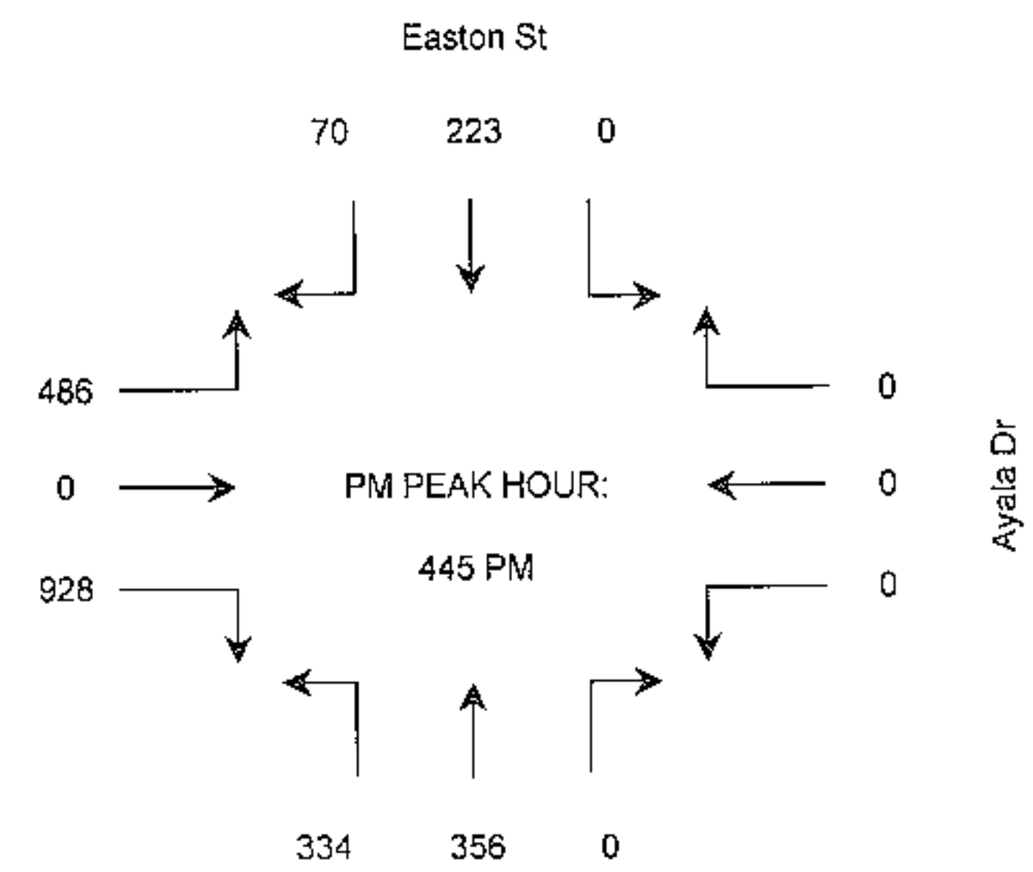
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	0	0	0	61	0	360	221	137	0	0	182	72	1,033
7:15 - 8:15	0	0	0	72	0	393	312	199	0	0	192	84	1,252
7:30 - 8:30	0	0	0	71	0	408	357	236	0	0	206	88	1,366 *
7:45 - 8:45	0	0	0	68	0	409	368	225	0	0	188	74	1,332
8:00 - 9:00	0	0	0	53	0	368	360	203	0	0	178	68	1,230



PERIOD: PM Peak Hour **DATE:** WEDNESDAY 3/21/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	0	0	0	121	0	176	46	30	0	0	93	11	477
4:15 - 4:30	0	0	0	105	0	202	59	47	0	0	43	8	464
4:30 - 4:45	0	0	0	95	0	226	66	52	0	0	45	13	497
4:45 - 5:00	0	0	0	108	0	217	74	68	0	0	53	12	532
5:00 - 5:15	0	0	0	116	0	256	98	91	0	0	57	18	636
5:15 - 5:30	0	0	0	134	0	234	87	103	0	0	61	24	643
5:30 - 5:45	0	0	0	128	0	221	75	94	0	0	52	16	586
5:45 - 6:00	0	0	0	104	0	208	52	71	0	0	46	11	492

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	0	0	0	429	0	821	245	197	0	0	234	44	1,970
4:15 - 5:15	0	0	0	424	0	901	297	258	0	0	198	51	2,129
4:30 - 5:30	0	0	0	453	0	933	325	314	0	0	216	67	2,308
4:45 - 5:45	0	0	0	486	0	928	334	356	0	0	223	70	2,397 *
5:00 - 6:00	0	0	0	482	0	919	312	359	0	0	216	69	2,357



VEHICLE TURNING MOVEMENT COUNT SUMMARY

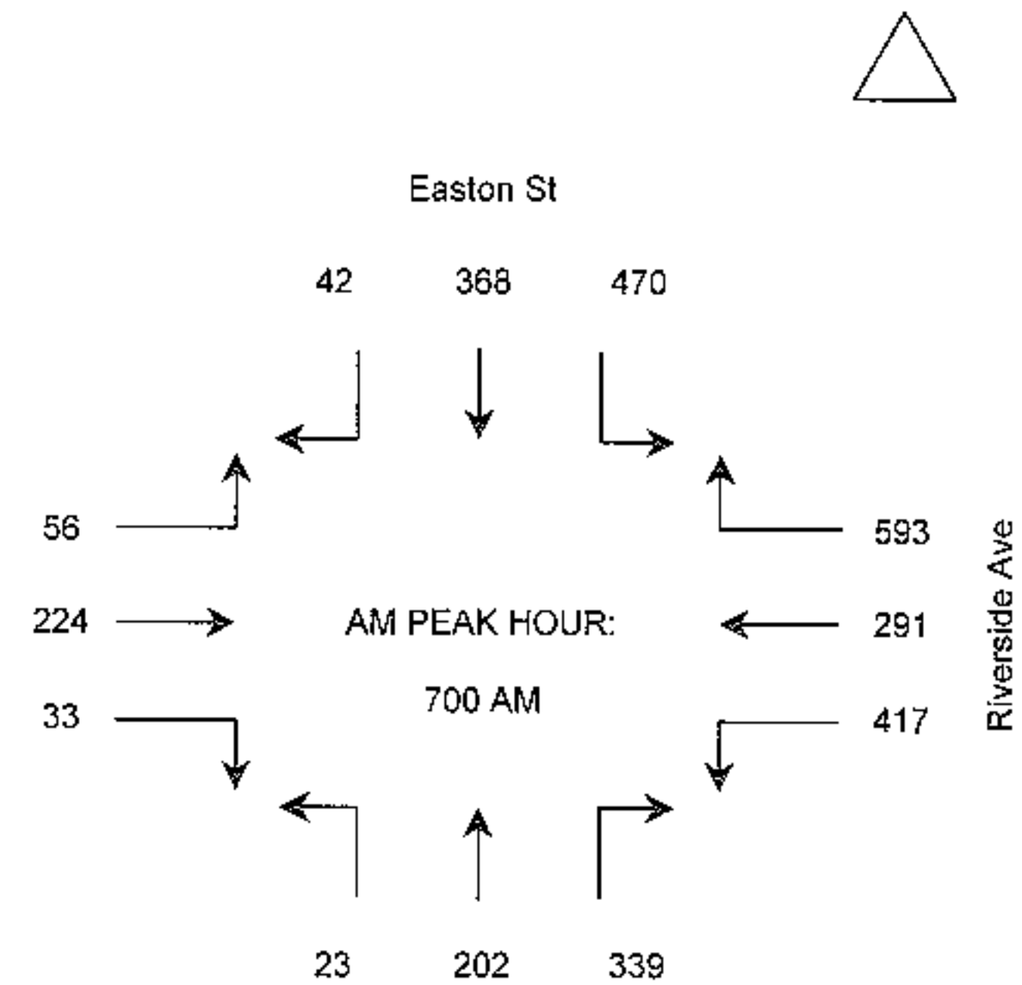
Prepared by: National Data & Surveying Services
Project # 07-3094-007

N/S STREET: Riverside Ave **E/W STREET:** Easton St

PERIOD: AM Peak Hour **DATE:** THURSDAY 3/15/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	107	72	168	15	51	3	4	47	76	112	81	8	744
7:15 - 7:30	113	82	185	18	55	7	5	54	87	137	89	13	845
7:30 - 7:45	101	71	116	9	61	12	7	48	92	93	81	8	699
7:45 - 8:00	96	66	124	14	57	11	7	53	84	128	117	13	770
8:00 - 8:15	68	65	102	13	48	16	11	77	90	109	104	7	710
8:15 - 8:30	62	51	105	13	43	25	6	62	60	104	102	12	645
8:30 - 8:45	53	57	84	7	34	18	8	43	71	84	73	11	543
8:45 - 9:00	37	42	92	8	24	13	4	47	54	91	64	8	484

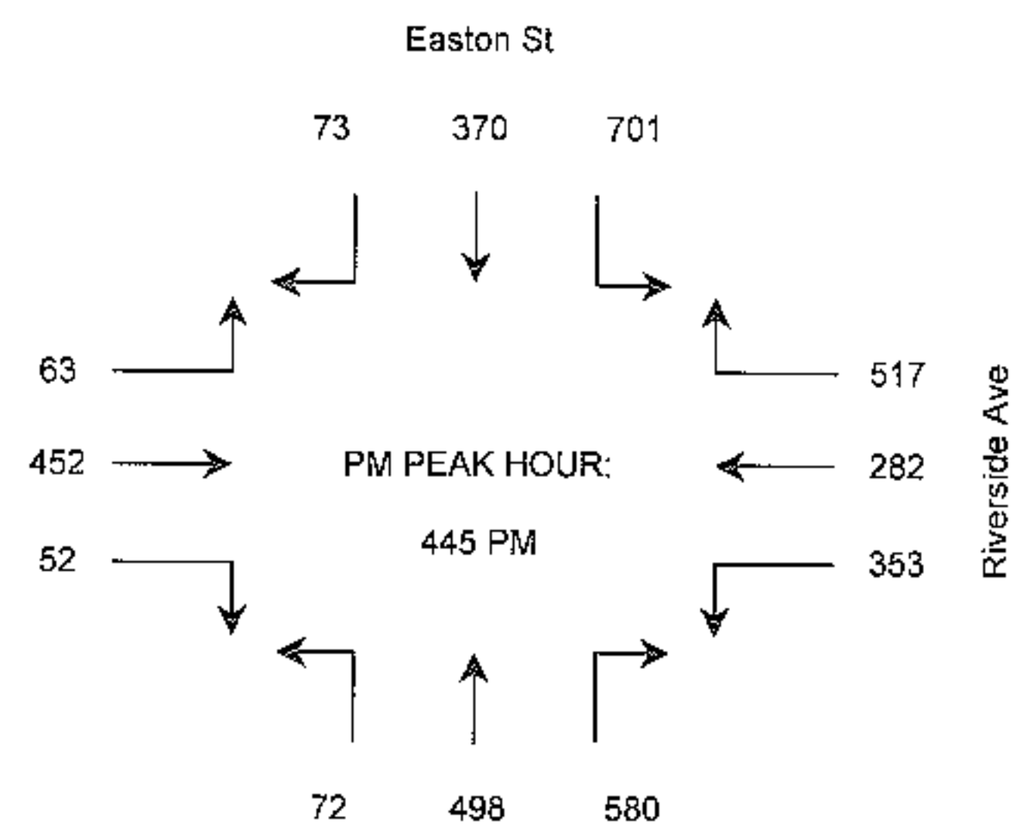
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	417	291	593	56	224	33	23	202	339	470	368	42	3,058 *
7:15 - 8:15	378	284	527	54	221	46	30	232	353	467	391	41	3,024
7:30 - 8:30	327	253	447	49	209	64	31	240	326	434	404	40	2,824
7:45 - 8:45	279	239	415	47	182	70	32	235	305	425	396	43	2,668
8:00 - 9:00	220	215	383	41	149	72	29	229	275	388	343	38	2,382



PERIOD: PM Peak Hour **DATE:** THURSDAY 3/15/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	104	53	90	23	89	5	15	120	109	138	93	7	846
4:15 - 4:30	95	51	88	14	97	7	15	109	121	154	118	19	888
4:30 - 4:45	97	55	97	18	102	11	18	136	124	142	111	23	934
4:45 - 5:00	90	63	122	26	121	15	22	130	134	163	127	17	1,030
5:00 - 5:15	79	61	139	16	134	9	25	98	139	181	91	19	991
5:15 - 5:30	86	85	129	13	103	17	10	145	146	183	91	20	1,028
5:30 - 5:45	98	73	127	8	94	11	15	125	161	174	61	17	964
5:45 - 6:00	82	67	118	9	88	8	12	104	142	148	45	8	831

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	386	222	397	81	409	38	70	495	488	597	449	66	3,698
4:15 - 5:15	361	230	446	74	454	42	80	473	518	640	447	78	3,843
4:30 - 5:30	352	264	487	73	460	52	75	509	543	669	420	79	3,983
4:45 - 5:45	353	282	517	63	452	52	72	498	580	701	370	73	4,013 *
5:00 - 6:00	345	286	513	46	419	45	62	472	588	686	288	64	3,814



VEHICLE TURNING MOVEMENT COUNT SUMMARY

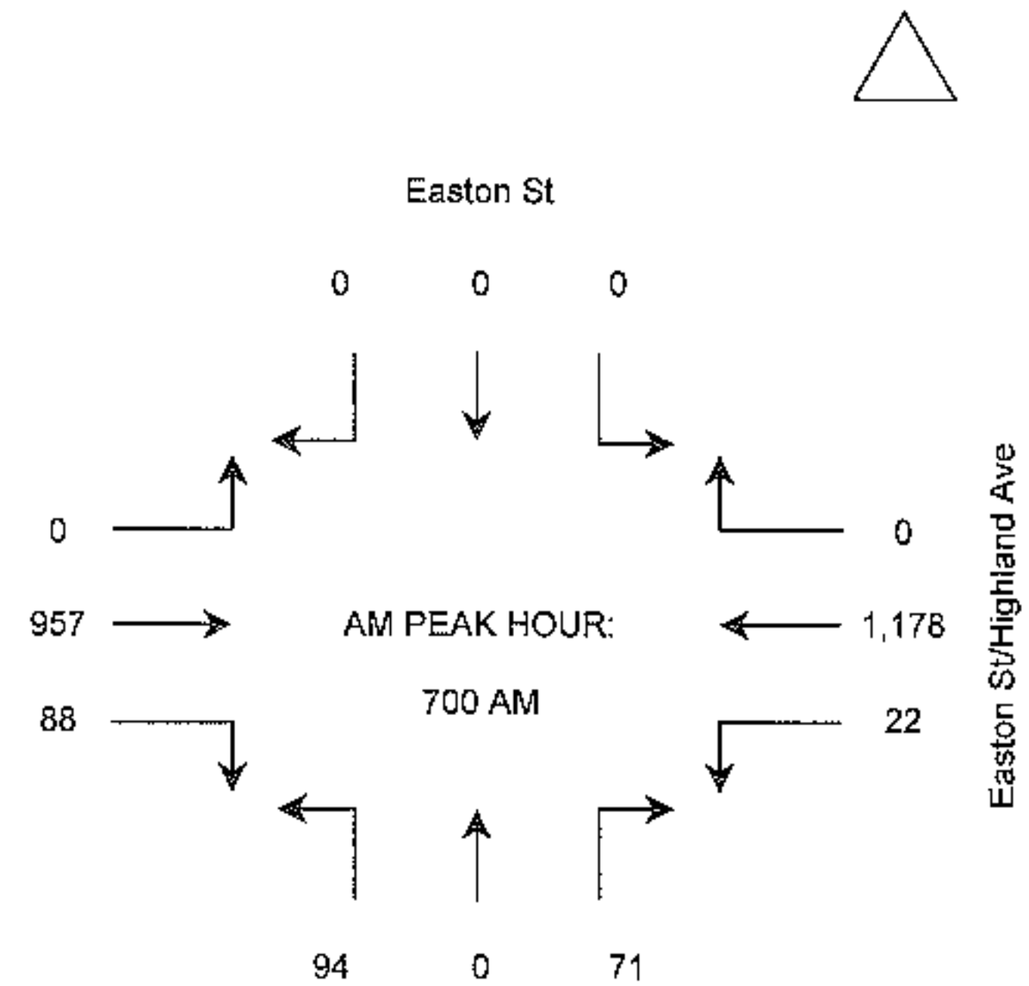
Prepared by: National Data & Surveying Services
Project # **07-3094-008**

N/S STREET: Easton St **E/W STREET:** Easton St/Highland Ave

PERIOD: AM Peak Hour **DATE:** TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	4	318	0	0	218	14	22	0	14	0	0	0	590
7:15 - 7:30	3	342	0	0	246	36	36	0	18	0	0	0	681
7:30 - 7:45	8	257	0	0	251	22	19	0	17	0	0	0	574
7:45 - 8:00	7	261	0	0	242	16	17	0	22	0	0	0	565
8:00 - 8:15	5	204	0	0	218	19	12	0	17	0	0	0	475
8:15 - 8:30	8	184	0	0	194	8	19	0	12	0	0	0	425
8:30 - 8:45	6	173	0	0	178	7	15	0	14	0	0	0	393
8:45 - 9:00	4	156	0	0	156	9	7	0	8	0	0	0	340

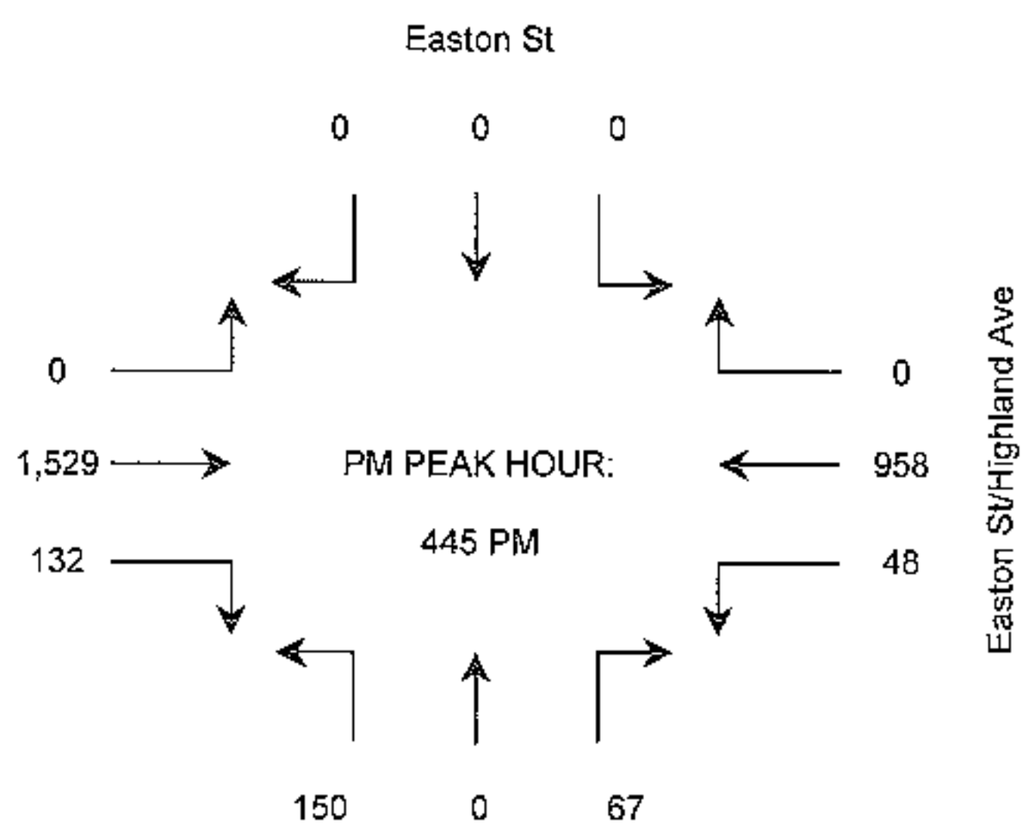
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	22	1,178	0	0	957	88	94	0	71	0	0	0	2,410 *
7:15 - 8:15	23	1,064	0	0	957	93	84	0	74	0	0	0	2,295
7:30 - 8:30	28	906	0	0	905	65	67	0	68	0	0	0	2,039
7:45 - 8:45	26	822	0	0	832	50	63	0	65	0	0	0	1,858
8:00 - 9:00	23	717	0	0	746	43	53	0	51	0	0	0	1,633



PERIOD: PM Peak Hour **DATE:** TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	5	206	0	0	285	22	26	0	9	0	0	0	553
4:15 - 4:30	11	197	0	0	337	18	37	0	11	0	0	0	611
4:30 - 4:45	7	218	0	0	316	28	28	0	14	0	0	0	611
4:45 - 5:00	12	224	0	0	365	37	36	0	13	0	0	0	687
5:00 - 5:15	16	231	0	0	394	42	39	0	19	0	0	0	741
5:15 - 5:30	11	254	0	0	383	31	43	0	21	0	0	0	743
5:30 - 5:45	9	249	0	0	387	22	32	0	14	0	0	0	713
5:45 - 6:00	7	226	0	0	338	14	24	0	13	0	0	0	622

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	35	845	0	0	1,303	105	127	0	47	0	0	0	2,462
4:15 - 5:15	46	870	0	0	1,412	125	140	0	57	0	0	0	2,650
4:30 - 5:30	46	927	0	0	1,458	138	146	0	67	0	0	0	2,782
4:45 - 5:45	48	958	0	0	1,529	132	150	0	67	0	0	0	2,884 *
5:00 - 6:00	43	960	0	0	1,502	109	138	0	67	0	0	0	2,819



VEHICLE TURNING MOVEMENT COUNT SUMMARY

Prepared by: National Data & Surveying Services
Project # 07-3094-009

N/S STREET: Sierra Ave

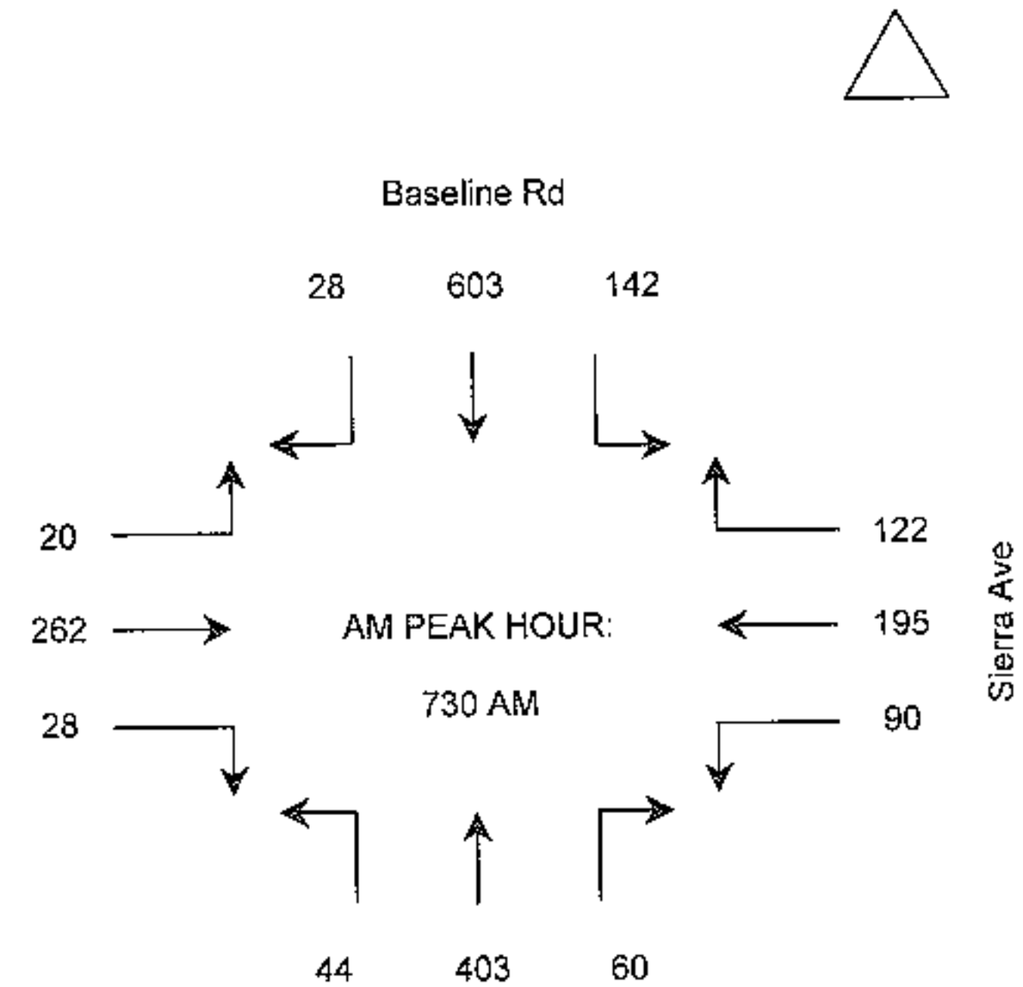
E/W STREET: Baseline Rd

PERIOD: AM Peak Hour

DATE: TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	18	24	32	4	20	6	7	70	7	19	141	2	350
7:15 - 7:30	22	25	35	2	36	7	11	73	8	25	167	4	415
7:30 - 7:45	20	43	36	3	61	8	15	90	10	26	150	6	468
7:45 - 8:00	24	49	37	4	81	1	10	101	12	38	162	7	526
8:00 - 8:15	22	43	24	7	63	11	11	115	18	39	151	8	512
8:15 - 8:30	24	60	25	6	57	8	8	97	20	39	140	7	491
8:30 - 8:45	20	61	22	2	40	7	7	118	12	34	131	6	460
8:45 - 9:00	14	50	18	8	42	6	10	106	7	26	117	2	406

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	84	141	140	13	198	22	43	334	37	108	620	19	1,759
7:15 - 8:15	88	160	132	16	241	27	47	379	48	128	630	25	1,921
7:30 - 8:30	90	195	122	20	262	28	44	403	60	142	603	28	1,997 *
7:45 - 8:45	90	213	108	19	241	27	36	431	62	150	584	28	1,989
8:00 - 9:00	80	214	89	23	202	32	36	436	57	138	539	23	1,869

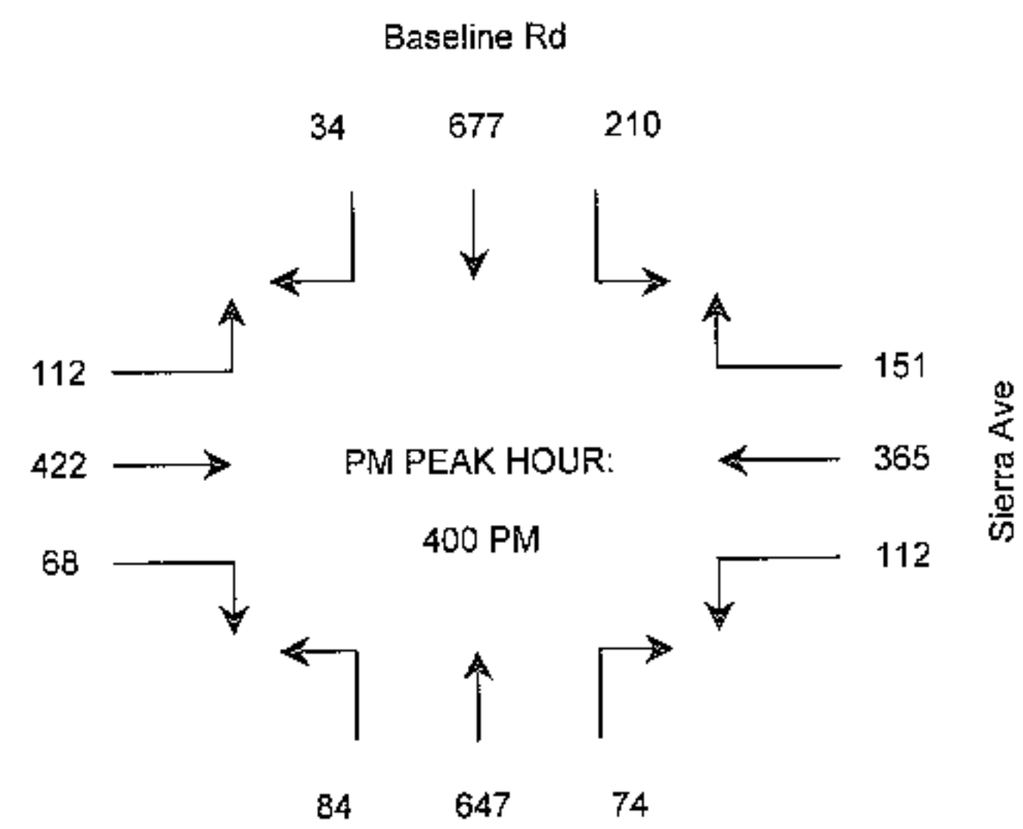


PERIOD: PM Peak Hour

DATE: TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	22	77	33	20	111	15	24	150	15	67	178	7	719
4:15 - 4:30	23	100	34	21	105	16	20	162	18	50	162	8	719
4:30 - 4:45	33	88	40	30	107	17	23	172	20	51	170	9	760
4:45 - 5:00	34	100	44	41	99	20	17	163	21	42	167	10	758
5:00 - 5:15	22	78	46	30	98	21	18	150	18	51	156	8	696
5:15 - 5:30	20	122	40	22	80	18	23	146	20	47	170	7	715
5:30 - 5:45	16	116	46	26	79	20	24	162	21	42	121	6	679
5:45 - 6:00	22	101	32	28	91	21	20	145	18	36	115	10	639

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	112	365	151	112	422	68	84	647	74	210	677	34	2,956 *
4:15 - 5:15	112	366	164	122	409	74	78	647	77	194	655	35	2,933
4:30 - 5:30	109	388	170	123	384	76	81	631	79	191	663	34	2,929
4:45 - 5:45	92	416	176	119	356	79	82	621	80	182	614	31	2,848
5:00 - 6:00	80	417	164	106	348	80	85	603	77	176	562	31	2,729



VEHICLE TURNING MOVEMENT COUNT SUMMARY

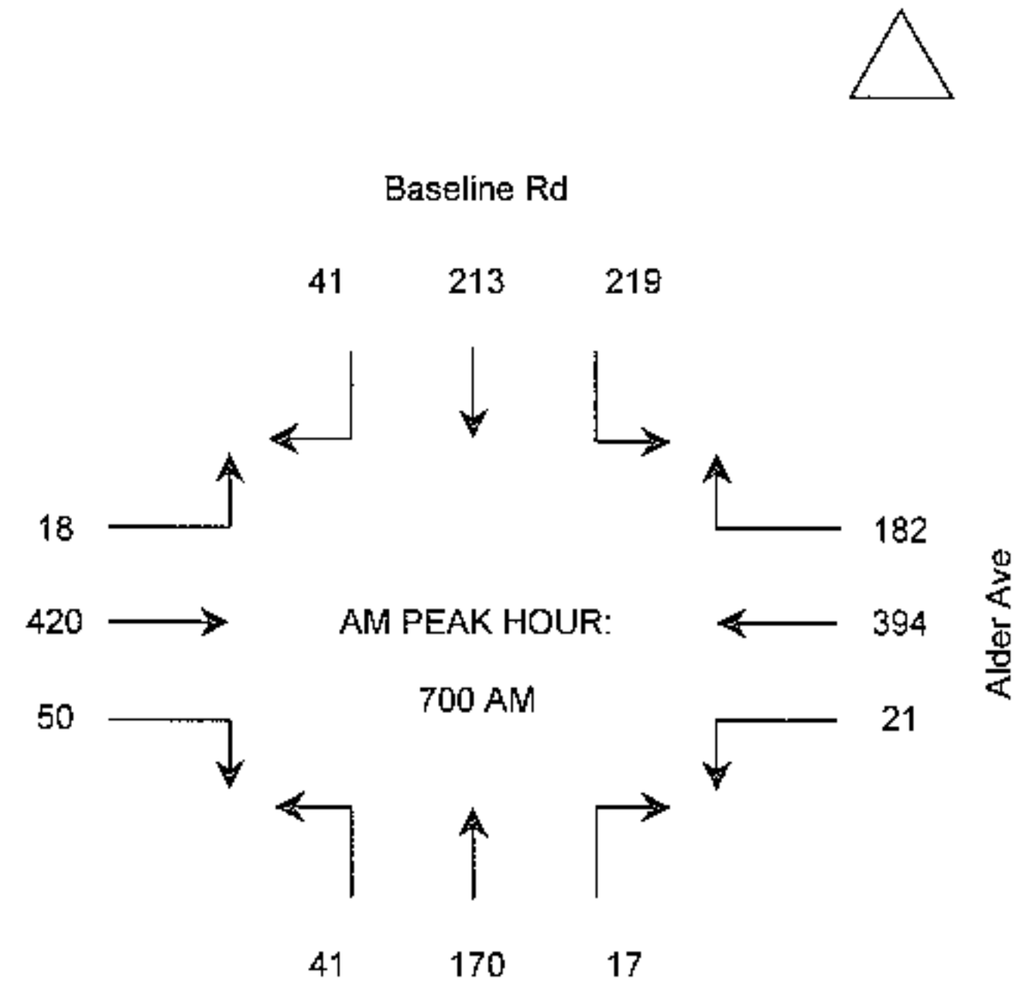
Prepared by: National Data & Surveying Services
Project # 07-3094-010

N/S STREET: Alder Ave **E/W STREET:** Baseline Rd

PERIOD: AM Peak Hour **DATE:** TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	2	84	38	2	98	8	8	32	2	49	46	8	377
7:15 - 7:30	5	93	49	4	107	11	11	38	5	52	50	8	433
7:30 - 7:45	6	110	51	7	118	17	13	54	4	60	64	13	517
7:45 - 8:00	8	107	44	5	97	14	9	46	6	58	53	12	459
8:00 - 8:15	10	102	38	4	64	4	6	43	7	40	37	7	362
8:15 - 8:30	12	111	47	5	75	7	4	49	8	32	46	5	401
8:30 - 8:45	6	103	41	3	96	5	5	47	10	28	40	3	387
8:45 - 9:00	8	93	34	1	82	6	2	38	7	21	29	4	325

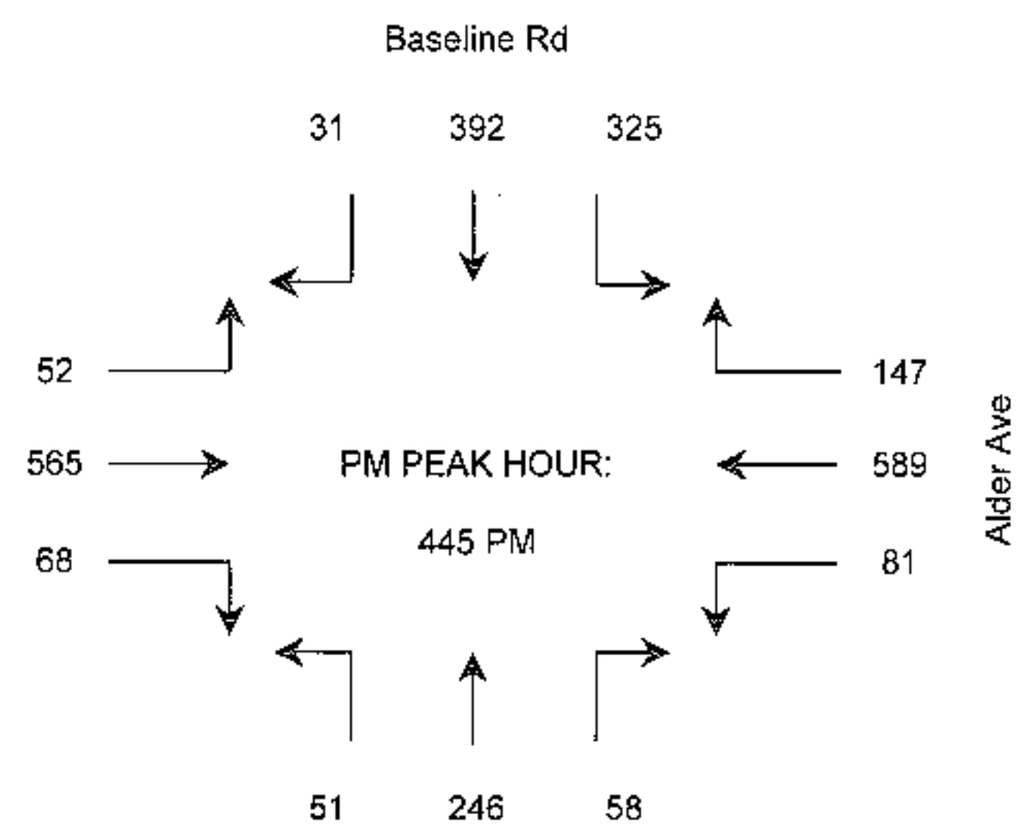
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	21	394	182	18	420	50	41	170	17	219	213	41	1,786 *
7:15 - 8:15	29	412	182	20	386	46	39	181	22	210	204	40	1,771
7:30 - 8:30	36	430	180	21	354	42	32	192	25	190	200	37	1,739
7:45 - 8:45	36	423	170	17	332	30	24	185	31	158	176	27	1,609
8:00 - 9:00	36	409	160	13	317	22	17	177	32	121	152	19	1,475



PERIOD: PM Peak Hour **DATE:** TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	11	123	21	7	147	8	8	34	5	56	56	4	480
4:15 - 4:30	16	128	28	11	154	11	12	40	9	64	68	8	549
4:30 - 4:45	14	148	33	11	165	9	11	48	11	73	64	10	597
4:45 - 5:00	28	142	38	12	123	15	9	55	15	73	97	6	613
5:00 - 5:15	18	150	42	15	138	18	14	62	14	84	106	9	670
5:15 - 5:30	19	155	34	14	154	22	17	71	16	91	99	11	703
5:30 - 5:45	16	142	33	11	150	13	11	58	13	77	90	5	619
5:45 - 6:00	8	125	49	14	174	17	5	66	10	69	63	9	609

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	69	541	120	41	589	43	40	177	40	266	285	28	2,239
4:15 - 5:15	76	568	141	49	580	53	46	205	49	294	335	33	2,429
4:30 - 5:30	79	595	147	52	580	64	51	236	56	321	366	36	2,583
4:45 - 5:45	81	589	147	52	565	68	51	246	58	325	392	31	2,605 *
5:00 - 6:00	61	572	158	54	616	70	47	257	53	321	358	34	2,601



VEHICLE TURNING MOVEMENT COUNT SUMMARY

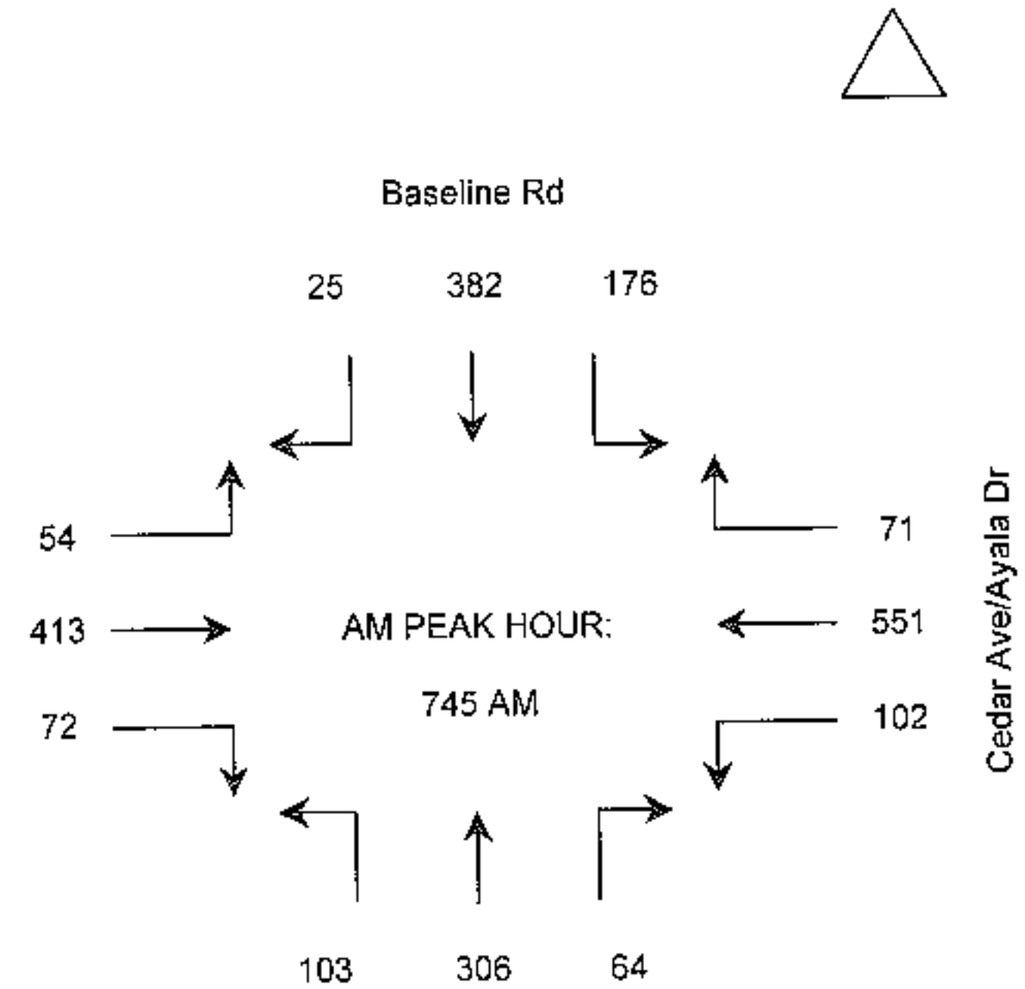
Prepared by: National Data & Surveying Services
Project # 07-3094-011

N/S STREET: Cedar Ave/Ayala Dr **E/W STREET:** Baseline Rd

PERIOD: AM Peak Hour **DATE:** TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	12	103	12	4	98	24	15	59	7	46	118	3	501
7:15 - 7:30	14	118	21	8	103	33	18	74	10	57	148	3	607
7:30 - 7:45	19	123	19	11	89	27	22	68	11	63	109	8	569
7:45 - 8:00	23	117	12	16	91	20	23	70	15	50	92	7	536
8:00 - 8:15	24	135	15	12	104	17	31	91	17	42	107	5	600
8:15 - 8:30	29	155	18	9	111	16	27	82	18	36	98	7	606
8:30 - 8:45	26	144	26	17	107	19	22	63	14	48	85	6	577
8:45 - 9:00	22	140	21	20	105	22	18	45	17	41	58	3	512

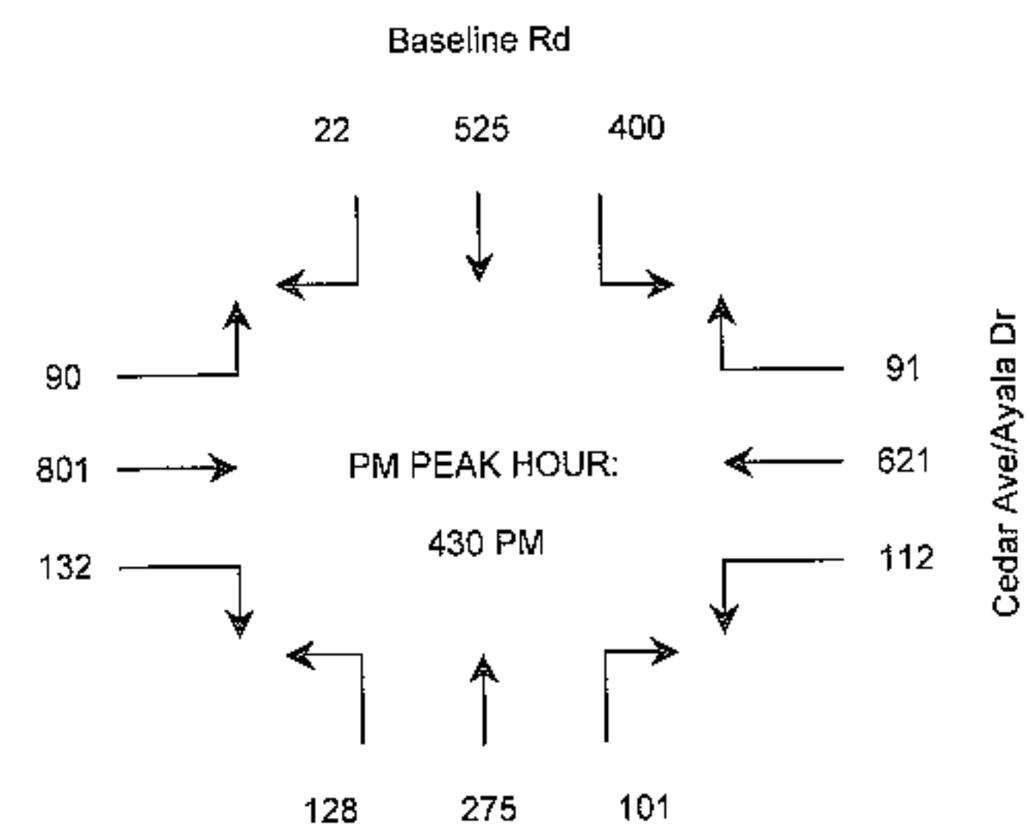
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	68	461	64	39	381	104	78	271	43	216	467	21	2,213
7:15 - 8:15	80	493	67	47	387	97	94	303	53	212	456	23	2,312
7:30 - 8:30	95	530	64	48	395	80	103	311	61	191	406	27	2,311
7:45 - 8:45	102	551	71	54	413	72	103	306	64	176	382	25	2,319 *
8:00 - 9:00	101	574	80	58	427	74	98	281	66	167	348	21	2,295



PERIOD: PM Peak Hour **DATE:** TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	45	176	21	15	174	21	18	60	13	74	111	2	730
4:15 - 4:30	22	177	15	16	194	38	36	61	20	101	118	2	800
4:30 - 4:45	26	146	19	19	200	41	42	69	22	105	126	5	820
4:45 - 5:00	32	153	26	28	204	37	33	71	26	100	131	6	847
5:00 - 5:15	29	137	21	24	206	32	29	64	19	98	120	3	782
5:15 - 5:30	25	185	25	19	191	22	24	71	34	97	148	8	849
5:30 - 5:45	22	162	19	14	183	27	18	67	29	92	133	6	772
5:45 - 6:00	18	158	14	9	175	21	12	54	22	88	125	3	699

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	125	652	81	78	772	137	129	261	81	380	486	15	3,197
4:15 - 5:15	109	613	81	87	804	148	140	265	87	404	495	16	3,249
4:30 - 5:30	112	621	91	90	801	132	128	275	101	400	525	22	3,298 *
4:45 - 5:45	108	637	91	85	784	118	104	273	108	387	532	23	3,250
5:00 - 6:00	94	642	79	66	755	102	83	256	104	375	526	20	3,102



VEHICLE TURNING MOVEMENT COUNT SUMMARY

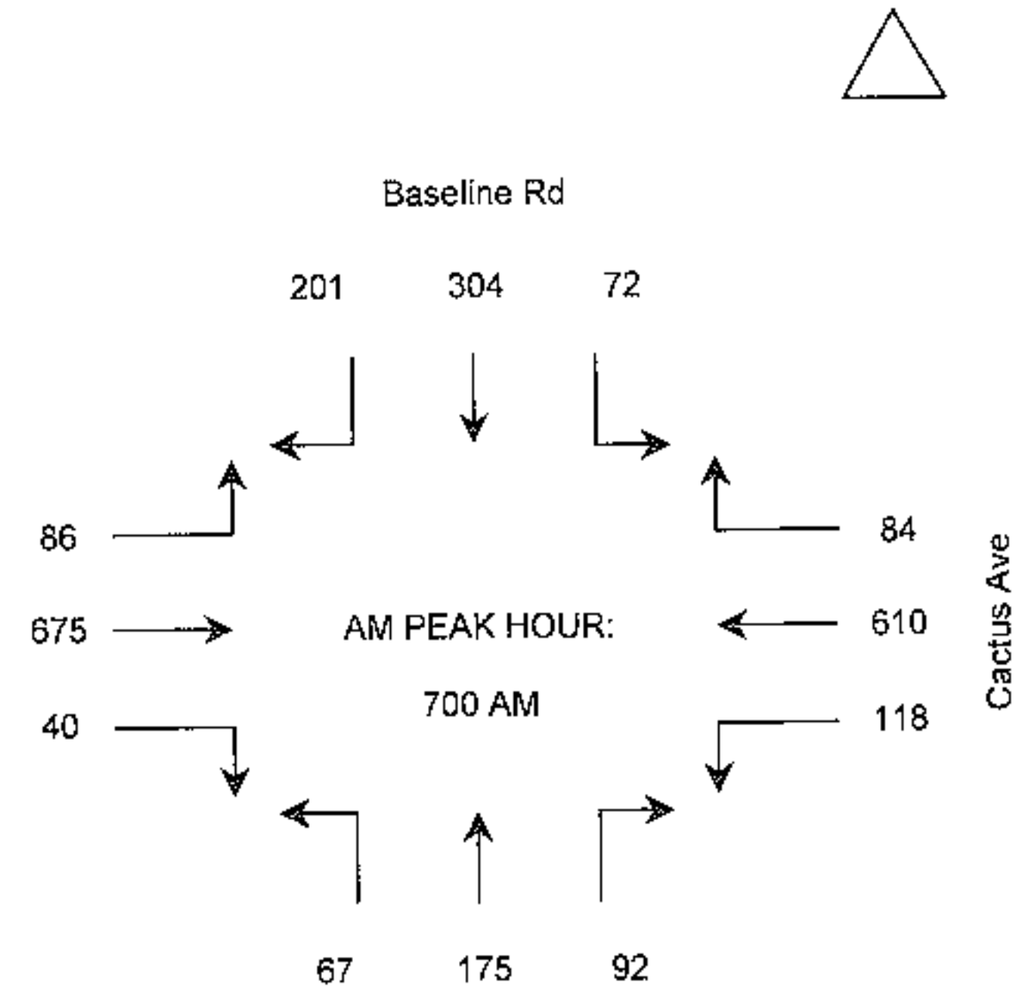
Prepared by: National Data & Surveying Services
Project # 07-3094-012

N/S STREET: Cactus Ave **E/W STREET:** Baseline Rd

PERIOD: AM Peak Hour **DATE:** WEDNESDAY 3/14/2007

15-MINUTE TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	11	138	11	22	120	6	20	39	23	10	61	50	511
7:15 - 7:30	36	146	23	18	166	2	14	37	24	10	77	41	594
7:30 - 7:45	40	160	30	22	177	18	19	44	28	24	94	59	715
7:45 - 8:00	31	166	20	24	212	14	14	55	17	28	72	51	704
8:00 - 8:15	22	139	14	16	107	4	12	51	10	17	51	32	475
8:15 - 8:30	15	125	16	15	127	15	10	45	8	14	66	40	496
8:30 - 8:45	19	110	20	12	113	11	11	37	4	7	47	30	421
8:45 - 9:00	13	94	12	8	93	8	7	24	5	5	38	33	340

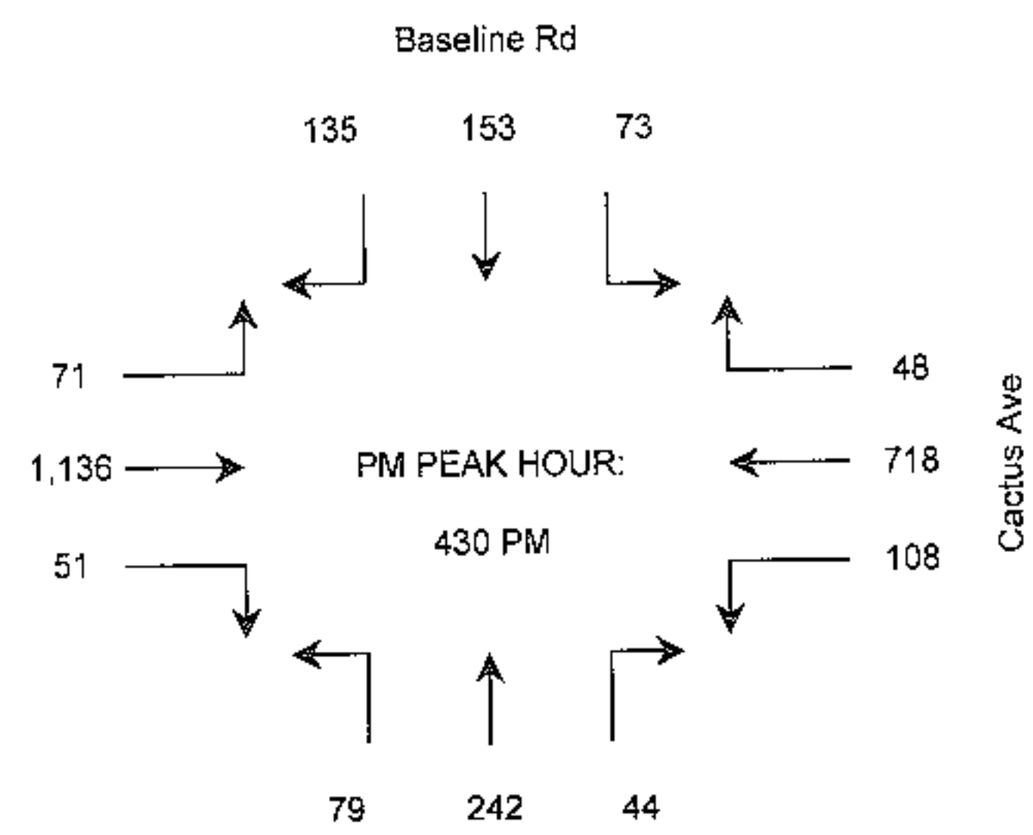
1-HOUR TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	118	610	84	86	675	40	67	175	92	72	304	201	2,524 *
7:15 - 8:15	129	611	87	80	662	38	59	187	79	79	294	183	2,488
7:30 - 8:30	108	590	80	77	623	51	55	195	63	83	283	182	2,390
7:45 - 8:45	87	540	70	67	559	44	47	188	39	66	236	153	2,096
8:00 - 9:00	69	468	62	51	440	38	40	157	27	43	202	135	1,732



PERIOD: PM Peak Hour **DATE:** WEDNESDAY 3/14/2007

15-MINUTE TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	18	143	4	14	250	11	11	40	7	11	34	29	572
4:15 - 4:30	24	185	10	18	271	22	14	57	5	15	50	43	714
4:30 - 4:45	27	196	7	16	289	14	19	61	11	18	44	32	734
4:45 - 5:00	22	187	12	14	256	8	22	49	13	16	40	44	683
5:00 - 5:15	31	164	11	19	294	11	21	64	12	21	34	28	710
5:15 - 5:30	28	171	18	22	297	18	17	68	8	18	35	31	731
5:30 - 5:45	21	154	14	19	279	13	14	48	4	24	29	24	643
5:45 - 6:00	19	132	15	24	294	17	8	34	2	12	23	17	597

1-HOUR TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	91	711	33	62	1,066	55	66	207	36	60	168	148	2,703
4:15 - 5:15	104	732	40	67	1,110	55	76	231	41	70	168	147	2,841
4:30 - 5:30	108	718	48	71	1,136	51	79	242	44	73	153	135	2,858 *
4:45 - 5:45	102	676	55	74	1,126	50	74	229	37	79	138	127	2,767
5:00 - 6:00	99	621	58	84	1,164	59	60	214	26	75	121	100	2,681



VEHICLE TURNING MOVEMENT COUNT SUMMARY

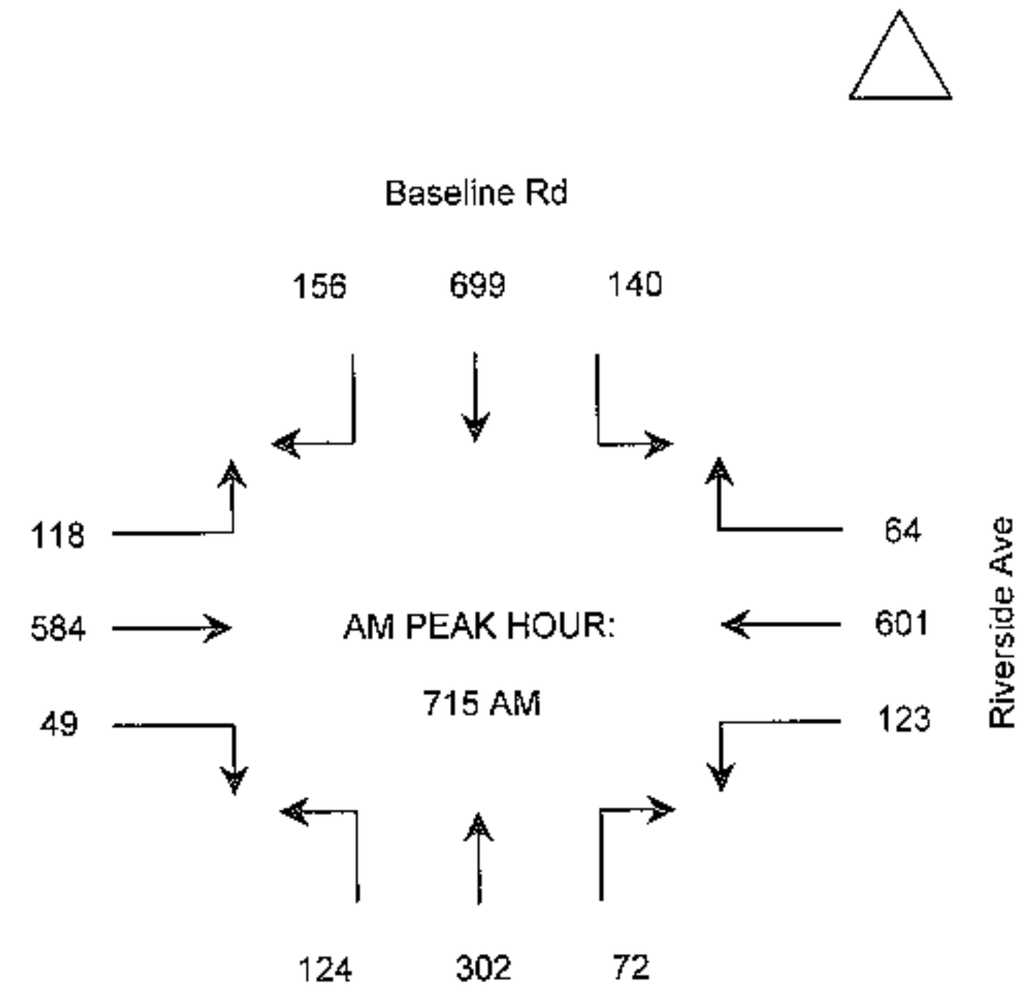
Prepared by: National Data & Surveying Services
Project # 07-3094-013

N/S STREET: Riverside Ave **E/W STREET:** Baseline Rd

PERIOD: AM Peak Hour **DATE:** TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	30	145	10	24	135	12	29	50	15	30	163	27	670
7:15 - 7:30	33	150	11	33	136	14	35	56	18	41	173	37	737
7:30 - 7:45	34	160	17	29	150	12	30	60	17	37	180	32	758
7:45 - 8:00	22	161	20	32	145	13	29	99	20	32	194	42	809
8:00 - 8:15	34	130	16	24	153	10	30	87	17	30	152	45	728
8:15 - 8:30	33	80	15	30	118	9	15	92	12	31	120	38	593
8:30 - 8:45	30	87	15	32	81	6	18	60	18	29	86	28	490
8:45 - 9:00	32	77	20	33	78	6	17	41	15	26	66	23	434

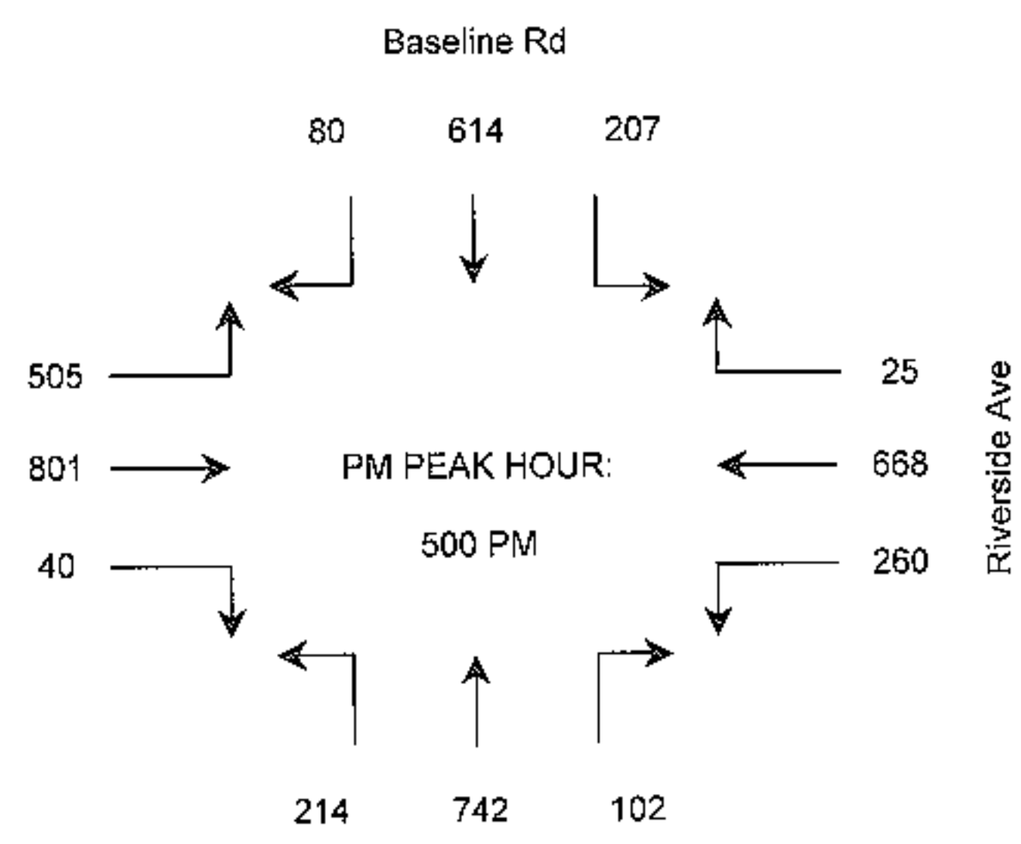
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	119	616	58	118	566	51	123	265	70	140	710	138	2,974
7:15 - 8:15	123	601	64	118	584	49	124	302	72	140	699	156	3,032 *
7:30 - 8:30	123	531	68	115	566	44	104	338	66	130	646	157	2,888
7:45 - 8:45	119	458	66	118	497	38	92	338	67	122	552	153	2,620
8:00 - 9:00	129	374	66	119	430	31	80	280	62	116	424	134	2,245



PERIOD: PM Peak Hour **DATE:** TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	56	142	10	98	131	10	27	126	19	48	126	14	807
4:15 - 4:30	60	152	7	104	176	10	20	132	20	51	118	16	866
4:30 - 4:45	67	153	6	109	221	12	30	135	18	57	136	18	962
4:45 - 5:00	71	150	5	114	202	11	31	173	26	60	144	24	1,011
5:00 - 5:15	80	187	4	122	208	12	60	181	30	60	142	27	1,113
5:15 - 5:30	50	162	8	130	195	10	61	177	27	51	150	16	1,037
5:30 - 5:45	91	159	6	137	196	10	62	190	20	48	160	18	1,097
5:45 - 6:00	39	160	7	116	202	8	31	194	25	48	162	19	1,011

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	254	597	28	425	730	43	108	566	83	216	524	72	3,646
4:15 - 5:15	278	642	22	449	807	45	141	621	94	228	540	85	3,952
4:30 - 5:30	268	652	23	475	826	45	182	666	101	228	572	85	4,123
4:45 - 5:45	292	658	23	503	801	43	214	721	103	219	596	85	4,258 *
5:00 - 6:00	260	668	25	505	801	40	214	742	102	207	614	80	4,258 *



VEHICLE TURNING MOVEMENT COUNT SUMMARY

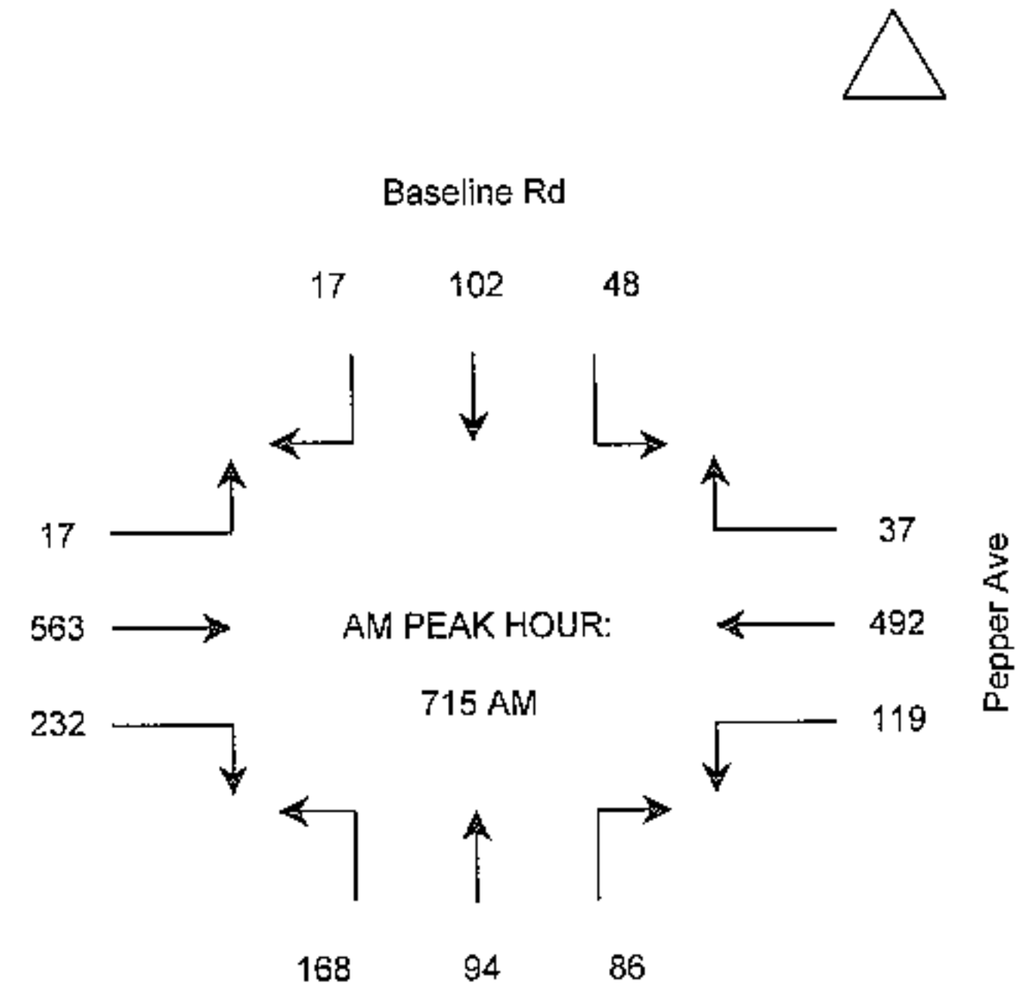
Prepared by: National Data & Surveying Services
Project # 07-3094-014

N/S STREET: Pepper Ave **E/W STREET:** Baseline Rd

PERIOD: AM Peak Hour **DATE:** TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	27	99	7	4	150	65	47	15	20	8	17	7	466
7:15 - 7:30	30	100	8	2	147	70	30	18	21	10	20	2	458
7:30 - 7:45	41	129	10	6	139	61	46	30	27	18	21	6	534
7:45 - 8:00	30	133	11	4	140	50	50	27	20	11	30	5	511
8:00 - 8:15	18	130	8	5	137	51	42	19	18	9	31	4	472
8:15 - 8:30	20	116	7	6	120	40	30	7	20	7	6	7	386
8:30 - 8:45	18	106	6	2	111	20	20	8	19	8	7	6	331
8:45 - 9:00	15	90	2	1	105	18	18	10	20	10	8	4	301

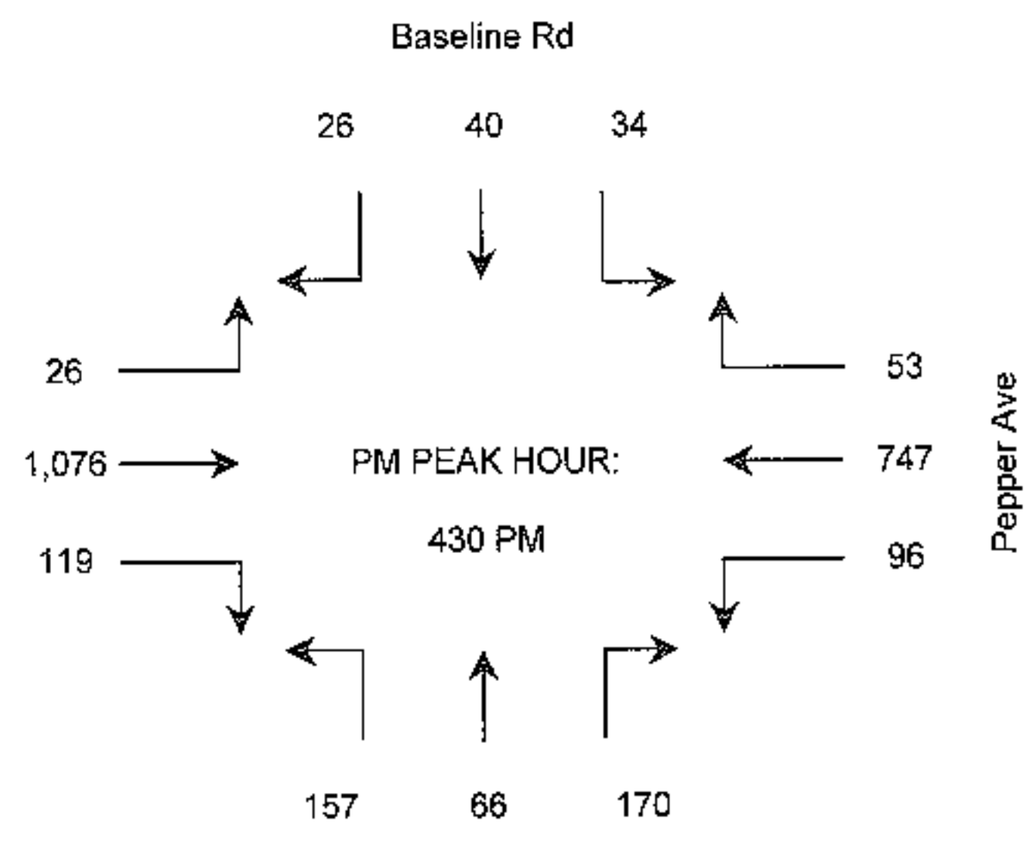
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	128	461	36	16	576	246	173	90	88	47	88	20	1,969
7:15 - 8:15	119	492	37	17	563	232	168	94	86	48	102	17	1,975 *
7:30 - 8:30	109	508	36	21	536	202	168	83	85	45	88	22	1,903
7:45 - 8:45	86	485	32	17	508	161	142	61	77	35	74	22	1,700
8:00 - 9:00	71	442	23	14	473	129	110	44	77	34	52	21	1,490



PERIOD: PM Peak Hour **DATE:** TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	30	171	9	7	246	20	47	16	30	10	8	2	596
4:15 - 4:30	29	180	7	7	245	21	50	15	31	9	7	6	607
4:30 - 4:45	27	179	8	8	260	18	42	10	42	7	7	4	612
4:45 - 5:00	20	180	10	7	282	30	39	17	46	8	10	7	656
5:00 - 5:15	18	177	17	9	283	31	40	19	50	11	8	5	668
5:15 - 5:30	31	211	18	2	251	40	36	20	32	8	15	10	674
5:30 - 5:45	20	170	8	6	226	31	41	18	31	7	10	6	574
5:45 - 6:00	21	162	7	11	236	32	38	17	47	6	8	7	592

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	106	710	34	29	1,033	89	178	58	149	34	32	19	2,471
4:15 - 5:15	94	716	42	31	1,070	100	171	61	169	35	32	22	2,543
4:30 - 5:30	96	747	53	26	1,076	119	157	66	170	34	40	26	2,610 *
4:45 - 5:45	89	738	53	24	1,042	132	156	74	159	34	43	28	2,572
5:00 - 6:00	90	720	50	28	996	134	155	74	160	32	41	28	2,508



VEHICLE TURNING MOVEMENT COUNT SUMMARY

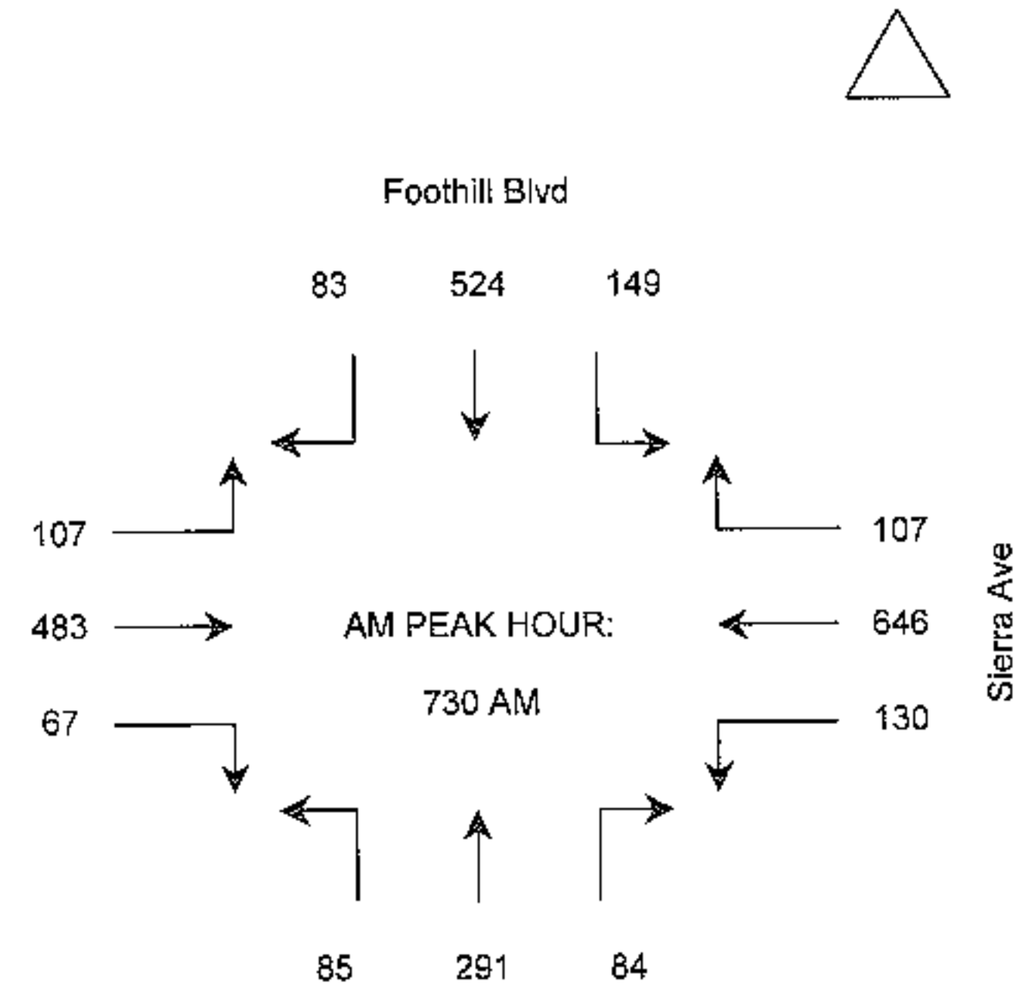
Prepared by: National Data & Surveying Services
Project # 07-3094-015

N/S STREET: Sierra Ave **E/W STREET:** Foothill Blvd

PERIOD: AM Peak Hour **DATE:** WEDNESDAY 3/14/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	27	150	15	24	121	4	14	35	14	31	97	11	543
7:15 - 7:30	34	157	19	28	128	7	21	44	17	38	107	14	614
7:30 - 7:45	46	173	24	34	137	10	26	58	18	45	129	18	718
7:45 - 8:00	29	169	25	21	134	19	18	92	24	34	147	17	729
8:00 - 8:15	33	155	27	24	121	21	19	77	26	39	131	22	695
8:15 - 8:30	22	149	31	28	91	17	22	64	16	31	117	26	614
8:30 - 8:45	27	144	28	26	86	14	28	66	12	28	98	18	575
8:45 - 9:00	30	126	29	23	129	38	18	85	29	31	147	21	706

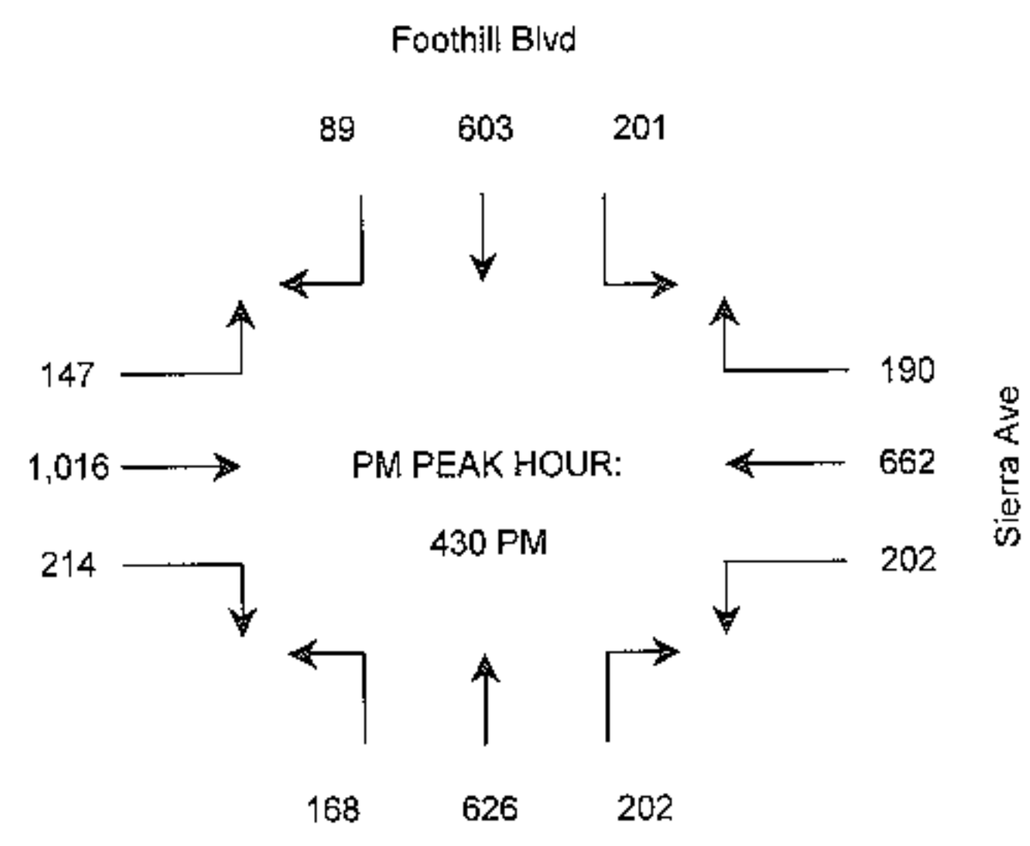
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	136	649	83	107	520	40	79	229	73	148	480	60	2,604
7:15 - 8:15	142	654	95	107	520	57	84	271	85	156	514	71	2,756 *
7:30 - 8:30	130	646	107	107	483	67	85	291	84	149	524	83	2,756 *
7:45 - 8:45	111	617	111	99	432	71	87	299	78	132	493	83	2,613
8:00 - 9:00	112	574	115	101	427	90	87	292	83	129	493	87	2,590



PERIOD: PM Peak Hour **DATE:** WEDNESDAY 3/14/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	27	111	23	17	127	23	16	126	36	28	96	11	641
4:15 - 4:30	36	123	37	28	192	29	21	138	46	34	102	16	802
4:30 - 4:45	43	161	33	18	234	42	25	154	65	42	122	24	963
4:45 - 5:00	48	185	44	38	265	65	42	153	39	44	163	17	1,103
5:00 - 5:15	55	162	61	49	256	59	53	168	47	61	168	27	1,166
5:15 - 5:30	56	154	52	42	261	48	48	151	51	54	150	21	1,088
5:30 - 5:45	47	139	43	38	223	34	41	142	37	48	133	18	943
5:45 - 6:00	32	122	28	29	194	28	34	126	29	37	118	14	791

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	154	580	137	101	818	159	104	571	186	148	483	68	3,509
4:15 - 5:15	182	631	175	133	947	195	141	613	197	181	555	84	4,034
4:30 - 5:30	202	662	190	147	1,016	214	168	626	202	201	603	89	4,320 *
4:45 - 5:45	206	640	200	167	1,005	206	184	614	174	207	614	83	4,300
5:00 - 6:00	190	577	184	158	934	169	176	587	164	200	569	80	3,988



VEHICLE TURNING MOVEMENT COUNT SUMMARY

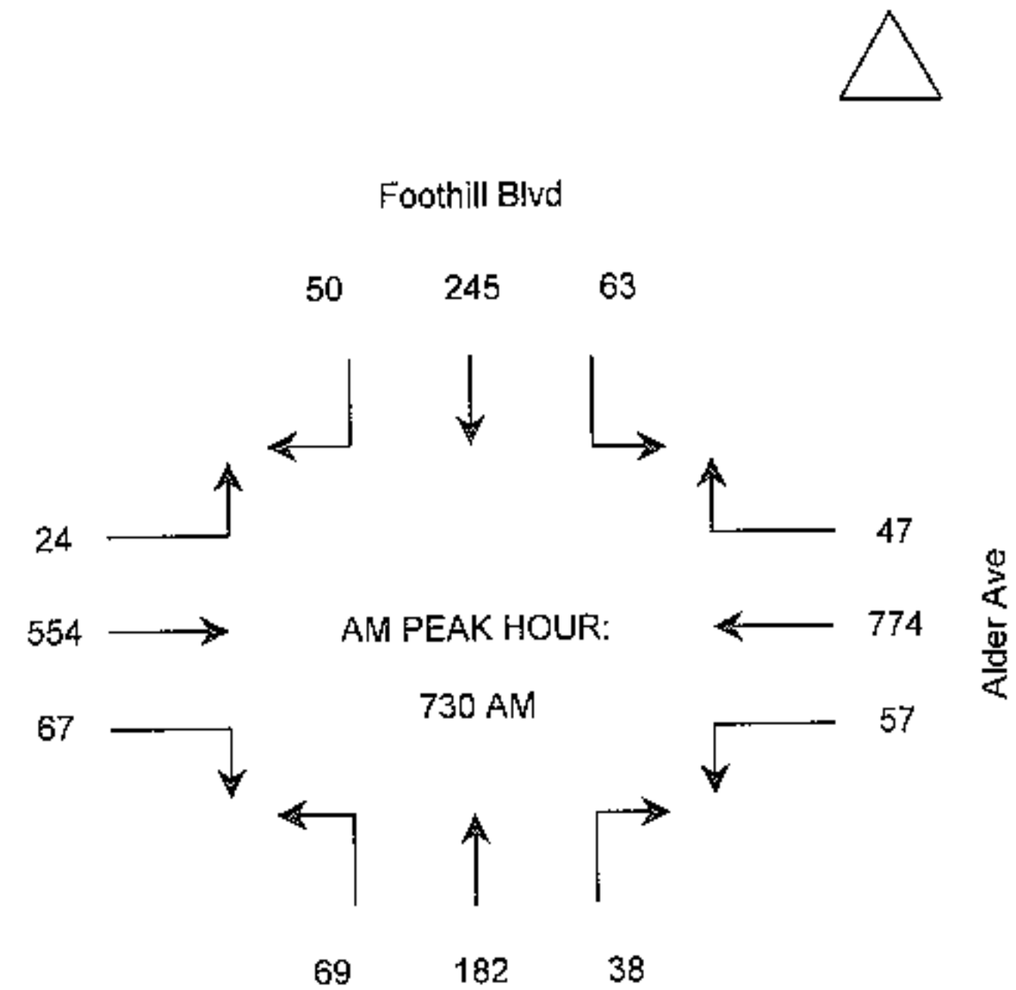
Prepared by: National Data & Surveying Services
Project # 07-3094-016

N/S STREET: Alder Ave **E/W STREET:** Foothill Blvd

PERIOD: AM Peak Hour **DATE:** TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	11	166	10	6	113	2	12	58	7	11	45	13	454
7:15 - 7:30	9	178	14	7	121	7	13	64	9	10	54	17	503
7:30 - 7:45	10	204	9	7	129	19	14	54	5	19	53	10	533
7:45 - 8:00	10	240	19	5	166	17	24	62	12	16	62	11	644
8:00 - 8:15	15	175	5	5	122	17	18	29	11	15	64	14	490
8:15 - 8:30	22	155	14	7	137	14	13	37	10	13	66	15	503
8:30 - 8:45	14	159	10	4	95	5	14	29	8	16	46	14	414
8:45 - 9:00	12	136	13	12	115	10	25	37	11	11	44	18	444

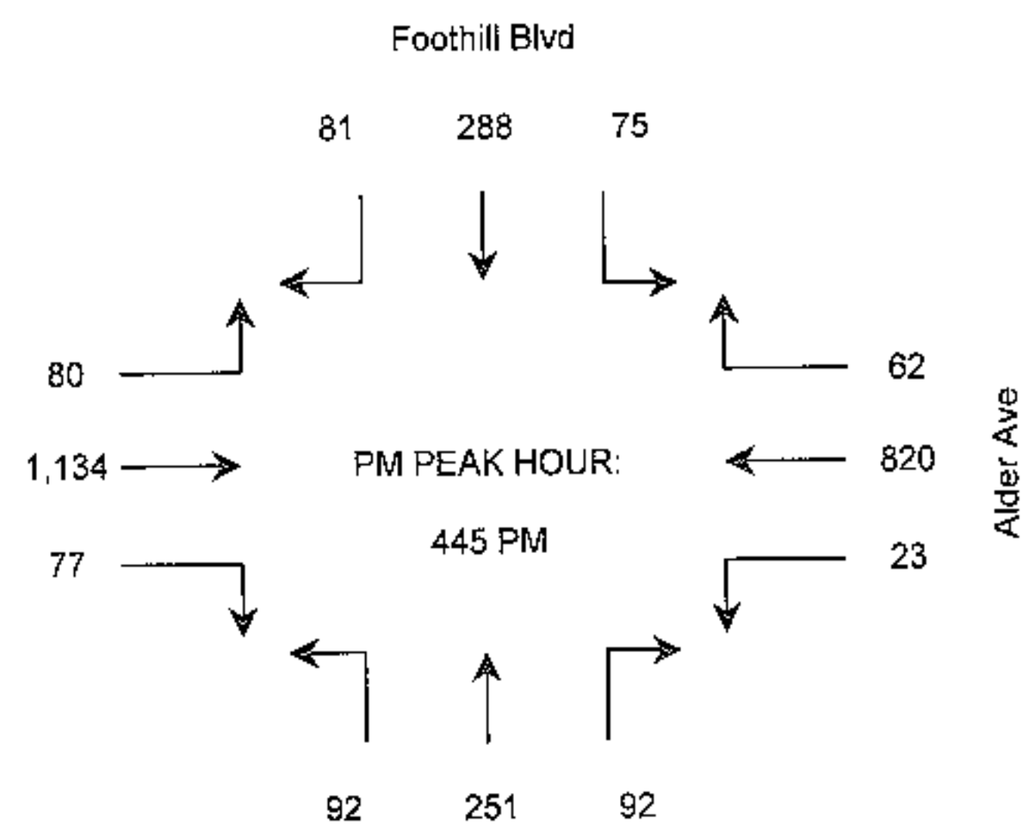
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	40	788	52	25	529	45	63	238	33	56	214	51	2,134
7:15 - 8:15	44	797	47	24	538	60	69	209	37	60	233	52	2,170 *
7:30 - 8:30	57	774	47	24	554	67	69	182	38	63	245	50	2,170 *
7:45 - 8:45	61	729	48	21	520	53	69	157	41	60	238	54	2,051
8:00 - 9:00	63	625	42	28	469	46	70	132	40	55	220	61	1,851



PERIOD: PM Peak Hour **DATE:** TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	4	169	13	10	192	14	14	39	11	16	38	11	531
4:15 - 4:30	6	178	16	16	196	17	20	48	15	20	49	13	594
4:30 - 4:45	5	173	20	15	213	15	18	56	12	17	55	13	612
4:45 - 5:00	6	196	18	15	293	20	25	71	24	18	74	22	782
5:00 - 5:15	5	228	13	17	256	13	20	66	22	14	66	23	743
5:15 - 5:30	3	209	15	18	308	22	19	56	20	22	79	23	794
5:30 - 5:45	9	187	16	30	277	22	28	58	26	21	69	13	756
5:45 - 6:00	11	207	11	11	239	16	10	66	10	21	63	19	684

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	21	716	67	56	894	66	77	214	62	71	216	59	2,519
4:15 - 5:15	22	775	67	63	958	65	83	241	73	69	244	71	2,731
4:30 - 5:30	19	806	66	65	1,070	70	82	249	78	71	274	81	2,931
4:45 - 5:45	23	820	62	80	1,134	77	92	251	92	75	288	81	3,075 *
5:00 - 6:00	28	831	55	76	1,080	73	77	246	78	78	277	78	2,977



VEHICLE TURNING MOVEMENT COUNT SUMMARY

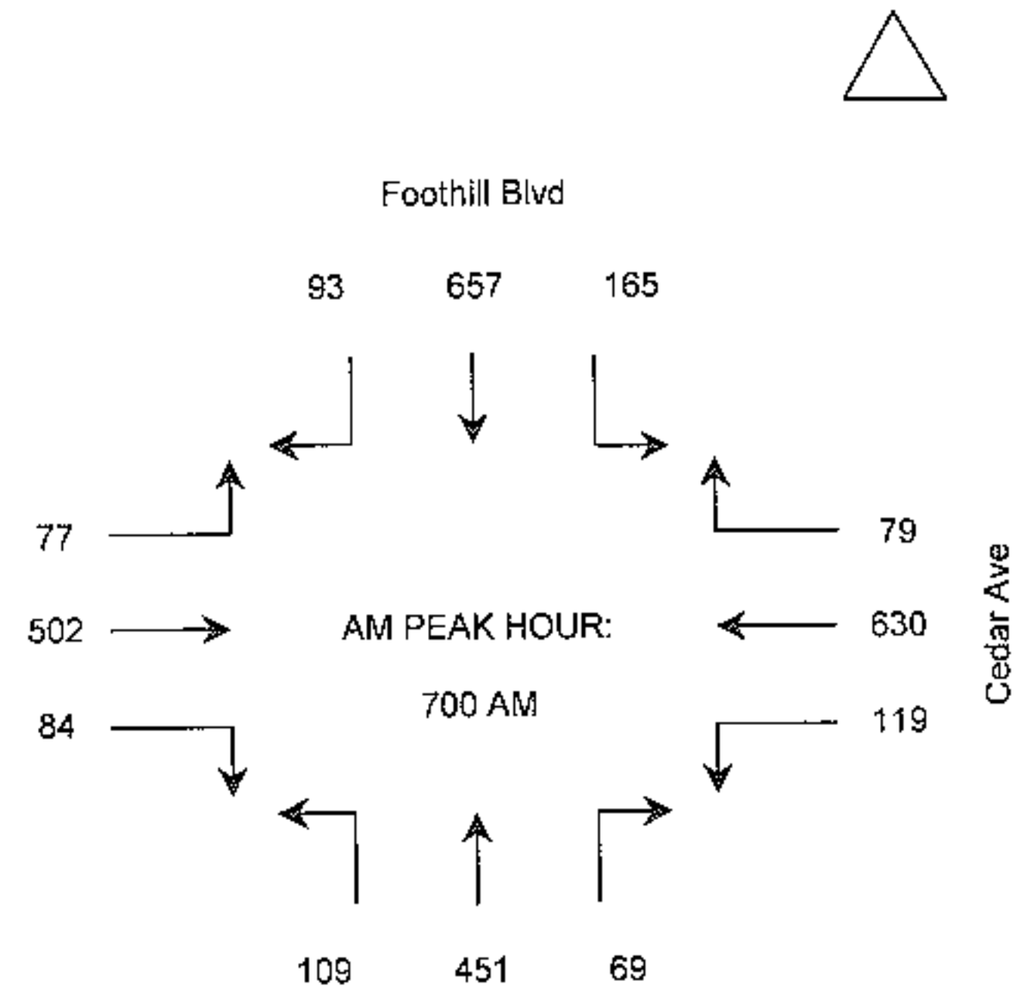
Prepared by: National Data & Surveying Services
Project # 07-3094-017

N/S STREET: Cedar Ave **E/W STREET:** Foothill Blvd

PERIOD: AM Peak Hour **DATE:** TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	20	139	16	13	105	13	24	111	13	30	172	19	675
7:15 - 7:30	26	131	19	16	113	22	32	117	16	41	190	24	747
7:30 - 7:45	40	181	16	25	148	18	15	110	18	62	151	29	813
7:45 - 8:00	33	179	28	23	136	31	38	113	22	32	144	21	800
8:00 - 8:15	42	156	12	8	100	11	30	91	17	23	158	20	668
8:15 - 8:30	24	158	10	21	101	20	31	94	20	28	127	14	648
8:30 - 8:45	26	101	15	16	81	15	19	56	18	19	72	22	460
8:45 - 9:00	20	138	13	23	95	23	28	74	26	26	102	13	581

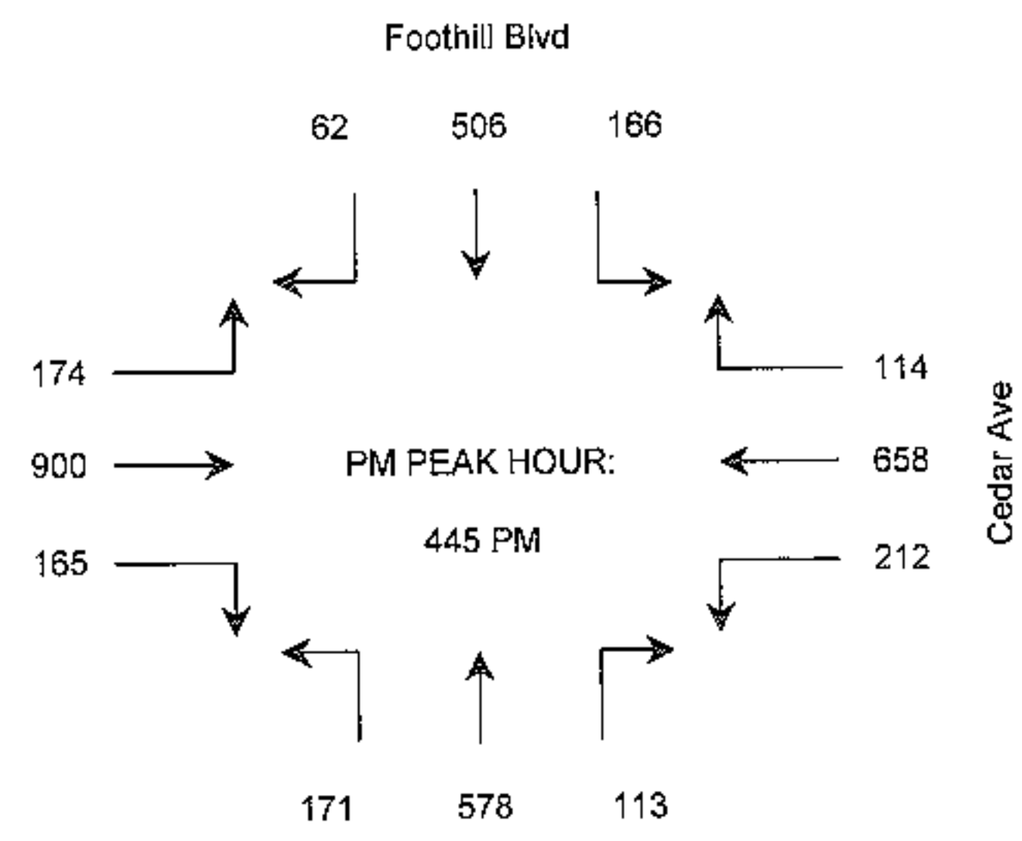
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	119	630	79	77	502	84	109	451	69	165	657	93	3,035 *
7:15 - 8:15	141	647	75	72	497	82	115	431	73	158	643	94	3,028
7:30 - 8:30	139	674	66	77	485	80	114	408	77	145	580	84	2,929
7:45 - 8:45	125	594	65	68	418	77	118	354	77	102	501	77	2,576
8:00 - 9:00	112	553	50	68	377	69	108	315	81	96	459	69	2,357



PERIOD: PM Peak Hour **DATE:** TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	39	152	17	23	186	20	19	127	22	48	126	17	796
4:15 - 4:30	42	158	24	26	197	26	26	136	32	53	133	20	873
4:30 - 4:45	49	156	22	30	202	30	31	144	30	56	131	20	901
4:45 - 5:00	41	171	35	43	235	42	39	142	36	46	121	15	966
5:00 - 5:15	62	167	29	44	197	36	34	138	25	27	109	10	878
5:15 - 5:30	54	151	20	47	227	39	45	162	23	47	138	17	970
5:30 - 5:45	55	169	30	40	241	48	53	136	29	46	138	20	1,005
5:45 - 6:00	68	150	47	61	201	40	34	133	35	37	129	21	956

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	171	637	98	122	820	118	115	549	120	203	511	72	3,536
4:15 - 5:15	194	652	110	143	831	134	130	560	123	182	494	65	3,618
4:30 - 5:30	206	645	106	164	861	147	149	586	114	176	499	62	3,715
4:45 - 5:45	212	658	114	174	900	165	171	578	113	166	506	62	3,819 *
5:00 - 6:00	239	637	126	192	866	163	166	569	112	157	514	68	3,809



VEHICLE TURNING MOVEMENT COUNT SUMMARY

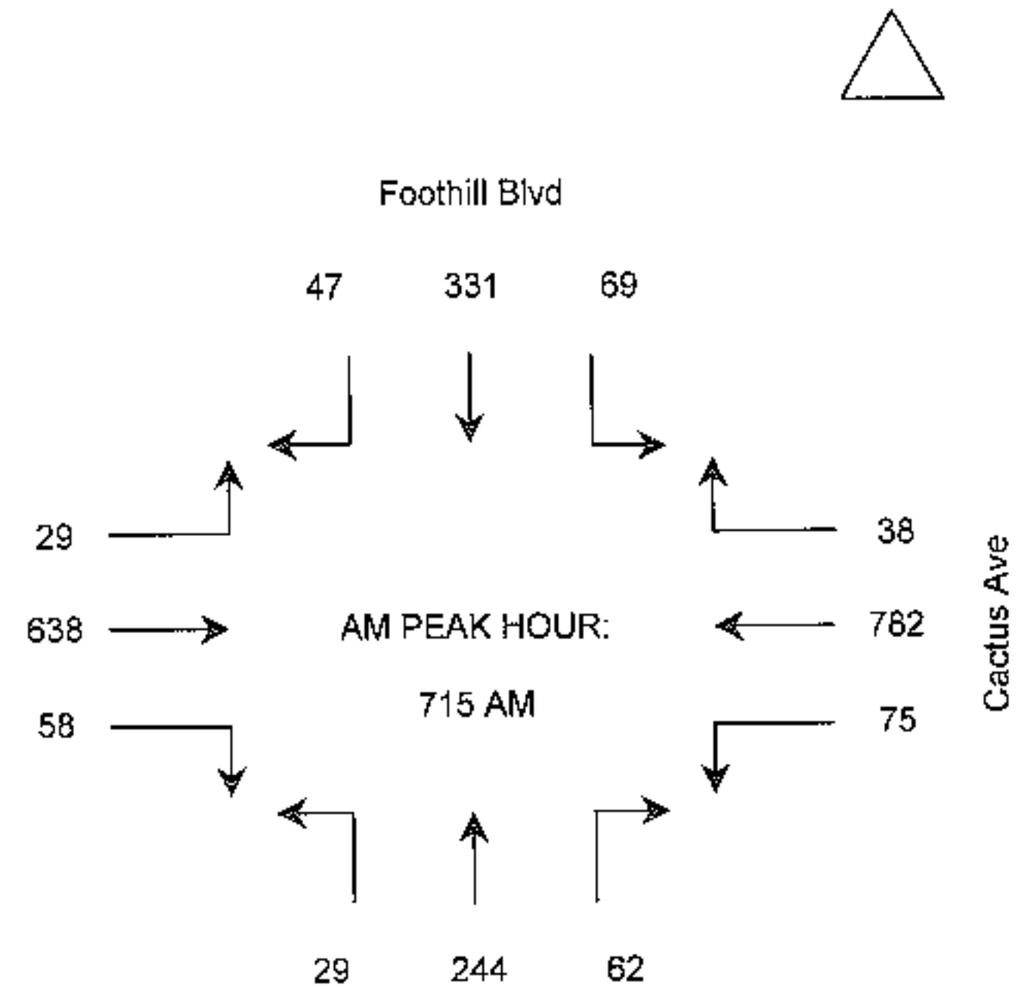
Prepared by: National Data & Surveying Services
Project # 07-3094-018

N/S STREET: Cactus Ave **E/W STREET:** Foothill Blvd

PERIOD: AM Peak Hour **DATE:** TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	13	162	11	3	123	10	12	60	20	9	66	9	498
7:15 - 7:30	18	174	9	7	143	12	7	62	18	18	77	12	557
7:30 - 7:45	25	198	8	10	182	14	5	58	11	23	102	15	651
7:45 - 8:00	17	209	12	8	165	15	8	61	15	17	86	11	624
8:00 - 8:15	15	201	9	4	148	17	9	63	18	11	66	9	570
8:15 - 8:30	13	173	11	5	142	14	11	57	22	14	56	11	529
8:30 - 8:45	14	136	13	4	134	2	14	53	27	12	52	7	468
8:45 - 9:00	8	129	8	2	123	8	12	48	21	8	46	6	419

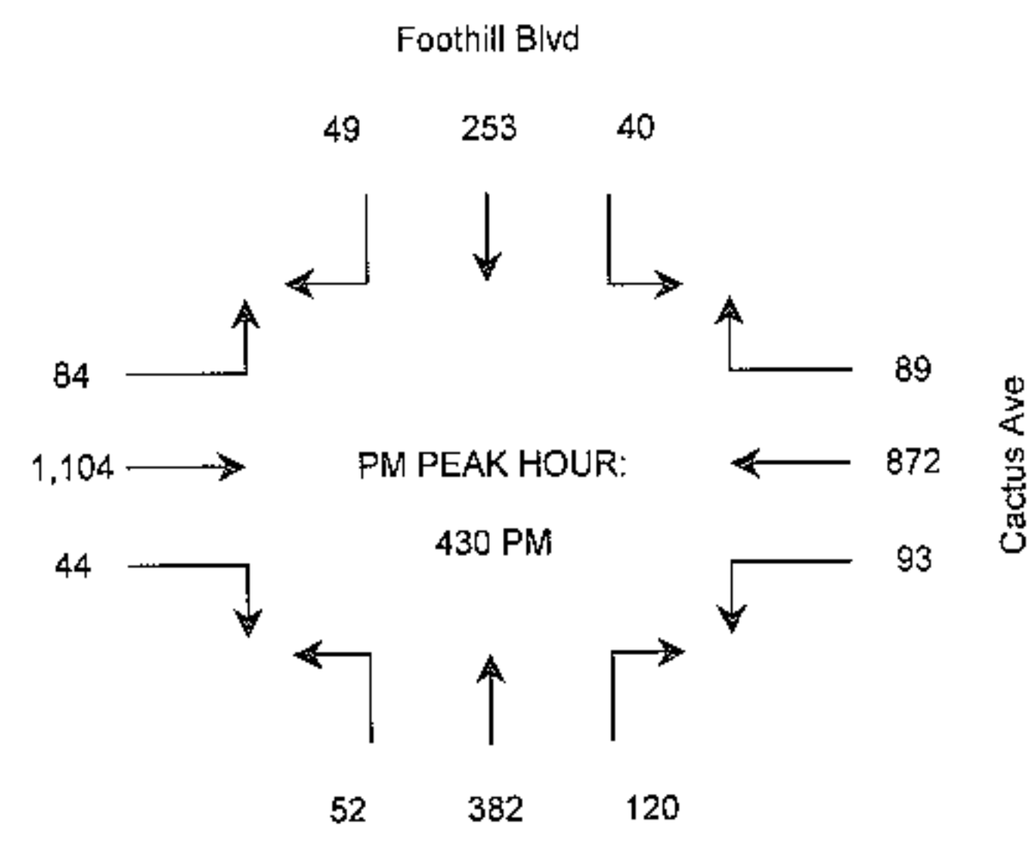
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	73	743	40	28	613	51	32	241	64	67	331	47	2,330
7:15 - 8:15	75	782	38	29	638	58	29	244	62	69	331	47	2,402 *
7:30 - 8:30	70	781	40	27	637	60	33	239	66	65	310	46	2,374
7:45 - 8:45	59	719	45	21	589	48	42	234	82	54	260	38	2,191
8:00 - 9:00	50	639	41	15	547	41	46	221	88	45	220	33	1,986



PERIOD: PM Peak Hour **DATE:** TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	17	185	14	22	229	8	7	74	23	4	46	4	633
4:15 - 4:30	24	199	20	26	248	12	11	86	28	7	56	8	725
4:30 - 4:45	28	207	18	28	282	14	14	93	30	11	61	11	797
4:45 - 5:00	26	226	20	25	295	10	15	85	33	13	73	12	833
5:00 - 5:15	21	221	24	17	274	8	13	98	29	9	67	18	799
5:15 - 5:30	18	218	27	14	253	12	10	106	28	7	52	8	753
5:30 - 5:45	19	236	23	17	246	8	11	94	24	8	51	9	746
5:45 - 6:00	26	247	25	20	241	10	10	97	26	11	54	6	773

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	95	817	72	101	1,054	44	47	338	114	35	236	35	2,988
4:15 - 5:15	99	853	82	96	1,099	44	53	362	120	40	257	49	3,154
4:30 - 5:30	93	872	89	84	1,104	44	52	382	120	40	253	49	3,182 *
4:45 - 5:45	84	901	94	73	1,068	38	49	383	114	37	243	47	3,131
5:00 - 6:00	84	922	99	68	1,014	38	44	395	107	35	224	41	3,071



VEHICLE TURNING MOVEMENT COUNT SUMMARY

Prepared by: National Data & Surveying Services
Project # **07-3094-019**

N/S STREET: Riverside Ave

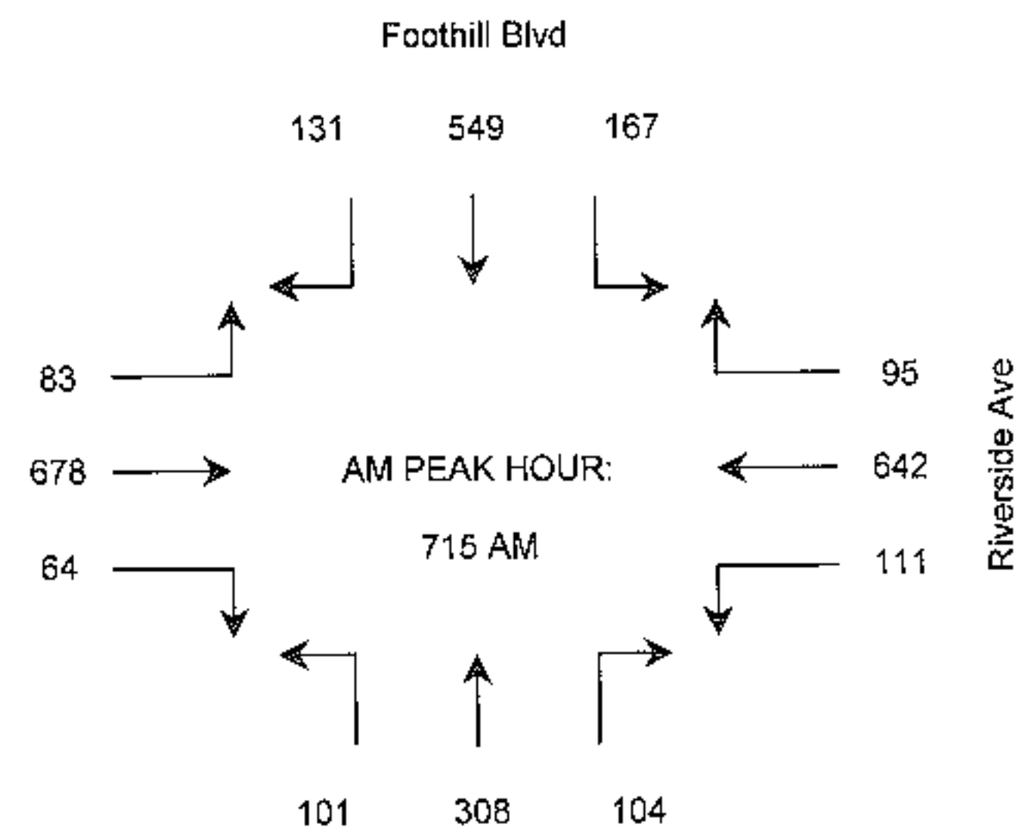
E/W STREET: Foothill Blvd

PERIOD: AM Peak Hour

DATE: WEDNESDAY 3/14/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	27	127	20	15	117	12	12	67	16	30	98	24	565
7:15 - 7:30	24	139	21	16	137	10	14	70	14	36	110	31	622
7:30 - 7:45	16	171	18	20	192	17	20	83	31	42	146	35	791
7:45 - 8:00	35	167	29	22	207	24	29	84	27	63	174	38	899
8:00 - 8:15	36	165	27	25	142	13	38	71	32	26	119	27	721
8:15 - 8:30	31	147	19	15	133	11	21	60	26	34	87	33	617
8:30 - 8:45	21	130	24	18	116	8	22	72	21	26	123	19	600
8:45 - 9:00	21	131	14	25	114	15	37	58	27	32	102	23	599

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	102	604	88	73	653	63	75	304	88	171	528	128	2,877
7:15 - 8:15	111	642	95	83	678	64	101	308	104	167	549	131	3,033 *
7:30 - 8:30	118	650	93	82	674	65	108	298	116	165	526	133	3,028
7:45 - 8:45	123	609	99	80	598	56	110	287	106	149	503	117	2,837
8:00 - 9:00	109	573	84	83	505	47	118	261	106	118	431	102	2,537

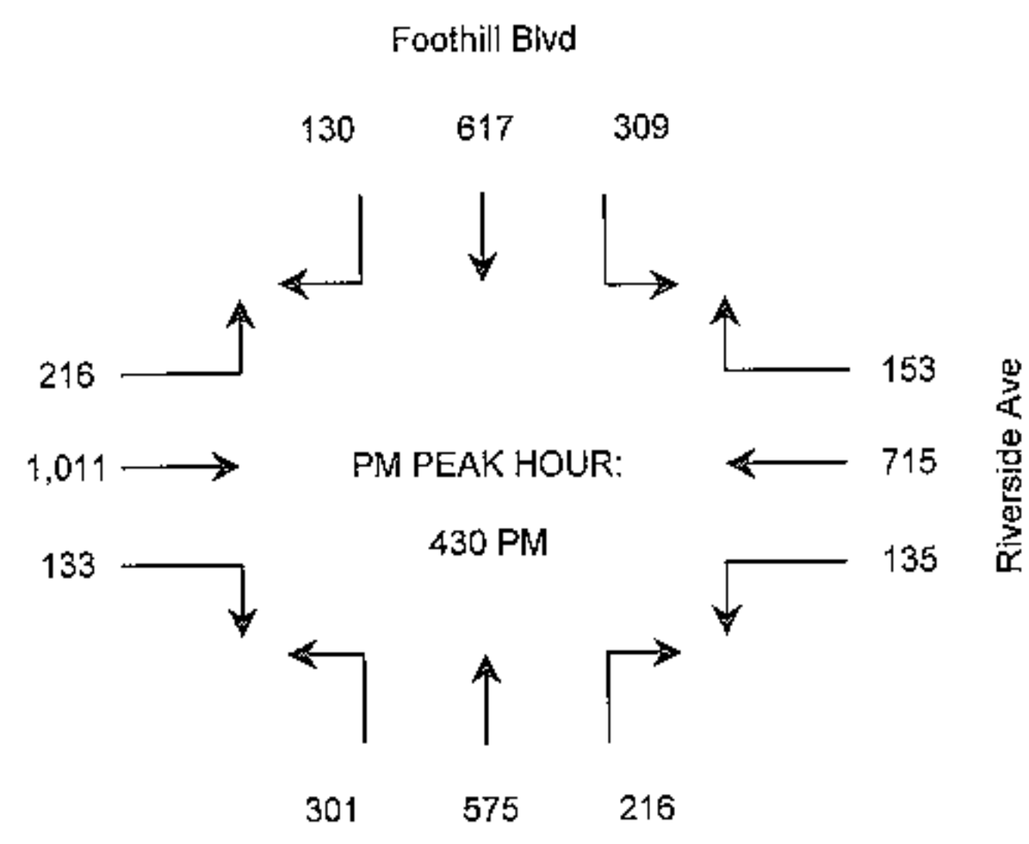


PERIOD: PM Peak Hour

DATE: WEDNESDAY 3/14/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	29	146	40	28	192	23	43	142	62	58	117	30	910
4:15 - 4:30	30	156	31	43	194	26	59	133	56	58	163	27	976
4:30 - 4:45	43	176	35	54	244	46	89	135	50	77	125	40	1,114
4:45 - 5:00	33	173	36	49	290	39	66	159	55	92	202	36	1,230
5:00 - 5:15	28	178	39	55	238	29	59	126	49	64	129	23	1,017
5:15 - 5:30	31	188	43	58	239	19	87	155	62	76	161	31	1,150
5:30 - 5:45	36	173	42	55	200	24	56	162	51	70	132	30	1,031
5:45 - 6:00	33	172	40	52	207	20	70	174	64	72	155	32	1,091

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	135	651	142	174	920	134	257	569	223	285	607	133	4,230
4:15 - 5:15	134	683	141	201	966	140	273	553	210	291	619	126	4,337
4:30 - 5:30	135	715	153	216	1,011	133	301	575	216	309	617	130	4,511 *
4:45 - 5:45	128	712	160	217	967	111	268	602	217	302	624	120	4,428
5:00 - 6:00	128	711	164	220	884	92	272	617	226	282	577	116	4,289



VEHICLE TURNING MOVEMENT COUNT SUMMARY

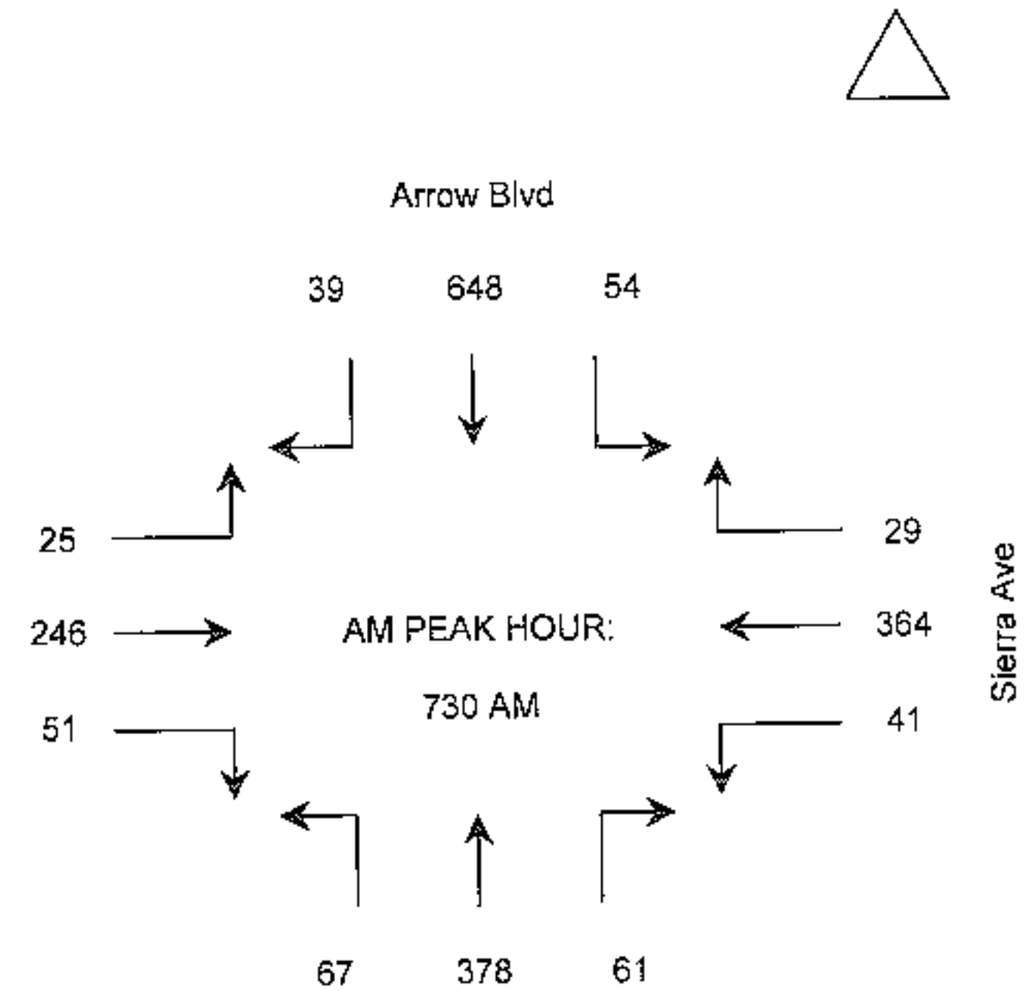
Prepared by: National Data & Surveying Services
Project # 07-3094-020

N/S STREET: Sierra Ave **E/W STREET:** Arrow Blvd

PERIOD: AM Peak Hour **DATE:** WEDNESDAY 3/14/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	7	67	6	4	28	6	9	86	7	12	111	4	347
7:15 - 7:30	6	78	6	5	44	7	10	89	8	6	123	5	387
7:30 - 7:45	7	101	6	5	81	18	20	91	12	8	146	12	507
7:45 - 8:00	14	71	6	10	67	6	18	101	18	18	157	6	492
8:00 - 8:15	7	94	9	8	50	13	10	94	13	20	152	8	478
8:15 - 8:30	13	98	8	2	48	14	19	92	18	8	193	13	526
8:30 - 8:45	13	58	7	4	35	15	17	95	11	17	160	9	441
8:45 - 9:00	11	89	11	8	63	15	25	100	5	16	167	8	518

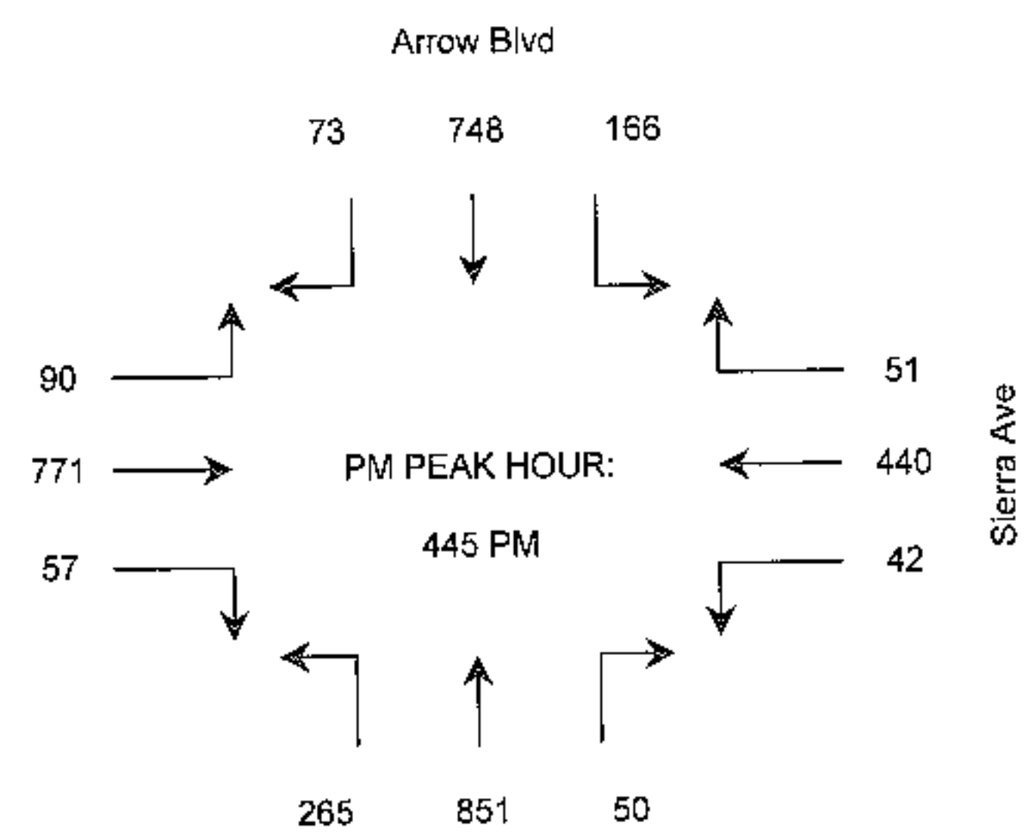
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	34	317	24	24	220	37	57	367	45	44	537	27	1,733
7:15 - 8:15	34	344	27	28	242	44	58	375	51	52	578	31	1,864
7:30 - 8:30	41	364	29	25	246	51	67	378	61	54	648	39	2,003 *
7:45 - 8:45	47	321	30	24	200	48	64	382	60	63	662	36	1,937
8:00 - 9:00	44	339	35	22	196	57	71	381	47	61	672	38	1,963



PERIOD: PM Peak Hour **DATE:** WEDNESDAY 3/14/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	14	98	6	35	158	15	79	165	8	28	130	11	747
4:15 - 4:30	8	111	17	27	199	16	59	171	8	32	140	14	802
4:30 - 4:45	13	94	14	26	177	13	38	194	3	43	155	15	785
4:45 - 5:00	8	88	11	21	195	17	78	219	11	38	186	14	886
5:00 - 5:15	10	115	16	26	190	12	73	229	11	43	188	22	935
5:15 - 5:30	12	116	10	18	166	14	51	212	12	52	190	23	876
5:30 - 5:45	12	121	14	25	220	14	63	191	16	33	184	14	907
5:45 - 6:00	10	104	11	17	161	15	50	165	9	13	166	17	738

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	43	391	48	109	729	61	254	749	30	141	611	54	3,220
4:15 - 5:15	39	408	58	100	761	58	248	813	33	156	669	65	3,408
4:30 - 5:30	43	413	51	91	728	56	240	854	37	176	719	74	3,482
4:45 - 5:45	42	440	51	90	771	57	265	851	50	166	748	73	3,604 *
5:00 - 6:00	44	456	51	86	737	55	237	797	48	141	728	76	3,456



VEHICLE TURNING MOVEMENT COUNT SUMMARY

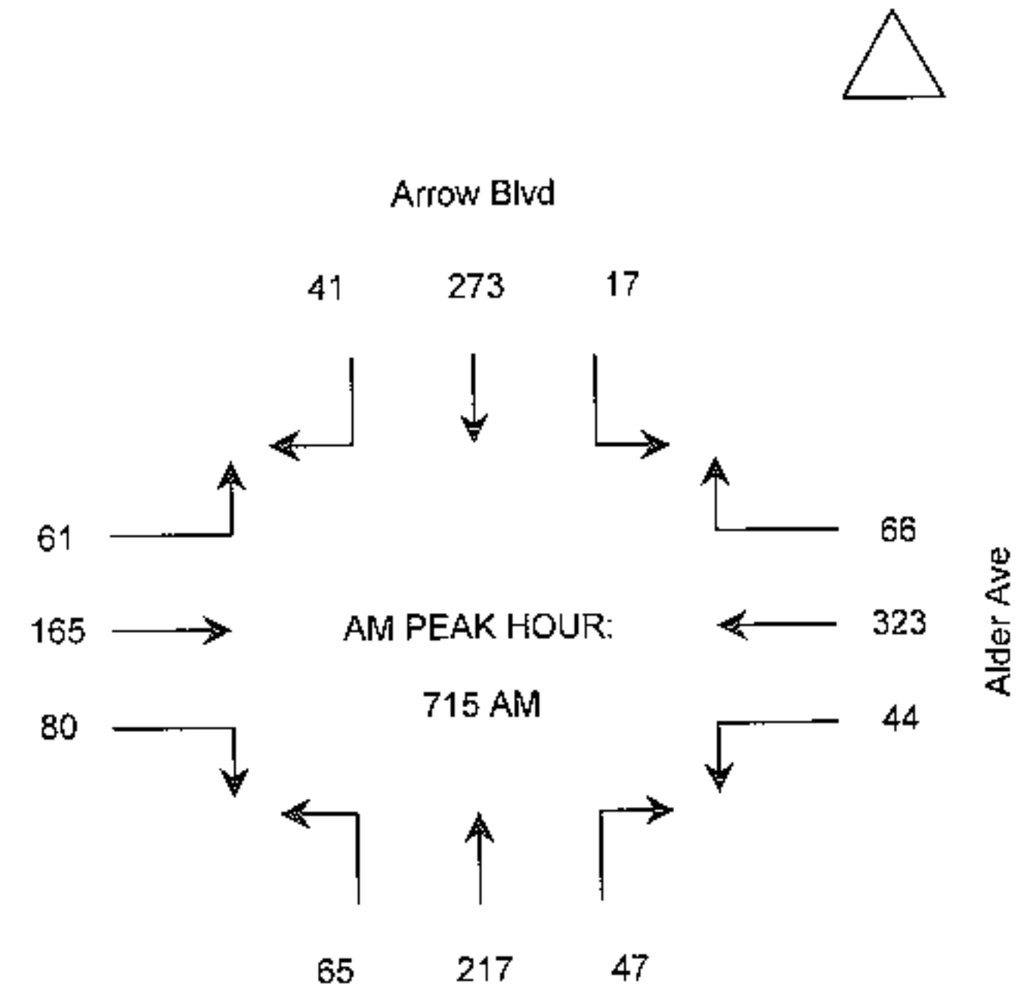
Prepared by: National Data & Surveying Services
Project # 07-3094-021

N/S STREET: Alder Ave **E/W STREET:** Arrow Blvd

PERIOD: AM Peak Hour **DATE:** WEDNESDAY 3/14/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	7	73	7	13	35	23	9	42	7	2	60	11	289
7:15 - 7:30	12	85	12	11	45	26	15	52	10	3	79	6	356
7:30 - 7:45	8	82	16	14	41	16	14	56	9	4	65	10	335
7:45 - 8:00	11	83	22	16	44	20	19	58	16	6	69	13	377
8:00 - 8:15	13	73	16	20	35	18	17	51	12	4	60	12	331
8:15 - 8:30	11	66	23	22	40	14	16	38	11	5	57	16	319
8:30 - 8:45	9	57	16	14	39	17	17	35	9	6	57	11	287
8:45 - 9:00	7	51	13	13	33	13	13	30	7	4	43	7	234

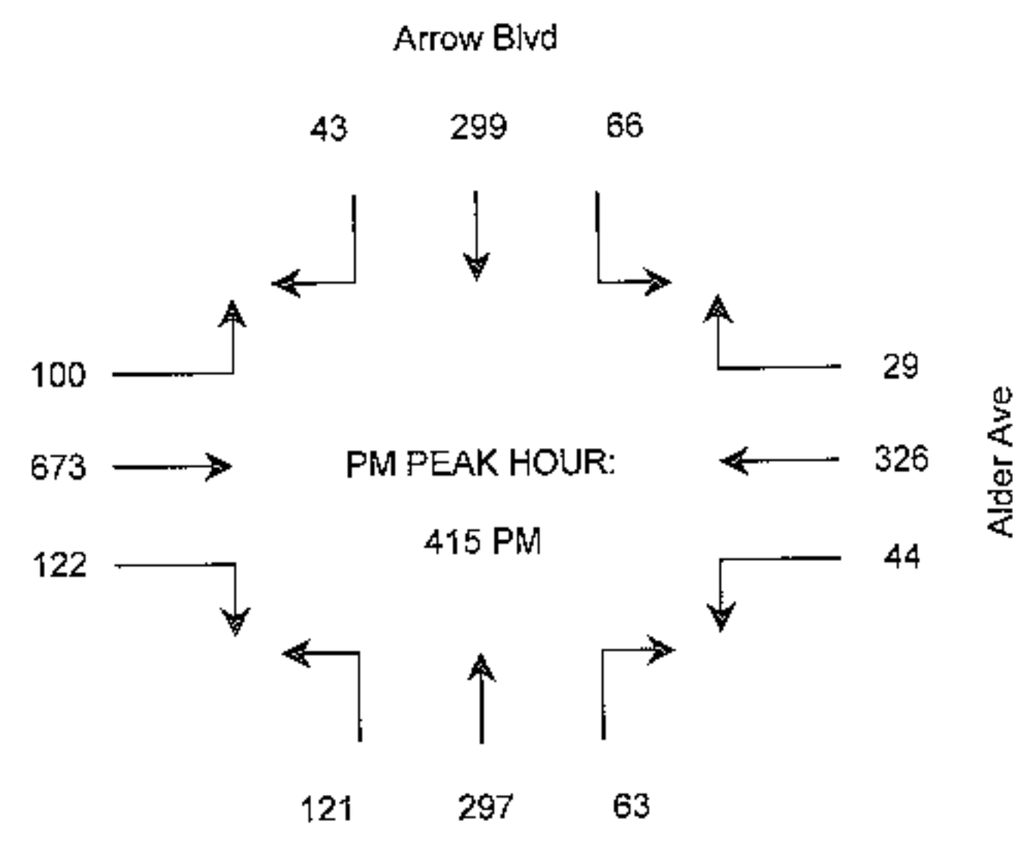
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	38	323	57	54	165	85	57	208	42	15	273	40	1,357
7:15 - 8:15	44	323	66	61	165	80	65	217	47	17	273	41	1,399 *
7:30 - 8:30	43	304	77	72	160	68	66	203	48	19	251	51	1,362
7:45 - 8:45	44	279	77	72	158	69	69	182	48	21	243	52	1,314
8:00 - 9:00	40	247	68	69	147	62	63	154	39	19	217	46	1,171



PERIOD: PM Peak Hour **DATE:** WEDNESDAY 3/14/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	10	56	7	15	155	33	26	69	19	10	50	11	461
4:15 - 4:30	9	77	9	24	160	29	20	70	16	18	79	9	520
4:30 - 4:45	13	85	5	26	173	27	29	81	13	15	75	8	550
4:45 - 5:00	7	83	7	23	169	31	33	62	19	17	71	14	536
5:00 - 5:15	15	81	8	27	171	35	39	84	15	16	74	12	577
5:15 - 5:30	11	76	4	22	149	36	36	74	18	11	70	7	514
5:30 - 5:45	9	62	3	17	123	30	25	67	17	8	58	11	430
5:45 - 6:00	5	54	3	15	112	23	22	55	11	10	51	6	367

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	39	301	28	88	657	120	108	282	67	60	275	42	2,067
4:15 - 5:15	44	326	29	100	673	122	121	297	63	66	299	43	2,183 *
4:30 - 5:30	46	325	24	98	662	129	137	301	65	59	290	41	2,177
4:45 - 5:45	42	302	22	89	612	132	133	287	69	52	273	44	2,057
5:00 - 6:00	40	273	18	81	555	124	122	280	61	45	253	36	1,888



VEHICLE TURNING MOVEMENT COUNT SUMMARY

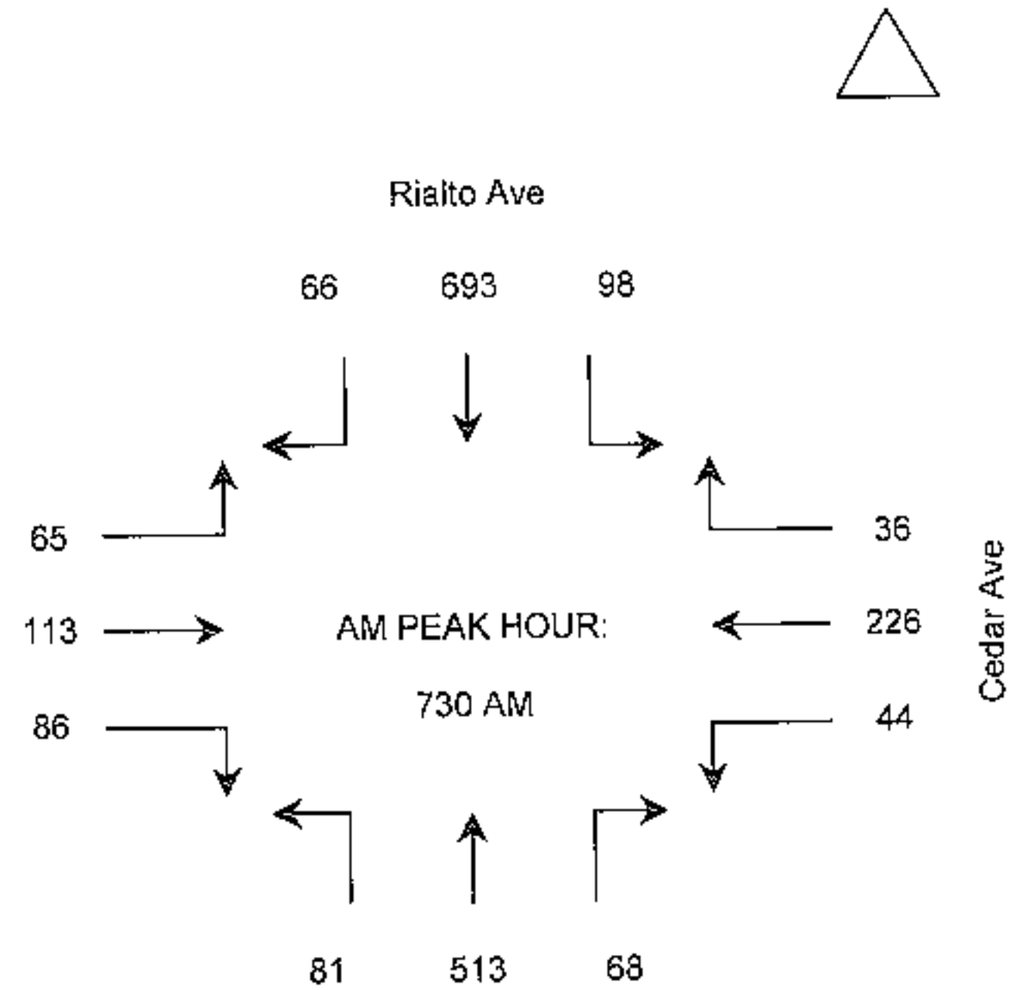
Prepared by: National Data & Surveying Services
Project # 07-3094-022

N/S STREET: Cedar Ave **E/W STREET:** Rialto Ave

PERIOD: AM Peak Hour **DATE:** WEDNESDAY 3/14/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	3	32	6	11	16	24	21	118	14	13	110	9	377
7:15 - 7:30	4	30	5	16	20	29	20	147	11	18	156	7	463
7:30 - 7:45	11	51	9	15	24	21	22	130	15	25	181	13	517
7:45 - 8:00	13	56	9	19	33	25	19	129	18	26	167	17	531
8:00 - 8:15	13	61	11	16	27	21	23	131	16	24	178	19	540
8:15 - 8:30	7	58	7	15	29	19	17	123	19	23	167	17	501
8:30 - 8:45	9	51	9	9	27	20	22	109	17	21	157	15	466
8:45 - 9:00	5	49	4	7	23	17	16	85	13	19	139	10	387

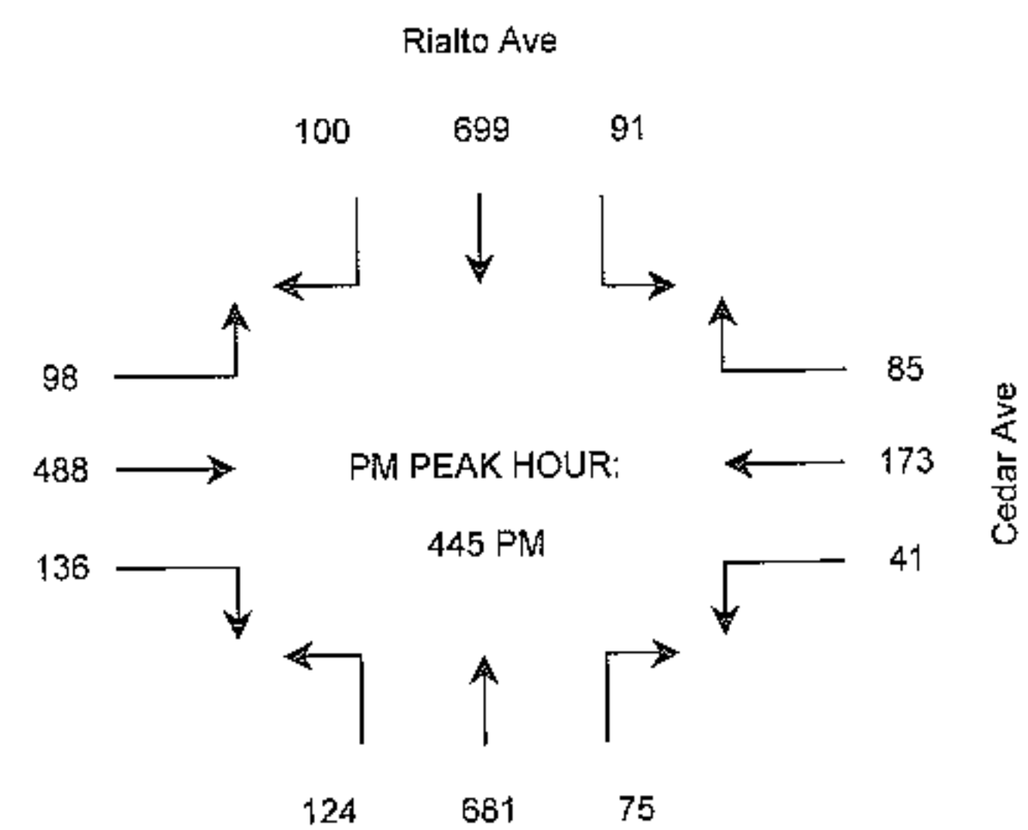
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	31	169	29	61	93	99	82	524	58	82	614	46	1,888
7:15 - 8:15	41	198	34	66	104	96	84	537	60	93	682	56	2,051
7:30 - 8:30	44	226	36	65	113	86	81	513	68	98	693	66	2,089 *
7:45 - 8:45	42	226	36	59	116	85	81	492	70	94	669	68	2,038
8:00 - 9:00	34	219	31	47	106	77	78	448	65	87	641	61	1,894



PERIOD: PM Peak Hour **DATE:** WEDNESDAY 3/14/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	6	39	6	22	100	18	26	132	11	20	165	19	564
4:15 - 4:30	7	46	16	21	128	24	29	160	15	17	147	15	625
4:30 - 4:45	9	36	19	29	95	29	33	153	19	24	170	23	639
4:45 - 5:00	10	50	23	29	113	33	35	170	17	22	174	25	701
5:00 - 5:15	12	46	25	25	122	37	30	179	21	25	167	23	712
5:15 - 5:30	13	34	17	27	132	35	28	160	17	21	180	27	691
5:30 - 5:45	6	43	20	17	121	31	31	172	20	23	178	25	687
5:45 - 6:00	8	47	25	14	112	34	24	170	18	24	154	29	659

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	32	171	64	101	436	104	123	615	62	83	656	82	2,529
4:15 - 5:15	38	178	83	104	458	123	127	662	72	88	658	86	2,677
4:30 - 5:30	44	166	84	110	462	134	126	662	74	92	691	98	2,743
4:45 - 5:45	41	173	85	98	488	136	124	681	75	91	699	100	2,791 *
5:00 - 6:00	39	170	87	83	487	137	113	681	76	93	679	104	2,749



VEHICLE TURNING MOVEMENT COUNT SUMMARY

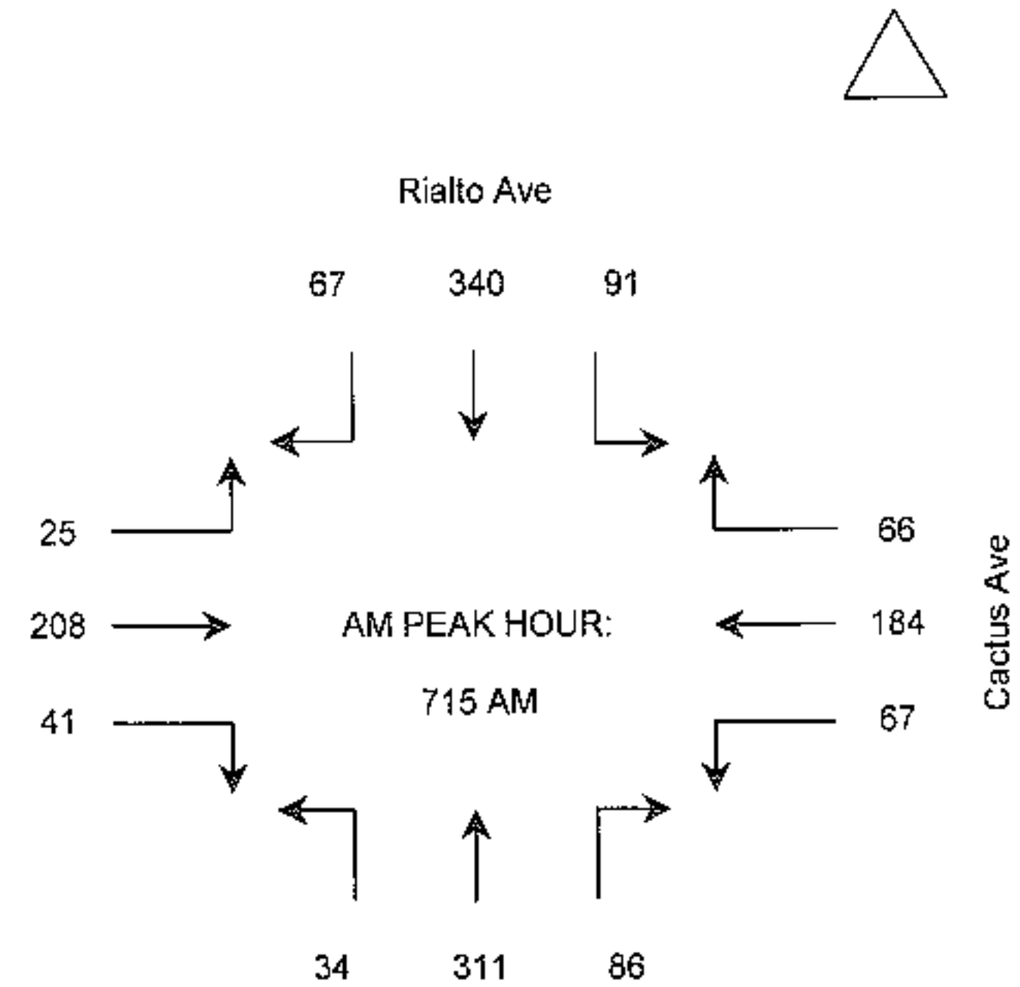
Prepared by: National Data & Surveying Services
Project # 07-3094-023

N/S STREET: Cactus Ave **E/W STREET:** Rialto Ave

PERIOD: AM Peak Hour **DATE:** TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	11	24	12	5	36	4	4	69	14	18	71	8	276
7:15 - 7:30	13	28	13	3	47	7	8	77	10	23	87	13	329
7:30 - 7:45	17	43	16	5	51	8	7	78	22	27	94	16	384
7:45 - 8:00	22	62	22	10	58	10	11	84	38	23	88	17	445
8:00 - 8:15	15	51	15	7	52	16	8	72	16	18	71	21	362
8:15 - 8:30	6	43	7	9	44	14	12	50	4	16	40	14	259
8:30 - 8:45	9	38	12	8	37	13	11	56	8	12	43	17	264
8:45 - 9:00	8	36	8	10	33	11	7	41	7	6	41	16	224

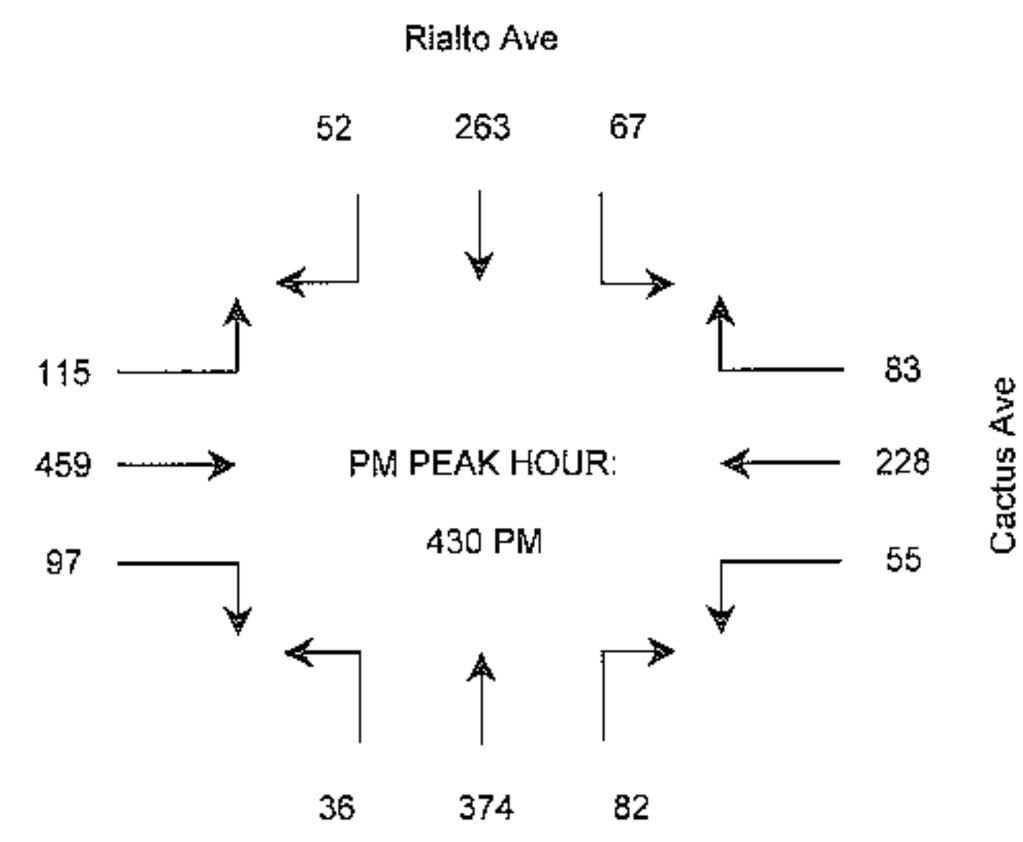
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	63	157	63	23	192	29	30	308	84	91	340	54	1,434
7:15 - 8:15	67	184	66	25	208	41	34	311	86	91	340	67	1,520 *
7:30 - 8:30	60	199	60	31	205	48	38	284	80	84	293	68	1,450
7:45 - 8:45	52	194	56	34	191	53	42	262	66	69	242	69	1,330
8:00 - 9:00	38	168	42	34	166	54	38	219	35	52	195	68	1,109



PERIOD: PM Peak Hour **DATE:** TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	17	48	16	27	87	22	4	70	18	14	53	4	380
4:15 - 4:30	14	53	21	31	93	27	5	79	21	17	59	7	427
4:30 - 4:45	22	62	19	39	99	33	7	92	24	21	67	9	494
4:45 - 5:00	18	58	22	27	113	28	8	98	26	15	75	12	500
5:00 - 5:15	7	57	18	25	129	21	10	95	18	13	58	17	468
5:15 - 5:30	8	51	24	24	118	15	11	89	14	18	63	14	449
5:30 - 5:45	6	64	21	21	116	17	9	87	9	17	75	8	450
5:45 - 6:00	4	48	16	14	103	14	5	81	4	11	60	5	365

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	71	221	78	124	392	110	24	339	89	67	254	32	1,801
4:15 - 5:15	61	230	80	122	434	109	30	364	89	66	259	45	1,889
4:30 - 5:30	55	228	83	115	459	97	36	374	82	67	263	52	1,911 *
4:45 - 5:45	39	230	85	97	476	81	38	369	67	63	271	51	1,867
5:00 - 6:00	25	220	79	84	466	67	35	352	45	59	256	44	1,732



VEHICLE TURNING MOVEMENT COUNT SUMMARY

Prepared by: National Data & Surveying Services

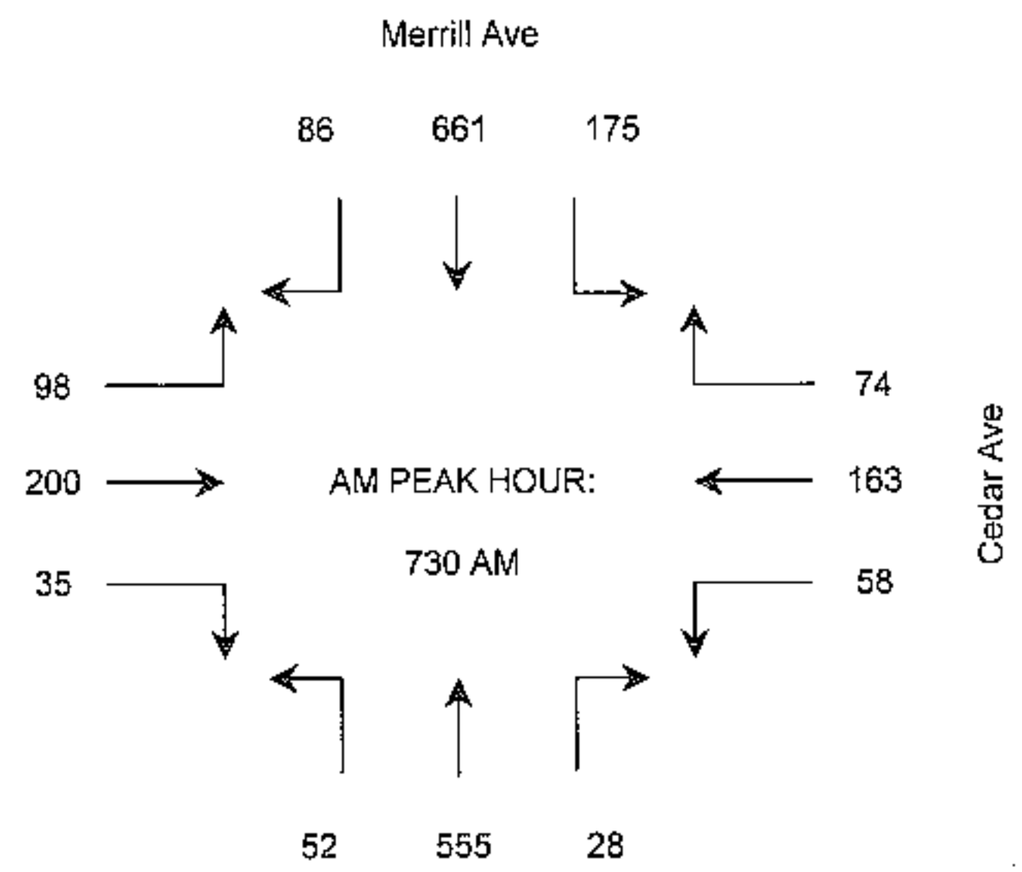
Project # 07-3112-006

N/S STREET: Cedar Ave **E/W STREET:** Merrill Ave

PERIOD: AM Peak Hour **DATE:** WEDNESDAY 3/21/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	9	38	31	12	37	5	10	98	11	16	134	20	421
7:15 - 7:30	13	43	22	14	55	6	15	109	5	25	174	15	496
7:30 - 7:45	11	45	29	11	38	6	10	127	7	43	203	22	552
7:45 - 8:00	12	37	17	23	53	9	11	135	4	34	179	18	532
8:00 - 8:15	18	43	11	28	48	8	14	142	6	47	147	27	539
8:15 - 8:30	17	38	17	36	61	12	17	151	11	51	132	19	562
8:30 - 8:45	19	51	18	34	53	9	13	139	8	42	128	21	535
8:45 - 9:00	14	49	12	22	48	11	11	122	7	32	131	14	473

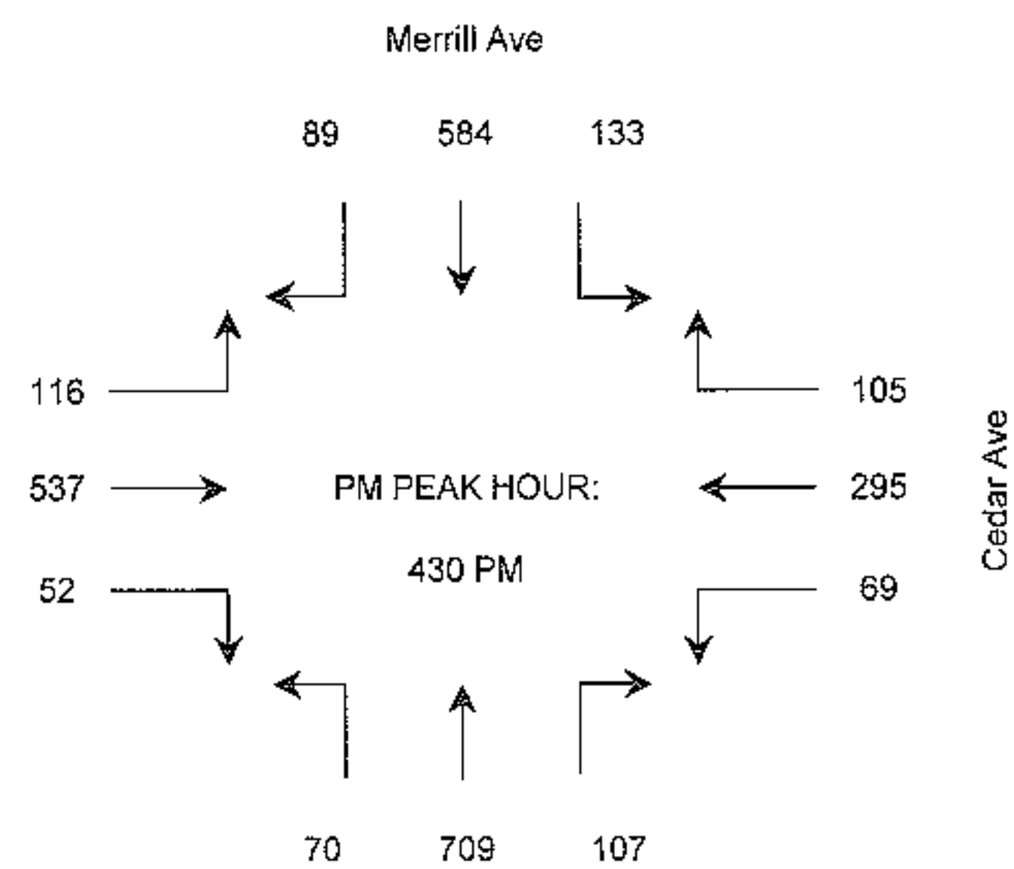
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	45	163	99	60	183	26	46	469	27	118	690	75	2,001
7:15 - 8:15	54	168	79	76	194	29	50	513	22	149	703	82	2,119
7:30 - 8:30	58	163	74	98	200	35	52	555	28	175	661	86	2,185 *
7:45 - 8:45	66	169	63	121	215	38	55	567	29	174	586	85	2,168
8:00 - 9:00	68	181	58	120	210	40	55	554	32	172	538	81	2,109



PERIOD: PM Peak Hour **DATE:** WEDNESDAY 3/21/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	4	57	18	18	94	11	8	147	16	26	122	14	535
4:15 - 4:30	8	66	24	22	121	8	11	162	24	34	134	17	631
4:30 - 4:45	11	78	29	28	137	12	14	177	28	37	138	22	711
4:45 - 5:00	19	83	32	39	153	9	16	180	27	45	145	27	775
5:00 - 5:15	21	74	25	11	128	18	22	186	29	26	150	28	718
5:15 - 5:30	18	60	19	38	119	13	18	166	23	25	151	12	662
5:30 - 5:45	12	59	21	22	107	16	19	172	18	21	141	17	625
5:45 - 6:00	9	44	14	18	94	11	12	153	13	17	132	11	528

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	42	284	103	107	505	40	49	666	95	142	539	80	2,652
4:15 - 5:15	59	301	110	100	539	47	63	705	108	142	567	94	2,835
4:30 - 5:30	69	295	105	116	537	52	70	709	107	133	584	89	2,866 *
4:45 - 5:45	70	276	97	110	507	56	75	704	97	117	587	84	2,780
5:00 - 6:00	60	237	79	89	448	58	71	677	83	89	574	68	2,533



VEHICLE TURNING MOVEMENT COUNT SUMMARY

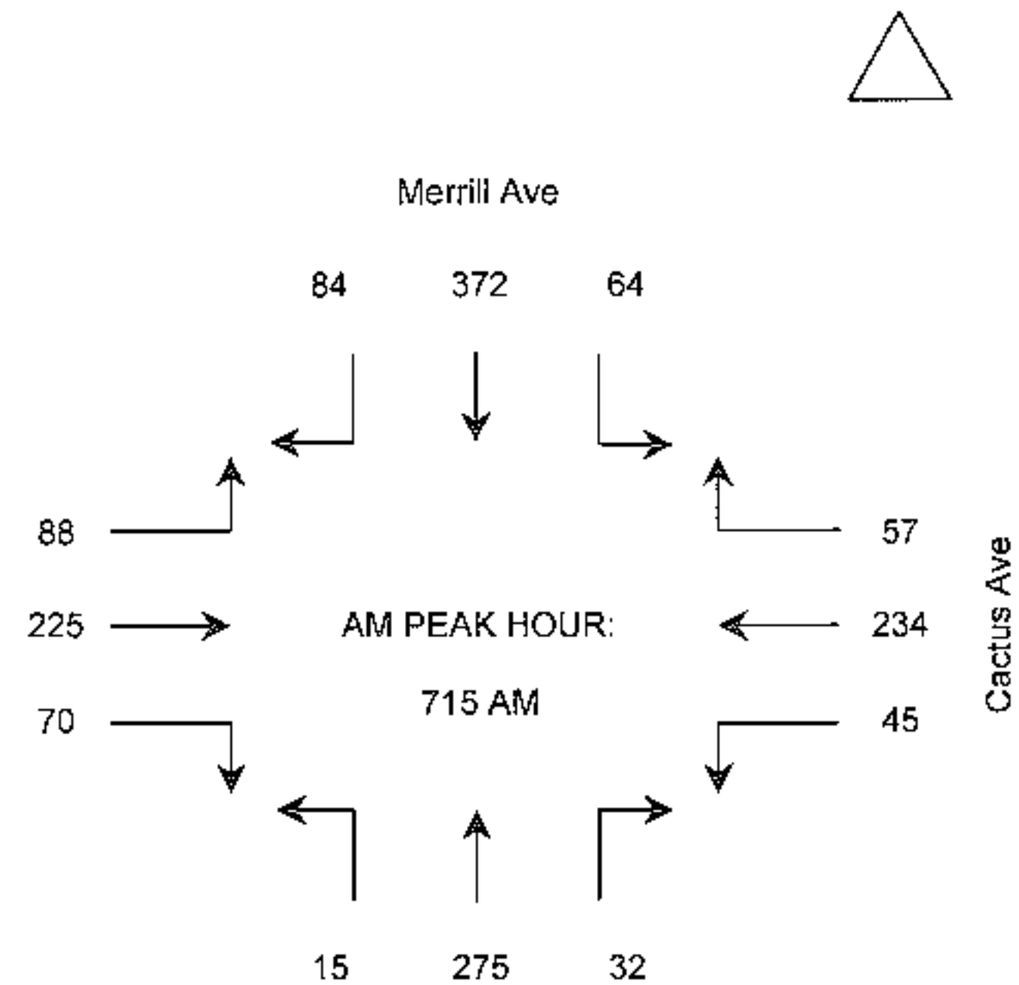
Prepared by: National Data & Surveying Services
Project # 07-3094-024

N/S STREET: Cactus Ave **E/W STREET:** Merrill Ave

PERIOD: AM Peak Hour **DATE:** TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 7:15	2	39	13	14	64	12	3	48	5	5	74	13	292
7:15 - 7:30	12	44	10	24	50	12	3	74	6	17	109	19	380
7:30 - 7:45	15	58	8	28	65	26	4	68	13	20	98	18	421
7:45 - 8:00	13	64	22	24	68	21	5	80	10	14	106	25	452
8:00 - 8:15	5	68	17	12	42	11	3	53	3	13	59	22	308
8:15 - 8:30	5	44	12	13	59	15	1	44	6	8	63	14	284
8:30 - 8:45	6	46	8	12	49	11	2	44	5	8	55	18	264
8:45 - 9:00	10	49	10	8	62	4	1	38	3	10	60	11	266

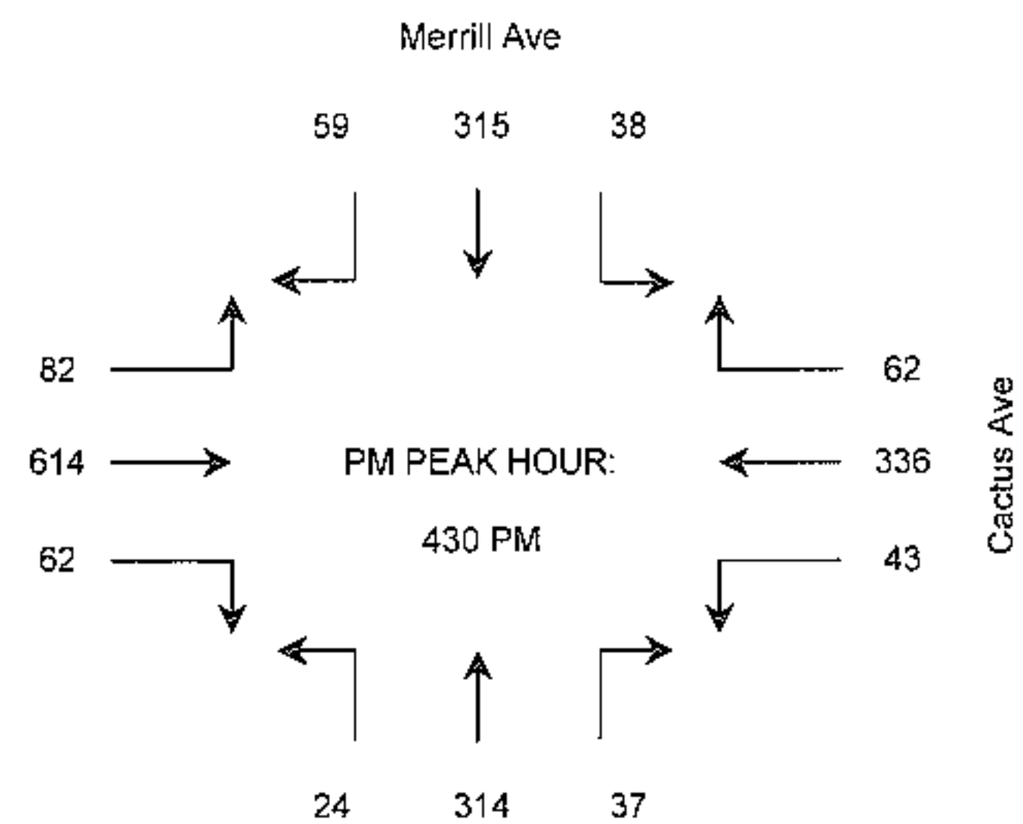
1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
7:00 - 8:00	42	205	53	90	247	71	15	270	34	56	387	75	1,545
7:15 - 8:15	45	234	57	88	225	70	15	275	32	64	372	84	1,561 *
7:30 - 8:30	38	234	59	77	234	73	13	245	32	55	326	79	1,465
7:45 - 8:45	29	222	59	61	218	58	11	221	24	43	283	79	1,308
8:00 - 9:00	26	207	47	45	212	41	7	179	17	39	237	65	1,122



PERIOD: PM Peak Hour **DATE:** TUESDAY 3/13/2007

15-MINUTE	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 4:15	7	59	24	24	109	11	4	94	6	10	71	20	439
4:15 - 4:30	10	74	17	24	122	11	1	83	6	6	54	14	422
4:30 - 4:45	10	97	13	15	159	17	4	88	10	8	89	15	525
4:45 - 5:00	9	92	13	19	183	26	4	76	9	6	80	17	534
5:00 - 5:15	12	67	22	22	146	5	8	84	12	8	78	10	474
5:15 - 5:30	12	80	14	26	126	14	8	66	6	16	68	17	453
5:30 - 5:45	13	98	11	35	95	14	4	83	13	12	58	23	459
5:45 - 6:00	11	95	14	30	116	17	6	78	10	14	64	21	476

1-HOUR	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			
TOTALS	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
4:00 - 5:00	36	322	67	82	573	65	13	341	31	30	294	66	1,920
4:15 - 5:15	41	330	65	80	610	59	17	331	37	28	301	56	1,955
4:30 - 5:30	43	336	62	82	614	62	24	314	37	38	315	59	1,986 *
4:45 - 5:45	46	337	60	102	550	59	24	309	40	42	284	67	1,920
5:00 - 6:00	48	340	61	113	483	50	26	311	41	50	268	71	1,862



6 45 Start Time -15 MINUTES

SOUTHLAND CAR COUNTERS

Axle Count

Project # 07-3097-001

Location: Riverside Ave. & "Cemex and Life City: Rialto Date: 03/15/2007 Day: THURSDAY

					OUT		OUT	IN					IN		
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR		
7:00	CARS												2		
	2-axle														
	3-axle							2						Note:	Cement mixers & haulers w/ 4th axle up.
	4-axle						1							Note:	Cement mixers & haulers w/ 4th axle dow
	5-axle +				1		6	2					1		
7:15	CARS							1					2		
	2-axle														
	3-axle							2					1	Note:	Cement mixers & haulers w/ 4th axle up.
	4-axle				2		3							Note:	Cement mixers & haulers w/ 4th axle dow
	5-axle +						5	7					1		
7:30	CARS							1							
	2-axle				1										
	3-axle				1		2	3					1	Note:	Cement mixers & haulers w/ 4th axle up.
	4-axle						1							Note:	Cement mixers & haulers w/ 4th axle dow
	5-axle +				1		6	7							
7:45	CARS														
	2-axle														
	3-axle							3					1	Note:	Cement mixers & haulers w/ 4th axle up.
	4-axle				1		4							Note:	Cement mixers & haulers w/ 4th axle dow
	5-axle +				1		4	8							
8:00	CARS														
	2-axle														
	3-axle							1						Note:	Cement mixers & haulers w/ 4th axle up.
	4-axle				1		3							Note:	Cement mixers & haulers w/ 4th axle dow
	5-axle +				1		4	10							
8:15	CARS												1		
	2-axle												1		
	3-axle						1	10					1	Note:	Cement mixers & haulers w/ 4th axle up.
	4-axle				1		5							Note:	Cement mixers & haulers w/ 4th axle dow
	5-axle +						16	8					1		
8:30	CARS							1							
	2-axle														
	3-axle							6					1	Note:	Cement mixers & haulers w/ 4th axle up.
	4-axle						3							Note:	Cement mixers & haulers w/ 4th axle dow
	5-axle +						6	10					1		
8:45	CARS														
	2-axle												1		
	3-axle						1	4						Note:	Cement mixers & haulers w/ 4th axle up.
	4-axle				2		3							Note:	Cement mixers & haulers w/ 4th axle dow
	5-axle +						4	7					2		

MOVEMENT TOTALS

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
CARS	0	0	0	0	0	0	3	0	0	0	0	5
2-axle	0	0	0	1	0	0	0	0	0	0	0	2
3-axle	0	0	0	1	0	4	31	0	0	0	0	5
4-axle	0	0	0	7	0	23	0	0	0	0	0	0
5-axle +	0	0	0	4	0	51	59	0	0	0	0	6
TOTALS	0	0	0	13	0	78	93	0	0	0	0	18

PM Peak Hr Begins at: 800 AM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
PEAK VOLUMES =	0	0	0	5	0	46	57	0	0	0	0	9
PEAK HR. FACTOR:		0.000			0.554			0.792			0.563	

CONTROL:

15 45 Start Time -15 MINUTES

SOUTHLAND CAR COUNTERS

Axle Count

Project # 07-3097-001

Location: Riverside Ave. & "Cemex and Life City: Rialto Date: 03/15/2007 Day: THURSDAY

					OUT		OUT	IN					IN	
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
16:00	CARS				1		2							
	2-axle													
	3-axle						1							Note: Cement mixers & haulers w/ 4th axle up.
	4-axle													
	5-axle +						1							
16:15	CARS													
	2-axle													
	3-axle													
	4-axle													
	5-axle +						1							
16:30	CARS						2	2						
	2-axle													
	3-axle							2						Note: Cement mixers & haulers w/ 4th axle up.
	4-axle													
	5-axle +							2						
16:45	CARS				3		1	2					1	
	2-axle													
	3-axle													
	4-axle													
	5-axle +													
17:00	CARS				4		1	1					1	
	2-axle													
	3-axle													
	4-axle													
	5-axle +													
17:15	CARS				1			1						
	2-axle													
	3-axle							1						Note: Cement mixers & haulers w/ 4th axle up.
	4-axle													
	5-axle +							1						
17:30	CARS						2						1	
	2-axle													
	3-axle							1						Note: Cement mixers & haulers w/ 4th axle up.
	4-axle													
	5-axle +													
17:45	CARS				1		2	1						
	2-axle													
	3-axle							1						Note: Cement mixers & haulers w/ 4th axle up.
	4-axle													
	5-axle +													

MOVEMENT TOTALS

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
CARS	0	0	0	10	0	10	7	0	0	0	0	3
2-axle	0	0	0	0	0	0	0	0	0	0	0	0
3-axle	0	0	0	0	0	1	5	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	2	3	0	0	0	0	0
TOTALS	0	0	0	10	0	13	15	0	0	0	0	3

PM Peak Hr Begins at: 1630 PM

PEAK VOLUMES =	0	0	0	8	0	4	12	0	0	0	0	2
PEAK HR. FACTOR:		0.000			0.600			0.500			0.500	

CONTROL:

Existing Manual Count by Vehicle Type at "Cemex and Life Tile" Driveway
(Located on the north side of Riverside Avenue between Linden Avenue and Ashford Avenue)

Passenger Car Equivalent	Ratio
Passenger Cars	1.0
2-Axle	1.5
3-Axle	2.0
4-Axle	3.0
5-Axle +	3.0

	AM Peak Hour (8:00 - 9:00 AM)				PM Peak Hour (4:30 - 5:30 PM)			
	EL IB	WR IB	SL OB	SR OB	EL IB	WR IB	SL OB	SR OB
Passenger Cars	1	1	0	0	6	2	8	4
2-Axle	0	2	0	0	0	0	0	0
3-Axle	21	2	0	2	3	0	0	0
4-Axle	0	0	4	14	0	0	0	0
5-Axle +	35	4	1	30	3	0	0	0

	AM Peak Hour (8:00 - 9:00 AM)				PM Peak Hour (4:30 - 5:30 PM)			
	EL IB	WR IB	SL OB	SR OB	EL IB	WR IB	SL OB	SR OB
PCE Trips	**148**	**20**	**15**	**136**	**21**	**2**	**8**	**4**

APPENDIX D

EXISTING AND FUTURE STUDY INTERSECTION LANE CONFIGURATIONS

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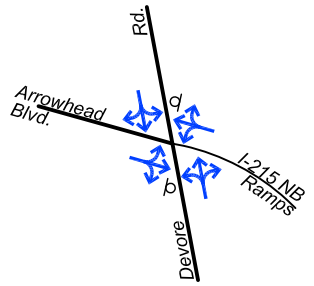
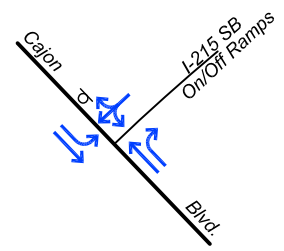
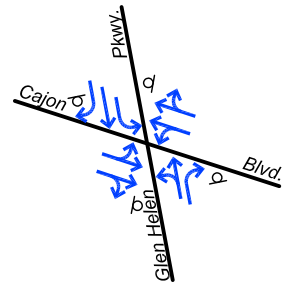
1 I-215 NB On/Off Ramps/ Arrow Blvd. and Devore Rd.



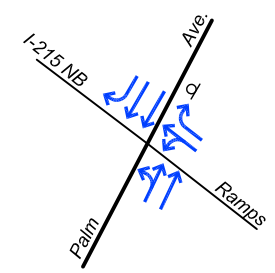
2 Cajon Blvd. and I-215 SB On/Off Ramps



3 Cajon Blvd. and Glen Helen Pkwy.



4 Barstow Fwy.(I-215) NB On/Off Ramps and Palm Ave.

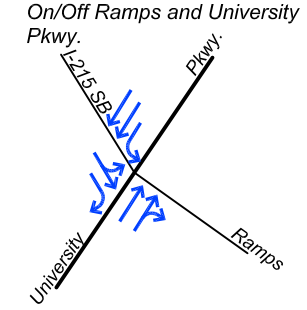


5 Barstow Fwy.(I-215) SB On/Off Ramps/Kendall Dr. and Palm Ave.

6 Barstow Fwy.(I-215) NB On/Off Ramps and University Pkwy.

3Ø

7 Barstow Fwy.(I-215) SB On/Off Ramps and University Pkwy.



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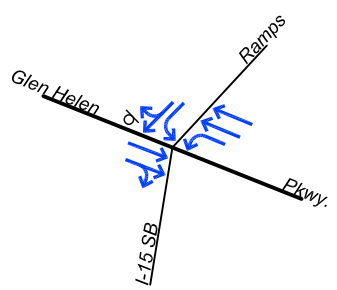
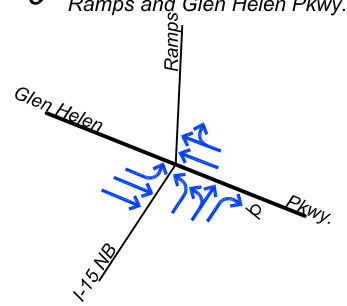
8 Ontario Fwy (I-15) SB On/Off Ramps and Glen Helen Pkwy.



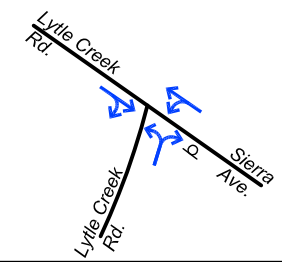
9 Ontario Fwy (I-15) NB On/Off Ramps and Glen Helen Pkwy.



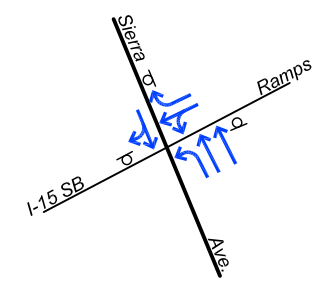
10 Lytle Creek Road and Glen Helen Pkwy.

Glen Helen Parkway (Closed)

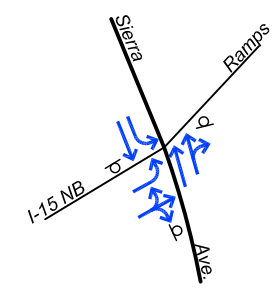
11 Lytle Creek Road and Sierra Ave.



12 Ontario Fwy. (I-15) SB On/Off Ramps and Sierra Ave.



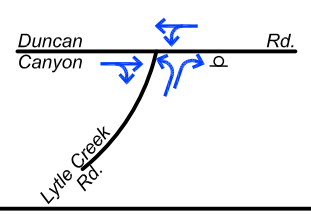
13 Ontario Fwy. (I-15) NB On/Off Ramps and Sierra Ave.



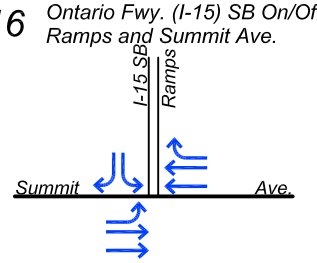
14 Ontario Fwy. (I-15) SB On/Off Ramps and Duncan Canyon Rd.

Does not Currently Exist

15 Duncan Canyon Rd. and Lytle Creek Rd.



16 Ontario Fwy. (I-15) SB On/Off Ramps and Summit Ave.



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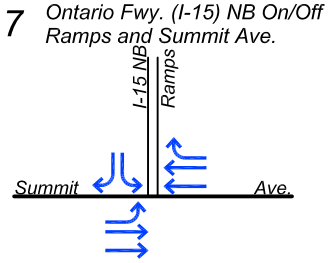
17 Ontario Fwy. (I-15) NB On/Off Ramps and Summit Ave.



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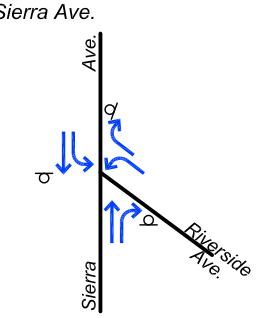
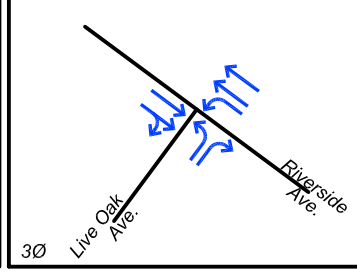
18 Riverside Ave. and Sierra Ave.



19 Riverside Ave. and Live Oak Ave.



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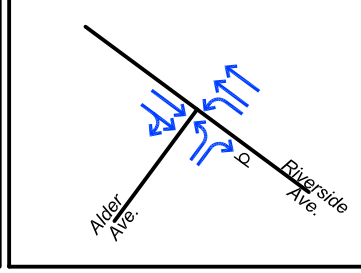
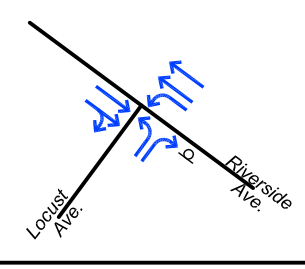
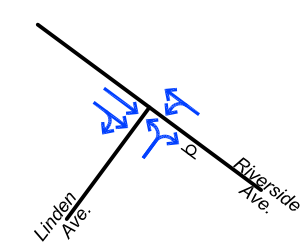
20 Riverside Ave. and Alder Ave.



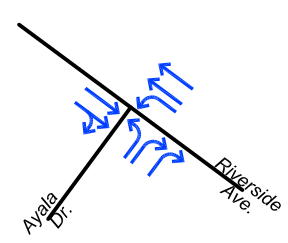
21 Riverside Ave. and Locust Ave.



22 Riverside Ave. and Linden Ave.



23 Riverside Ave. and Ayala Dr.



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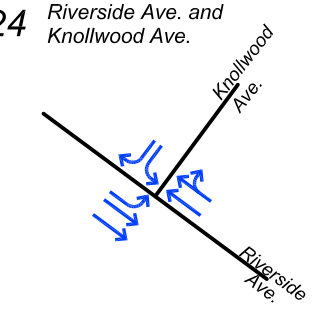
24 Riverside Ave. and Knollwood Ave.



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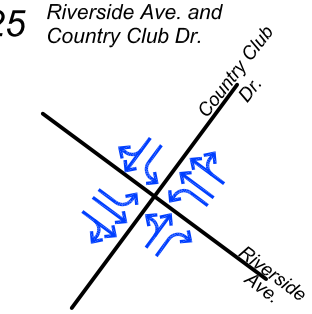
25 Riverside Ave. and Country Club Dr.



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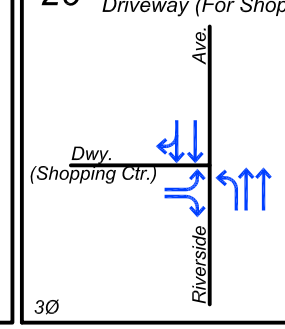
26 Riverside Ave. and Driveway (For Shopping Ctr.)

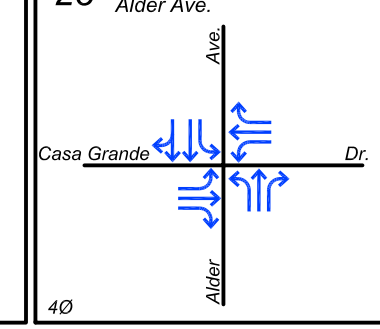


3Ø

27 Casa Grande Dr. and Sierra Ave.

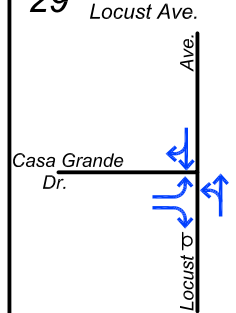
Does not Currently Exist

28 Casa Grande Dr. and Alder Ave.

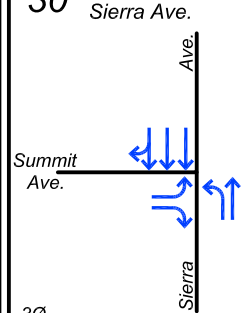


4Ø

29 Casa Grande Dr. and Locust Ave.



30 Summit Ave. and Sierra Ave.



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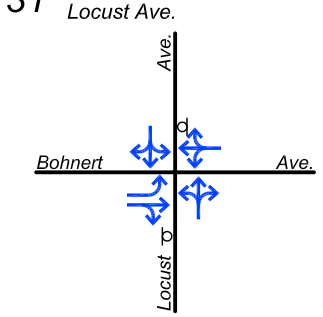
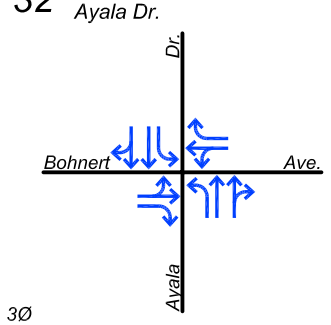
31 Bohnert Ave. and Locust Ave.



32 Bohnert Ave. and Ayala Dr.



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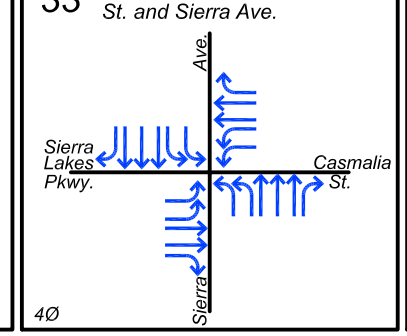
33 Sierra Lakes Pkwy/Casmalia St. and Sierra Ave.



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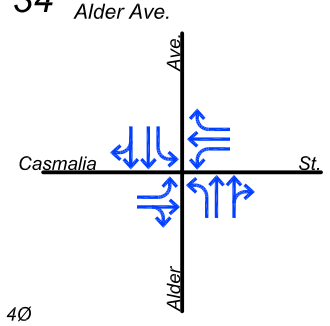
34 Casmalia St. and Alder Ave.



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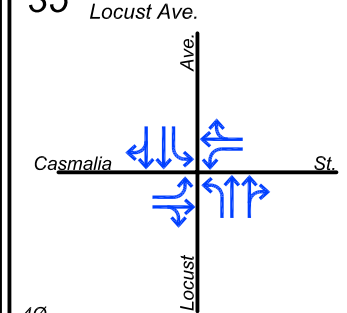
35 Casmalia St. and Locust Ave.



4Ø

APPENDIX D-1

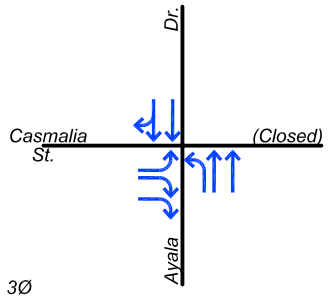
5/4/2007

FN: LYTLE CREEK RANCH\LANE-CONFIG(EXIST)

CRAIN & ASSOCIATES
Transportation Planning
Traffic Engineering
2007 Sawtelle Boulevard
Los Angeles, California 90025
PH (310) 473 6508 F (310) 444 9771
www.crainandassociates.com

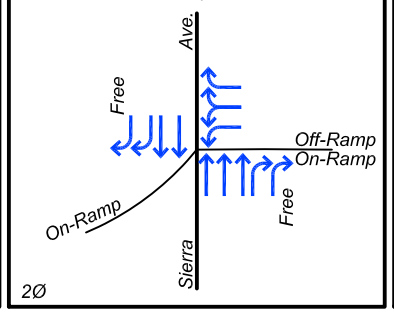
EXISTING INTERSECTION LANE CONFIGURATION

36 Casmalia St. and Ayala Dr.



3Ø

37 State Route 210 Fwy. WB On/Off Ramps and Sierra Ave.



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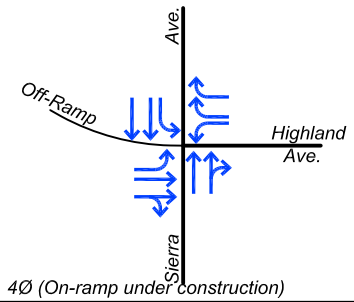
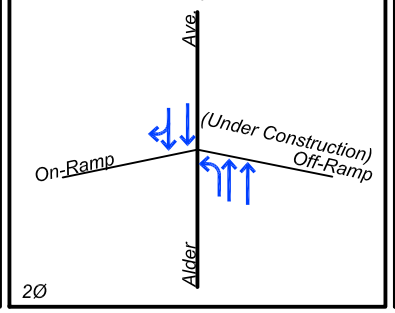
38 State Route 210 Fwy. EB On/Off Ramps and Sierra Ave.



4Ø (On-ramp under construction)

39 State Route 210 Fwy. WB On/Off Ramps and Alder Ave.



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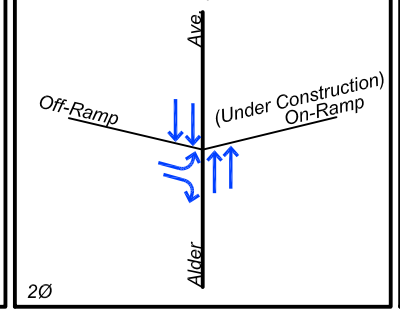
40 State Route 210 Fwy. EB On/Off Ramps and Alder Ave.



2Ø

41 State Route 210 Fwy. WB On/Off Ramps and Ayala Dr.

Freeway
Under Construction

42 State Route 210 Fwy. EB On/Off Ramps and Ayala Dr.

Freeway
Under Construction

43 State Route 210 Fwy. WB On/Off Ramps and Riverside Ave.

Freeway
Under Construction

44 State Route 210 Fwy. EB On/Off Ramps and Riverside Ave.

Freeway
Under Construction

45 State Route 210 Fwy. WB On/Off Ramps and Pepper Ave.

Freeway
Under Construction

46 State Route 210 Fwy. EB On/Off Ramps and Pepper Ave.

Freeway
Under Construction

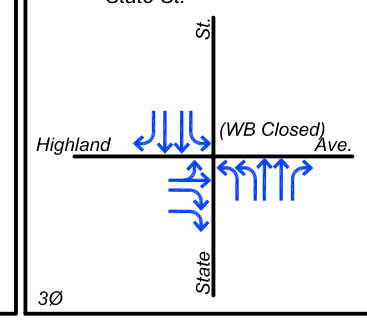
47 State Route 210 Fwy. WB On/Off Ramps and State St.

Freeway
Under Construction

48 State Route 210 Fwy. EB On/Off Ramps/ Washington Ave. and State St.

Freeway
Under Construction

49 Highland Ave. and State St.



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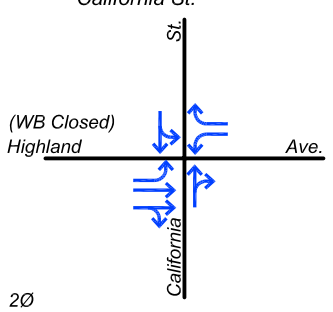
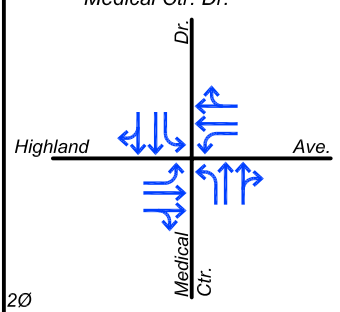
50 Highland Ave. and California St.



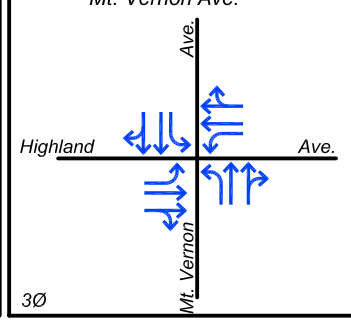
2Ø

51 Highland Ave. and Medical Ctr. Dr.



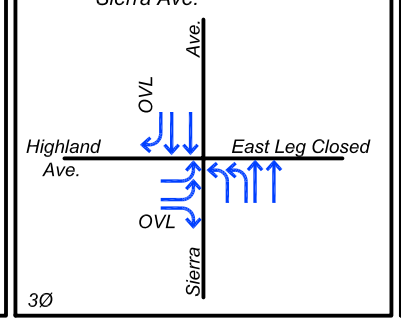
2Ø

52 Highland Ave. and Mt. Vernon Ave.



3Ø

53 Highland Ave. and Sierra Ave.



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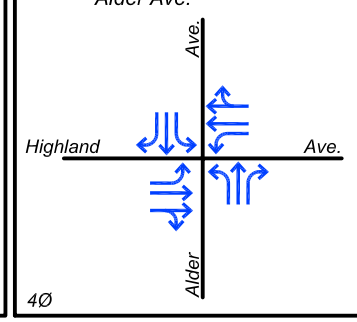
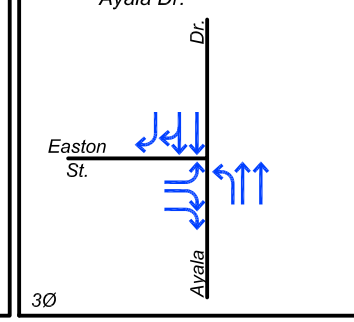
54 Highland Ave. and Alder Ave.



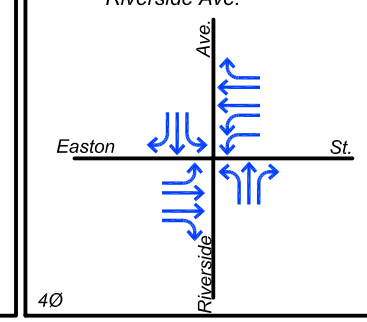
4Ø

55 Easton St. and Ayala Dr.



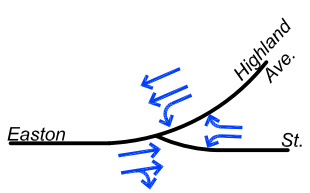
3Ø

56 Easton St. and Riverside Ave.



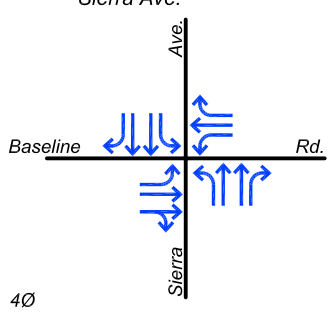
4Ø

57 Easton St. and Highland Ave.



2Ø

58 Baseline Rd. and Sierra Ave.



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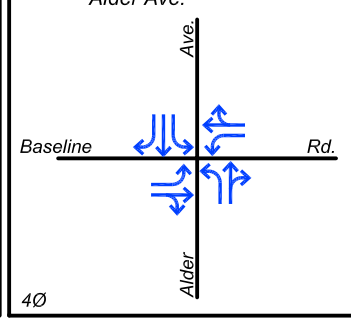
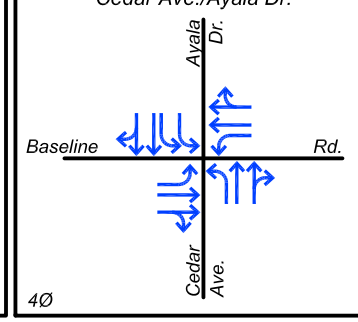
59 Baseline Rd. and Alder Ave.



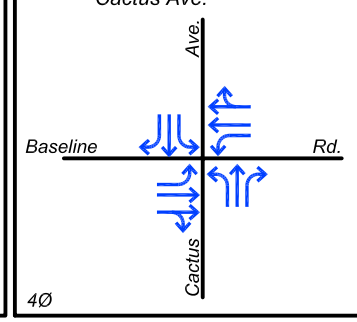
4Ø

60 Baseline Rd. and Cedar Ave./Ayala Dr.



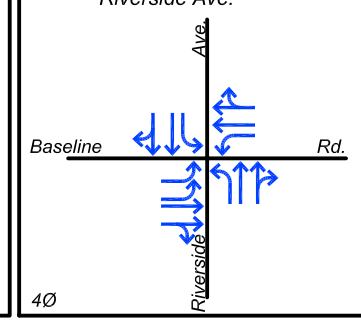
4Ø

61 Baseline Rd. and Cactus Ave.



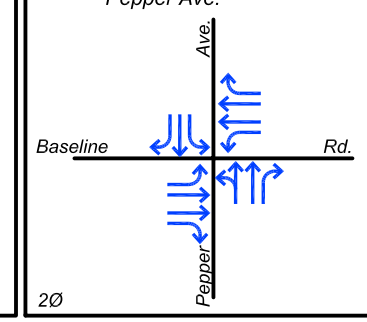
4Ø

62 Baseline Rd. and Riverside Ave.



4Ø

63 Baseline Rd. and Pepper Ave.



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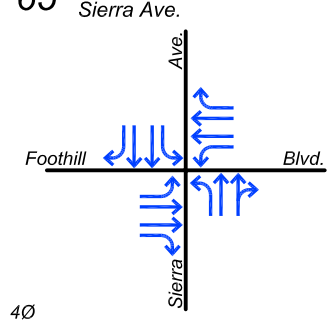
64 Baseline Rd. and State St.

Does not Currently Exist

65 Foothill Blvd. and Sierra Ave.



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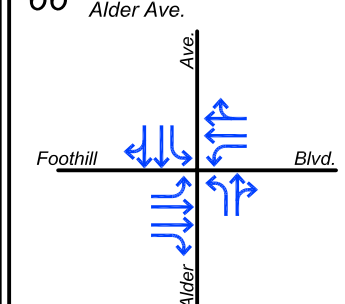
66 Foothill Blvd. and Alder Ave.



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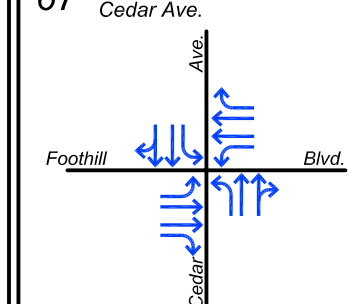
67 Foothill Blvd. and Cedar Ave.



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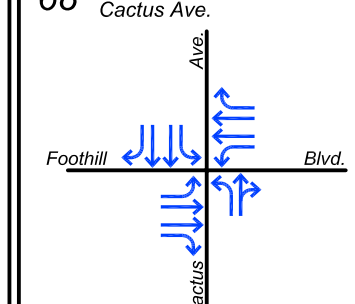
68 Foothill Blvd. and Cactus Ave.



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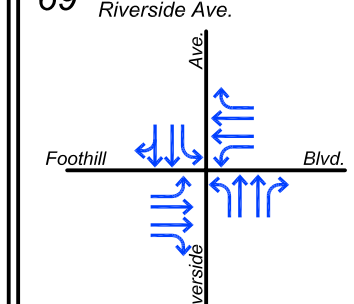
69 Foothill Blvd. and Riverside Ave.



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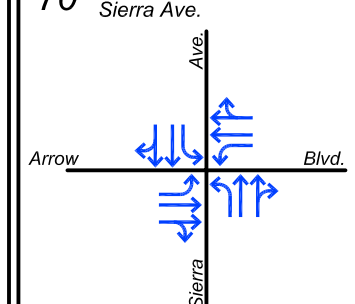
70 Arrow Blvd. and Sierra Ave.



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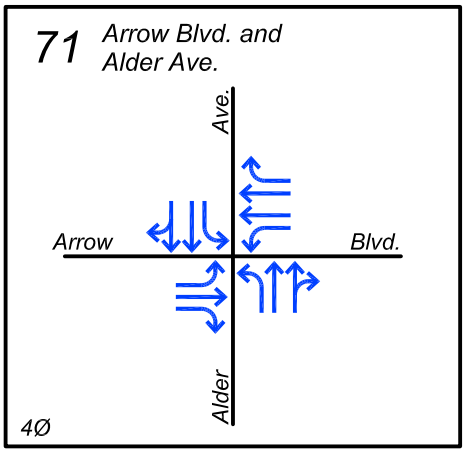
5/4/2007

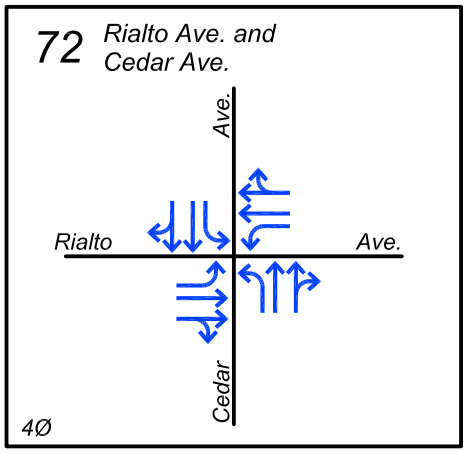
APPENDIX D-1

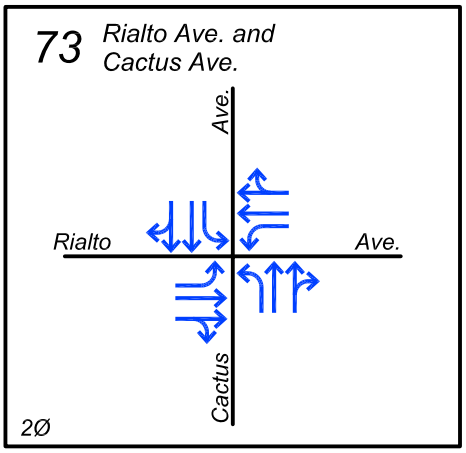
FN: LYTLE CREEK RANCH\LANE-CONFIG(EXIST)

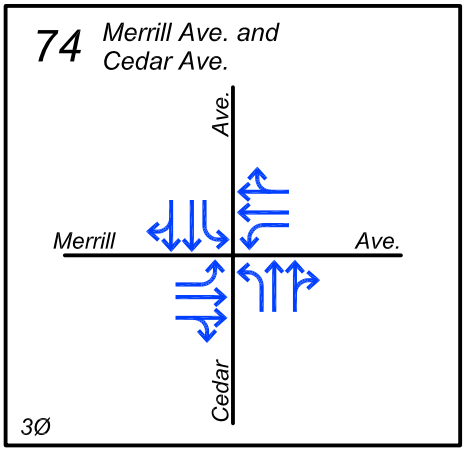
CRAIN & ASSOCIATES
Transportation Planning
Traffic Engineering
2007 Sawtelle Boulevard
Los Angeles, California 90025
PH (310) 473 6508 F (310) 444 9771
www.crainandassociates.com

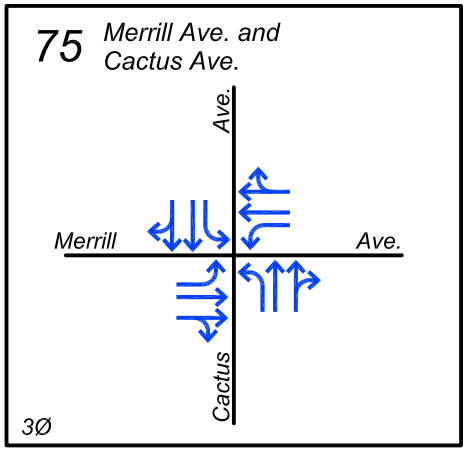
EXISTING INTERSECTION LANE CONFIGURATION











LEGEND	
3Ø	Number of Signal Phases
O	Stop Sign Controlled
FREE	Free Right-Turn Movement
OVL	Overlap Phase

APPENDIX D-1

5/4/2007

FN: LYTLE CREEK RANCH\LANE-CONFIG(EXIST)

EXISTING INTERSECTION
LANE CONFIGURATION

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Traffic Engineering
2007 Sawtelle Boulevard
Los Angeles California 90025
PH (310) 473 6508 F (310) 444 9771
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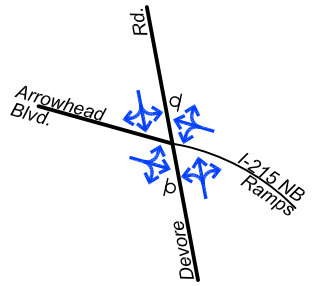
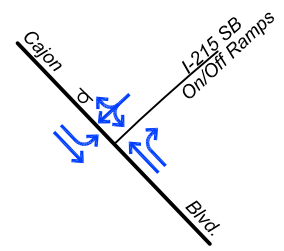
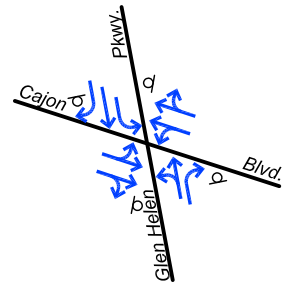
1 I-215 NB On/Off Ramps/ Arrow Blvd. and Devore Rd.



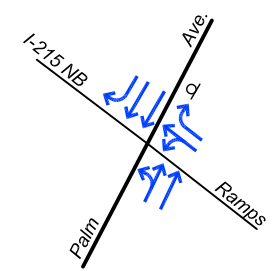
2 Cajon Blvd. and I-215 SB On/Off Ramps



3 Cajon Blvd. and Glen Helen Pkwy.



4 Barstow Fwy.(I-215) NB On/Off Ramps and Palm Ave.

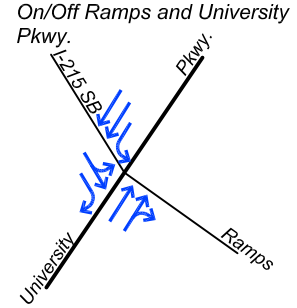


5 Barstow Fwy.(I-215) SB On/Off Ramps/Kendall Dr. and Palm Ave.

6 Barstow Fwy.(I-215) NB On/Off Ramps and University Pkwy.

3Ø

7 Barstow Fwy.(I-215) SB On/Off Ramps and University Pkwy.



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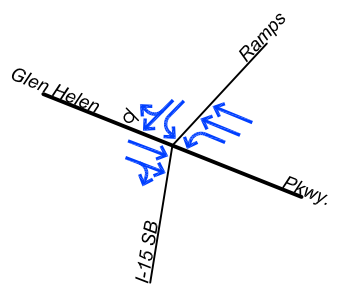
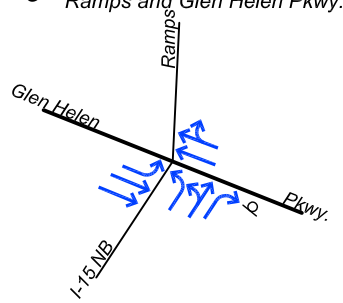
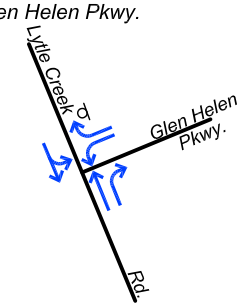
8 Ontario Fwy (I-15) SB On/Off Ramps and Glen Helen Pkwy.



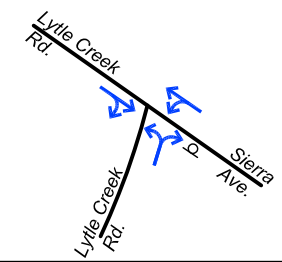
9 Ontario Fwy (I-15) NB On/Off Ramps and Glen Helen Pkwy.



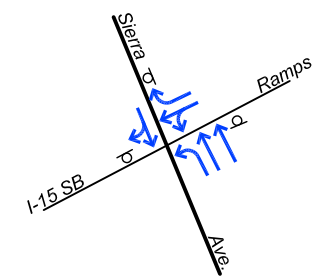
10 Lytle Creek Road and Glen Helen Pkwy.



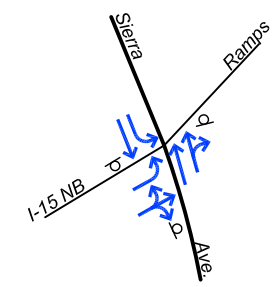
11 Lytle Creek Road and Sierra Ave.



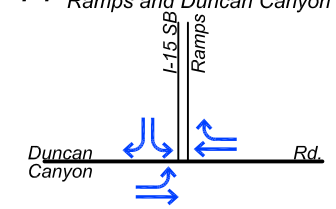
12 Ontario Fwy. (I-15) SB On/Off Ramps and Sierra Ave.



13 Ontario Fwy. (I-15) NB On/Off Ramps and Sierra Ave.



14 Ontario Fwy. (I-15) SB On/Off Ramps and Duncan Canyon Rd.



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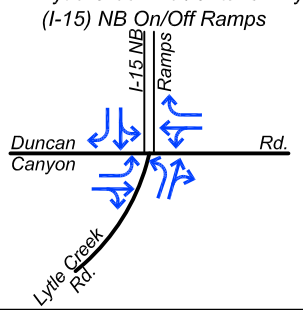
15 Duncan Canyon Rd. and Lytle Creek Rd./Ontario Fwy. (I-15) NB On/Off Ramps



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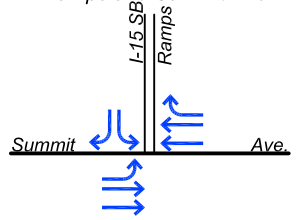
16 Ontario Fwy. (I-15) SB On/Off Ramps and Summit Ave.



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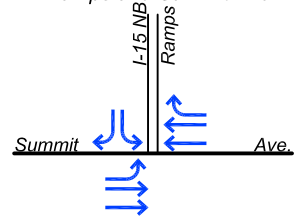
17 Ontario Fwy. (I-15) NB On/Off Ramps and Summit Ave.



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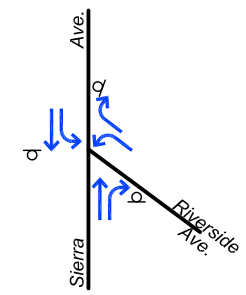
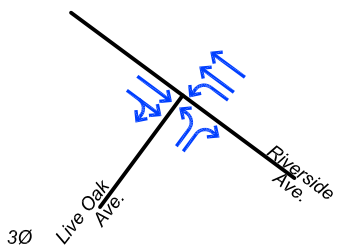
18 Riverside Ave. and Sierra Ave.



19 Riverside Ave. and Live Oak Ave.



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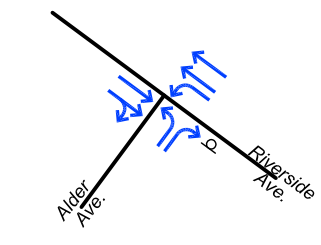
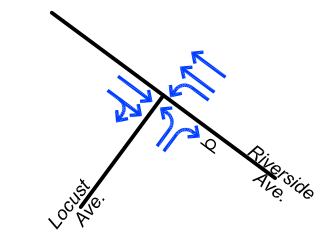
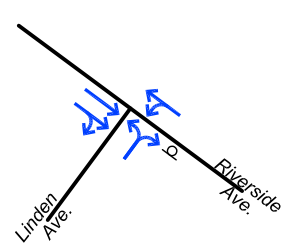
20 Riverside Ave. and Alder Ave.



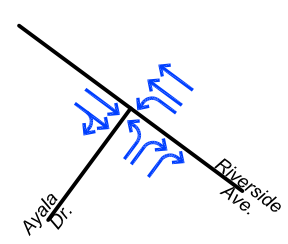
21 Riverside Ave. and Locust Ave.



22 Riverside Ave. and Linden Ave.



23 Riverside Ave. and Ayala Dr.



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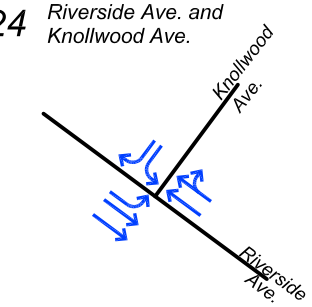
24 Riverside Ave. and Knollwood Ave.



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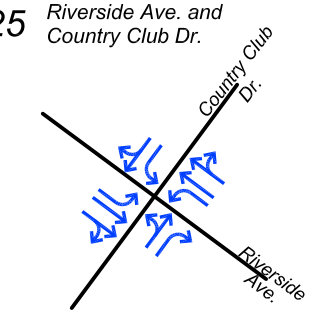
25 Riverside Ave. and Country Club Dr.



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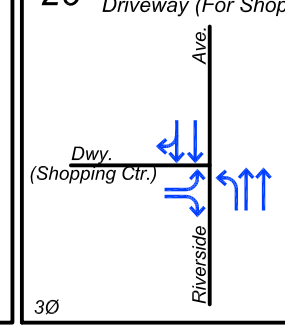
26 Riverside Ave. and Driveway (For Shopping Ctr.)



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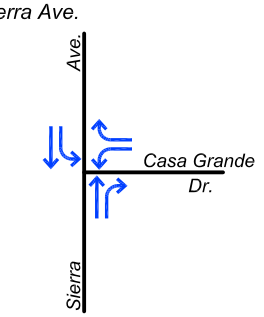
27 Casa Grande Dr. and Sierra Ave.



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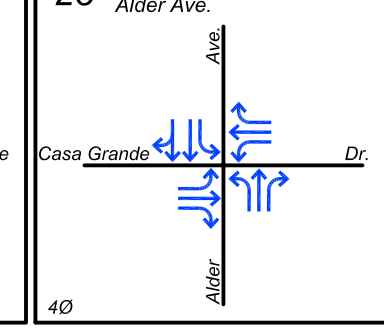
28 Casa Grande Dr. and Alder Ave.



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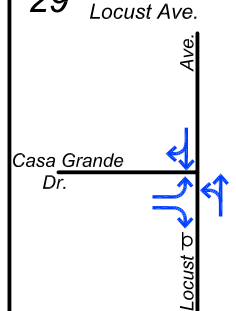
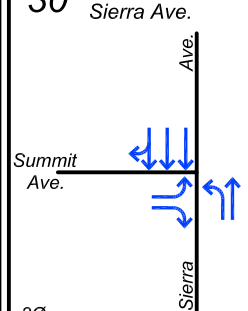
29 Casa Grande Dr. and Locust Ave.



30 Summit Ave. and Sierra Ave.



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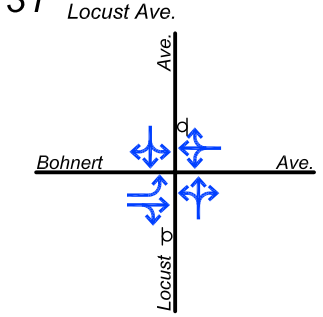
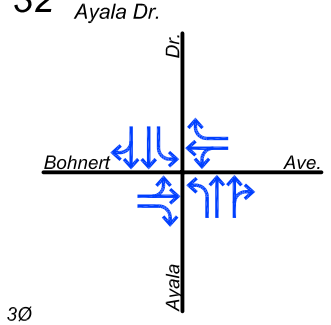
31 Bohnert Ave. and Locust Ave.



32 Bohnert Ave. and Ayala Dr.



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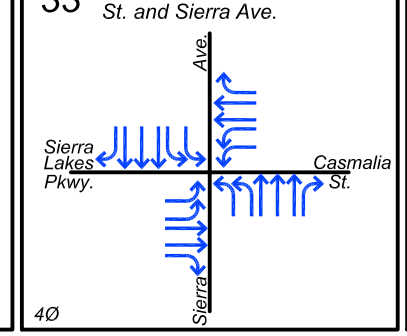
33 Sierra Lakes Pkwy/Casmalia St. and Sierra Ave.



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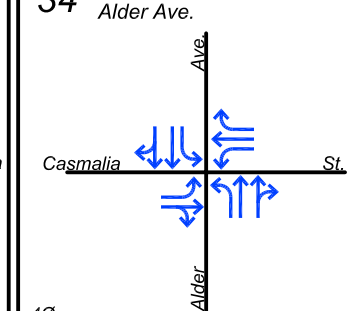

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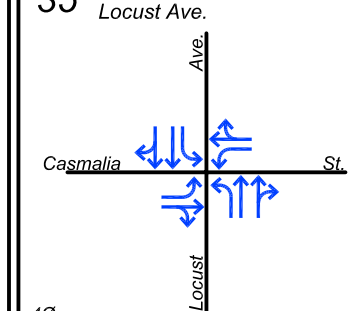
35 Casmalia St. and Locust Ave.



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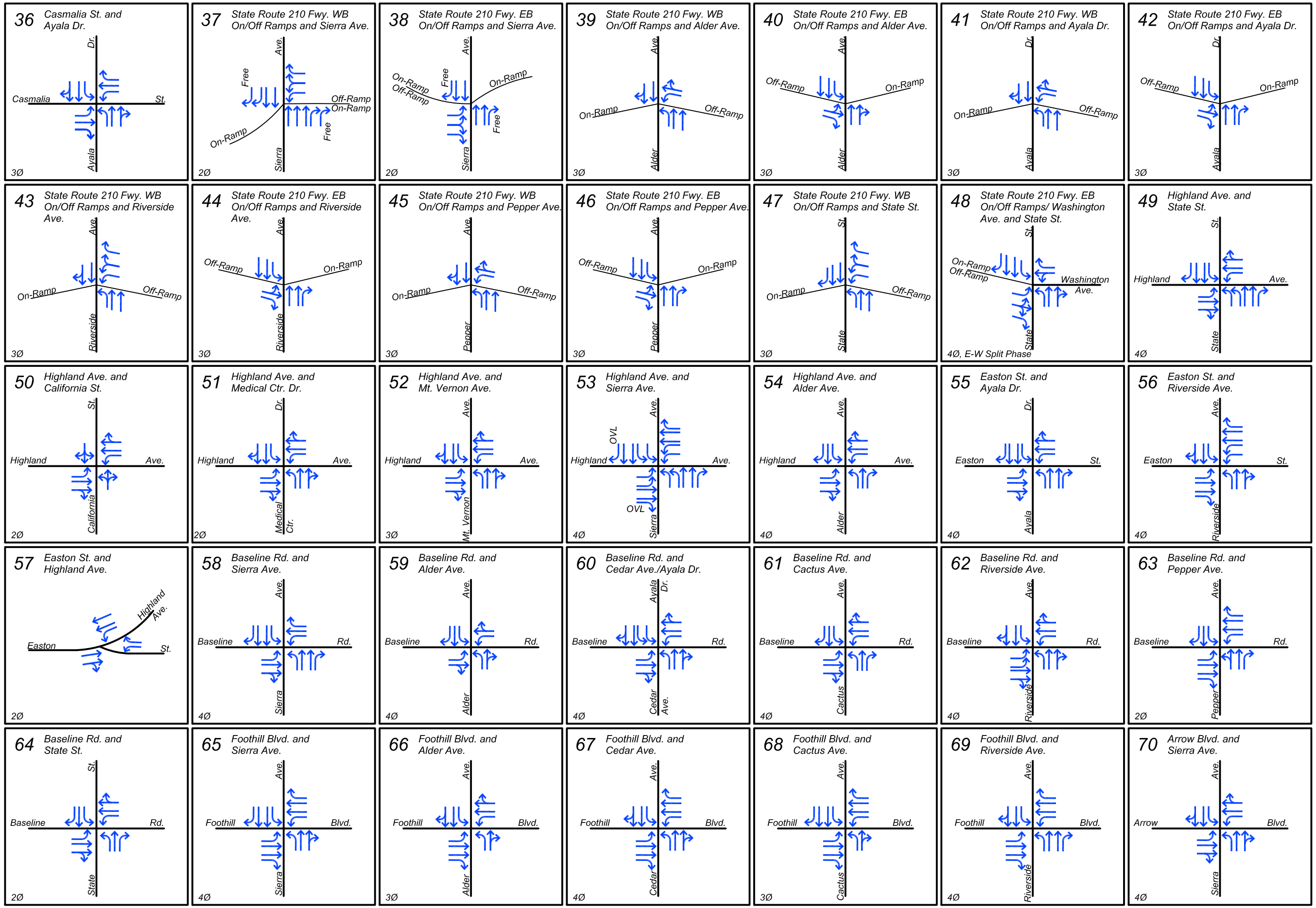
APPENDIX D-2

5/4/2007

FN: LYTLE CREEK RANCHILANE-CONFIG(WOP)

CRAIN & ASSOCIATES
Transportation Planning
Traffic Engineering
2007 Sawtelle Boulevard
Los Angeles, California 90025
PH (310) 473 6508 F (310) 444 9771
www.crainandassociates.com

FUTURE INTERSECTION LANE CONFIGURATION
WITHOUT PROJECT



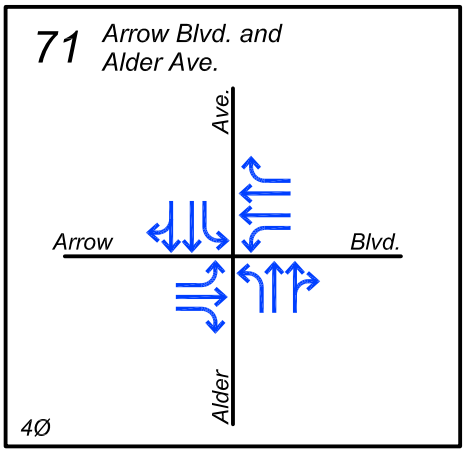
APPENDIX D-2

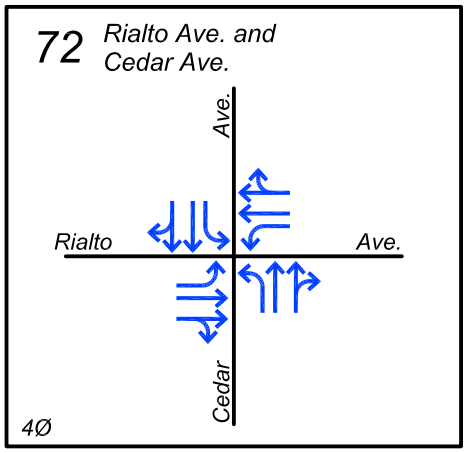
5/4/2007

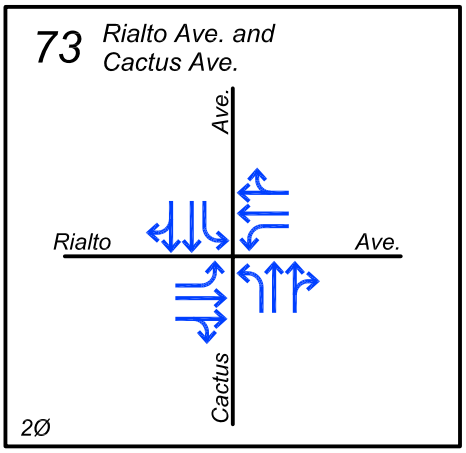
FN: LYTLE CREEK RANCHILANE-CONFIG(WOP)

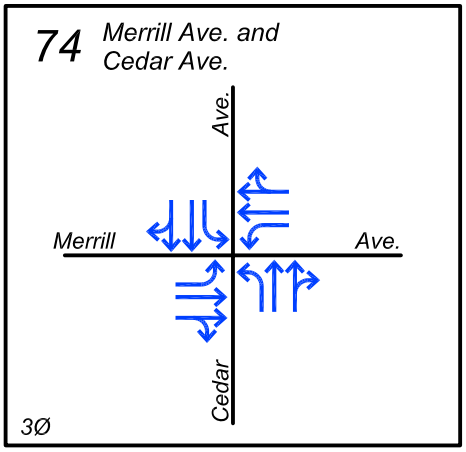
CRAIN & ASSOCIATES
Transportation Planning
Traffic Engineering
2007 Sawtelle Boulevard
Los Angeles, California 90025
PH (310) 473 6508 F (310) 444 9771
www.crainandassociates.com

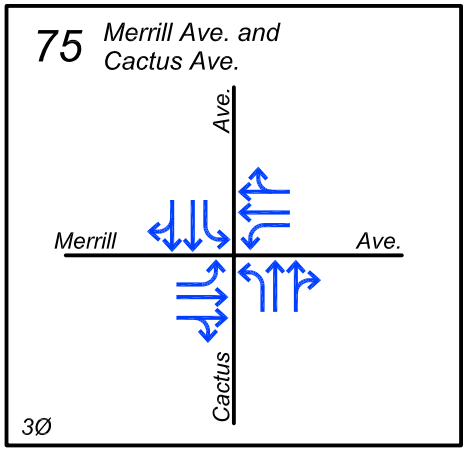
FUTURE INTERSECTION LANE CONFIGURATION
WITHOUT PROJECT











LEGEND	
3Ø	Number of Signal Phases
O	Stop Sign Controlled
FREE	Free Right-Turn Movement
OVL	Overlap Phase

APPENDIX D-2

5/4/2007

FN: LYTLE CREEK RANCH\LANE-CONFIG(WOP)

FUTURE INTERSECTION
LANE CONFIGURATION
WITHOUT PROJECT

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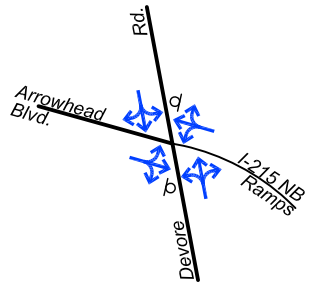
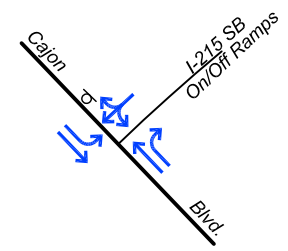
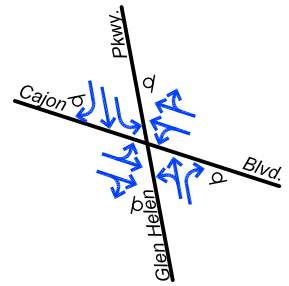
1 I-215 NB On/Off Ramps/ Arrow Blvd. and Devore Rd.



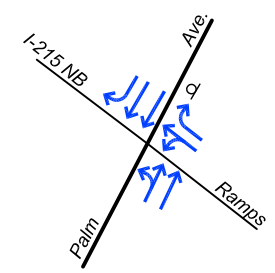
2 Cajon Blvd. and I-215 SB On/Off Ramps



3 Cajon Blvd. and Glen Helen Pkwy.



4 Barstow Fwy.(I-215) NB On/Off Ramps and Palm Ave.



5 Barstow Fwy.(I-215) SB On/Off Ramps/Kendall Dr. and Palm Ave.

6 Barstow Fwy.(I-215) NB On/Off Ramps and University Pkwy.

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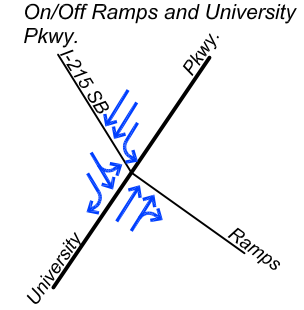
7 Barstow Fwy.(I-215) SB On/Off Ramps and University Pkwy.



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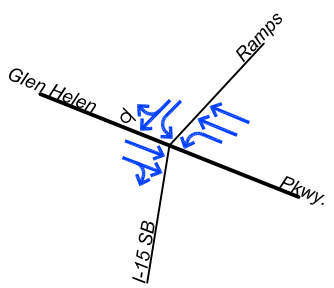
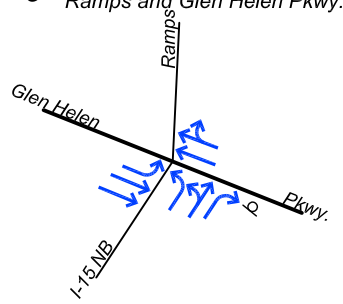
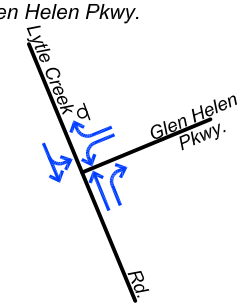
8 Ontario Fwy (I-15) SB On/Off Ramps and Glen Helen Pkwy.



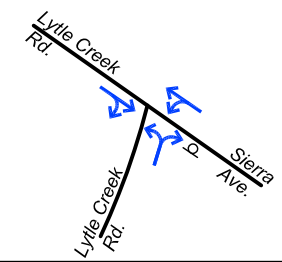
9 Ontario Fwy (I-15) NB On/Off Ramps and Glen Helen Pkwy.



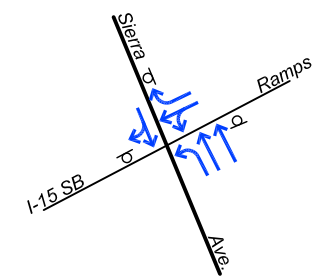
10 Lytle Creek Road and Glen Helen Pkwy.



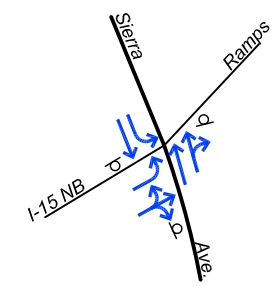
11 Lytle Creek Road and Sierra Ave.



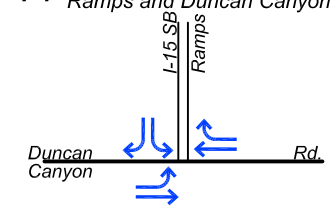
12 Ontario Fwy. (I-15) SB On/Off Ramps and Sierra Ave.



13 Ontario Fwy. (I-15) NB On/Off Ramps and Sierra Ave.



14 Ontario Fwy. (I-15) SB On/Off Ramps and Duncan Canyon Rd.



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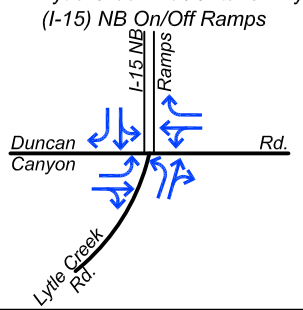
15 Duncan Canyon Rd. and Lytle Creek Rd./Ontario Fwy. (I-15) NB On/Off Ramps



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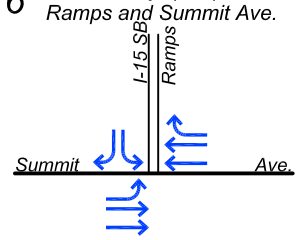
16 Ontario Fwy. (I-15) SB On/Off Ramps and Summit Ave.



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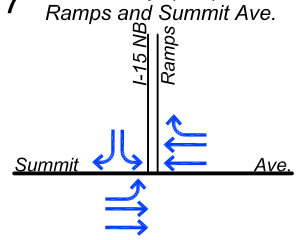
17 Ontario Fwy. (I-15) NB On/Off Ramps and Summit Ave.



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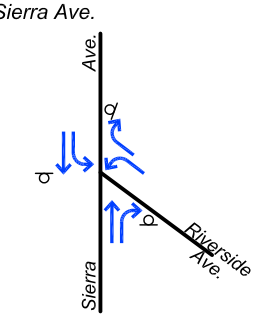
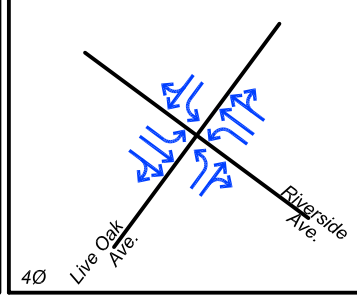
18 Riverside Ave. and Sierra Ave.



19 Riverside Ave. and Live Oak Ave.



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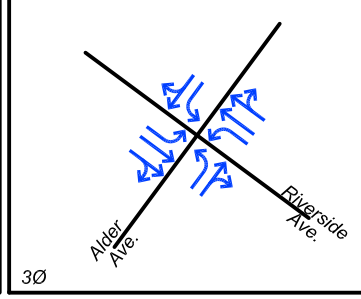
20 Riverside Ave. and Alder Ave.



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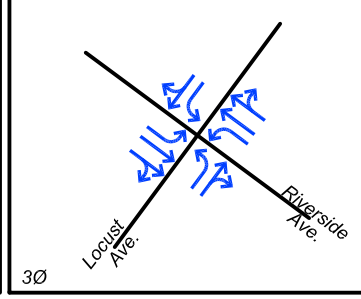
21 Riverside Ave. and Locust Ave.



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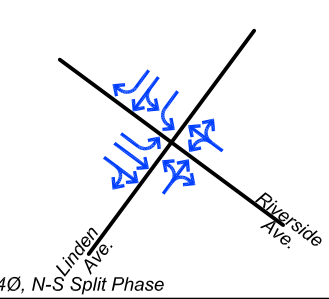
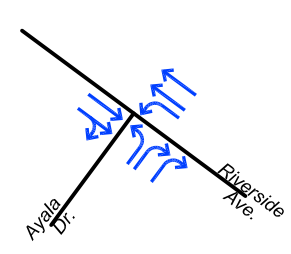
22 Riverside Ave. and Linden Ave.



4Ø, N-S Split Phase

23 Riverside Ave. and Ayala Dr.



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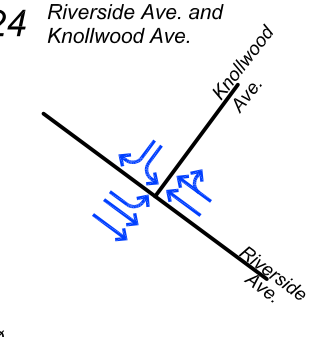
24 Riverside Ave. and Knollwood Ave.



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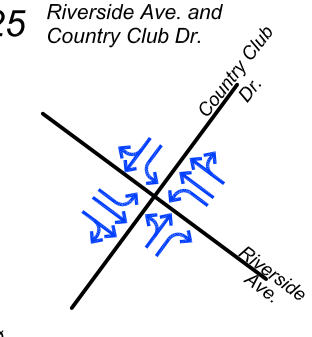
25 Riverside Ave. and Country Club Dr.



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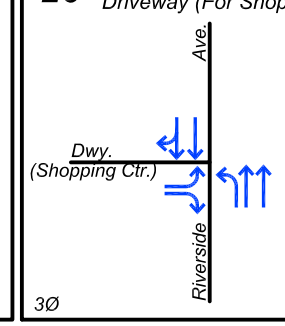
26 Riverside Ave. and Driveway (For Shopping Ctr.)



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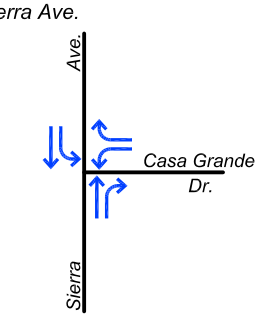
27 Casa Grande Dr. and Sierra Ave.



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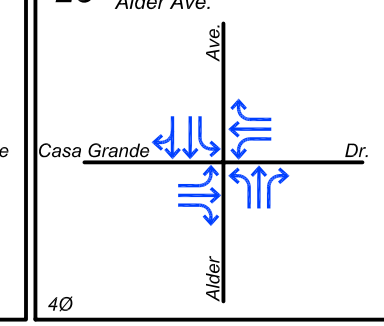
28 Casa Grande Dr. and Alder Ave.



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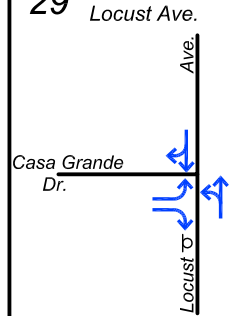
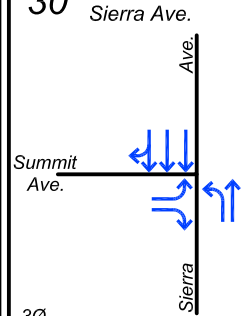
29 Casa Grande Dr. and Locust Ave.



30 Summit Ave. and Sierra Ave.



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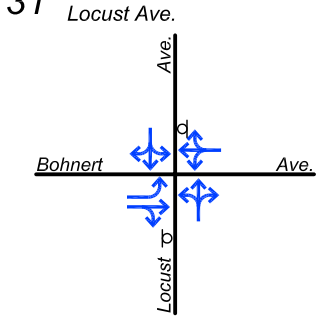
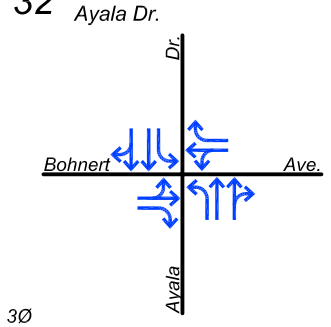
31 Bohnert Ave. and Locust Ave.



32 Bohnert Ave. and Ayala Dr.



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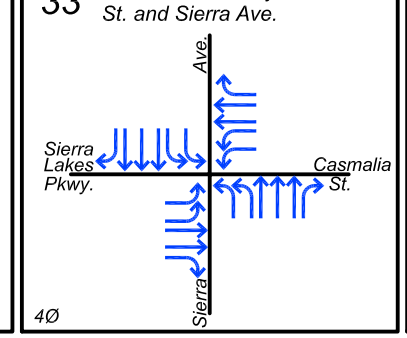
33 Sierra Lakes Pkwy/Casmalia St. and Sierra Ave.



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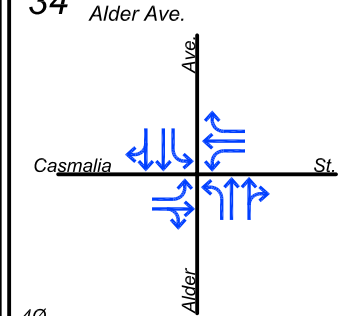
34 Casmalia St. and Alder Ave.



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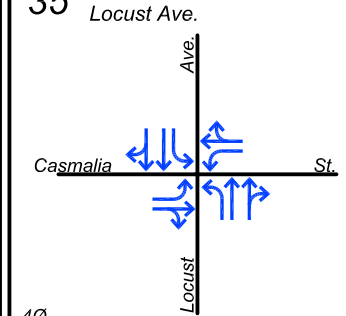
35 Casmalia St. and Locust Ave.



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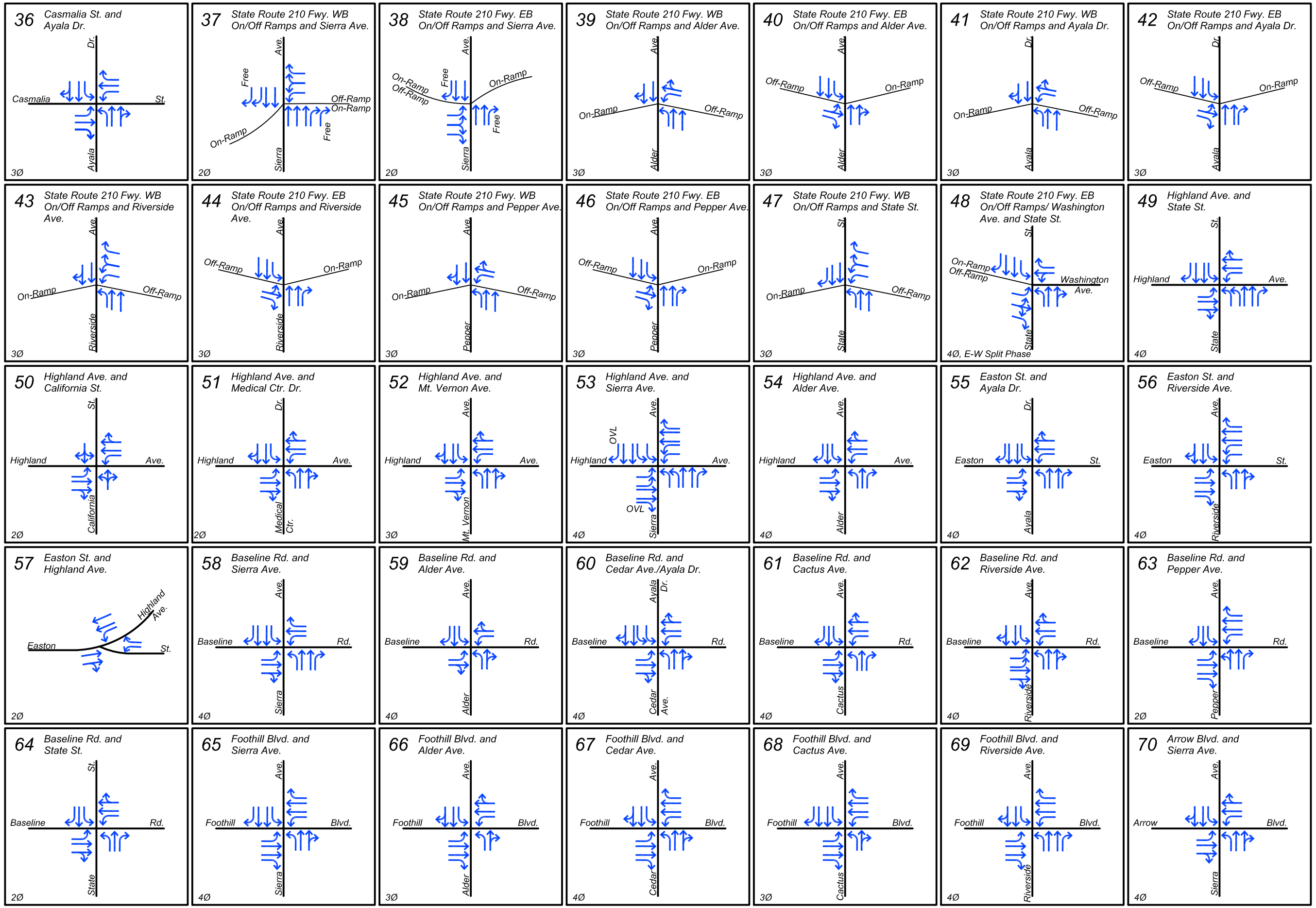
APPENDIX D-3

5/4/2007

FN: LYTLE CREEK RANCHLANE-CONFIG(WP)

CRAIN & ASSOCIATES
Transportation Planning
Traffic Engineering
2007 Sawtelle Boulevard
Los Angeles, California 90025
PH (310) 473 6508 F (310) 444 9771
www.crainandassociates.com

FUTURE INTERSECTION LANE CONFIGURATION WITH PROJECT



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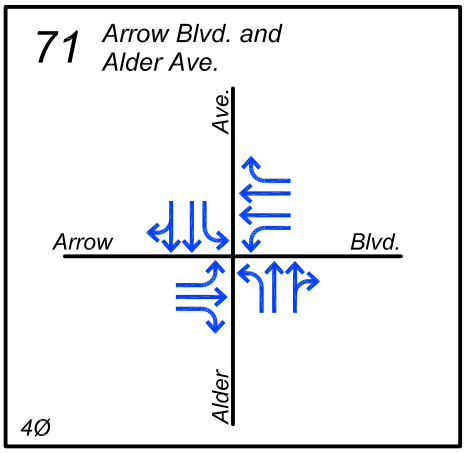

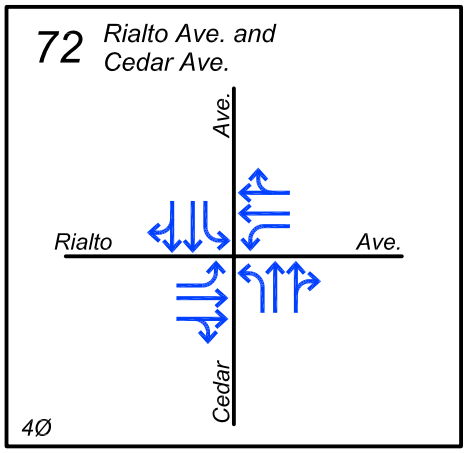

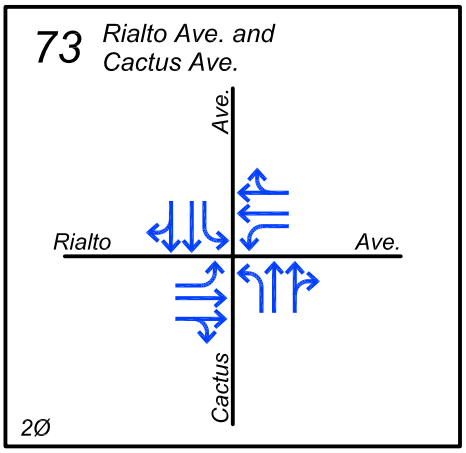

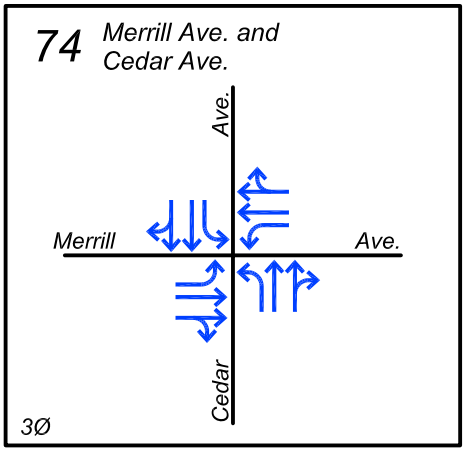

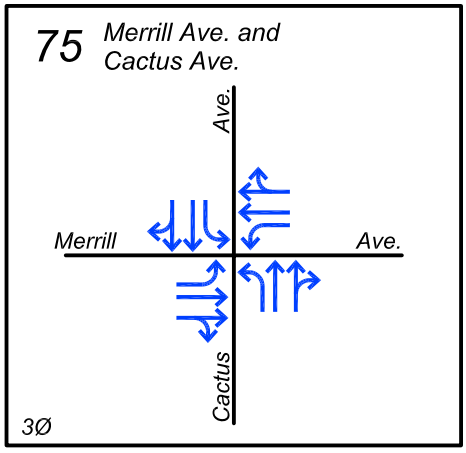

LEGEND	
3Ø	Number of Signal Phases
O	Stop Sign Controlled
FREE	Free Right-Turn Movement
OVL	Overlap Phase

APPENDIX D-3

5/4/2007

FN: LYTLE CREEK RANCH\LANE-CONFIG(WP)

FUTURE INTERSECTION
LANE CONFIGURATION
WITH PROJECT

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Los Angeles California 90025
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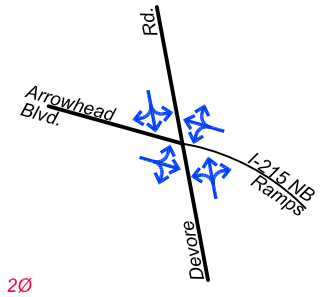
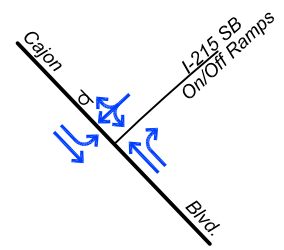
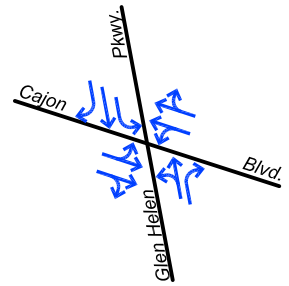
1 I-215 NB On/Off Ramps/ Arrow Blvd. and Devore Rd.



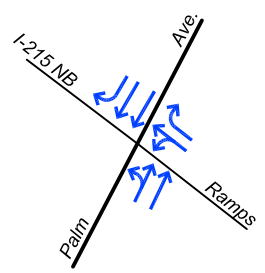
2 Cajon Blvd. and I-215 SB On/Off Ramps



3 Cajon Blvd. and Glen Helen Pkwy.



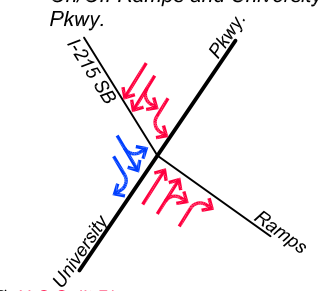
4 Barstow Fwy.(I-215) NB On/Off Ramps and Palm Ave.



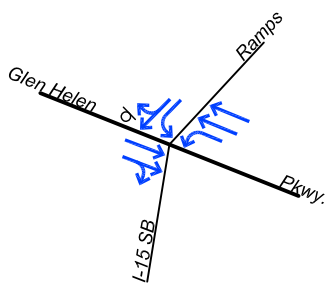
5 Barstow Fwy.(I-215) SB On/Off Ramps/Kendall Dr. and Palm Ave.

6 Barstow Fwy.(I-215) NB On/Off Ramps and University Pkwy.

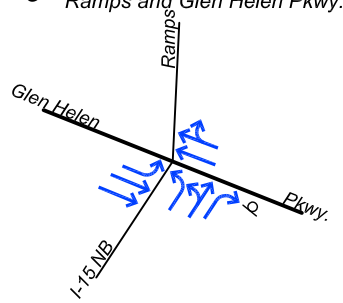
7 Barstow Fwy.(I-215) SB On/Off Ramps and University Pkwy.



8 Ontario Fwy (I-15) SB On/Off Ramps and Glen Helen Pkwy.

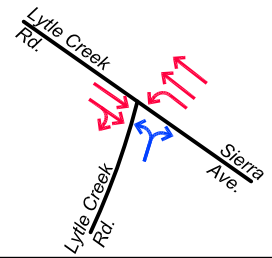


9 Ontario Fwy (I-15) NB On/Off Ramps and Glen Helen Pkwy.

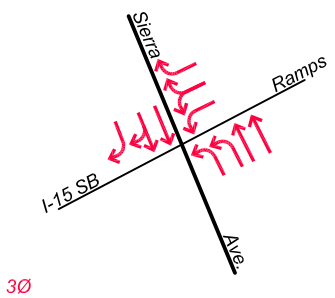


10 Lytle Creek Road and Glen Helen Pkwy.

11 Lytle Creek Road and Sierra Ave.

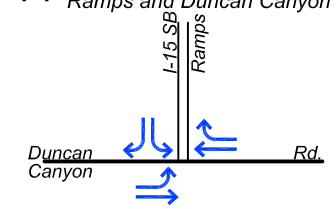


12 Ontario Fwy. (I-15) SB On/Off Ramps and Sierra Ave.

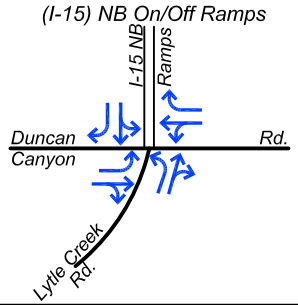


13 Ontario Fwy. (I-15) NB On/Off Ramps and Sierra Ave.

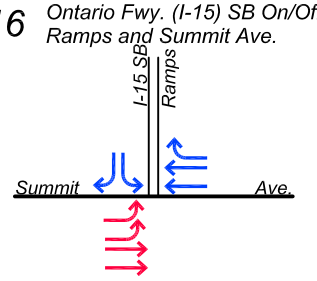
14 Ontario Fwy. (I-15) SB On/Off Ramps and Duncan Canyon Rd.



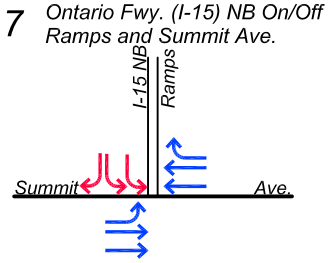
15 Duncan Canyon Rd. and Lytle Creek Rd./Ontario Fwy. (I-15) NB On/Off Ramps



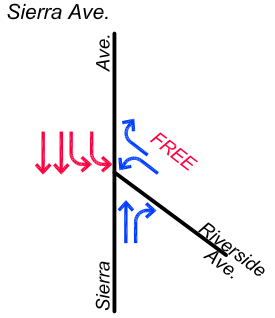
16 Ontario Fwy. (I-15) SB On/Off Ramps and Summit Ave.



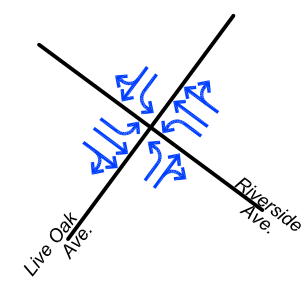
17 Ontario Fwy. (I-15) NB On/Off Ramps and Summit Ave.



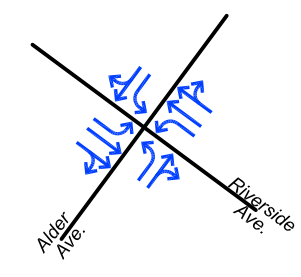
18 Riverside Ave. and Sierra Ave.



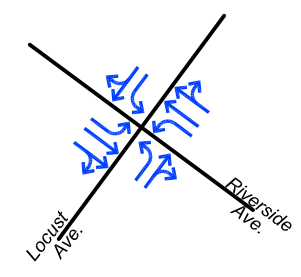
19 Riverside Ave. and Live Oak Ave.



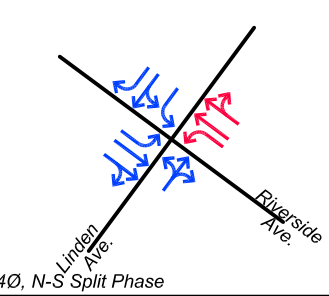
20 Riverside Ave. and Alder Ave.



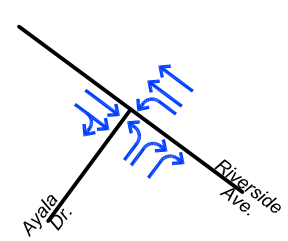
21 Riverside Ave. and Locust Ave.



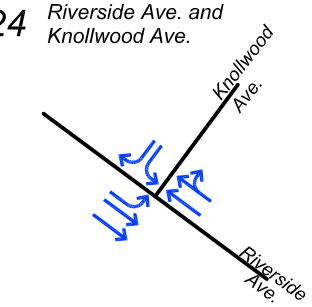
22 Riverside Ave. and Linden Ave.



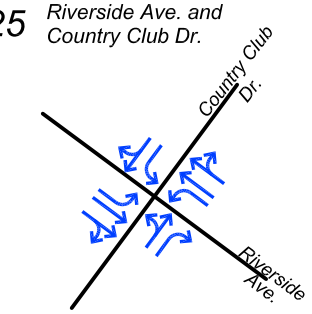
23 Riverside Ave. and Ayala Dr.



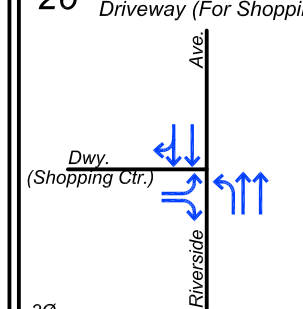
24 Riverside Ave. and Knollwood Ave.



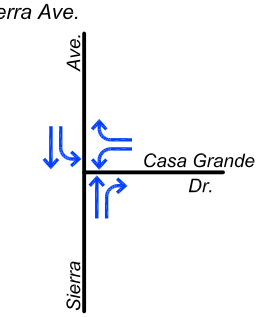
25 Riverside Ave. and Country Club Dr.



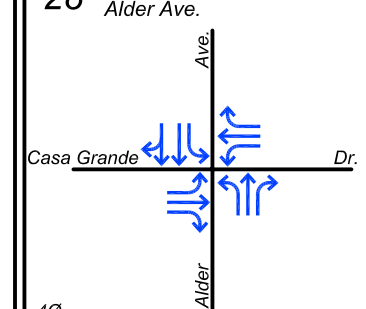
26 Riverside Ave. and Driveway (For Shopping Ctr.)



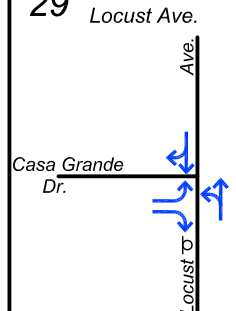
27 Casa Grande Dr. and Sierra Ave.



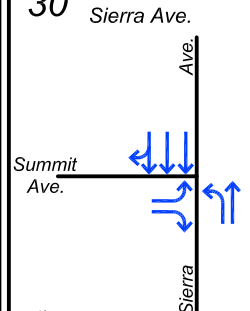
28 Casa Grande Dr. and Alder Ave.



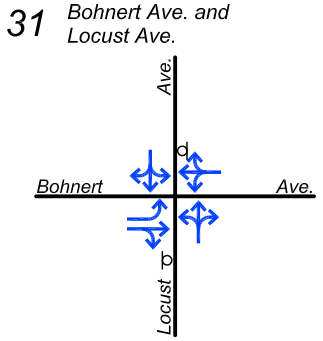
29 Casa Grande Dr. and Locust Ave.



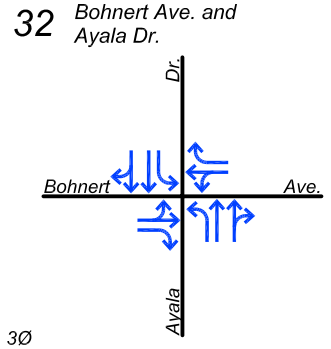
30 Summit Ave. and Sierra Ave.



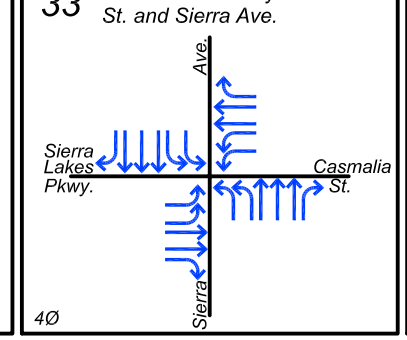
31 Bohnert Ave. and Locust Ave.



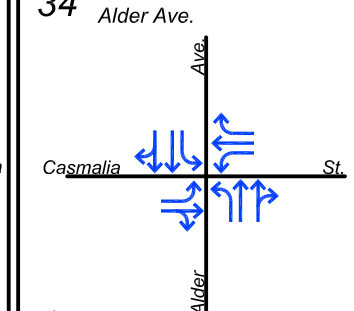
32 Bohnert Ave. and Ayala Dr.



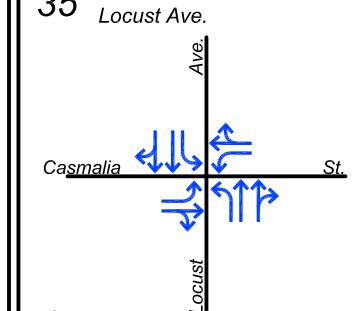
33 Sierra Lakes Pkwy/Casmalia St. and Sierra Ave.



34 Casmalia St. and Alder Ave.



35 Casmalia St. and Locust Ave.



5/4/2007

APPENDIX D-4

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Los Angeles, California 90025
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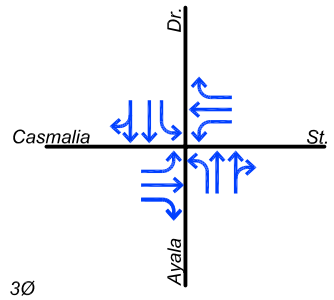
www.crainandassociates.com

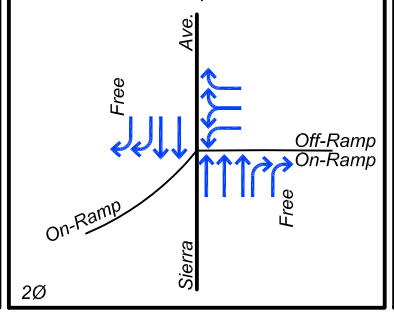
FUTURE INTERSECTION LANE CONFIGURATION
WITH PROJECT PLUS MITIGATION

36 Casmalia St. and Ayala Dr.



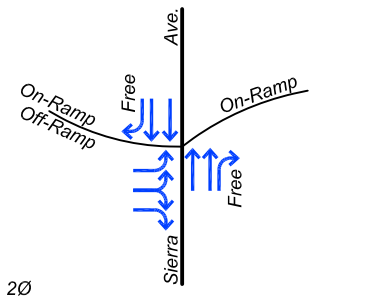
3Ø

37 State Route 210 Fwy. WB On/Off Ramps and Sierra Ave.



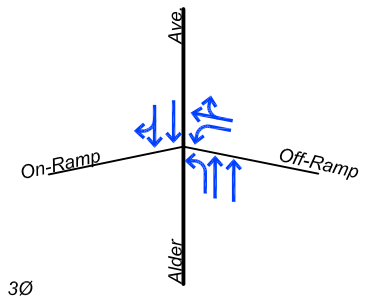
2Ø

38 State Route 210 Fwy. EB On/Off Ramps and Sierra Ave.



2Ø

39 State Route 210 Fwy. WB On/Off Ramps and Alder Ave.



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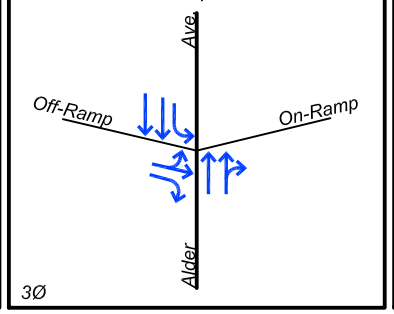
40 State Route 210 Fwy. EB On/Off Ramps and Alder Ave.



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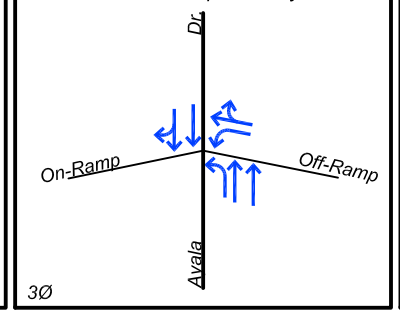
41 State Route 210 Fwy. WB On/Off Ramps and Ayala Dr.



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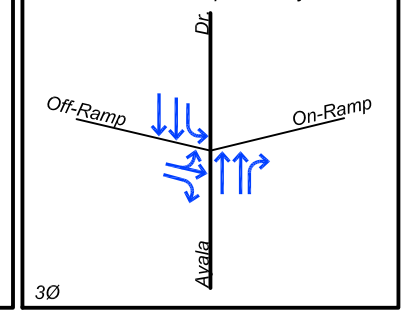
42 State Route 210 Fwy. EB On/Off Ramps and Ayala Dr.

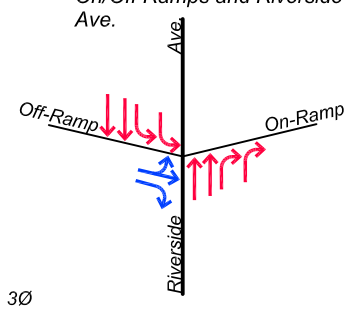


3Ø

43 State Route 210 Fwy. WB On/Off Ramps and Riverside Ave.

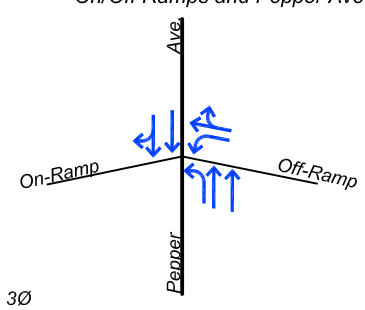
3Ø

44 State Route 210 Fwy. EB On/Off Ramps and Riverside Ave.



3Ø

45 State Route 210 Fwy. WB On/Off Ramps and Pepper Ave.



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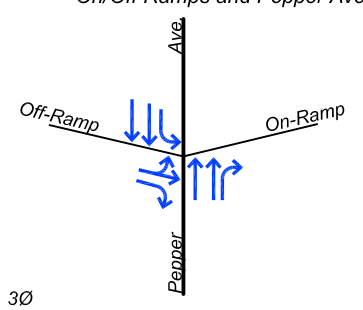
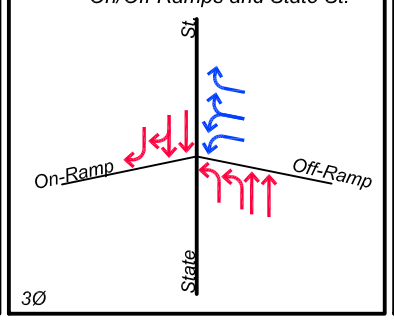
46 State Route 210 Fwy. EB On/Off Ramps and Pepper Ave.



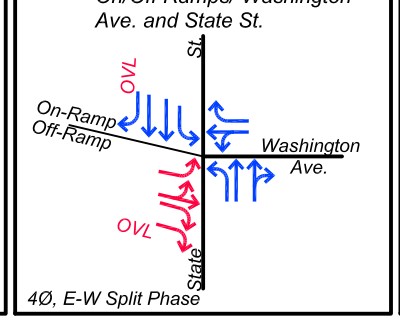
3Ø

47 State Route 210 Fwy. WB On/Off Ramps and State St.



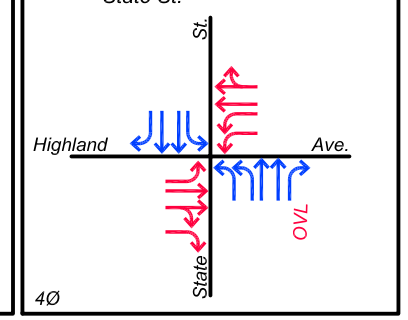
3Ø

48 State Route 210 Fwy. EB On/Off Ramps/ Washington Ave. and State St.



4Ø, E-W Split Phase

49 Highland Ave. and State St.



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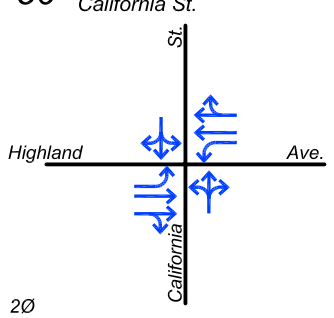
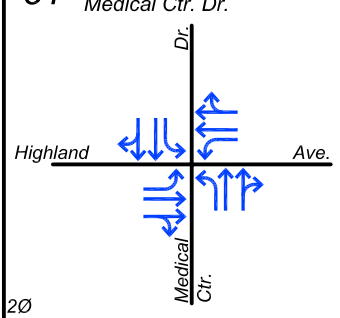
50 Highland Ave. and California St.



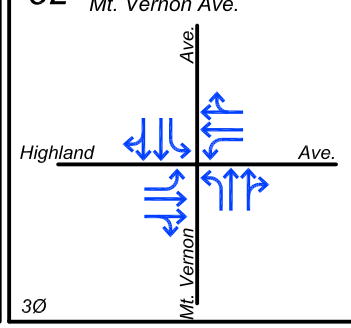
2Ø

51 Highland Ave. and Medical Ctr. Dr.



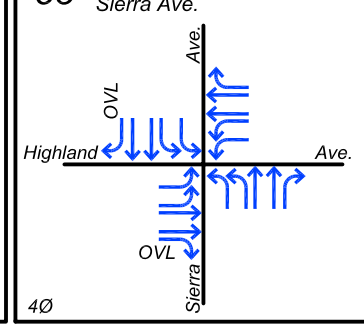
2Ø

52 Highland Ave. and Mt. Vernon Ave.



3Ø

53 Highland Ave. and Sierra Ave.



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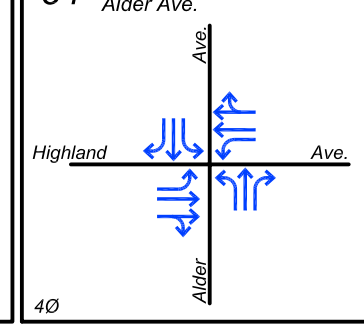
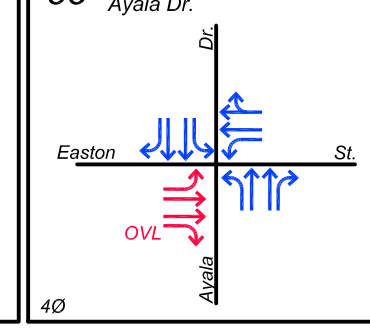
54 Highland Ave. and Alder Ave.



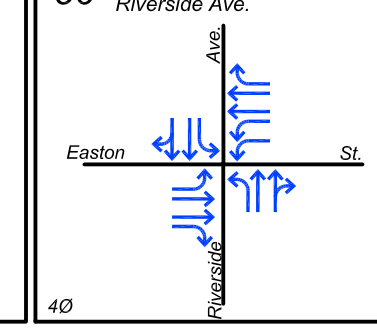
4Ø

55 Easton St. and Ayala Dr.



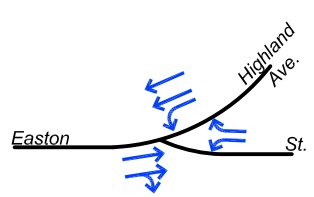
4Ø

56 Easton St. and Riverside Ave.



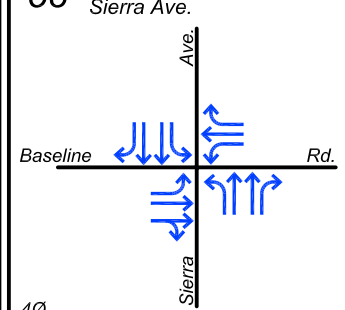
4Ø

57 Easton St. and Highland Ave.



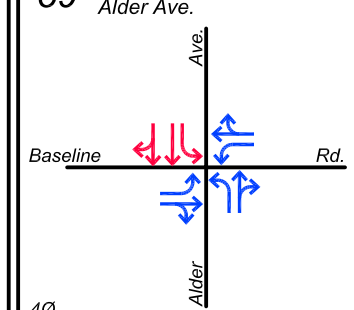
2Ø

58 Baseline Rd. and Sierra Ave.



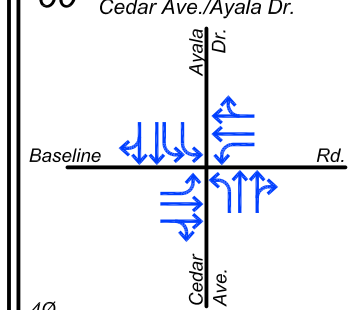
4Ø

59 Baseline Rd. and Alder Ave.



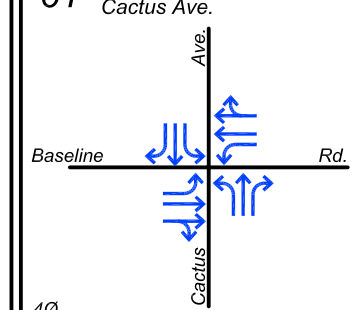
4Ø

60 Baseline Rd. and Cedar Ave./Ayala Dr.



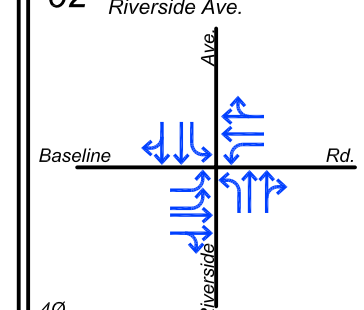
4Ø

61 Baseline Rd. and Cactus Ave.



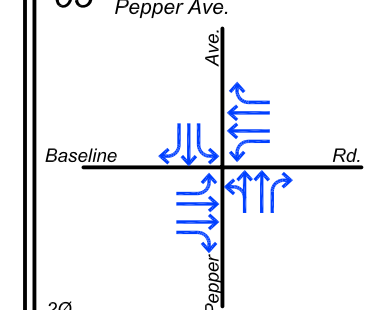
4Ø

62 Baseline Rd. and Riverside Ave.



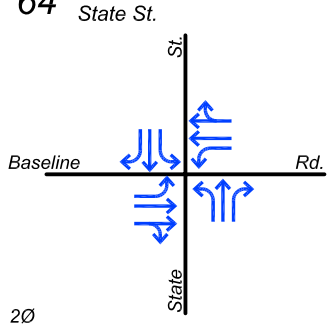
4Ø

63 Baseline Rd. and Pepper Ave.



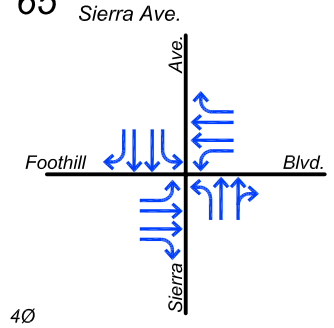
2Ø

64 Baseline Rd. and State St.



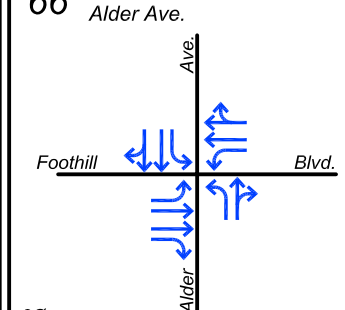
2Ø

65 Foothill Blvd. and Sierra Ave.



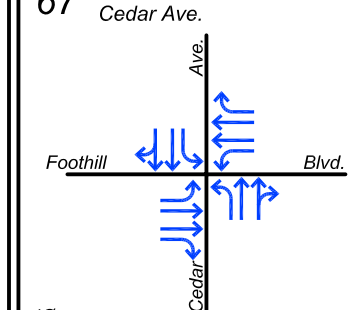
4Ø

66 Foothill Blvd. and Alder Ave.



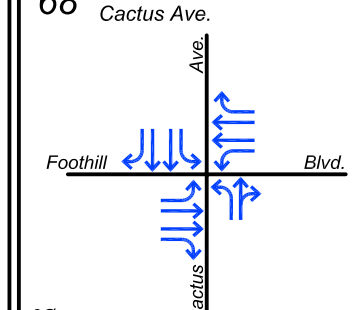
3Ø

67 Foothill Blvd. and Cedar Ave.



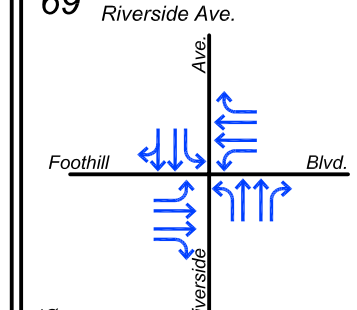
4Ø

68 Foothill Blvd. and Cactus Ave.



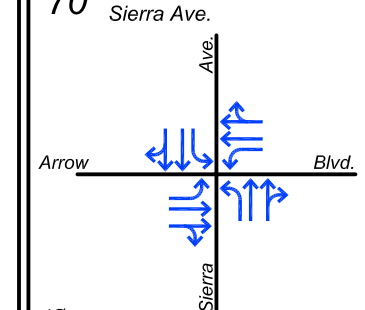
3Ø

69 Foothill Blvd. and Riverside Ave.



4Ø

70 Arrow Blvd. and Sierra Ave.



4Ø

APPENDIX D-4

5/4/2007

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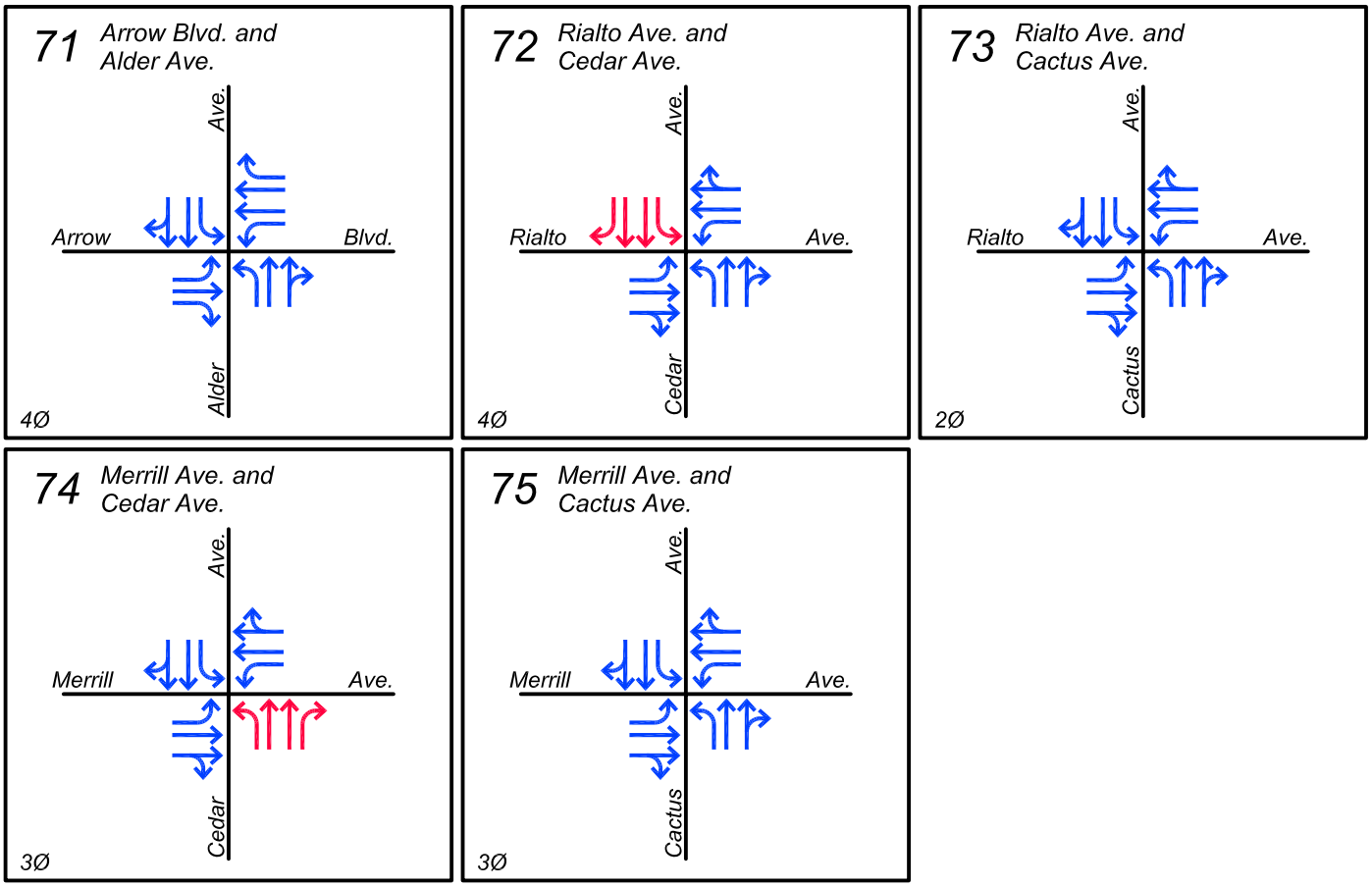

LEGEND	
3Ø	Number of Signal Phases
Ø	Stop Sign Controlled
FREE	Free Right-Turn Movement
OVL	Overlap Phase
RED	Mitigation Improvement

APPENDIX D-4

5/4/2007

FN: LYTLE CREEK RANCH\LANE-CONFIG(WMIT)

FUTURE INTERSECTION
LANE CONFIGURATION
WITH PROJECT PLUS MITIGATION

CRAIN & ASSOCIATES
Transportation Planning
Traffic Engineering
2007 Sawtelle Boulevard
Los Angeles California 90025
PH (310) 473 6508 F (310) 444 9771
www.crainandassociates.com

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APPENDIX E

DEFINITION OF STREET CLASSIFICATIONS

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CITY OF RIALTO

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line, an improved General Aviation airport, and a new freeway constructed in the Highland Avenue corridor will offer additional mobility to Rialto residents.

It is evident that the City's circulation systems have grown with the City, keeping pace with demands generated by new development. In order to maintain this concurrency of land use and circulation development, as well as to meet present and future transportation needs resulting from unprecedented local and regional growth, it is necessary to identify significant pending issues and the goals and policies to address them.

2.0 ROADWAYS

As discussed in the Rialto Synthesis Report, roadways are classified according to their dimensions, capacities and the purposes they are designed to serve. Simplified, the hierarchy of roadways is as summarized below:

Freeways are multi-laned, high volume, high speed roadways built for regional and interregional travel. Access to freeways is rigorously constrained in order to maintain the flow of traffic unimpeded by entering and exiting vehicles.

Major arterials are the largest of local "surface" streets. Major arterials serve to link freeways with other local streets as well as to accommodate through traffic. Typically, major arterials have at least four lanes, left turn pockets and design speeds of 50 miles per hour. For reasons of safety, it is desirable to limit the number of driveways with direct access to major arterials.

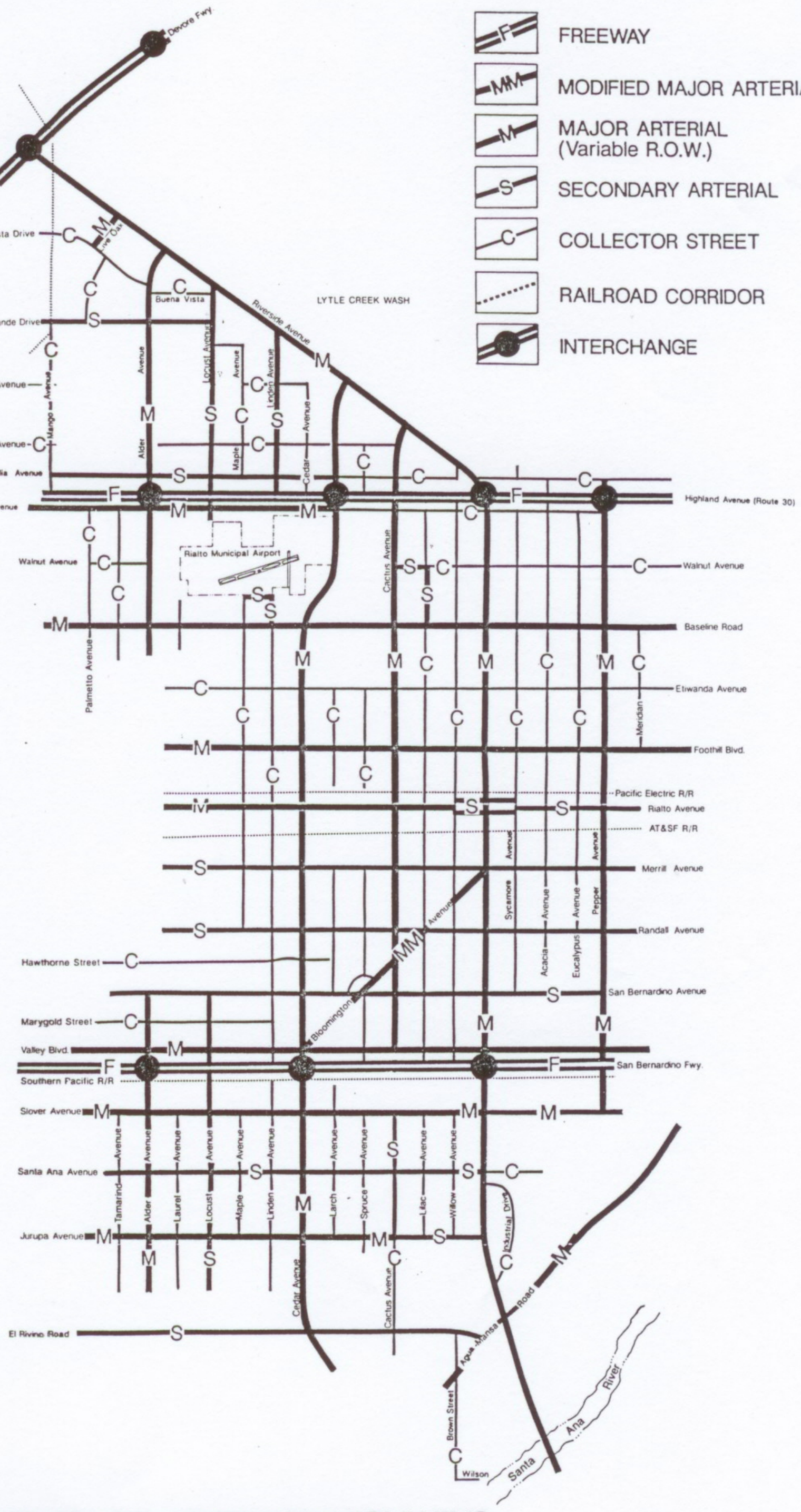
Secondary arterials also have four lanes and left turn pockets, but the lane widths are narrower than major arterials and the design speeds are slower, usually 40 miles per hour. Parking is often allowed on the sides of secondary arterials. Although through traffic will often make use of secondary arterials, their primary purpose is service to local traffic.

Collector streets offer transition between slow speed local streets and the higher speeds of arterials. With two lanes and design speeds of 30 miles per hour, collector streets, as their name implies, collect local traffic for safe delivery to arterials.

Local streets are the two laned roadways serving neighborhoods within residential areas. Typically they are narrow in width and accommodate parking at their curbs which forces traffic to slow to the design speed of 25 miles per hour and discourages through traffic.

Figure III-1 shows Rialto's street system, noting the major (M) and secondary (S) arterials, as well as collector (C) streets.

Another important consideration when reviewing the performance of the roadway system is level of service (LOS). LOS describes the amount of traffic congestion, or delay, to be found on the City's streets. LOS is classified from "A", no delays, to "F", extreme congestion leading to a nonfunctioning flow of traffic. The definitions of level of service for uninterrupted traffic flow (flow unrestrained by the existence of traffic control devices) can be summarized as follows:



MASTER PLAN OF ARTERIAL HIGHWAYS

GENERAL PLAN UPDATE

Figure V-1

THE KEITH COMPANIES

City of Rialto, California

CITY OF FONTANA

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Relationship to Other General Plan Elements

The Circulation and Land Use Elements mutually affect one another. The nature, routing and design of circulation facilities are among the major determinants of the form of human settlement and of the uses of the land. Conversely, land uses create a demand for circulation facilities. The goals and policies of the Circulation Element also have a direct relationship with the housing, open-space, noise and safety elements. State law requires consistency among all the elements of the General Plan.

COMPONENTS OF THE PLAN

Major Thoroughfares and Transportation Routes

Classification of Streets

For the purposes of analysis and evaluation of roadway needs, a roadway functional classification system has been established for the City of Fontana. These classifications are divided into Standard and Modified categories. Typical cross-section elements associated with each standard classification are shown in Figures 4-1a through 1d, Standard Cross Sections. Street cross-sections that require deviation from the typical adopted cross-sections indicated in these figures are shown in Figures 4-1e through 1g, Standard Cross Sections. These Modified cross-sections shall only be applicable to infill areas where substantial development exists with existing physical constraints, including street improvements. In no case shall the modified cross-section be less than the existing adjacent cross-section or the previously adopted cross-section for the street on this General Plan.

Additional right-of-way dedication beyond the approved typical cross-section may be required in order to accommodate additional turn lanes in order to maintain acceptable levels of service per City requirements. The six roadway classifications are briefly described in the following paragraphs.

Major Highways
These roadways can accommodate six or eight travel lanes and may have raised medians. These facilities carry high traffic volumes and are the primary thoroughfares linking Fontana with adjacent cities and the regional highway system. Driveway access to these roadways is typically limited to provide efficient high volume traffic flow. Right of way (including sidewalks) on these facilities varies between 132 and 156 feet depending on the number of lanes. See Figure 4-1a.

Primary Highways

These roadways are designed to accommodate four travel lanes with a median, within a typical 104-foot right of way, carry high traffic volumes and provide limited access. Their primary function is to link the major highways to the secondary highways as well as to carry vehicles entering and exiting the City from neighboring areas. Driveway access is also typically limited on these facilities, where feasible. See Figure 4-1b.

Secondary Highways

These roadways are typically four-lane streets, providing two lanes in each direction. These highways carry traffic along the perimeters of major developments, provide support to the major and primary highways, and are also through streets enabling traffic to travel uninterrupted for longer distances through the City. Secondary highways have a 92-foot wide right of way, which includes sidewalks. See Figure 4-1b.

Collector Streets

These roadways are typically two-lane streets that connect the local streets with the secondary highways allowing local traffic to access the regional transportation facilities. Collector streets have a 68-foot wide right of way. See Figure 4-1c.

Industrial Collectors

These roadways are typically two-lane streets, which are designed to accommodate industrial traffic. Industrial collectors also have a 68-foot wide right of way, which includes sidewalks. See Figure 4-1c.

Local Streets

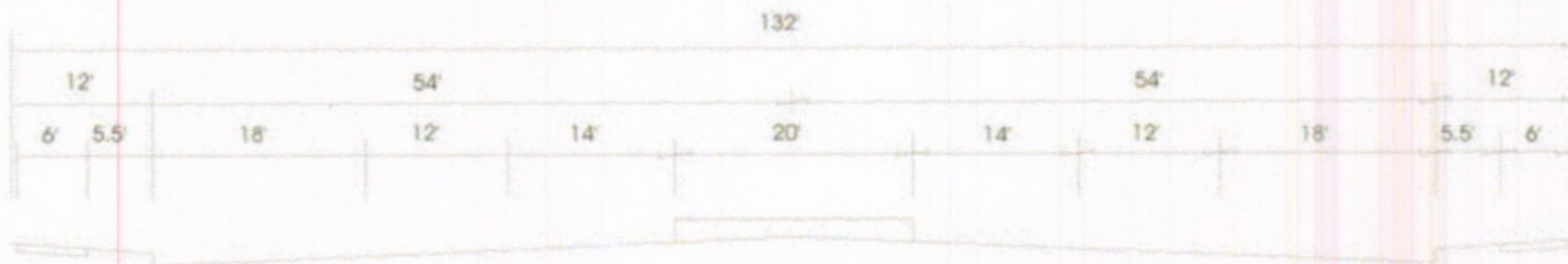
These roadways are typically two-lane streets that designed to serve neighborhoods within residential areas. There are several variations on local streets depending on location, length of the street, and type of land use. These are illustrated in Figures 4-1d. As shown in this figure, right of way for local streets varies between 50 and 64 feet depending on the type.

Public Transit

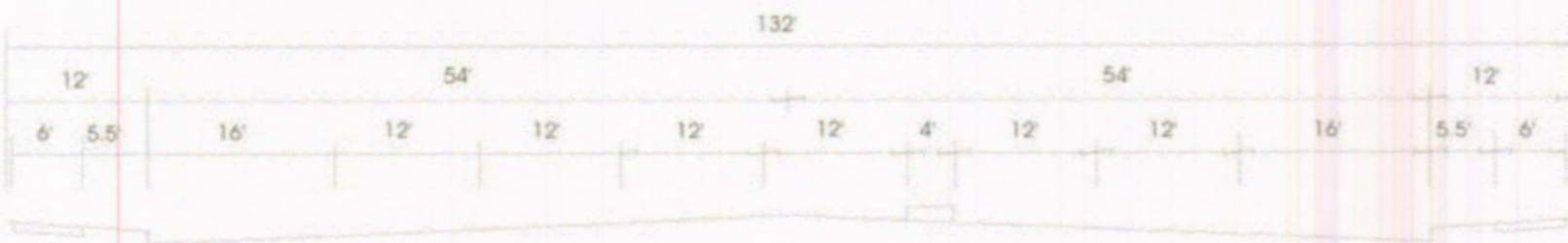
Bus Service

Public transportation in the Fontana area is provided by Omnitrans, the regional Public Transit operator for San Bernardino County. Omnitrans functions as a joint powers agency supported by the County of San Bernardino and all the cities in the east and west San Bernardino Valley. The City of Fontana is represented on the Omnitrans Board. Omnitrans is financed through the State Transit Development Act and Urban Mass Transit Funds.

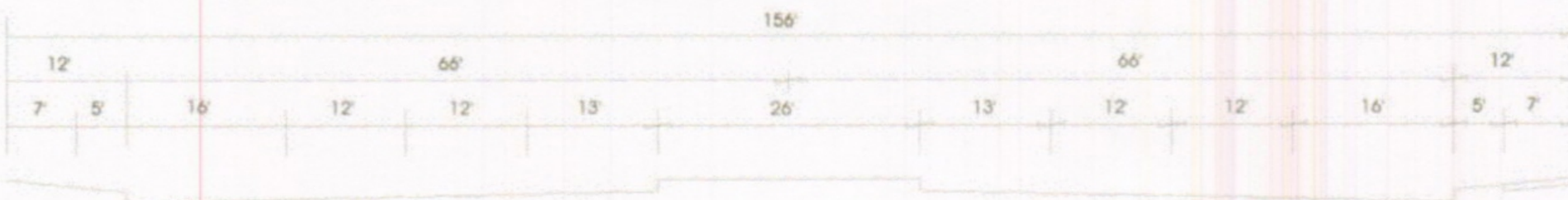
Major Highway - Midblock (Revised 12/18/90: Res No. 90-281)



Major Highway - Intersection (Revised 12/18/90: Res No. 90-281)



Eight-Lane Major Highway - Midblock (Added 10/15/96: Res No. 96-60)



Eight-Lane Major Highway - Intersection (Added 10/15/96: Res No. 96-60)

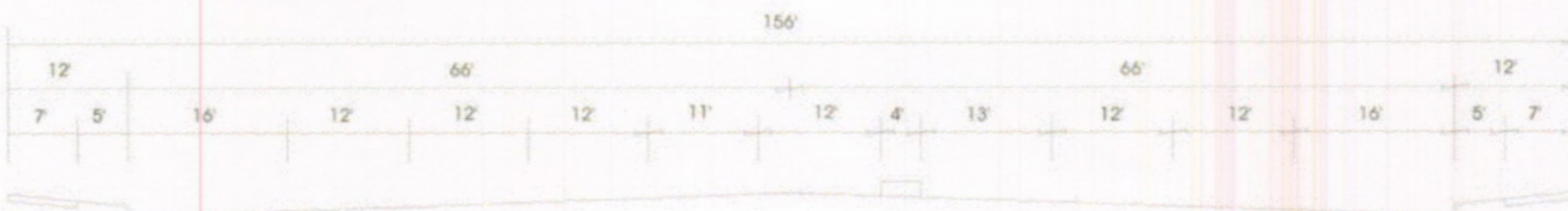
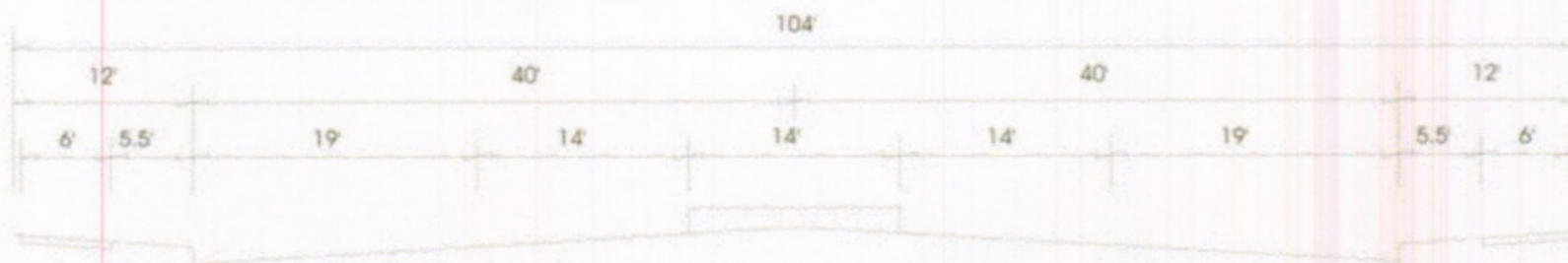


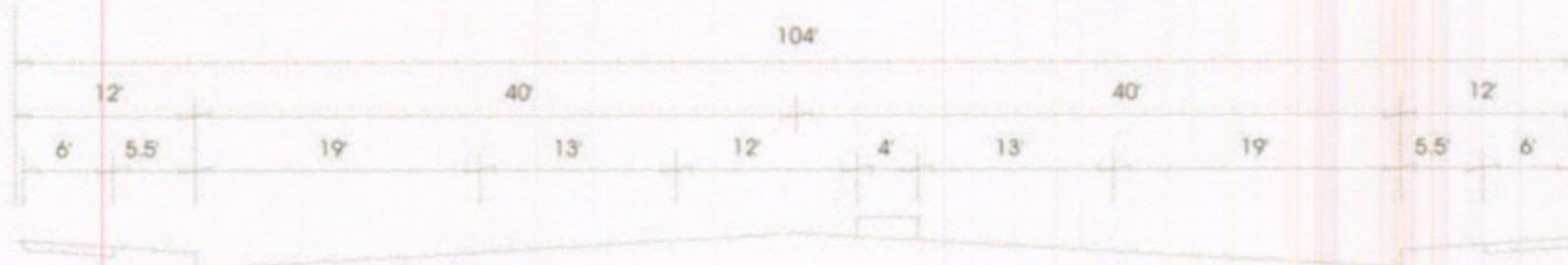
Figure 4-1a

Standard Cross Sections

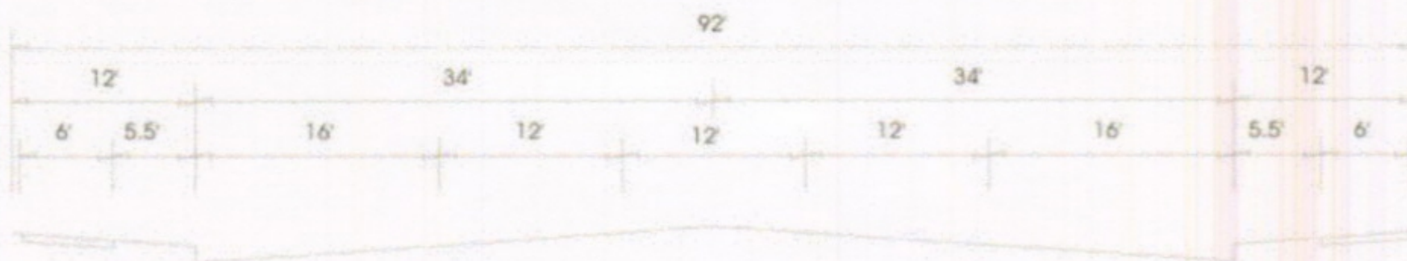
Primary Highway - Midblock (Revised 12/18/90: Res No. 90-281)



Primary Highway - Intersection (Revised 12/18/90: Res No. 90-281)

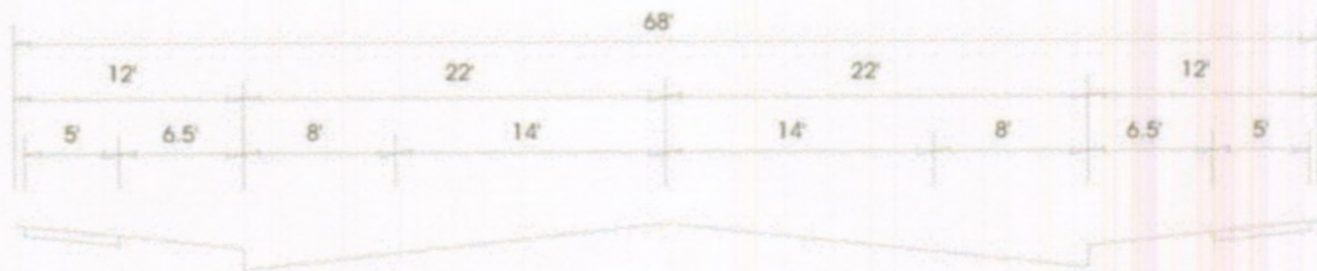


Secondary Highway (Revised 12/18/90: Res No. 90-281)

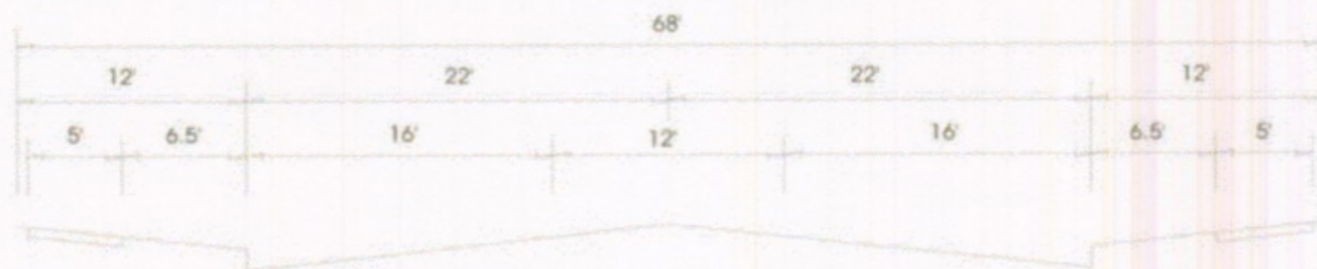


Standard Cross Sections

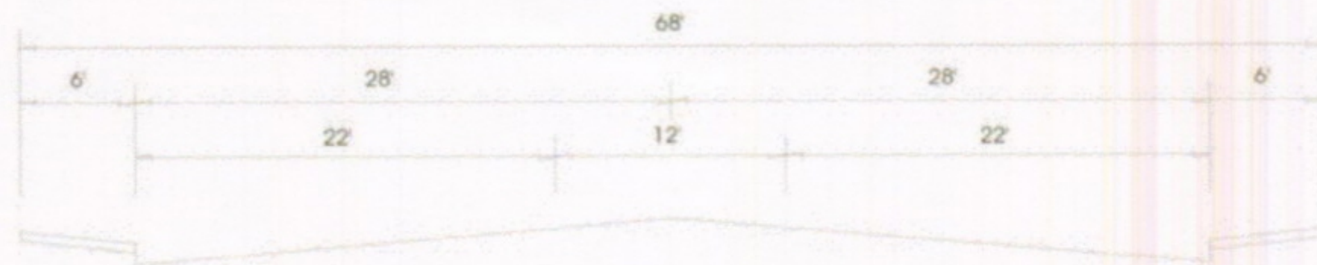
Collector Street - Midblock (Revised 12/18/90: Res No. 90-281)



Collector Street - Intersection (Revised 12/18/90: Res No. 90-281)

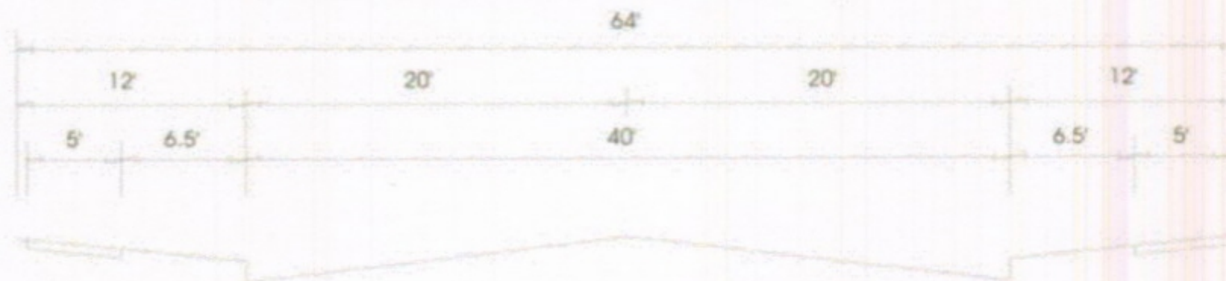


Collector Street - Industrial (Revised 12/18/90: Res No. 90-281)

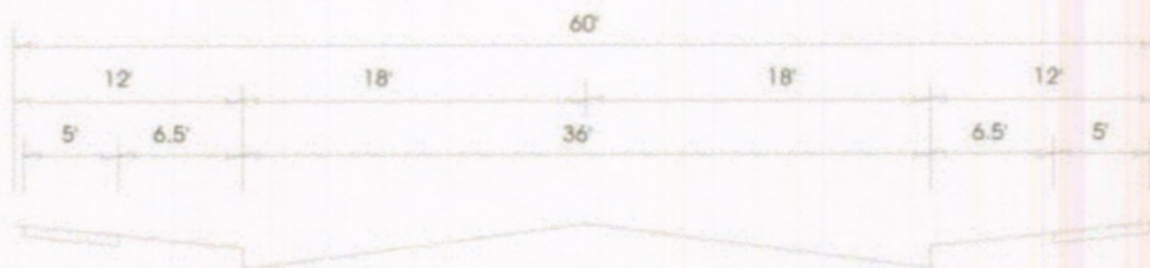


Standard Cross Sections

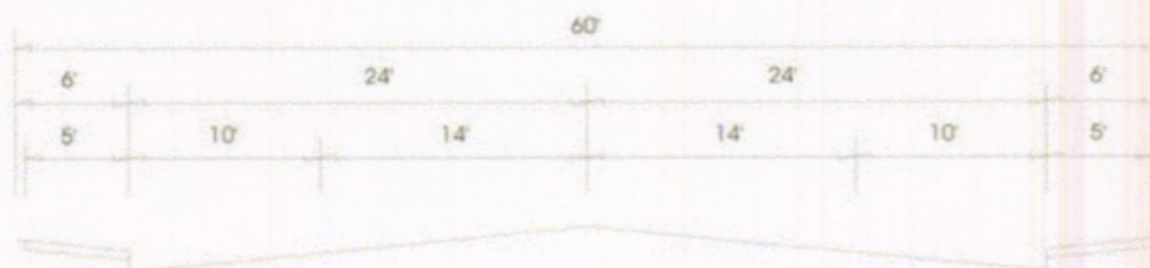
Local Street (Revised 12/18/90: Res No. 90-281)



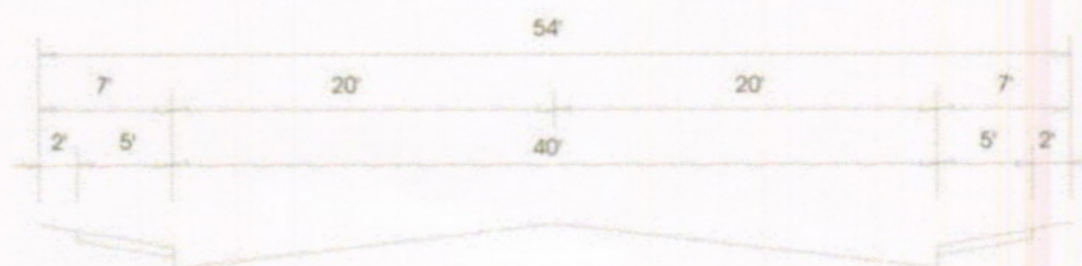
Local Street - Short (Added 12/18/90: Res No. 90-281)
600 feet or less in length



Local Street - Industrial (Added 12/18/90: Res No. 90-281)



Local Street (Added 11/1/94: Res No. 94-125)
Community/Specific Plans in North Fontana



Local Street - Short (Added 11/1/94: Res No. 94-125)
Community/Specific Plans in North Fontana

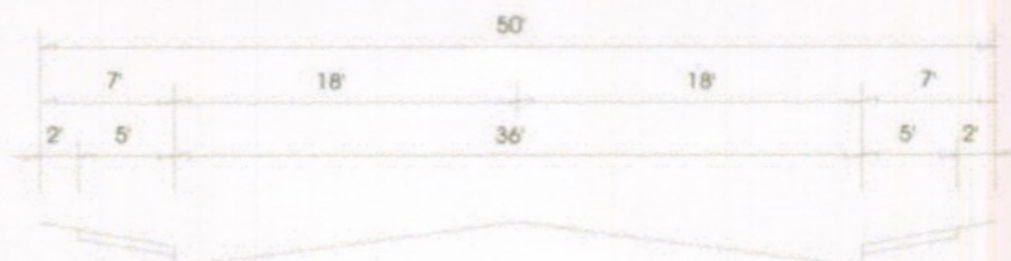
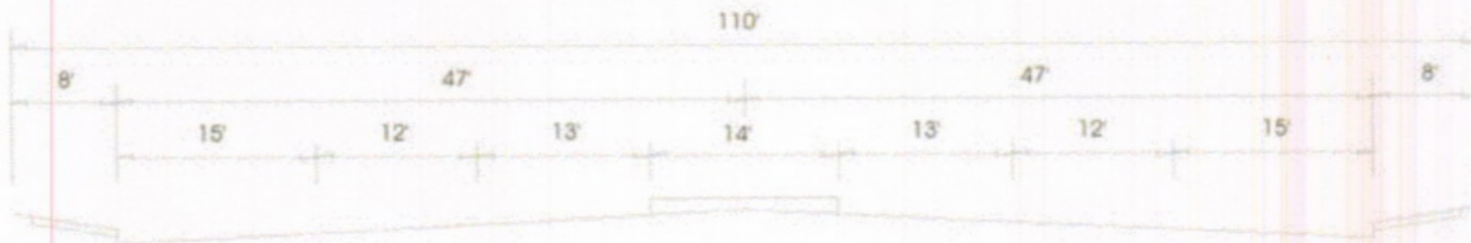


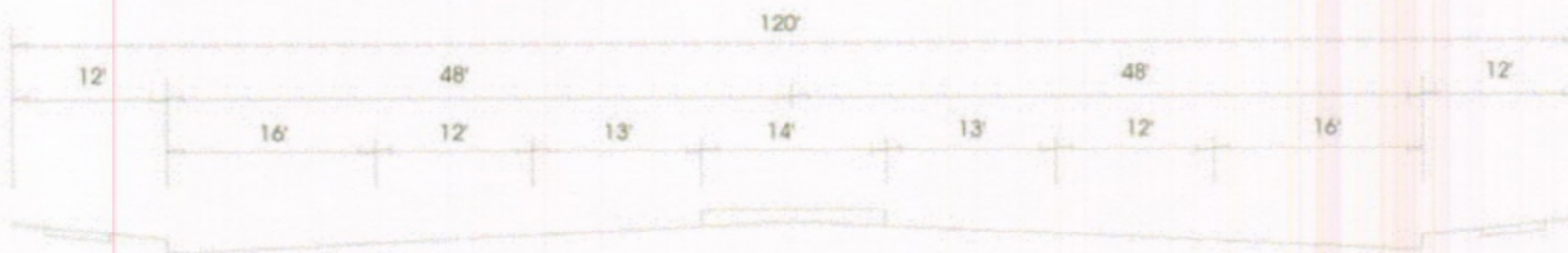
Figure 4-1d

Standard Cross Sections

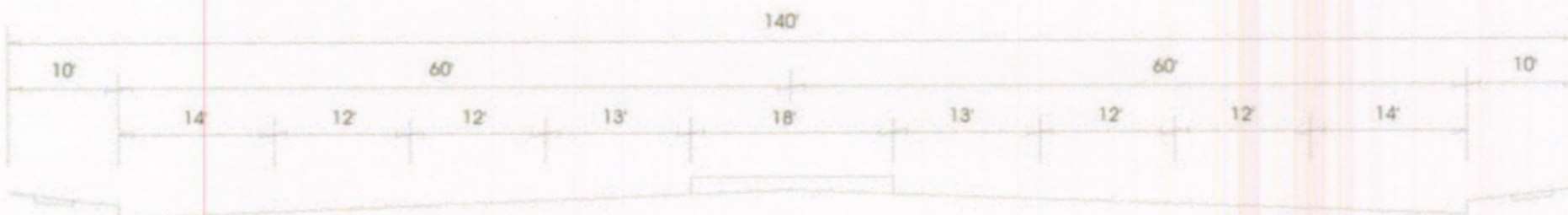
Modified Major Highway - (Added 7/21/92: Res No. 92-108)
Valley Boulevard from Sierra Avenue to Palmetto Avenue



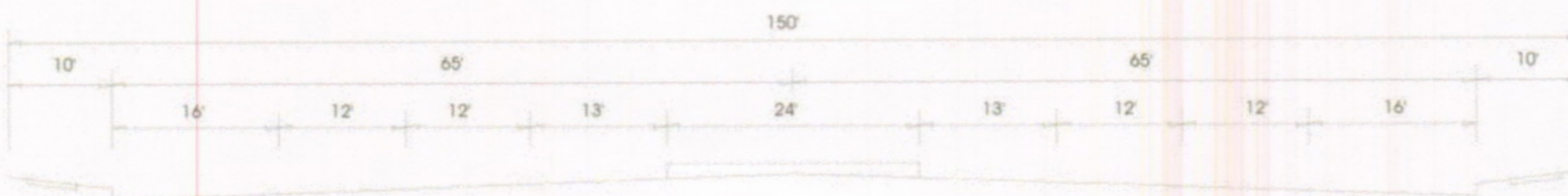
Modified Major Highway - (Added 7/21/92: Res No. 92-108)
Sierra Avenue from Merrill Avenue to Marygold Avenue



Modified Major Highway - (Added 7/21/92: Res No. 92-108)
Sierra Avenue from Marygold Avenue to Valley Boulevard



Modified Major Highway - (Added 7/21/92: Res No. 92-108)
Sierra Avenue from Valley Boulevard to Slover Avenue



Modified Major Highway - (Added 8/6/02: Res No. 02-116)
Sierra Avenue between Foothill Boulevard and Merrill Avenue

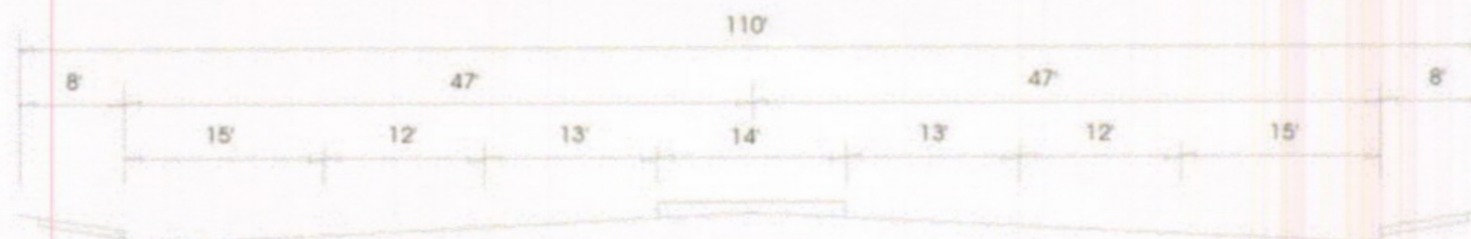
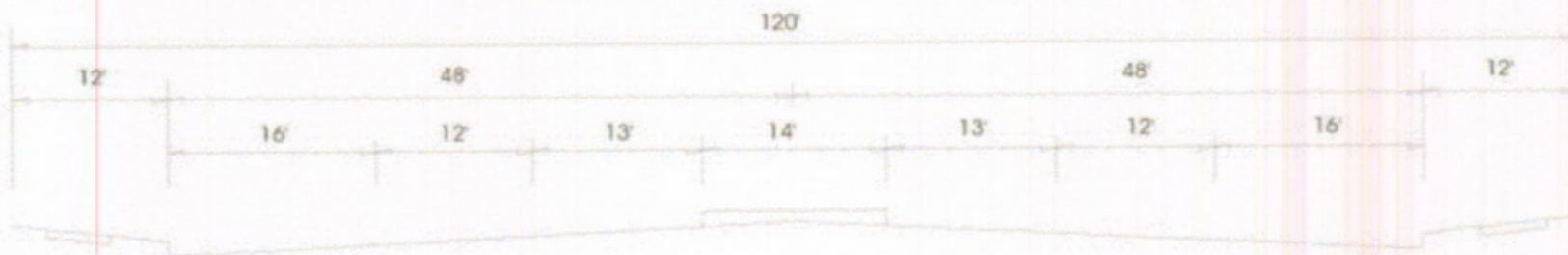
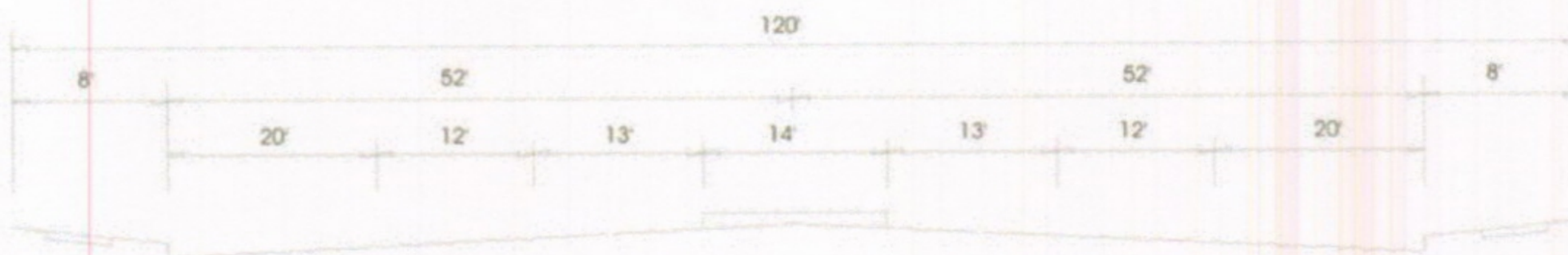


Figure 4-1e

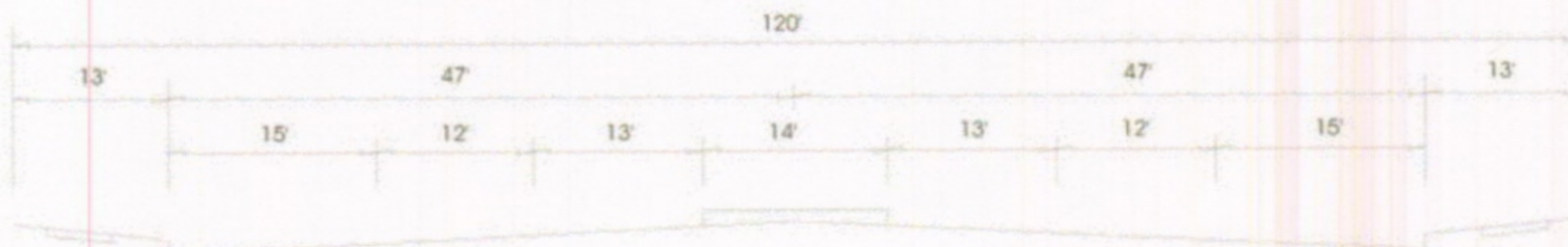
Modified Major Highway - (Added 8/6/02: Res No. 02-116)
Baseline Avenue from 400 feet west of Almeria to Maple Avenue



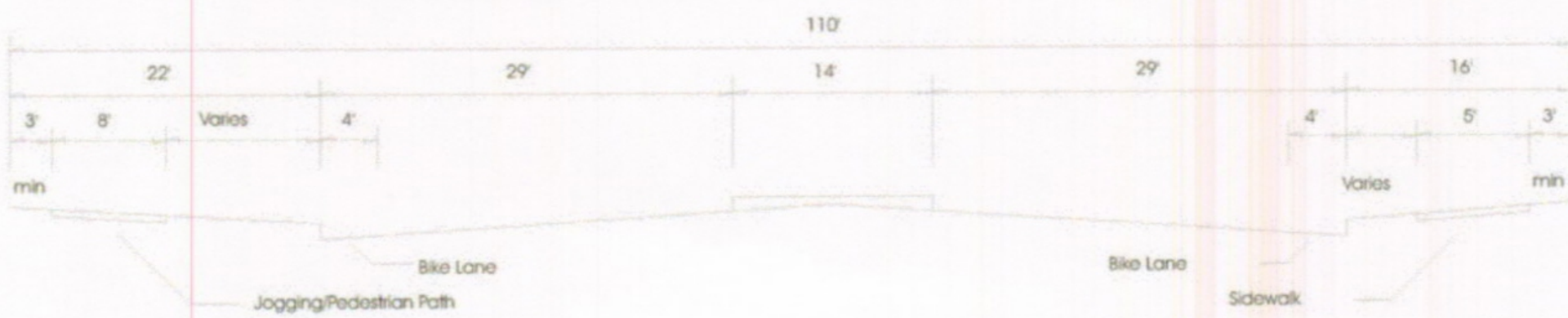
Modified Major Highway - (Added 8/6/02: Res No. 02-116)
Foothill Boulevard west of Citrus



Modified Major Highway - (Added 8/6/02: Res No. 02-116)
Foothill Boulevard east of Citrus



Modified Primary Highway - (Added 5/17/94: Res No. 94-96)
Cherry Avenue/Coyote Canyon Road from Summit Avenue
to the proposed Duncan Canyon/Interstate 15 interchange



Modified Primary Highway - (Added 10/1/96: Res No. 96-54)
Sierra Avenue from the proposed southbound on-rampfor Interstate 15
to the northbound on-ramp and off-ramp for Interstate 15

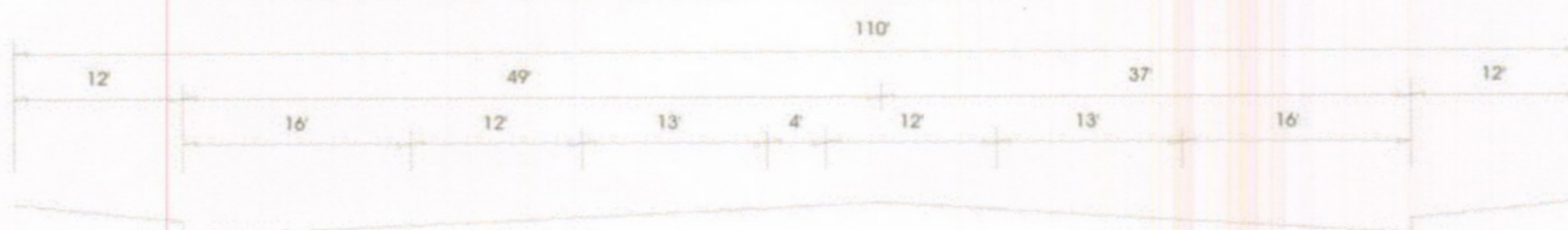
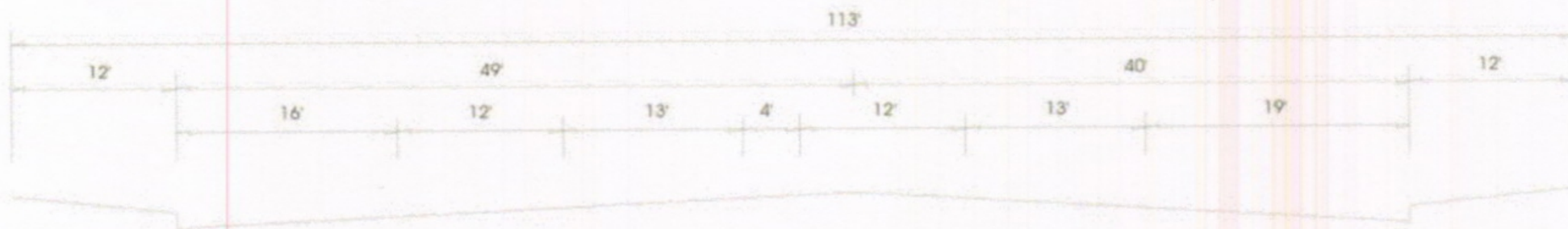


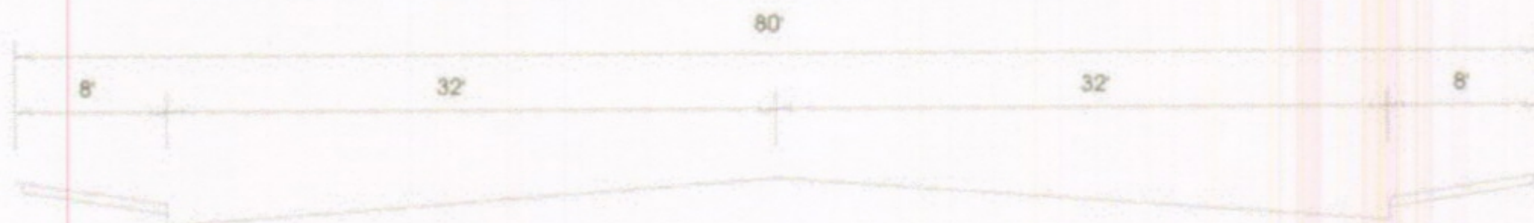
Figure 4-1f

Standard Cross Sections

Modified Primary Highway - (Added 10/1/96: Res No. 96-54)
Sierra Avenue from the proposed southbound off-ramp for Interstate 15
to the proposed southbound on-ramp for Interstate 15



Modified Secondary Highway - (Added 8/3/94: Res No. 93-97)
Orange Way from Juniper Avenue to Mango Avenue



Modified Collector Street - (Added 8/2/94: Res No. 94-95)
Walnut Avenue from Interstate 15 to Mango Avenue

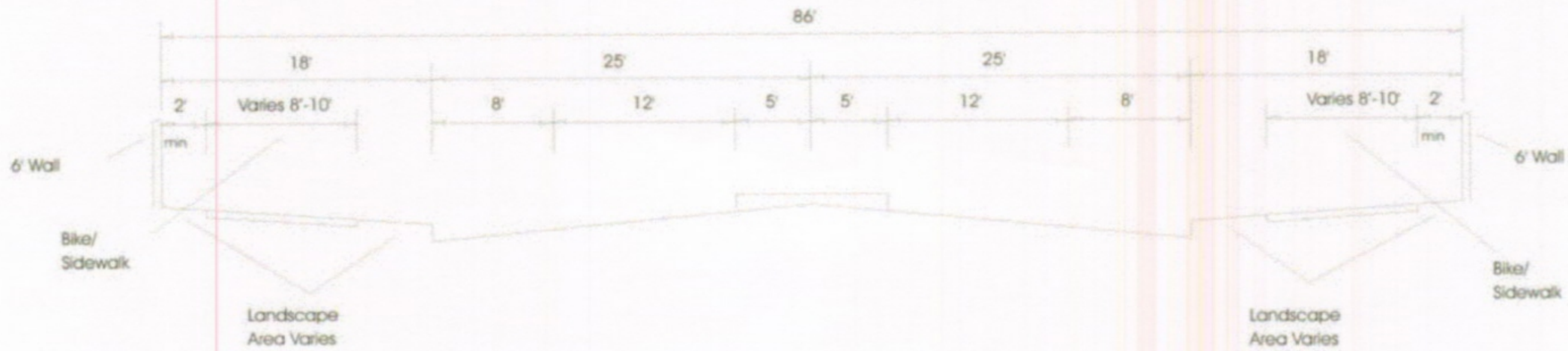


Figure 4-1g

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CITY OF SAN BERNARDINO

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Measure I

Adopted by San Bernardino County voters in 1989, Measure I is a major source of revenue for transportation improvements in the City of San Bernardino. Importantly, local officials make decisions about the allocation of these funds.

This 20-year half-cent sales tax has provided $17 million for our streets during the first ten years. Additional Measure I funds, about $406 million, have been pooled by all the cities and the unincorporated areas of the valley region. These pooled funds support freeway improvements, Metrolink trains, Omnitrans subsidies for elderly and disabled riders, major streets that serve as transportation arteries, ridesharing programs, landscaping, and traffic management.

ABOUT OUR CIRCULATION SYSTEM

Our circulation system is composed of a wide range of transportation facilities and options that serve our mobility needs. It consists of roadways, railways, public transit, bikeways, trails, and pedestrian facilities, and aviation.

We want to ensure that the buildout of our City does not overload our street system. Accordingly, an in-depth analysis of future vehicular traffic conditions has been prepared to ensure our planned roadway system and land use plan are in-synch.

Roadways

Our vehicular circulation network consists of a hierarchy of roadways that have primarily developed as a grid system. Due to barriers, such as rivers, mountains, canyons, freeways, railroads, and San Bernardino International Airport and Trade Center, many of the streets do not extend across the City and the grid becomes discontinuous.

1. Classification of Streets

For the purposes of analysis and evaluation of roadway needs, a roadway functional classification system has been established for the City of San Bernardino. The roadway classifications are briefly described in the following paragraphs and the typical cross-sections associated with each classification are shown later in this Section (Item f.).

a. Freeways/Highway

Freeways/Highways are controlled-access, separated roadways that provide for high volumes of vehicular traffic at high speeds. There are four freeways within the City of San Bernardino and one highway:

- The San Bernardino Freeway (I-10) is the major east-west freeway providing access west to Los Angeles and east to the desert communities and beyond.
- Interstate 215 provides north-south freeway access to Riverside and San Diego counties to the south and the high desert communities to the north.

- Interstate 210 provides local east-west service between I-215 and State Route 330. As of 2005, this freeway was under construction and was also known as State Route 30 and will become the future I-210 when completed.
- State Route 18 provides a connection from I-210 to the mountain resorts/communities of Lake Gregory.

b. Major Arterials

These roadways can accommodate six or eight travel lanes and may have raised medians. These facilities carry high traffic volumes and are the primary thoroughfares linking San Bernardino with adjacent cities and the regional highway system. Driveway access to these roadways is typically limited to provide efficient high volume traffic flow. Examples of Major Arterials include:

- Waterman Avenue
- Mount Vernon Avenue
- Highland Avenue
- Baseline Street

c. Secondary Arterials

These roadways are typically four-lane streets, providing two lanes in each direction. These highways carry traffic along the perimeters of major developments, provide support to the major arterials, and are also through streets enabling traffic to travel uninterrupted for longer distances through the City. Examples of Secondary Arterials Include:

- Little Mountain Drive
- 9th Street
- Arrowhead Avenue (North of 5th Street)
- Sierra Way

d. Collector Streets

These roadways are typically two-lane streets that connect the local streets with the secondary arterials allowing local traffic to access the regional transportation facilities. Examples of Collector Streets include:

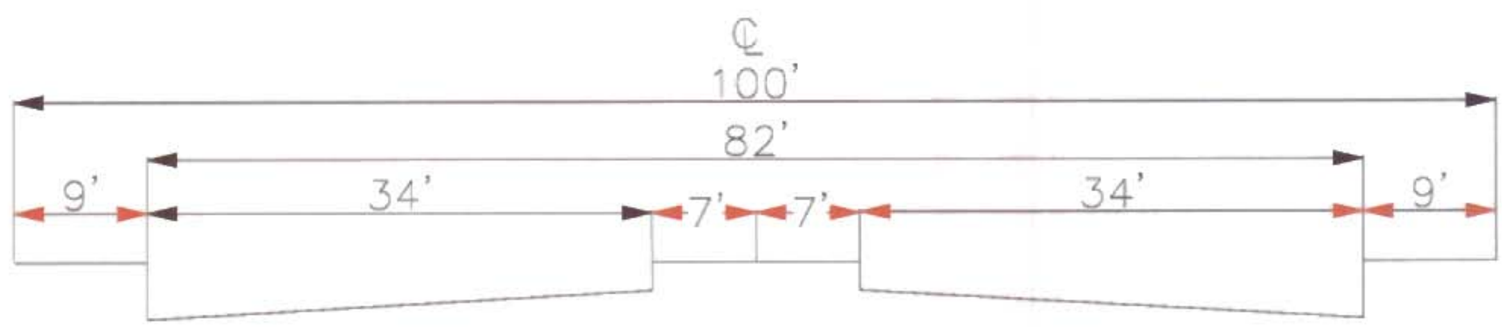
- California Street
- 6th Street
- Meridian Avenue

e. Local Streets

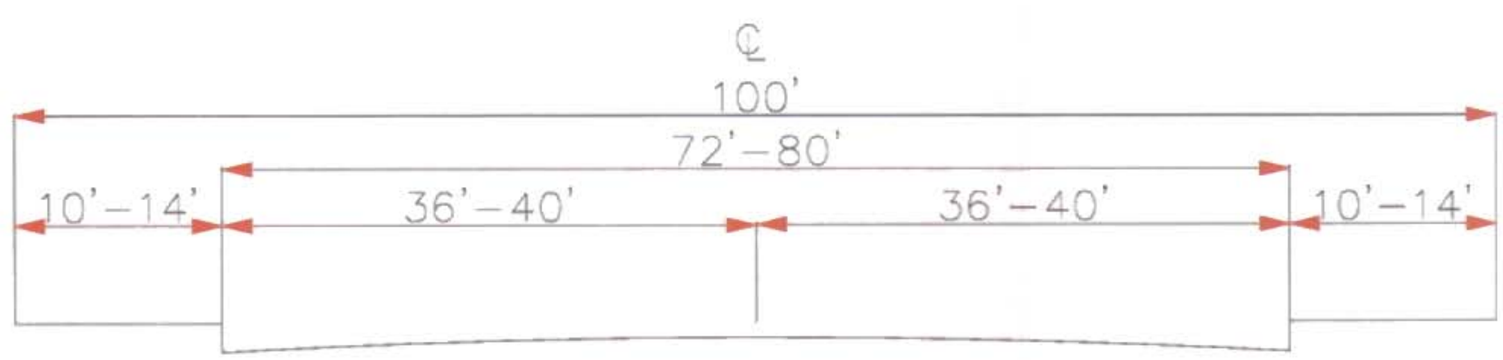
These roadways are typically two-lane streets that are designed to serve neighborhoods within residential areas. There are several variations on local streets depending on location, length of the street, and type of land use.

f. Standard Roadway Cross Sections

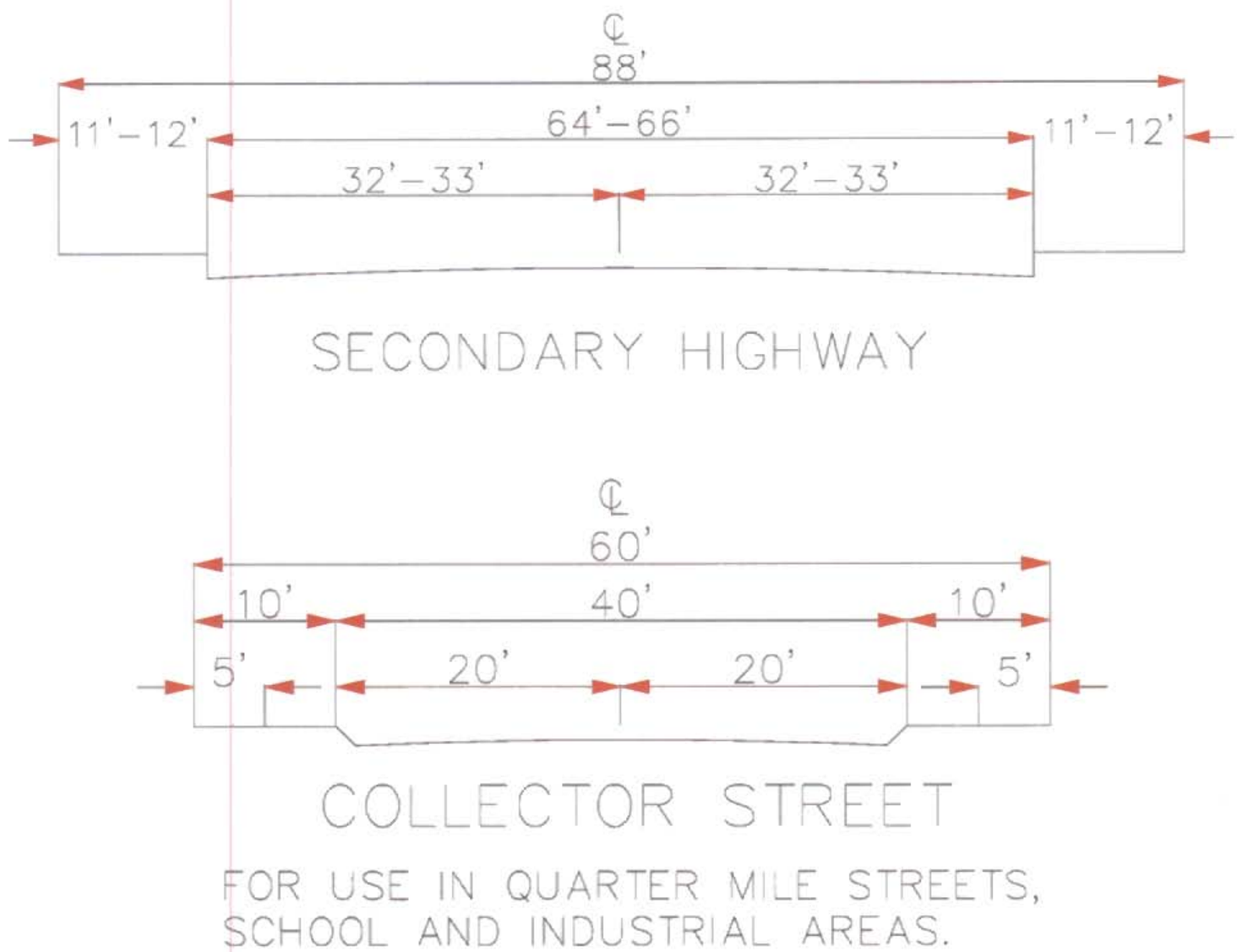
The following are the typical cross sections for each roadway classification. In order to maintain acceptable levels of service, additional right-of-way dedication beyond the typical cross section may be required in order to accommodate additional turn lanes or other design features. Unique street cross-sections, median designs, and street widths may be considered for each development in order to create distinction and identity as long as function, capacity, and safety are maintained to the City's satisfaction.



MAJOR DIVIDED HIGHWAYS



MAJOR HIGHWAY



2. Scenic Highways and Routes

Scenic highways and routes are a unique component of the circulation system as they traverse areas of unusual scenic or aesthetic value. As shown on Figure C-1, Scenic Highways/Routes, two roadways within the City have been nominated for official Scenic Highway status. The portions of State Route 30, south of the 330, and State Route 330 that pass through the City are designated as Eligible Scenic Highways.

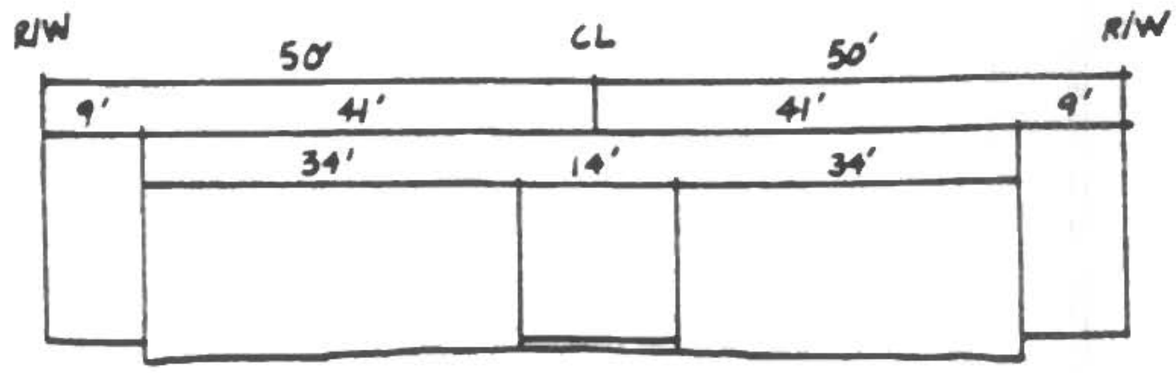
Due to the designation as Eligible Scenic Highways, the provisions of the California Scenic Highways program apply to these sections of the roadways in the City. The purpose of the California Scenic Highways program, which was established in 1963, is to "Preserve and protect scenic highway corridors from change which would diminish the aesthetic value of lands adjacent to highways." This program provides guidance for signage, aesthetics, grading, and screening to help maintain the scenic value of the roadway.

We support the designation of these roadways and further desire that they be officially designated in the future. Accordingly, we support the provisions of the Scenic Highways program and will enhance these two corridors so that the scenic designation is earned.

C. STREETS

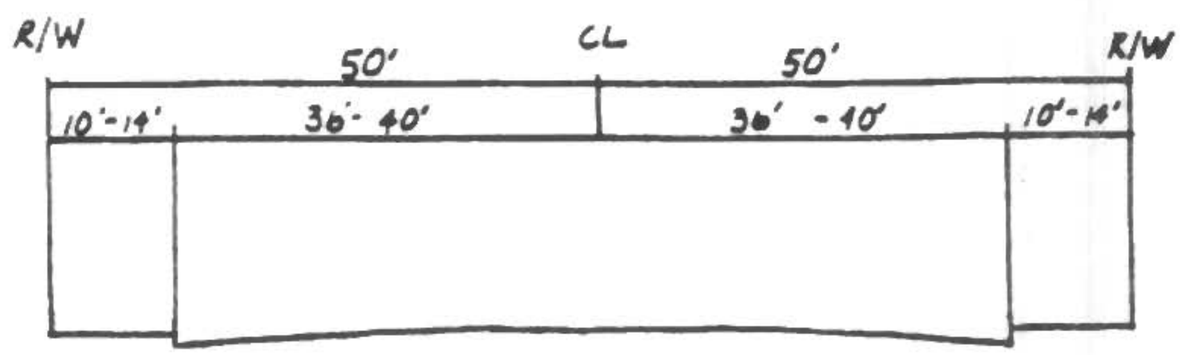
GENERAL

Divided Major Arterial



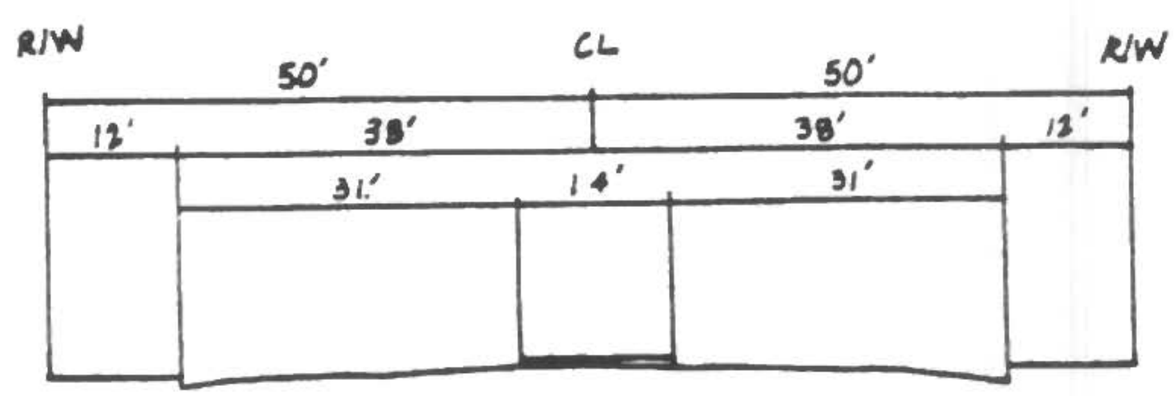
1. Northpark Boulevard
2. University Parkway

Major Arterial



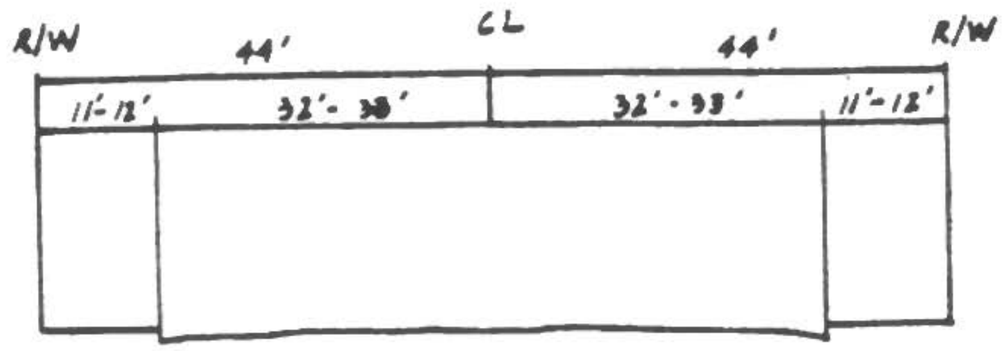
1. Cajon Boulevard

Major Arterial With Median



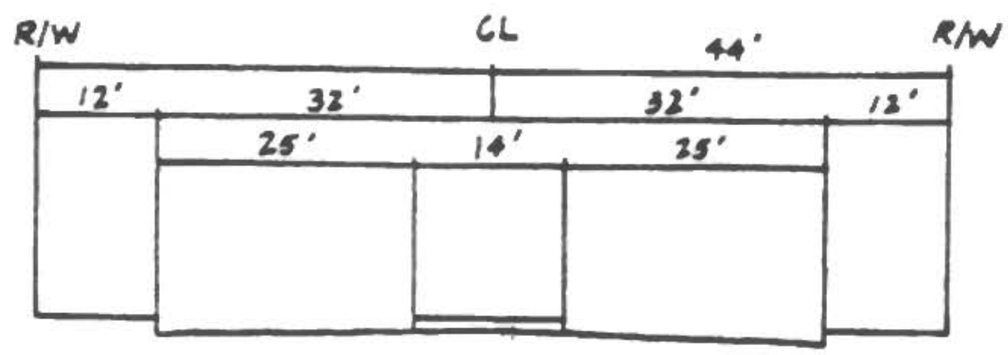
1. Kendall Drive

Minor Arterial



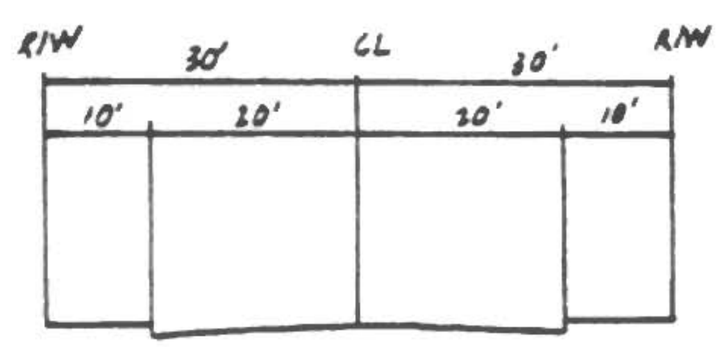
1. Pepper-Linden from the I-215 Freeway to Northpark Boulevard
2. Pine Avenue from Kendall Drive to Belmont Avenue

Minor Arterial With Median



1. Devore Road from the I-215 Freeway to Glen Helen Park
2. Palm Avenue from the I-215 Freeway to Belmont Avenue

Residential/ Industrial Collector



1. Cable Canyon Road from Santa Fe Avenue to Frontage Road
2. Frontage Road
3. Palm Avenue from Belmont Avenue to Ohio Avenue

COUNTY OF SAN BERNARDINO

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San Bernardino County

Road Planning and Design Standards

Environmental Management Group
Land Development Engineering Division
and
Public Works Group
Transportation/Flood Control
Department

MASTER PLAN OF HIGHWAYS LEGEND

Valley/Desert	Mountain
ARTERIAL ROADS	
Variable R/W and Curb Separation **Freeway**	Variable R/W and Curb Separation **Freeway**
120' Min. R/W 104' Curb Separation **Major Arterial**	
120' R/W 94' Curb Separation **Major Divided Highway**	
104' R/W 80' Curb Separation **Major Highway**	80' R/W 64' Minimum Curb Separation **Major Highway**
88' R/W 64' Curb Separation **Secondary Highway**	60' R/W 44' Curb Separation **Secondary Highway**
LOCAL ROADS	
66' R/W 44' Curb Separation **Collector Street**	
66' R/W 44' Curb Separation **Controlled/Limited Access Collector**	50' R/W 36' Dike Separation **Mountain Collector**
60' R/W 44' Curb Separation **Industrial Collector**	
60' R/W 36' Curb Separation **Local Street (no designation)**	40' R/W 26' Minimum Dike Separation **Local Street (no designation)**
60' R/W 26' Min. Dike Separation **Hillside Paved Road**	
(all areas) **Specific Plan**	(all areas) **Specific Plan**
(all areas) **Master Plan Variation**	(all areas) **Master Plan Variation**

Note: See Standards and Specifications
For Design Details

Section 87.0201 Development Code: Dedication of Additional Right-of-Way
"...Where none of the foregoing exist, the required dedication in the Desert Areas shall be forty-four feet (44') half-width on section lines and quarter section lines and thirty (30) feet half-width on sixteenth section lines. In the Mountain areas, a twenty (20) feet half-width from centerline shall be required.
In the Valley Areas additional right-of-way shall be required in compliance with road widths established by the County General Plan after review by the Public Works Director".

Last printed 6/11/2003 3:45 PM

ARTICLE III

DESIGNATION

OF

STREETS

ARTICLE III

DESIGNATION OF STREETS

SECTION 3.1 PURPOSE

For the purpose of these standards, the following street designations shall apply.

SECTION 3.2 MAJOR ARTERIAL (120'/104')

A. Six lane highway with access control which may have grade separations at intersections.

B. Design capacity for Level of Service "C" of 45,000 vehicles per day for Divided Arterial and 40,000 with continuous left turn lane.

C. Striped for three lanes with shoulders in each direction with turn lanes at intersections. Additional rights of way and roadway widths may be necessary for turn lanes.

SECTION 3.3 MAJOR DIVIDED HIGHWAY (120'/94')

A. Divided four lane with intersections at grade and control access.

B. Design capacity for Level of Service "C" of 30,000 vehicles per day.

C. Striped for two lanes with shoulders in each direction with a raised median and turn lanes. Additional rights of way and roadway widths may be necessary for turn lanes.

SECTION 3.4 MAJOR HIGHWAY/MOUNTAIN EXPRESSWAY (104'/80')

A. Four lane highway with intersections at grade and access control.

B. Design capacity for Level of Service "C" of 30,000 vehicles per day for Divided Highway and 24,000 with continuous left turn lane.

C. Striped for two lanes with shoulders in each direction and turn lanes at intersections. Additional rights-of-way and roadway widths may be necessary for turn lanes.

SECTION 3.5 SECONDARY HIGHWAY (88'/64') **MOUNTAIN MAJOR** (80'/64')

A. Four lane highway with intersections at grade and access control.

B. Design capacity for Level of Service "C" of 20,000 vehicles per day.

C. Striped for two lanes with shoulders in each direction. Turn lanes at intersections when necessary will require additional rights-of-way and roadway widths.

SECTION 3.6 CONTROLLED LIMITED/ACCESS COLLECTOR (66'/44')

A. A street other than a major highway or secondary highway with controlled access.

B. Normally accommodates traffic from local streets and distributes it onto four lane highways. Traffic volumes are not expected to require a Secondary or Major Highway.

C. Design capacity for Level of Service "C" of 10,000 vehicles per day. (Service flow rate 1000 vehicles/hour)

D. Striping for two through lanes and one left turn lane at intersections.

SECTION 3.7 COLLECTOR STREET (66'/44')

A. Collector Streets are designed to provide principal access to residential areas where low traffic volumes allow direct access.

B. Design capacity of 5,000 vehicles per day. Traffic capacity for this road category is limited not by the physical capacity of the road section, but rather by the desirability of maintaining an acceptable traffic level which will not adversely affect residential neighborhood qualities.

C. Striping for two through lanes and when necessary one left turn lane at intersections.

SECTION 3.8 INDUSTRIAL LOCAL (60'/44')

A. An Industrial Street to be utilized to serve industrial land or commercial uses.

B. Additional widening may be required at intersections in order to provide for truck turning movements.

SECTION 3.9 MOUNTAIN SECONDARY (60'/44')

A. A two lane highway with access control.

B. Striping for two through lanes and one left turn lane at intersections.

C. Design capacity of Level of Service "C" of 10,000 vehicles per day.

SECTION 3.10 LOCAL STREET (60'/40')

A. Local Street is a street which is abutted by residential units.

B. Additional widening may be required at intersections where a left turn lane is required.

C. Maximum traffic volume not to exceed 2,000 vehicles per day.

SECTION 3.11 LOCAL STREET (less than 500 ADT)

A. This local street is intended to serve single family residents and may also function as a cul de sac.

B. Maximum traffic volume not to exceed 500 vehicles per day.

SECTION 3.12 MOUNTAIN LOCAL (40'/26')

Mountain Local is a two lane street with asphalt berms which will primarily serve residential units. The design capacity for Level of Service "C" of 700 vehicles per day.

SECTION 3.13 HALF-WIDTH STREET

Half width street is a street lying along a subdivision boundary for which only part of the right-of-way is to be presently dedicated.

SECTION 3.14 FRONTAGE ROAD

Frontage road is a road which is auxiliary to and located adjacent to a freeway, major highway, or arterial street, and which provides service to abutting property and adjacent areas and control of access to the adjacent major route. A frontage road may be of any street designation.

SECTION 3.15 ALLEY

Alley is a non county maintained secondary means of access usually lying along the rear of lots or property and has primary access from a street.

APPENDIX F

INTERSECTION LEVEL OF SERVICE CALCULATION WORKSHEETS

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Existing (2007) Traffic Condition

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #1 Devore Rd & I-215 NB On/Off-Ramps / Arrowhead Bl

Average Delay (sec/veh): 2.9 Worst Case Level Of Service: B[10.2]

Street Name:	Devore Rd						I-215 NB On/Off-Ramps / Arrowhead					
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 1 0	0	0	0 0 1!	0	0	0 0 1!	0	0
Volume Module:	AM Peak Hour											
Base Vol:	0	71	78	68	135	0	0	0	0	26	0	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:	0	71	78	68	135	0	0	0	0	26	0	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:	0.95	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	75	82	72	142	0	0	0	0	27	0	47
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	75	82	72	142	0	0	0	0	27	0	47
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	157	xxxx	xxxxx	425	442	142	401	401	116
Potent Cap.:	xxxx	xxxx	xxxxx	1435	xxxx	xxxxx	543	513	911	609	541	942
Move Cap.:	xxxx	xxxx	xxxxx	1435	xxxx	xxxxx	495	486	911	585	513	942
Volume/Cap:	xxxx	xxxx	xxxx	0.05	xxxx	xxxx	0.00	0.00	0.00	0.05	0.00	0.05
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0	xxxxx	xxxx	770	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.3	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	10.2	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			10.2		
ApproachLOS:	*			*			*			B		

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #2 I-215 SB On/Off-Ramps & Cajon Bl

Average Delay (sec/veh): 7.6 Worst Case Level Of Service: A[9.6]

```
Street Name:      I-215 SB On/Off-Ramps                    Cajon Bl
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    1  0  1  0  0    0  0  1  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:AM Peak Hour
Base Vol:       0    0     0   219    0     4     1    2     0     0    1    53
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   219    0     4     1    2     0     0    1    53
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   231    0     4     1    2     0     0    1    56
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
FinalVolume:    0    0     0   231    0     4     1    2     0     0    1    56
------------|---------------||---------------||---------------||---------------|
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx   6.4  6.5   6.2   4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx   3.5  4.0   3.3   2.2 xxxx xxxxx xxxxx xxxx xxxxx
------------|---------------||---------------||---------------||---------------|
Capacity Module:
Cnflict Vol: xxxx xxxx xxxxx     5    5     1    57 xxxx xxxxx  xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx  1022  894  1089  1561 xxxx xxxxx  xxxx xxxx xxxxx
Move Cap.:   xxxx xxxx xxxxx  1021  893  1089  1561 xxxx xxxxx  xxxx xxxx xxxxx
Volume/Cap:  xxxx xxxx  xxxx  0.23 0.00  0.00  0.00 xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
Level Of Service Module:
2Way95thQ:   xxxx xxxx xxxxx  xxxx xxxx xxxxx   0.0 xxxx xxxxx  xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx   7.3 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move:   *    *     *     *    *     *     A    *     *     *    *     *
Movement:     LT - LTR - RT    LT - LTR - RT    LT - LTR - RT    LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx  xxxx 1022 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx  0.9 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx  9.6 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS:    *    *     *     *    A     *     *    *     *     *    *     *
ApproachDel:    xxxxxx              9.6           xxxxxx           xxxxxx
ApproachLOS:        *               A               *                *
```

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #3 Glen Helen Pkwy & Cajon Bl

Cycle (sec):	100	Critical Vol./Cap.(X):	0.177
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	8.9
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Glen Helen Pkwy						Cajon Bl					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 1	0 0	1	1 0	1 0	1	0 1	0 1	0	0 1	0 1	0
Volume Module:AM Peak Hour												
Base Vol:	7	10	26	84	30	38	39	173	4	72	1	94
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	7	10	26	84	30	38	39	173	4	72	1	94
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	7	11	27	88	32	40	41	182	4	76	1	99
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	11	27	88	32	40	41	182	4	76	1	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:	7	11	27	88	32	40	41	182	4	76	1	99
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:	0.41	0.59	1.00	1.00	1.00	1.00	0.36	1.60	0.04	0.86	0.14	1.00
Final Sat.:	235	336	666	550	595	673	232	1053	25	525	84	752
Capacity Analysis Module:												
Vol/Sat:	0.03	0.03	0.04	0.16	0.05	0.06	0.18	0.17	0.17	0.14	0.01	0.13
Crit Moves:			****	****			****			****		
Delay/Veh:	8.8	8.8	7.9	10.0	8.7	8.0	9.2	9.1	9.0	9.4	9.4	8.0
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:	8.8	8.8	7.9	10.0	8.7	8.0	9.2	9.1	9.0	9.4	9.4	8.0
LOS by Move:	A	A	A	B	A	A	A	A	A	A	A	A
ApproachDel:	8.3			9.3			9.1			8.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.3			9.3			9.1			8.6		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.0	0.0	0.0	0.2	0.0	0.1	0.2	0.2	0.2	0.2	0.1	0.1

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #4 Palm Ave & I-215 NB On/Off-Ramps

Average Delay (sec/veh): 3.7 Worst Case Level Of Service: C[20.6]

Street Name:	Palm Ave						I-215 NB On/Off-Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1	1 0	0	0 0	2 0	1	0 0	0 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	42	560	0	0	645	409	0	0	0	103	2	227
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:	42	560	0	0	645	409	0	0	0	103	2	227
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:	44	589	0	0	679	431	0	0	0	108	2	239
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	44	589	0	0	679	431	0	0	0	108	2	239
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	1109	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1017	1787	295
Potent Cap.:	637	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	237	82	708
Move Cap.:	637	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	224	76	708
Volume/Cap:	0.07	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.48	0.03	0.34
Level Of Service Module:												
2Way95thQ:	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	1.5
Control Del:	11.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	12.7
LOS by Move:	B	*	*	*	*	*	*	*	*	*	*	B
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	216	xxxx	xxxxx
SharedQueue:	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.6	xxxx	xxxxx
Shrd ConDel:	11.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	37.9	xxxx	xxxxx
Shared LOS:	B	*	*	*	*	*	*	*	*	E	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			20.6		
ApproachLOS:	*			*			*			C		

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #5 Palm Ave & I-215 SB On/Off-Ramps / Kendall Dr.

Cycle (sec):	100	Critical Vol./Cap.(X):	1.091
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	46.7
Optimal Cycle:	0	Level Of Service:	E

Street Name:	Palm Ave						I-215 SB On/Off-Ramps / Kendall 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			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	1 0		0 1 0	0 1		0 1 0	0 1	
Volume Module:												
Base Vol:	13	102	44	456	270	35	67	66	36	91	0	454
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:	13	102	44	456	270	35	67	66	36	91	0	454
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:	14	107	46	480	284	37	71	69	38	96	0	478
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	14	107	46	480	284	37	71	69	38	96	0	478
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:	14	107	46	480	284	37	71	69	38	96	0	478
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	1.77	0.23	0.50	0.50	1.00	1.00	0.00	1.00
Final Sat.:	360	380	410	440	820	108	206	203	458	439	0	521
Capacity Analysis Module:												
Vol/Sat:	0.04	0.28	0.11	1.09	0.35	0.34	0.34	0.34	0.08	0.22	xxxx	0.92
Crit Moves:		****		****			****					****
Delay/Veh:	12.7	15.2	12.1	98.0	14.2	14.0	15.5	15.5	11.0	13.0	0.0	47.2
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:	12.7	15.2	12.1	98.0	14.2	14.0	15.5	15.5	11.0	13.0	0.0	47.2
LOS by Move:	B	C	B	F	B	B	C	C	B	B	*	E
ApproachDel:		14.1			64.4			14.5			41.5	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		14.1			64.4			14.5			41.5	
LOS by Appr:		B			F			B			E	
AllWayAvgQ:	0.0	0.4	0.1	10.6	0.5	0.5	0.5	0.5	0.1	0.3	0.3	5.4

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #6 University Pkwy & I-215 NB On/Off-Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.576
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 15.9
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	University Pkwy						I-215 NB On/Off-Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2	0 0		0 0 3	0 1		0 0 0	0 0		0 1 0	0 2	
Volume Module:												
Base Vol:	67	577	0	0	942	210	0	0	0	473	0	906
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:	67	577	0	0	942	210	0	0	0	473	0	906
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:	71	607	0	0	992	221	0	0	0	498	0	954
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	607	0	0	992	221	0	0	0	498	0	954
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:	71	607	0	0	992	221	0	0	0	498	0	954
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	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.00	0.00	2.00
Final Sat.:	1700	3600	0	0	5400	1800	0	0	0	1700	0	3600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.17	0.00	0.00	0.18	0.12	0.00	0.00	0.00	0.29	0.00	0.26
Crit Moves:	****				****					****		
Green/Cycle:	0.10	0.26	0.00	0.00	0.31	0.31	0.00	0.00	0.00	0.49	0.00	0.49
Volume/Cap:	0.41	0.66	0.00	0.00	0.60	0.40	0.00	0.00	0.00	0.60	0.00	0.54
Delay/Veh:	27.0	21.7	0.0	0.0	18.2	16.8	0.0	0.0	0.0	12.1	0.0	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:	27.0	21.7	0.0	0.0	18.2	16.8	0.0	0.0	0.0	12.1	0.0	10.9
LOS by Move:	C	C	A	A	B	B	A	A	A	B	A	B
HCM2kAvgQ:	2	6	0	0	6	4	0	0	0	8	0	7

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #7 University Pkwy & I-215 SB On/Off-Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.810
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 20.3
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name:	University Pkwy						I-215 SB On/Off-Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 1	1 0		1 0 2	0 0		0 1 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	424	262	651	748	0	203	0	106	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	424	262	651	748	0	203	0	106	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	446	276	685	787	0	214	0	112	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	446	276	685	787	0	214	0	112	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	446	276	685	787	0	214	0	112	0	0	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	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	1.24	0.76	1.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	2225	1375	1700	3600	0	1700	0	1800	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.20	0.20	0.40	0.22	0.00	0.13	0.00	0.06	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.00	0.25	0.25	0.50	0.51	0.00	0.16	0.00	0.16	0.00	0.00	0.00
Volume/Cap:	0.00	0.81	0.81	0.81	0.43	0.00	0.81	0.00	0.40	0.00	0.00	0.00
Delay/Veh:	0.0	26.9	26.9	18.6	9.3	0.0	41.5	0.0	23.8	0.0	0.0	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:	0.0	26.9	26.9	18.6	9.3	0.0	41.5	0.0	23.8	0.0	0.0	0.0
LOS by Move:	A	C	C	B	A	A	D	A	C	A	A	A
HCM2kAvgQ:	0	9	9	14	5	0	7	0	2	0	0	0

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #8 I-15 SB On/Off-Ramps & Glen Helen Pkwy

Average Delay (sec/veh): 9.0 Worst Case Level Of Service: A[9.9]

Street Name:	I-15 SB On/Off-Ramps									Glen Helen Pkwy												
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	1	0	0	1	0	0	0	1	1	0	1	0	2	0	0		
Volume Module:																						
Base Vol:	0	0	0			11	2		1		0	0		0		81	5		0			
Growth Adj:	1.00	1.00	1.00			1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00			
Initial Bse:	0	0	0			11	2		1		0	0		0		81	5		0			
User Adj:	1.00	1.00	1.00			1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00			
PHF Adj:	0.95	0.95	0.95			0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95			
PHF Volume:	0	0	0			12	2		1		0	0		0		85	5		0			
Reduct Vol:	0	0	0			0	0		0		0	0		0		0	0		0			
FinalVolume:	0	0	0			12	2		1		0	0		0		85	5		0			
Critical Gap Module:																						
Critical Gp:	xxxxx	xxxx	xxxxx			6.8	6.5		6.9		xxxxx	xxxx		xxxxx		4.1	xxxx		xxxxx			
FollowUpTim:	xxxxx	xxxx	xxxxx			3.5	4.0		3.3		xxxxx	xxxx		xxxxx		2.2	xxxx		xxxxx			
Capacity Module:																						
Cnflict Vol:	xxxx	xxxx	xxxxx			176	176		3		xxxx	xxxx		xxxxx		0	xxxx		xxxxx			
Potent Cap.:	xxxx	xxxx	xxxxx			803	721		1087		xxxx	xxxx		xxxxx		900	xxxx		xxxxx			
Move Cap.:	xxxx	xxxx	xxxxx			745	653		1087		xxxx	xxxx		xxxxx		900	xxxx		xxxxx			
Volume/Cap:	xxxx	xxxx	xxxx			0.02	0.00		0.00		xxxx	xxxx		xxxx		0.09	xxxx		xxxx			
Level Of Service Module:																						
2Way95thQ:	xxxx	xxxx	xxxxx			0.0	xxxx		xxxxx		xxxx	xxxx		xxxxx		0.3	xxxx		xxxxx			
Control Del:	xxxxx	xxxx	xxxxx			9.9	xxxx		xxxxx		xxxxx	xxxx		xxxxx		9.4	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		753		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx		0.0		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx		9.8		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx			
Shared LOS:	*	*	*			*	*		A		*	*		*		*	*		*			
ApproachDel:	xxxxxx					9.9					xxxxxx					xxxxxx						
ApproachLOS:	*					A					*					*						

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #9 I-15 NB On/Off-Ramps & Glen Helen Pkwy

Average Delay (sec/veh): 4.2 Worst Case Level Of Service: A[8.7]

Street Name:	I-15 NB On/Off-Ramps									Glen Helen Pkwy									
Approach:	North Bound					South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	1	1	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	1	1	0
Volume Module:																				
Base Vol:	7	5	78			0	0	0			3	11	0			0	84	5		
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Initial Bse:	7	5	78			0	0	0			3	11	0			0	84	5		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Adj:	0.95	0.95	0.95			0.95	0.95	0.95			0.95	0.95	0.95			0.95	0.95	0.95		
PHF Volume:	7	5	82			0	0	0			3	12	0			0	88	5		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
FinalVolume:	7	5	82			0	0	0			3	12	0			0	88	5		
Critical Gap Module:																				
Critical Gp:	6.8	6.5	6.9	xxxxx	xxxx	xxxxx					4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx					2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Capacity Module:																				
Cnflict Vol:	62	112	6	xxxx	xxxx	xxxxx					94	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Potent Cap.:	943	782	1082	xxxx	xxxx	xxxxx					1513	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Move Cap.:	941	781	1082	xxxx	xxxx	xxxxx					1513	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Volume/Cap:	0.01	0.01	0.08	xxxx	xxxx	xxxx					0.00	xxxx	xxxx	xxxx	xxxx	xxxx				
Level Of Service Module:																				
2Way95thQ:	0.0	xxxx	0.2	xxxx	xxxx	xxxxx					0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Control Del:	8.8	xxxx	8.6	xxxxx	xxxx	xxxxx					7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
LOS by Move:	A	*	A	*	*	*					A	*	*	*	*	*				
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	840	xxxx	xxxxx	xxxx	xxxx	xxxxx					xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx					xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shrd ConDel:	9.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx					xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shared LOS:	A	*	*	*	*	*					*	*	*	*	*	*				
ApproachDel:	8.7			xxxxxx							xxxxxx					xxxxxx				
ApproachLOS:	A			*							*					*				

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #11 Lytle Creek Rd & Sierra Ave

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: A[9.0]

Street Name:	Lytle Creek Rd						Sierra Ave / Lytle Creek Rd					
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	1! 0	0	0 0	0 0	0	0 0	0 1	0	0 1	0 0	0
Volume Module:												
Base Vol:	1	0	35	0	0	0	0	116	3	13	61	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:	1	0	35	0	0	0	0	116	3	13	61	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:	1	0	37	0	0	0	0	122	3	14	64	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	1	0	37	0	0	0	0	122	3	14	64	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	215	215	124	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	125	xxxx	xxxxx
Potent Cap.:	777	686	933	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1474	xxxx	xxxxx
Move Cap.:	772	680	933	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1474	xxxx	xxxxx
Volume/Cap:	0.00	0.00	0.04	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	927	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	9.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx
Shared LOS:	*	A	*	*	*	*	*	*	*	A	*	*
ApproachDel:		9.0		xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:		A			*			*			*	

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #12 I-15 SB On/Off-Ramps & Sierra Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.991
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	43.8
Optimal Cycle:	0	Level Of Service:	E

Street Name:	I-15 SB On/Off-Ramps						Sierra Ave					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	0 0	0	0 1	0 0	1	0 0	0 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	0	0	0	441	10	88	0	215	167	387	81	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	441	10	88	0	215	167	387	81	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	464	11	93	0	226	176	407	85	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	464	11	93	0	226	176	407	85	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	464	11	93	0	226	176	407	85	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:	0.00	0.00	0.00	0.98	0.02	1.00	0.00	0.56	0.44	1.00	2.00	0.00
Final Sat.:	0	0	0	468	11	563	0	285	222	463	989	0
Capacity Analysis Module:												
Vol/Sat:	xxxx	xxxx	xxxx	0.99	0.99	0.16	xxxx	0.79	0.79	0.88	0.09	xxxx
Crit Moves:				****					****	****		
Delay/Veh:	0.0	0.0	0.0	66.2	66.2	10.3	0.0	31.5	31.5	44.5	10.6	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:	0.0	0.0	0.0	66.2	66.2	10.3	0.0	31.5	31.5	44.5	10.6	0.0
LOS by Move:	*	*	*	F	F	B	*	D	D	E	B	*
ApproachDel:	xxxxxx			57.1			31.5			38.6		
Delay Adj:	xxxxx			1.00			1.00			1.00		
ApprAdjDel:	xxxxxx			57.1			31.5			38.6		
LOS by Appr:	*			F			D			E		
AllWayAvgQ:	0.0	0.0	0.0	7.5	7.5	0.2	3.0	3.0	3.0	4.4	0.1	0.0

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

Traffix 7.8.0115 (c) 2007 Dowling Assoc. Licensed to CRAIN & ASSOC., L.A.

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #13 I-15 NB On/Off-Ramps & Sierra Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.984
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 30.3
Optimal Cycle: 0 Level Of Service: D

Street Name:	I-15 NB On/Off-Ramps						Sierra Ave					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	1! 0	0	0 0	0 0	0	1 0	1 0	0	0 0	1 1	0
Volume Module:												
Base Vol:	51	1	111	0	0	0	92	565	0	0	412	282
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:	51	1	111	0	0	0	92	565	0	0	412	282
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:	54	1	117	0	0	0	97	595	0	0	434	297
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	1	117	0	0	0	97	595	0	0	434	297
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:	54	1	117	0	0	0	97	595	0	0	434	297
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	0.01	0.99	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.19	0.81
Final Sat.:	939	-485	485	0	0	0	541	604	0	0	727	541
Capacity Analysis Module:												
Vol/Sat:	0.06	-0.00	0.24	xxxx	xxxx	xxxx	0.18	0.98	xxxx	xxxx	0.60	0.55
Crit Moves:			****					****			****	
Delay/Veh:	11.8	12.0	12.0	0.0	0.0	0.0	10.5	56.7	0.0	0.0	16.7	14.3
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:	11.8	12.0	12.0	0.0	0.0	0.0	10.5	56.7	0.0	0.0	16.7	14.3
LOS by Move:	B	B	B	*	*	*	B	F	*	*	C	B
ApproachDel:	11.8			xxxxxx			50.2			15.7		
Delay Adj:	1.00			xxxxx			1.00			1.00		
ApprAdjDel:	11.8			xxxxxx			50.2			15.7		
LOS by Appr:	B			*			F			C		
AllWayAvgQ:	0.3	0.3	0.3	0.0	0.0	0.0	0.2	8.1	0.0	0.0	1.4	1.1

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #15 Lytle Creek Rd. and Duncan Canyon Rd.

Average Delay (sec/veh): 4.3 Worst Case Level Of Service: A[8.8]

Street Name:	Lytle Creek Rd.									Duncan Canyon Rd.									
Approach:	North Bound					South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
Volume Module:																				
Base Vol:	39		0		1	0		0		0	0		5		25	0		12		0
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00	
Initial Bse:	39		0		1	0		0		0	0		5		25	0		12		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:	41		0		1	0		0		0	0		5		26	0		13		0
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
FinalVolume:	41		0		1	0		0		0	0		5		26	0		13		0
Critical Gap Module:																				
Critical Gp:	6.4	xxxx		6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx							
FollowUpTim:	3.5	xxxx		3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx							
Capacity Module:																				
Cnflict Vol:	31	xxxx		18	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx							
Potent Cap.:	988	xxxx		1066	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx							
Move Cap.:	988	xxxx		1066	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx							
Volume/Cap:	0.04	xxxx		0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx							
Level Of Service Module:																				
2Way95thQ:	0.1	xxxx		0.0	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx							
Control Del:	8.8	xxxx		8.4	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx							
LOS by Move:	A	*		A	*	*	*	*	*	*	*	*	*							
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx	xxxx		xxxxx		xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shrd ConDel:	xxxxx	xxxx		xxxxx		xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	*	*		*		*	*	*			*	*	*			*	*	*		
ApproachDel:	8.8					xxxxxx					xxxxxx					xxxxxx				
ApproachLOS:	A					*					*					*				

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

****

Intersection #16 I-15 SB On/Off Ramps and Summit Ave.

****

Cycle (sec): 95 Critical Vol./Cap.(X): 1.288
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 114.6
Optimal Cycle: OPTIMIZED Level Of Service: F

****

Street Name:	I-15 SB On/Off Ramps						Summit Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 2 0 0			0 0 2 0 1		
Volume Module:												
Base Vol:	0	0	0	239	0	306	889	637	0	0	559	816
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	239	0	306	889	637	0	0	559	816
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	252	0	322	936	671	0	0	588	859
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	252	0	322	936	671	0	0	588	859
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	252	0	322	936	671	0	0	588	859
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1700	0	1800	1700	3600	0	0	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.15	0.00	0.18	0.55	0.19	0.00	0.00	0.16	0.48
Crit Moves:						****	****					****
Green/Cycle:	0.00	0.00	0.00	0.14	0.00	0.14	0.43	0.60	0.00	0.00	0.37	0.37
Volume/Cap:	0.00	0.00	0.00	1.07	0.00	1.29	1.29	0.31	0.00	0.00	0.44	1.29
Delay/Veh:	0.0	0.0	0.0	117.7	0.0	197.2	167.0	9.6	0.0	0.0	22.7	170.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	117.7	0.0	197.2	167.0	9.6	0.0	0.0	22.7	170.6
LOS by Move:	A	A	A	F	A	F	F	A	A	A	C	F
HCM2kAvgQ:	0	0	0	14	0	21	58	5	0	0	7	51

****

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

****

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #17 I-15 NB On/Off Ramps and Summit Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.791
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 19.1
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	I-15 NB On/Off Ramps						Summit Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 2 0 0			0 0 2 0 1		
Volume Module:												
Base Vol:	0	0	0	453	0	226	154	711	0	0	1149	191
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	453	0	226	154	711	0	0	1149	191
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	477	0	238	162	748	0	0	1209	201
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	477	0	238	162	748	0	0	1209	201
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	477	0	238	162	748	0	0	1209	201
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1700	0	1800	1700	3600	0	0	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.28	0.00	0.13	0.10	0.21	0.00	0.00	0.34	0.11
Crit Moves:				****			****				****	
Green/Cycle:	0.00	0.00	0.00	0.35	0.00	0.35	0.12	0.37	0.00	0.00	0.42	0.42
Volume/Cap:	0.00	0.00	0.00	0.79	0.00	0.37	0.79	0.56	0.00	0.00	0.79	0.26
Delay/Veh:	0.0	0.0	0.0	24.4	0.0	14.8	44.2	15.7	0.0	0.0	17.8	11.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	24.4	0.0	14.8	44.2	15.7	0.0	0.0	17.8	11.4
LOS by Move:	A	A	A	C	A	B	D	B	A	A	B	B
HCM2kAvgQ:	0	0	0	11	0	4	5	6	0	0	12	3

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #18 Sierra Ave & Riverside Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 1.025
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 40.7
Optimal Cycle: 0 Level Of Service: E

Street Name:	Sierra Ave						Riverside Ave					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 1	0 1		1 0 1	0 0		0 0 0	0 0		1 0 0	0 1	
Volume Module:												
Base Vol:	0	146	37	374	351	0	0	0	0	83	0	561
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	146	37	374	351	0	0	0	0	83	0	561
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	154	39	394	369	0	0	0	0	87	0	591
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	154	39	394	369	0	0	0	0	87	0	591
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	154	39	394	369	0	0	0	0	87	0	591
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	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	467	512	488	523	0	0	0	0	476	0	576
Capacity Analysis Module:												
Vol/Sat:	xxxx	0.33	0.08	0.81	0.71	xxxx	xxxx	xxxx	xxxx	0.18	xxxx	1.03
Crit Moves:		****		****								****
Delay/Veh:	0.0	14.0	10.2	34.1	24.3	0.0	0.0	0.0	0.0	11.8	0.0	68.6
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:	0.0	14.0	10.2	34.1	24.3	0.0	0.0	0.0	0.0	11.8	0.0	68.6
LOS by Move:	*	B	B	D	C	*	*	*	*	B	*	F
ApproachDel:		13.2			29.4			xxxxxx			61.3	
Delay Adj:		1.00			1.00			xxxxx			1.00	
ApprAdjDel:		13.2			29.4			xxxxxx			61.3	
LOS by Appr:		B			D			*			F	
AllWayAvgQ:	0.0	0.5	0.1	3.3	2.1	0.0	0.0	0.0	0.0	0.2	0.0	9.6

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #19 Live Oak Ave & Riverside Ave

Cycle (sec): 60 Critical Vol./Cap.(X): 0.336
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 16.1
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Live Oak Ave						Riverside Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 1 0			1 0 2 0 0		
Volume Module:												
Base Vol:	290	0	81	0	0	0	0	286	69	31	359	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:	290	0	81	0	0	0	0	286	69	31	359	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:	305	0	85	0	0	0	0	301	73	33	378	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	305	0	85	0	0	0	0	301	73	33	378	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	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:	305	0	85	0	0	0	0	301	73	33	378	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	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.61	0.39	1.00	2.00	0.00
Final Sat.:	1700	0	1800	0	0	0	0	2900	700	1700	3600	0
Capacity Analysis Module:												
Vol/Sat:	0.18	0.00	0.05	0.00	0.00	0.00	0.00	0.10	0.10	0.02	0.10	0.00
Crit Moves:	****							****		****		
Green/Cycle:	0.51	0.00	0.51	0.00	0.00	0.00	0.00	0.29	0.29	0.10	0.20	0.00
Volume/Cap:	0.35	0.00	0.09	0.00	0.00	0.00	0.00	0.35	0.35	0.19	0.52	0.00
Delay/Veh:	9.1	0.0	7.7	0.0	0.0	0.0	0.0	16.9	16.9	25.3	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:	9.1	0.0	7.7	0.0	0.0	0.0	0.0	16.9	16.9	25.3	22.1	0.0
LOS by Move:	A	A	A	A	A	A	A	B	B	C	C	A
HCM2kAvgQ:	4	0	1	0	0	0	0	3	3	1	4	0

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #20 Alder Ave. and Riverside Ave.

Average Delay (sec/veh): 3.3 Worst Case Level Of Service: B[12.6]

Street Name:	Alder Ave.									Riverside Ave.							
Approach:	North Bound				South Bound					East Bound					West Bound		
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	0	0	1	0	0	0	0	0	0	0	1	1	0	1	0	2	0	0
Volume Module:																				
Base Vol:	61		0		151	0		0		0	0		376		31	70		293		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:	61		0		151	0		0		0	0		376		31	70		293		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:	64		0		159	0		0		0	0		396		33	74		308		0
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
FinalVolume:	64		0		159	0		0		0	0		396		33	74		308		0
Critical Gap Module:																				
Critical Gp:	6.8	xxxx		6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		4.1	xxxx	xxxxx						
FollowUpTim:	3.5	xxxx		3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		2.2	xxxx	xxxxx						
Capacity Module:																				
Cnflict Vol:	714	xxxx		214	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		428	xxxx	xxxxx						
Potent Cap.:	370	xxxx		797	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		1142	xxxx	xxxxx						
Move Cap.:	352	xxxx		797	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		1142	xxxx	xxxxx						
Volume/Cap:	0.18	xxxx		0.20	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx		0.06	xxxx	xxxx						
Level Of Service Module:																				
2Way95thQ:	0.7	xxxx		0.7	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		0.2	xxxx	xxxxx						
Control Del:	17.5	xxxx		10.6	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		8.4	xxxx	xxxxx						
LOS by Move:	C	*		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			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shrd ConDel:	xxxxx	xxxx		xxxxx		xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	*	*		*		*	*	*			*	*	*			*	*	*		
ApproachDel:		12.6				xxxxxx					xxxxxx					xxxxxx				
ApproachLOS:		B				*					*					*				

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #21 Locust Ave. and Riverside Ave.

Average Delay (sec/veh): 3.4 Worst Case Level Of Service: C[16.4]

Street Name:	Locust Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 1 0			1 0 2 0 0		
Volume Module:												
Base Vol:	36	0	123	0	0	0	0	546	49	180	329	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:	36	0	123	0	0	0	0	546	49	180	329	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:	38	0	129	0	0	0	0	575	52	189	346	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	38	0	129	0	0	0	0	575	52	189	346	0
Critical Gap Module:												
Critical Gp:	6.8	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1153	xxxx	313	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	626	xxxx	xxxxx
Potent Cap.:	194	xxxx	689	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	965	xxxx	xxxxx
Move Cap.:	165	xxxx	689	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	965	xxxx	xxxxx
Volume/Cap:	0.23	xxxx	0.19	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.20	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.9	xxxx	0.7	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.7	xxxx	xxxxx
Control Del:	33.3	xxxx	11.4	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.6	xxxx	xxxxx
LOS by Move:	D	*	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	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	16.4			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	C			*			*			*		

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #22 Linden Ave. and Riverside Ave.

Average Delay (sec/veh): 2.4 Worst Case Level Of Service: E[35.3]

Street Name:	Linden Ave.						Riverside Ave.					
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	1! 0	0	0 0	0 0	0	0 0	1 1	0	0 1	0 0	0
Volume Module:												
Base Vol:	46	0	26	0	0	0	0	646	34	85	529	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:	46	0	26	0	0	0	0	646	34	85	529	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:	48	0	27	0	0	0	0	680	36	89	557	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	48	0	27	0	0	0	0	680	36	89	557	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1434	1434	358	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	716	xxxx	xxxxx
Potent Cap.:	149	135	691	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	894	xxxx	xxxxx
Move Cap.:	137	121	691	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	894	xxxx	xxxxx
Volume/Cap:	0.35	0.00	0.04	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.10	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.5	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	193	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	1.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.3	xxxx	xxxxx
Shrd ConDel:	xxxxx	35.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.5	xxxx	xxxxx
Shared LOS:	*	E	*	*	*	*	*	*	*	A	*	*
ApproachDel:		35.3		xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:		E			*			*			*	

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #23 Ayala Dr. and Riverside Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.577
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 16.5
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Ayala Dr.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0 0 2			0 0 0 0 0			0 0 1 1 0			1 0 2 0 0		
Volume Module:												
Base Vol:	44	0	389	0	0	0	0	592	71	342	607	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:	44	0	389	0	0	0	0	592	71	342	607	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:	46	0	409	0	0	0	0	623	75	360	639	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	0	409	0	0	0	0	623	75	360	639	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	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	0	409	0	0	0	0	623	75	360	639	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	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.00	2.00	0.00	0.00	0.00	0.00	1.79	0.21	1.00	2.00	0.00
Final Sat.:	1700	0	3600	0	0	0	0	3214	386	1700	3600	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.11	0.00	0.00	0.00	0.00	0.19	0.19	0.21	0.18	0.00
Crit Moves:			****					****		****		
Green/Cycle:	0.20	0.00	0.20	0.00	0.00	0.00	0.00	0.34	0.34	0.37	0.45	0.00
Volume/Cap:	0.14	0.00	0.58	0.00	0.00	0.00	0.00	0.58	0.58	0.58	0.39	0.00
Delay/Veh:	20.1	0.0	23.0	0.0	0.0	0.0	0.0	17.1	17.1	16.6	11.2	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:	20.1	0.0	23.0	0.0	0.0	0.0	0.0	17.1	17.1	16.6	11.2	0.0
LOS by Move:	C	A	C	A	A	A	A	B	B	B	B	A
HCM2kAvgQ:	1	0	4	0	0	0	0	6	6	6	4	0

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #24 Knollwood Ave. and Riverside Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.307
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 7.3
Optimal Cycle: OPTIMIZED Level Of Service: A

Street Name:	Knollwood Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 2 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	0	0	0	5	0	89	15	935	0	0	849	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	5	0	89	15	935	0	0	849	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	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	5	0	94	16	984	0	0	894	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	5	0	94	16	984	0	0	894	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
FinalVolume:	0	0	0	5	0	94	16	984	0	0	894	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:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.98	0.02
Final Sat.:	0	0	0	1700	0	1800	1700	3600	0	0	3558	42
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.05	0.01	0.27	0.00	0.00	0.25	0.25
Crit Moves:				****				****		****		
Green/Cycle:	0.00	0.00	0.00	0.13	0.00	0.13	0.22	0.67	0.00	0.00	0.55	0.55
Volume/Cap:	0.00	0.00	0.00	0.02	0.00	0.41	0.04	0.41	0.00	0.00	0.45	0.45
Delay/Veh:	0.0	0.0	0.0	22.9	0.0	25.2	18.5	4.6	0.0	0.0	8.2	8.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	22.9	0.0	25.2	18.5	4.6	0.0	0.0	8.2	8.2
LOS by Move:	A	A	A	C	A	C	B	A	A	A	A	A
HCM2kAvgQ:	0	0	0	0	0	2	0	4	0	0	5	5

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #25 Country Club Dr. and Riverside Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.443
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 11.8
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Country Club Dr.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 1 0	0 1		1 0	0 1 0		1 0	1 1 0		1 0	1 1 0	
Volume Module:												
Base Vol:	72	33	127	68	64	49	51	782	125	96	725	31
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:	72	33	127	68	64	49	51	782	125	96	725	31
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:	76	35	134	72	67	52	54	823	132	101	763	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	76	35	134	72	67	52	54	823	132	101	763	33
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:	76	35	134	72	67	52	54	823	132	101	763	33
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.70	0.30	1.00	1.00	0.57	0.43	1.00	1.72	0.28	1.00	1.92	0.08
Final Sat.:	1186	544	1800	1700	1019	781	1700	3104	496	1700	3452	148
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.07	0.04	0.07	0.07	0.03	0.27	0.27	0.06	0.22	0.22
Crit Moves:			****					****		****		
Green/Cycle:	0.17	0.17	0.17	0.17	0.17	0.17	0.23	0.60	0.60	0.13	0.50	0.50
Volume/Cap:	0.38	0.38	0.44	0.25	0.39	0.39	0.14	0.44	0.44	0.44	0.44	0.44
Delay/Veh:	23.0	23.0	23.5	22.2	23.1	23.1	18.6	6.7	6.7	25.3	9.6	9.6
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:	23.0	23.0	23.5	22.2	23.1	23.1	18.6	6.7	6.7	25.3	9.6	9.6
LOS by Move:	C	C	C	C	C	C	B	A	A	C	A	A
HCM2kAvgQ:	2	2	3	1	2	2	1	5	5	2	5	5

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #26 Riverside Ave. and Dwy.(Shopping Ctr.)

Cycle (sec): 70 Critical Vol./Cap.(X): 0.308
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 6.8
Optimal Cycle: OPTIMIZED Level Of Service: A

Street Name:	Riverside Ave.						Dwy.(Shopping Ctr.)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 0			0 0 1 1 0			1 0 0 0 1			0 0 0 0 0		
Volume Module:												
Base Vol:	47	760	0	0	809	1	26	0	32	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	47	760	0	0	809	1	26	0	32	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	49	800	0	0	852	1	27	0	34	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	800	0	0	852	1	27	0	34	0	0	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	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:	49	800	0	0	852	1	27	0	34	0	0	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	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.99	0.01	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1700	3600	0	0	3596	4	1700	0	1800	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.22	0.00	0.00	0.24	0.24	0.02	0.00	0.02	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green/Cycle:	0.09	0.60	0.00	0.00	0.74	0.74	0.09	0.00	0.09	0.00	0.00	0.00
Volume/Cap:	0.32	0.37	0.00	0.00	0.32	0.32	0.19	0.00	0.22	0.00	0.00	0.00
Delay/Veh:	31.0	7.4	0.0	0.0	3.2	3.2	30.4	0.0	30.5	0.0	0.0	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:	31.0	7.4	0.0	0.0	3.2	3.2	30.4	0.0	30.5	0.0	0.0	0.0
LOS by Move:	C	A	A	A	A	A	C	A	C	A	A	A
HCM2kAvgQ:	1	5	0	0	3	3	1	0	1	0	0	0

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #28 Alder Ave. and Casa Grande Dr.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.175
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 17.4
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Alder Ave.						Casa Grande Dr.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	1 0		1 0 1	0 1		1 0 1	0 1	
Volume Module:												
Base Vol:	5	12	2	117	46	6	18	111	26	12	60	107
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:	5	12	2	117	46	6	18	111	26	12	60	107
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:	5	13	2	123	48	6	19	117	27	13	63	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	13	2	123	48	6	19	117	27	13	63	113
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	13	2	123	48	6	19	117	27	13	63	113
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.77	0.23	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	1800	1800	1700	3185	415	1700	1800	1800	1700	1800	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.01	0.00	0.07	0.02	0.02	0.01	0.06	0.02	0.01	0.04	0.06
Crit Moves:		****		****				****		****		
Green/Cycle:	0.23	0.10	0.10	0.35	0.23	0.23	0.21	0.32	0.32	0.10	0.21	0.21
Volume/Cap:	0.01	0.07	0.01	0.21	0.07	0.07	0.05	0.21	0.05	0.07	0.17	0.30
Delay/Veh:	18.1	24.6	24.4	13.8	18.3	18.3	19.1	15.2	14.3	24.7	19.7	20.6
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:	18.1	24.6	24.4	13.8	18.3	18.3	19.1	15.2	14.3	24.7	19.7	20.6
LOS by Move:	B	C	C	B	B	B	B	B	B	C	B	C
HCM2kAvgQ:	0	0	0	2	0	0	0	2	0	0	1	2

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #29 Locust Ave. and Casa Grande Dr.

Average Delay (sec/veh): 4.7 Worst Case Level Of Service: B[12.5]

Street Name:	Locust Ave.						Casa Grande Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1 0 0 0			0 0 0 1 0			1 0 0 0 1			0 0 0 0 0		
Volume Module:												
Base Vol:	171	248	0	0	278	5	16	0	224	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	171	248	0	0	278	5	16	0	224	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	180	261	0	0	293	5	17	0	236	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	180	261	0	0	293	5	17	0	236	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	298	xxxx	xxxxx	xxxx	xxxx	xxxxx	916	xxxx	295	xxxx	xxxx	xxxxx
Potent Cap.:	1275	xxxx	xxxxx	xxxx	xxxx	xxxxx	305	xxxx	749	xxxx	xxxx	xxxxx
Move Cap.:	1275	xxxx	xxxxx	xxxx	xxxx	xxxxx	268	xxxx	749	xxxx	xxxx	xxxxx
Volume/Cap:	0.14	xxxx	xxxx	xxxx	xxxx	xxxx	0.06	xxxx	0.31	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.5	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	1.4	xxxx	xxxx	xxxxx
Control Del:	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	19.3	xxxx	12.0	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	C	*	B	*	*	*
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:	0.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			12.5			xxxxxx		
ApproachLOS:	*			*			B			*		

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #30 Sierra Ave. and Summit Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.279
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 12.6
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Sierra Ave.						Summit Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 0		0 0 2	1 0		1 0 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	133	351	0	0	751	57	74	0	135	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	133	351	0	0	751	57	74	0	135	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	140	369	0	0	791	60	78	0	142	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	140	369	0	0	791	60	78	0	142	0	0	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	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:	140	369	0	0	791	60	78	0	142	0	0	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	0.94	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	2.79	0.21	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1700	1800	0	0	5019	381	1700	0	1800	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.08	0.21	0.00	0.00	0.16	0.16	0.05	0.00	0.08	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.26	0.58	0.00	0.00	0.41	0.41	0.22	0.00	0.22	0.00	0.00	0.00
Volume/Cap:	0.31	0.36	0.00	0.00	0.38	0.38	0.21	0.00	0.36	0.00	0.00	0.00
Delay/Veh:	18.1	6.9	0.0	0.0	12.3	12.3	19.3	0.0	20.2	0.0	0.0	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:	18.1	6.9	0.0	0.0	12.3	12.3	19.3	0.0	20.2	0.0	0.0	0.0
LOS by Move:	B	A	A	A	B	B	B	A	C	A	A	A
HCM2kAvgQ:	2	4	0	0	4	4	1	0	3	0	0	0

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #31 Locust Ave. and Bohnert Ave.

Average Delay (sec/veh): 13.2 Worst Case Level Of Service: F[75.2]

Street Name:	Locust Ave.						Bohnert Ave.					
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	1 0	0 1	0	0 0	1! 0	0
Volume Module:												
Base Vol:	16	424	24	18	493	11	5	1	5	143	4	58
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	424	24	18	493	11	5	1	5	143	4	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:	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:	17	446	25	19	519	12	5	1	5	151	4	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	17	446	25	19	519	12	5	1	5	151	4	61
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	531	xxxx	xxxxx	472	xxxx	xxxxx	1088	1068	525	1058	1061	459
Potent Cap.:	1047	xxxx	xxxxx	1101	xxxx	xxxxx	195	224	557	204	226	606
Move Cap.:	1047	xxxx	xxxxx	1101	xxxx	xxxxx	168	216	557	196	218	606
Volume/Cap:	0.02	xxxx	xxxx	0.02	xxxx	xxxx	0.03	0.00	0.01	0.77	0.02	0.10
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	8.5	xxxx	xxxxx	8.3	xxxx	xxxxx	27.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	D	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	441	xxxx	243	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.0	xxxxx	7.4	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	13.3	xxxxx	75.2	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	B	*	F	*
ApproachDel:	xxxxxx			xxxxxx			19.5			75.2		
ApproachLOS:	*			*			C			F		

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #32 Ayala Dr. and Bohnert Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.315
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	14.2
Optimal Cycle: OPTIMIZED		Level Of Service:	B

Street Name:	Ayala Dr.						Bohnert Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		0 1 0	0 1		0 1 0	0 1	
Volume Module:												
Base Vol:	28	179	120	23	178	22	21	86	33	146	157	21
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	179	120	23	178	22	21	86	33	146	157	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	29	188	126	24	187	23	22	91	35	154	165	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	188	126	24	187	23	22	91	35	154	165	22
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	29	188	126	24	187	23	22	91	35	154	165	22
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	1.20	0.80	1.00	1.78	0.22	0.21	0.79	1.00	0.50	0.50	1.00
Final Sat.:	1700	2155	1445	1700	3204	396	349	1430	1800	843	907	1800
Capacity Analysis Module:												
Vol/Sat:	0.02	0.09	0.09	0.01	0.06	0.06	0.06	0.06	0.02	0.18	0.18	0.01
Crit Moves:		****		****							****	
Green/Cycle:	0.18	0.26	0.26	0.10	0.18	0.18	0.54	0.54	0.54	0.54	0.54	0.54
Volume/Cap:	0.10	0.34	0.34	0.14	0.33	0.33	0.12	0.12	0.04	0.34	0.34	0.02
Delay/Veh:	20.7	18.2	18.2	25.0	21.7	21.7	6.8	6.8	6.5	8.0	8.0	6.4
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:	20.7	18.2	18.2	25.0	21.7	21.7	6.8	6.8	6.5	8.0	8.0	6.4
LOS by Move:	C	B	B	C	C	C	A	A	A	A	A	A
HCM2kAvgQ:	1	3	3	1	2	2	1	1	0	4	4	0

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #33 Sierra Ave. and Sierra Lakes Pkwy/Casmalia St.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.474
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 18.1
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Sierra Ave.						Sierra Lakes Pkwy/Casmalia St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	2 0	3 0	1	2 0	3 0	1	2 0	2 0	1	2 0	2 0	1
Volume Module:												
Base Vol:	233	433	79	64	768	52	33	93	302	217	132	55
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:	233	433	79	64	768	52	33	93	302	217	132	55
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:	245	456	83	67	808	55	35	98	318	228	139	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	245	456	83	67	808	55	35	98	318	228	139	58
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:	245	456	83	67	808	55	35	98	318	228	139	58
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.89	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3200	5400	1800	3200	5400	1800	3200	3600	1800	3200	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.08	0.08	0.05	0.02	0.15	0.03	0.01	0.03	0.18	0.07	0.04	0.03
Crit Moves:	****				****				****	****		
Green/Cycle:	0.16	0.24	0.24	0.24	0.32	0.32	0.26	0.37	0.37	0.15	0.26	0.26
Volume/Cap:	0.47	0.35	0.19	0.09	0.47	0.10	0.04	0.07	0.47	0.47	0.15	0.12
Delay/Veh:	23.5	19.2	18.5	17.8	16.7	14.6	16.6	12.2	14.9	24.1	17.1	17.0
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:	23.5	19.2	18.5	17.8	16.7	14.6	16.6	12.2	14.9	24.1	17.1	17.0
LOS by Move:	C	B	B	B	B	B	B	B	B	C	B	B
HCM2kAvgQ:	3	3	1	1	4	1	0	1	5	3	1	1

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #34 Alder Ave. and Casmalia St.

Cycle (sec): 75 Critical Vol./Cap.(X): 0.836
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 33.3
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name:	Alder Ave.						Casmalia St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 0	1 0		1 0 1	0 1	
Volume Module:												
Base Vol:	29	182	376	8	128	14	17	99	15	735	322	17
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:	29	182	376	8	128	14	17	99	15	735	322	17
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:	31	192	396	8	135	15	18	104	16	774	339	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	192	396	8	135	15	18	104	16	774	339	18
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:	31	192	396	8	135	15	18	104	16	774	339	18
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.80	0.20	1.00	0.87	0.13	1.00	1.00	1.00
Final Sat.:	1700	1800	1800	1700	3245	355	1700	1563	237	1700	1800	1800
Capacity Analysis Module:												
Vol/Sat:	0.02	0.11	0.22	0.00	0.04	0.04	0.01	0.07	0.07	0.46	0.19	0.01
Crit Moves:			****	****				****		****		
Green/Cycle:	0.16	0.24	0.24	0.08	0.16	0.16	0.17	0.08	0.08	0.49	0.40	0.40
Volume/Cap:	0.11	0.45	0.92	0.06	0.26	0.26	0.06	0.83	0.83	0.92	0.47	0.02
Delay/Veh:	27.2	24.6	46.6	32.1	27.9	27.9	26.1	66.1	66.1	32.8	16.9	13.5
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:	27.2	24.6	46.6	32.1	27.9	27.9	26.1	66.1	66.1	32.8	16.9	13.5
LOS by Move:	C	C	D	C	C	C	C	E	E	C	B	B
HCM2kAvgQ:	1	4	13	0	2	2	0	5	5	22	6	0

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #35 Locust Ave. and Casmalia St.

Cycle (sec): 80 Critical Vol./Cap.(X): 0.814
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 35.5
Optimal Cycle: OPTIMIZED Level Of Service: D

Street Name:	Locust Ave.						Casmalia St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 0	1 0		1 0 0	1 0	
Volume Module:												
Base Vol:	0	139	2	10	173	396	224	288	3	8	590	30
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	139	2	10	173	396	224	288	3	8	590	30
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	146	2	11	182	417	236	303	3	8	621	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	146	2	11	182	417	236	303	3	8	621	32
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	146	2	11	182	417	236	303	3	8	621	32
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	1.97	0.03	1.00	1.00	1.00	1.00	0.99	0.01	1.00	0.95	0.05
Final Sat.:	1700	3549	51	1700	1800	1800	1700	1781	19	1700	1713	87
Capacity Analysis Module:												
Vol/Sat:	0.00	0.04	0.04	0.01	0.10	0.23	0.14	0.17	0.17	0.00	0.36	0.36
Crit Moves:	****					****	****				****	
Green/Cycle:	0.00	0.17	0.17	0.17	0.26	0.26	0.16	0.39	0.39	0.17	0.41	0.41
Volume/Cap:	0.00	0.25	0.25	0.04	0.39	0.89	0.89	0.43	0.43	0.03	0.89	0.89
Delay/Veh:	0.0	29.1	29.1	27.9	24.5	42.2	61.4	18.3	18.3	27.6	34.7	34.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	29.1	29.1	27.9	24.5	42.2	61.4	18.3	18.3	27.6	34.7	34.7
LOS by Move:	A	C	C	C	C	D	E	B	B	C	C	C
HCM2kAvgQ:	0	2	2	0	4	14	9	6	6	0	19	19

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #36 Ayala Dr. and Casmalia St.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.437
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 14.9
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Ayala Dr.						Casmalia St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2	0 0		0 0 1	1 0		1 0 0	0 2		0 0 0	0 0	
Volume Module:												
Base Vol:	90	330	0	0	364	290	237	0	71	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	90	330	0	0	364	290	237	0	71	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	95	347	0	0	383	305	249	0	75	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	95	347	0	0	383	305	249	0	75	0	0	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	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:	95	347	0	0	383	305	249	0	75	0	0	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	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.11	0.89	1.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	1700	3600	0	0	2004	1596	1700	0	3600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.10	0.00	0.00	0.19	0.19	0.15	0.00	0.02	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green/Cycle:	0.13	0.28	0.00	0.00	0.44	0.44	0.34	0.00	0.34	0.00	0.00	0.00
Volume/Cap:	0.44	0.34	0.00	0.00	0.44	0.44	0.44	0.00	0.06	0.00	0.00	0.00
Delay/Veh:	25.6	17.3	0.0	0.0	11.9	11.9	16.1	0.0	13.6	0.0	0.0	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:	25.6	17.3	0.0	0.0	11.9	11.9	16.1	0.0	13.6	0.0	0.0	0.0
LOS by Move:	C	B	A	A	B	B	B	A	B	A	A	A
HCM2kAvgQ:	2	3	0	0	5	5	4	0	0	0	0	0

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #37 Sierra Ave. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.147
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 1.1
Optimal Cycle: OPTIMIZED Level Of Service: A

Street Name:	Sierra Ave.						SR-210 Fwy. WB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Ignore			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 3	0 2		0 0 2	0 2		0 0 0	0 0		1 0 1!	0 1	
Volume Module:												
Base Vol:	0	382	986	0	477	457	0	0	0	4	0	6
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	382	986	0	477	457	0	0	0	4	0	6
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	402	0	0	502	0	0	0	0	4	0	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	402	0	0	502	0	0	0	0	4	0	6
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	402	0	0	502	0	0	0	0	4	0	6
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	3.00	2.00	0.00	2.00	2.00	0.00	0.00	0.00	1.41	0.00	1.59
Final Sat.:	0	5400	3600	0	3600	3600	0	0	0	2403	0	2855
Capacity Analysis Module:												
Vol/Sat:	0.00	0.07	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:					****					****		
Green/Cycle:	0.00	0.90	0.00	0.00	0.90	0.00	0.00	0.00	0.00	0.06	0.00	0.06
Volume/Cap:	0.00	0.08	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.03	0.00	0.04
Delay/Veh:	0.0	0.5	0.0	0.0	0.6	0.0	0.0	0.0	0.0	44.3	0.0	44.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.5	0.0	0.0	0.6	0.0	0.0	0.0	0.0	44.3	0.0	44.3
LOS by Move:	A	A	A	A	A	A	A	A	A	D	A	D
HCM2kAvgQ:	0	0	0	0	1	0	0	0	0	0	0	0

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #38 Sierra Ave. and SR-210 Fwy. EB Off Ramp/Highland Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.747
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	23.5
Optimal Cycle: OPTIMIZED		Level Of Service:	C

Street Name:	Sierra Ave.						SR-210 Fwy. EB Off Ramp/Highland					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 1	1 0		1 0 2	0 0		1 0 1	1 0		1 0 0	0 2	
Volume Module:												
Base Vol:	0	870	97	36	473	0	122	149	407	169	0	417
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	870	97	36	473	0	122	149	407	169	0	417
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	916	102	38	498	0	128	157	428	178	0	439
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	916	102	38	498	0	128	157	428	178	0	439
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	916	102	38	498	0	128	157	428	178	0	439
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	1.80	0.20	1.00	2.00	0.00	1.00	1.00	1.00	1.00	0.00	2.00
Final Sat.:	0	3239	361	1700	3600	0	1700	1800	1800	1700	0	3600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.28	0.28	0.02	0.14	0.00	0.08	0.09	0.24	0.10	0.00	0.12
Crit Moves:		****		****					****	****		
Green/Cycle:	0.00	0.35	0.35	0.10	0.26	0.00	0.19	0.29	0.29	0.13	0.00	0.23
Volume/Cap:	0.00	0.82	0.82	0.22	0.53	0.00	0.40	0.30	0.82	0.82	0.00	0.53
Delay/Veh:	0.0	22.1	22.1	25.5	19.7	0.0	22.1	16.6	27.0	46.1	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:	0.0	22.1	22.1	25.5	19.7	0.0	22.1	16.6	27.0	46.1	0.0	20.9
LOS by Move:	A	C	C	C	B	A	C	B	C	D	A	C
HCM2kAvgQ:	0	11	11	1	5	0	3	2	10	6	0	4

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #39 Alder Ave. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec): 70 Critical Vol./Cap.(X): 1.029
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 42.7
Optimal Cycle: OPTIMIZED Level Of Service: D

Street Name:	Alder Ave.						SR-210 Fwy. WB On/Off Ramps					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 0			0 0 1 1 0			0 0 0 0 0			0 0 0 0 0		
Volume Module:												
Base Vol:	768	510	0	0	46	846	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	768	510	0	0	46	846	0	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	808	537	0	0	48	891	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	808	537	0	0	48	891	0	0	0	0	0	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	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:	808	537	0	0	48	891	0	0	0	0	0	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	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	1700	3600	0	0	1800	1800	0	0	0	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.48	0.15	0.00	0.00	0.03	0.49	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:	****					****						
Green/Cycle:	0.46	0.94	0.00	0.00	0.48	0.48	0.00	0.00	0.00	0.00	0.00	0.00
Volume/Cap:	1.03	0.16	0.00	0.00	0.06	1.03	0.00	0.00	0.00	0.00	0.00	0.00
Delay/Veh:	58.6	0.2	0.0	0.0	9.7	55.6	0.0	0.0	0.0	0.0	0.0	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:	58.6	0.2	0.0	0.0	9.7	55.6	0.0	0.0	0.0	0.0	0.0	0.0
LOS by Move:	E	A	A	A	A	E	A	A	A	A	A	A
HCM2kAvgQ:	29	1	0	0	1	30	0	0	0	0	0	0

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #40 Alder Ave. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.628
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 12.6
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Alder Ave.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 2	0 0		0 0 2	0 0		1 0 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	861	0	0	60	0	435	0	572	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	861	0	0	60	0	435	0	572	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	906	0	0	63	0	458	0	602	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	906	0	0	63	0	458	0	602	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	906	0	0	63	0	458	0	602	0	0	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	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	2.00	0.00	0.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3600	0	0	3600	0	1700	0	1800	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.00	0.00	0.02	0.00	0.27	0.00	0.33	0.00	0.00	0.00
Crit Moves:		****							****			
Green/Cycle:	0.00	0.40	0.00	0.00	0.40	0.00	0.53	0.00	0.53	0.00	0.00	0.00
Volume/Cap:	0.00	0.63	0.00	0.00	0.04	0.00	0.51	0.00	0.63	0.00	0.00	0.00
Delay/Veh:	0.0	15.3	0.0	0.0	11.0	0.0	9.4	0.0	11.2	0.0	0.0	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:	0.0	15.3	0.0	0.0	11.0	0.0	9.4	0.0	11.2	0.0	0.0	0.0
LOS by Move:	A	B	A	A	B	A	A	A	B	A	A	A
HCM2kAvgQ:	0	8	0	0	0	0	6	0	9	0	0	0

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #49 State St. and Highland Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.683
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 18.2
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	State St.						Highland Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	2 0 2	0 1		1 0 2	0 1		0 1 0	0 2		0 0 0	0 0	
Volume Module:												
Base Vol:	886	175	31	14	106	131	118	297	833	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	886	175	31	14	106	131	118	297	833	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	933	184	33	15	112	138	124	313	877	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	933	184	33	15	112	138	124	313	877	0	0	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	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:	933	184	33	15	112	138	124	313	877	0	0	0
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.89	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	0.30	0.70	2.00	0.00	0.00	0.00
Final Sat.:	3200	3600	1800	1700	3600	1800	503	1267	3600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.29	0.05	0.02	0.01	0.03	0.08	0.25	0.25	0.24	0.00	0.00	0.00
Crit Moves:	****					****	****					
Green/Cycle:	0.43	0.27	0.27	0.27	0.11	0.11	0.36	0.36	0.36	0.00	0.00	0.00
Volume/Cap:	0.68	0.19	0.07	0.03	0.28	0.68	0.68	0.68	0.67	0.00	0.00	0.00
Delay/Veh:	15.4	17.0	16.4	16.2	24.8	34.9	19.3	19.3	17.6	0.0	0.0	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:	15.4	17.0	16.4	16.2	24.8	34.9	19.3	19.3	17.6	0.0	0.0	0.0
LOS by Move:	B	B	B	B	C	C	B	B	B	A	A	A
HCM2kAvgQ:	9	1	0	0	1	4	8	8	8	0	0	0

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #50 California St. and Highland Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.325
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 10.2
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	California St.						Highland Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	0 1	0	0 1	0 0	0	1 0	1 1	0	1 0	0 0	1
Volume Module:												
Base Vol:	0	143	81	123	152	0	4	267	19	180	0	236
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	143	81	123	152	0	4	267	19	180	0	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:	0.95	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	151	85	129	160	0	4	281	20	189	0	248
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	151	85	129	160	0	4	281	20	189	0	248
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	151	85	129	160	0	4	281	20	189	0	248
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.64	0.36	0.46	0.54	0.00	1.00	1.87	0.13	1.00	0.00	1.00
Final Sat.:	0	1149	651	784	969	0	1700	3361	239	1700	0	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.13	0.13	0.17	0.17	0.00	0.00	0.08	0.08	0.11	0.00	0.14
Crit Moves:					****							****
Green/Cycle:	0.00	0.51	0.51	0.51	0.51	0.00	0.43	0.43	0.43	0.43	0.00	0.43
Volume/Cap:	0.00	0.26	0.26	0.32	0.32	0.00	0.01	0.20	0.20	0.26	0.00	0.32
Delay/Veh:	0.0	8.5	8.5	8.9	8.9	0.0	9.9	10.9	10.9	11.4	0.0	11.8
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:	0.0	8.5	8.5	8.9	8.9	0.0	9.9	10.9	10.9	11.4	0.0	11.8
LOS by Move:	A	A	A	A	A	A	A	B	B	B	A	B
HCM2kAvgQ:	0	3	3	3	3	0	0	2	2	3	0	3

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #51 Medical Ctr. Dr. and Highland Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.299
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 8.8
Optimal Cycle: OPTIMIZED Level Of Service: A

Street Name:	Medical Ctr. Dr.						Highland Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	50	27	209	18	38	8	4	446	54	253	357	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	50	27	209	18	38	8	4	446	54	253	357	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	53	28	220	19	40	8	4	469	57	266	376	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	53	28	220	19	40	8	4	469	57	266	376	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:	53	28	220	19	40	8	4	469	57	266	376	17
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.65	0.35	1.00	1.78	0.22	1.00	1.91	0.09
Final Sat.:	1700	1800	1800	1700	2974	626	1700	3211	389	1700	3446	154
Capacity Analysis Module:												
Vol/Sat:	0.03	0.02	0.12	0.01	0.01	0.01	0.00	0.15	0.15	0.16	0.11	0.11
Crit Moves:			****							****		
Green/Cycle:	0.41	0.41	0.41	0.41	0.41	0.41	0.52	0.52	0.52	0.52	0.52	0.52
Volume/Cap:	0.08	0.04	0.30	0.03	0.03	0.03	0.00	0.28	0.28	0.30	0.21	0.21
Delay/Veh:	10.9	10.6	12.1	10.6	10.6	10.6	6.8	8.0	8.0	8.2	7.7	7.7
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:	10.9	10.6	12.1	10.6	10.6	10.6	6.8	8.0	8.0	8.2	7.7	7.7
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
HCM2kAvgQ:	1	0	3	0	0	0	0	3	3	3	2	2

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #52 Mt. Vernon Ave. and Highland Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.552
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 17.4
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Mt. Vernon Ave.						Highland Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	23	124	63	89	273	253	283	397	50	102	482	93
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	124	63	89	273	253	283	397	50	102	482	93
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	131	66	94	287	266	298	418	53	107	507	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	131	66	94	287	266	298	418	53	107	507	98
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:	24	131	66	94	287	266	298	418	53	107	507	98
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	1.33	0.67	1.00	1.04	0.96	1.00	1.78	0.22	1.00	1.68	0.32
Final Sat.:	1700	2387	1213	1700	1868	1732	1700	3197	403	1700	3018	582
Capacity Analysis Module:												
Vol/Sat:	0.01	0.05	0.05	0.06	0.15	0.15	0.18	0.13	0.13	0.06	0.17	0.17
Crit Moves:					****		****				****	
Green/Cycle:	0.28	0.28	0.28	0.28	0.28	0.28	0.32	0.35	0.35	0.27	0.30	0.30
Volume/Cap:	0.05	0.20	0.20	0.20	0.55	0.55	0.55	0.37	0.37	0.23	0.55	0.55
Delay/Veh:	15.9	16.6	16.6	16.7	19.1	19.1	18.2	14.7	14.7	17.4	18.1	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:	15.9	16.6	16.6	16.7	19.1	19.1	18.2	14.7	14.7	17.4	18.1	18.1
LOS by Move:	B	B	B	B	B	B	B	B	B	B	B	B
HCM2kAvgQ:	0	1	1	2	5	5	6	4	4	2	5	5

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #53 Sierra Ave. and Highland Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.467
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 9.5
Optimal Cycle: OPTIMIZED Level Of Service: A

Street Name:	Sierra Ave.						Highland Ave.					
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			Split Phase			Split Phase		
Rights:	Include			Ovl			Ovl			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	2 0 2	0 0		0 0 2	0 1		2 0 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	300	860	0	0	747	274	133	0	177	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	300	860	0	0	747	274	133	0	177	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	316	905	0	0	786	288	140	0	186	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	316	905	0	0	786	288	140	0	186	0	0	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	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:	316	905	0	0	786	288	140	0	186	0	0	0
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.89	1.00	1.00	0.94	1.00	1.00	0.89	1.00	1.00	0.94	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	2.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	3200	3600	0	0	3600	1800	3200	0	1800	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.10	0.25	0.00	0.00	0.22	0.16	0.04	0.00	0.10	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.21	0.68	0.00	0.00	0.47	0.69	0.22	0.00	0.43	0.00	0.00	0.00
Volume/Cap:	0.47	0.37	0.00	0.00	0.47	0.23	0.20	0.00	0.24	0.00	0.00	0.00
Delay/Veh:	21.2	4.2	0.0	0.0	11.1	3.6	19.2	0.0	10.9	0.0	0.0	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:	21.2	4.2	0.0	0.0	11.1	3.6	19.2	0.0	10.9	0.0	0.0	0.0
LOS by Move:	C	A	A	A	B	A	B	A	B	A	A	A
HCM2kAvgQ:	3	4	0	0	5	2	1	0	2	0	0	0

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #54 Alder Ave. and Highland Ave.

Cycle (sec): 65 Critical Vol./Cap.(X): 0.787
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 30.2
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name:	Alder Ave.						Highland Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	0 1		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	90	373	29	314	323	4	10	204	64	54	478	450
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:	90	373	29	314	323	4	10	204	64	54	478	450
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:	95	393	31	331	340	4	11	215	67	57	503	474
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	95	393	31	331	340	4	11	215	67	57	503	474
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:	95	393	31	331	340	4	11	215	67	57	503	474
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.52	0.48	1.00	1.03	0.97
Final Sat.:	1700	1800	1800	1700	1800	1800	1700	2740	860	1700	1854	1746
Capacity Analysis Module:												
Vol/Sat:	0.06	0.22	0.02	0.19	0.19	0.00	0.01	0.08	0.08	0.03	0.27	0.27
Crit Moves:		****		****			****				****	
Green/Cycle:	0.16	0.25	0.25	0.22	0.32	0.32	0.09	0.20	0.20	0.20	0.31	0.31
Volume/Cap:	0.36	0.87	0.07	0.87	0.59	0.01	0.07	0.39	0.39	0.17	0.87	0.87
Delay/Veh:	25.4	40.1	18.6	43.6	20.3	15.2	27.1	22.8	22.8	21.7	28.8	28.8
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:	25.4	40.1	18.6	43.6	20.3	15.2	27.1	22.8	22.8	21.7	28.8	28.8
LOS by Move:	C	D	B	D	C	B	C	C	C	C	C	C
HCM2kAvgQ:	2	11	0	10	7	0	0	3	3	1	13	13

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #55 Ayala Dr. and Easton St.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.753
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 19.5
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Ayala Dr.						Easton St.					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2	0 0		0 0 1	1 1		1 0 0	0 2		0 0 0	0 0	
Volume Module:												
Base Vol:	581	340	0	0	360	140	114	0	728	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	581	340	0	0	360	140	114	0	728	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	612	358	0	0	379	147	120	0	766	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	612	358	0	0	379	147	120	0	766	0	0	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	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:	612	358	0	0	379	147	120	0	766	0	0	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	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	1.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	1700	3600	0	0	3600	1800	1700	0	3600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.36	0.10	0.00	0.00	0.11	0.08	0.07	0.00	0.21	0.00	0.00	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.48	0.62	0.00	0.00	0.14	0.14	0.28	0.00	0.28	0.00	0.00	0.00
Volume/Cap:	0.75	0.16	0.00	0.00	0.75	0.59	0.25	0.00	0.75	0.00	0.00	0.00
Delay/Veh:	16.8	4.9	0.0	0.0	29.4	25.2	16.9	0.0	22.8	0.0	0.0	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:	16.8	4.9	0.0	0.0	29.4	25.2	16.9	0.0	22.8	0.0	0.0	0.0
LOS by Move:	B	A	A	A	C	C	B	A	C	A	A	A
HCM2kAvgQ:	12	1	0	0	5	4	2	0	8	0	0	0

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #56 Riverside Ave. and Easton St.

Cycle (sec): 90 Critical Vol./Cap.(X): 0.956
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 46.9
Optimal Cycle: OPTIMIZED Level Of Service: D

Street Name:	Riverside Ave.						Easton St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	0 1		1 0 2	0 1		2 0 2	0 1	
Volume Module:												
Base Vol:	23	202	339	470	368	42	56	224	33	417	291	593
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	202	339	470	368	42	56	224	33	417	291	593
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	213	357	495	387	44	59	236	35	439	306	624
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	213	357	495	387	44	59	236	35	439	306	624
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:	24	213	357	495	387	44	59	236	35	439	306	624
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	0.89	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	1700	1800	1800	1700	1800	1800	1700	3600	1800	3200	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.01	0.12	0.20	0.29	0.22	0.02	0.03	0.07	0.02	0.14	0.09	0.35
Crit Moves:			****	****			****					****
Green/Cycle:	0.12	0.20	0.20	0.29	0.38	0.38	0.07	0.14	0.14	0.28	0.35	0.35
Volume/Cap:	0.12	0.59	0.99	0.99	0.57	0.07	0.52	0.48	0.14	0.49	0.24	0.99
Delay/Veh:	35.9	35.2	80.5	69.2	23.4	17.9	44.9	36.7	34.5	27.4	20.9	62.3
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:	35.9	35.2	80.5	69.2	23.4	17.9	44.9	36.7	34.5	27.4	20.9	62.3
LOS by Move:	D	D	F	E	C	B	D	D	C	C	C	E
HCM2kAvgQ:	1	6	15	21	9	1	2	4	1	6	3	24

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #57 Easton St. and Highland Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.431
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 3.5
Optimal Cycle: OPTIMIZED Level Of Service: A

Street Name:	Easton St.						Easton St. / Highland Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 1 0			1 0 2 0 0		
Volume Module:												
Base Vol:	94	0	71	0	0	0	0	957	88	22	1178	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:	94	0	71	0	0	0	0	957	88	22	1178	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:	99	0	75	0	0	0	0	1007	93	23	1240	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	99	0	75	0	0	0	0	1007	93	23	1240	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	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:	99	0	75	0	0	0	0	1007	93	23	1240	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	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.83	0.17	1.00	2.00	0.00
Final Sat.:	1700	0	1800	0	0	0	0	3297	303	1700	3600	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.04	0.00	0.00	0.00	0.00	0.31	0.31	0.01	0.34	0.00
Crit Moves:	****										****	
Green/Cycle:	0.13	0.00	0.13	0.00	0.00	0.00	0.00	0.80	0.80	0.80	0.80	0.00
Volume/Cap:	0.43	0.00	0.31	0.00	0.00	0.00	0.00	0.38	0.38	0.02	0.43	0.00
Delay/Veh:	25.1	0.0	24.1	0.0	0.0	0.0	0.0	1.8	1.8	1.2	2.0	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:	25.1	0.0	24.1	0.0	0.0	0.0	0.0	1.8	1.8	1.2	2.0	0.0
LOS by Move:	C	A	C	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	2	0	2	0	0	0	0	3	3	0	4	0

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #58 Sierra Ave. and Baseline Rd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.381
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 17.8
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Sierra Ave.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 1			1 0 2 0 1			1 0 1 1 0			1 0 1 0 1		
Volume Module:												
Base Vol:	44	403	60	142	603	28	20	262	28	90	195	122
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	403	60	142	603	28	20	262	28	90	195	122
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	424	63	149	635	29	21	276	29	95	205	128
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	424	63	149	635	29	21	276	29	95	205	128
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	424	63	149	635	29	21	276	29	95	205	128
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	2.00	1.00	1.00	1.81	0.19	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3252	348	1700	1800	1800
Capacity Analysis Module:												
Vol/Sat:	0.03	0.12	0.04	0.09	0.18	0.02	0.01	0.08	0.08	0.06	0.11	0.07
Crit Moves:	****				****		****				****	
Green/Cycle:	0.10	0.27	0.27	0.23	0.40	0.40	0.10	0.18	0.18	0.18	0.26	0.26
Volume/Cap:	0.27	0.43	0.13	0.38	0.44	0.04	0.12	0.47	0.47	0.31	0.44	0.27
Delay/Veh:	25.9	18.3	16.5	20.0	13.1	10.8	24.9	22.5	22.5	21.9	19.1	17.9
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	18.3	16.5	20.0	13.1	10.8	24.9	22.5	22.5	21.9	19.1	17.9
LOS by Move:	C	B	B	C	B	B	C	C	C	C	B	B
HCM2kAvgQ:	1	4	1	3	5	0	0	3	3	2	4	2

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #59 Alder Ave. and Baseline Rd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.684
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 23.6
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name:	Alder Ave.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0 1 0			1 0 1 0 1			1 0 0 1 0			1 0 0 1 0		
Volume Module:												
Base Vol:	41	170	17	219	213	41	18	420	50	21	394	182
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:	41	170	17	219	213	41	18	420	50	21	394	182
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:	43	179	18	231	224	43	19	442	53	22	415	192
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	179	18	231	224	43	19	442	53	22	415	192
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:	43	179	18	231	224	43	19	442	53	22	415	192
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.91	0.09	1.00	1.00	1.00	1.00	0.89	0.11	1.00	0.68	0.32
Final Sat.:	1700	1636	164	1700	1800	1800	1700	1609	191	1700	1231	569
Capacity Analysis Module:												
Vol/Sat:	0.03	0.11	0.11	0.14	0.12	0.02	0.01	0.27	0.27	0.01	0.34	0.34
Crit Moves:		****		****			****				****	
Green/Cycle:	0.14	0.14	0.14	0.18	0.18	0.18	0.10	0.40	0.40	0.15	0.44	0.44
Volume/Cap:	0.18	0.76	0.76	0.76	0.70	0.13	0.11	0.69	0.69	0.09	0.76	0.76
Delay/Veh:	22.9	36.9	36.9	34.0	29.6	20.9	24.9	17.8	17.8	22.4	18.2	18.2
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:	22.9	36.9	36.9	34.0	29.6	20.9	24.9	17.8	17.8	22.4	18.2	18.2
LOS by Move:	C	D	D	C	C	C	C	B	B	C	B	B
HCM2kAvgQ:	1	6	6	6	5	1	0	9	9	0	11	11

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #60 Cedar Ave./Ayala Dr. and Baseline Rd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.459
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 19.0
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Cedar Ave./Ayala Dr.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		2 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	103	306	64	176	382	25	54	413	72	102	551	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	103	306	64	176	382	25	54	413	72	102	551	71
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:	108	322	67	185	402	26	57	435	76	107	580	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	108	322	67	185	402	26	57	435	76	107	580	75
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:	108	322	67	185	402	26	57	435	76	107	580	75
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	1.65	0.35	2.00	1.88	0.12	1.00	1.70	0.30	1.00	1.77	0.23
Final Sat.:	1700	2977	623	3200	3379	221	1700	3066	534	1700	3189	411
Capacity Analysis Module:												
Vol/Sat:	0.06	0.11	0.11	0.06	0.12	0.12	0.03	0.14	0.14	0.06	0.18	0.18
Crit Moves:	****				****		****				****	
Green/Cycle:	0.13	0.20	0.20	0.18	0.25	0.25	0.10	0.28	0.28	0.20	0.38	0.38
Volume/Cap:	0.48	0.54	0.54	0.31	0.48	0.48	0.33	0.50	0.50	0.32	0.48	0.48
Delay/Veh:	25.6	22.4	22.4	21.5	19.5	19.5	26.3	18.4	18.4	21.1	14.2	14.2
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:	25.6	22.4	22.4	21.5	19.5	19.5	26.3	18.4	18.4	21.1	14.2	14.2
LOS by Move:	C	C	C	C	B	B	C	B	B	C	B	B
HCM2kAvgQ:	3	4	4	2	4	4	1	5	5	2	5	5

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #61 Cactus Ave. and Baseline Rd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.579
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 19.6
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Cactus Ave.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	0 1		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	67	175	92	72	304	201	86	675	40	118	610	84
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:	67	175	92	72	304	201	86	675	40	118	610	84
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:	71	184	97	76	320	212	91	711	42	124	642	88
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	184	97	76	320	212	91	711	42	124	642	88
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:	71	184	97	76	320	212	91	711	42	124	642	88
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.89	0.11	1.00	1.76	0.24
Final Sat.:	1700	1800	1800	1700	1800	1800	1700	3399	201	1700	3164	436
Capacity Analysis Module:												
Vol/Sat:	0.04	0.10	0.05	0.04	0.18	0.12	0.05	0.21	0.21	0.07	0.20	0.20
Crit Moves:	****				****			****		****		
Green/Cycle:	0.10	0.20	0.20	0.20	0.30	0.30	0.16	0.35	0.35	0.12	0.32	0.32
Volume/Cap:	0.41	0.51	0.27	0.23	0.60	0.40	0.34	0.60	0.60	0.60	0.64	0.64
Delay/Veh:	27.0	22.6	20.7	20.7	20.0	17.3	23.4	16.9	16.9	29.8	18.9	18.9
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:	27.0	22.6	20.7	20.7	20.0	17.3	23.4	16.9	16.9	29.8	18.9	18.9
LOS by Move:	C	C	C	C	B	B	C	B	B	C	B	B
HCM2kAvgQ:	2	4	2	1	6	3	2	7	7	3	7	7

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #62 Riverside Ave. and Baseline Rd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.647
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 21.4
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name:	Riverside Ave.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		2 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	124	302	72	140	699	156	118	584	49	123	604	64
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:	124	302	72	140	699	156	118	584	49	123	604	64
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:	131	318	76	147	736	164	124	615	52	129	636	67
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	131	318	76	147	736	164	124	615	52	129	636	67
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:	131	318	76	147	736	164	124	615	52	129	636	67
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	0.89	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.61	0.39	1.00	1.64	0.36	2.00	1.85	0.15	1.00	1.81	0.19
Final Sat.:	1700	2907	693	1700	2943	657	3200	3321	279	1700	3255	345
Capacity Analysis Module:												
Vol/Sat:	0.08	0.11	0.11	0.09	0.25	0.25	0.04	0.19	0.19	0.08	0.20	0.20
Crit Moves:	****				****		****				****	
Green/Cycle:	0.11	0.25	0.25	0.23	0.37	0.37	0.10	0.25	0.25	0.14	0.29	0.29
Volume/Cap:	0.68	0.44	0.44	0.38	0.68	0.68	0.39	0.74	0.74	0.56	0.68	0.68
Delay/Veh:	35.2	19.3	19.3	20.1	17.5	17.5	26.1	23.9	23.9	27.4	20.8	20.8
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:	35.2	19.3	19.3	20.1	17.5	17.5	26.1	23.9	23.9	27.4	20.8	20.8
LOS by Move:	D	B	B	C	B	B	C	C	C	C	C	C
HCM2kAvgQ:	4	4	4	3	8	8	2	8	8	3	7	7

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #63 Pepper Ave. and Baseline. Rd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.288
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 8.2
Optimal Cycle: OPTIMIZED Level Of Service: A

Street Name:	Pepper Ave.						Baseline. Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 1	1 0	1	1 0	1 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	168	94	86	48	102	17	17	563	232	119	492	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:	168	94	86	48	102	17	17	563	232	119	492	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:	177	99	91	51	107	18	18	593	244	125	518	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	177	99	91	51	107	18	18	593	244	125	518	39
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	177	99	91	51	107	18	18	593	244	125	518	39
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	1800	1800	1700	1800	1800	1700	3600	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.10	0.05	0.05	0.03	0.06	0.01	0.01	0.16	0.14	0.07	0.14	0.02
Crit Moves:	****							****				
Green/Cycle:	0.36	0.36	0.36	0.36	0.36	0.36	0.57	0.57	0.57	0.57	0.57	0.57
Volume/Cap:	0.29	0.15	0.14	0.08	0.17	0.03	0.02	0.29	0.24	0.13	0.25	0.04
Delay/Veh:	13.8	13.0	13.0	12.7	13.1	12.4	5.6	6.7	6.5	6.0	6.5	5.6
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:	13.8	13.0	13.0	12.7	13.1	12.4	5.6	6.7	6.5	6.0	6.5	5.6
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
HCM2kAvgQ:	3	1	1	1	1	0	0	3	2	1	2	0

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #65 Sierra Ave. and Foothill Blvd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.532
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 19.1
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Sierra Ave.						Foothill Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 2	0 1		1 0 2	0 1		1 0 2	0 1	
Volume Module:												
Base Vol:	85	291	84	149	524	83	107	483	67	130	646	107
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:	85	291	84	149	524	83	107	483	67	130	646	107
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:	89	306	88	157	552	87	113	508	71	137	680	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	306	88	157	552	87	113	508	71	137	680	113
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:	89	306	88	157	552	87	113	508	71	137	680	113
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.55	0.45	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	2794	806	1700	3600	1800	1700	3600	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.05	0.11	0.11	0.09	0.15	0.05	0.07	0.14	0.04	0.08	0.19	0.06
Crit Moves:	****				****		****				****	
Green/Cycle:	0.10	0.20	0.20	0.18	0.29	0.29	0.12	0.28	0.28	0.20	0.35	0.35
Volume/Cap:	0.53	0.54	0.54	0.50	0.53	0.17	0.53	0.50	0.14	0.41	0.53	0.18
Delay/Veh:	28.7	22.2	22.2	23.2	18.5	16.2	27.2	18.5	16.3	21.8	15.8	13.5
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:	28.7	22.2	22.2	23.2	18.5	16.2	27.2	18.5	16.3	21.8	15.8	13.5
LOS by Move:	C	C	C	C	B	B	C	B	B	C	B	B
HCM2kAvgQ:	3	4	4	3	5	1	3	5	1	3	6	2

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

Traffix 7.8.0115 (c) 2007 Dowling Assoc. Licensed to CRAIN & ASSOC., L.A.

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #66 Alder Ave. and Foothill Blvd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.449
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 13.4
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Alder Ave.						Foothill Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0	1 0	1 0	1 0	1 0	1 0	1 0 2	0 1	1 0	1 0	1 1	0
Volume Module: AM Peak Hour												
Base Vol:	69	182	38	63	245	50	24	554	67	57	774	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:	69	182	38	63	245	50	24	554	67	57	774	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:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	76	202	42	70	271	55	27	614	74	63	858	52
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	76	202	42	70	271	55	27	614	74	63	858	52
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:	76	202	42	70	271	55	27	614	74	63	858	52
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.83	0.17	1.00	1.66	0.34	1.00	2.00	1.00	1.00	1.89	0.11
Final Sat.:	1700	1489	311	1700	2990	610	1700	3600	1800	1700	3394	206
Capacity Analysis Module:												
Vol/Sat:	0.04	0.14	0.14	0.04	0.09	0.09	0.02	0.17	0.04	0.04	0.25	0.25
Crit Moves:		****					****				****	
Green/Cycle:	0.28	0.28	0.28	0.28	0.28	0.28	0.10	0.39	0.39	0.23	0.52	0.52
Volume/Cap:	0.16	0.49	0.49	0.15	0.33	0.33	0.16	0.44	0.11	0.16	0.49	0.49
Delay/Veh:	16.5	18.8	18.8	16.4	17.3	17.3	25.1	13.6	11.7	18.7	9.4	9.4
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:	16.5	18.8	18.8	16.4	17.3	17.3	25.1	13.6	11.7	18.7	9.4	9.4
LOS by Move:	B	B	B	B	B	B	C	B	B	B	A	A
HCM2kAvgQ:	1	4	4	1	3	3	1	5	1	1	6	6

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #67 Cedar Ave. and Foothill Blvd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.598
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 20.0
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Cedar Ave.						Foothill Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 2	0 1		1 0 2	0 1	
Volume Module:												
Base Vol:	109	451	69	165	657	93	77	502	84	119	630	79
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:	109	451	69	165	657	93	77	502	84	119	630	79
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	115	475	73	174	692	98	81	528	88	125	663	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	115	475	73	174	692	98	81	528	88	125	663	83
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:	115	475	73	174	692	98	81	528	88	125	663	83
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	1.73	0.27	1.00	1.75	0.25	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3122	478	1700	3154	446	1700	3600	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.07	0.15	0.15	0.10	0.22	0.22	0.05	0.15	0.05	0.07	0.18	0.05
Crit Moves:	****				****		****				****	
Green/Cycle:	0.11	0.28	0.28	0.19	0.36	0.36	0.10	0.24	0.24	0.16	0.30	0.30
Volume/Cap:	0.61	0.54	0.54	0.54	0.61	0.61	0.48	0.62	0.21	0.45	0.61	0.15
Delay/Veh:	31.5	19.0	19.0	24.0	16.8	16.8	27.6	21.8	18.6	23.9	19.1	15.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	31.5	19.0	19.0	24.0	16.8	16.8	27.6	21.8	18.6	23.9	19.1	15.6
LOS by Move:	C	B	B	C	B	B	C	C	B	C	B	B
HCM2kAvgQ:	3	5	5	4	7	7	2	5	1	3	6	1

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #68 Cactus Ave. and Foothill Blvd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.473
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 14.3
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Cactus Ave.						Foothill Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0	1 0	1	1 0 2	0 1		1 0 2	0 1		1 0 2	0 1	
Volume Module:												
Base Vol:	29	244	62	69	331	47	29	638	58	75	782	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:	29	244	62	69	331	47	29	638	58	75	782	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:	31	257	65	73	348	49	31	672	61	79	823	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	257	65	73	348	49	31	672	61	79	823	40
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:	31	257	65	73	348	49	31	672	61	79	823	40
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.80	0.20	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	1435	365	1700	3600	1800	1700	3600	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.02	0.18	0.18	0.04	0.10	0.03	0.02	0.19	0.03	0.05	0.23	0.02
Crit Moves:		****					****				****	
Green/Cycle:	0.35	0.35	0.35	0.35	0.35	0.35	0.10	0.36	0.36	0.19	0.45	0.45
Volume/Cap:	0.05	0.51	0.51	0.12	0.28	0.08	0.18	0.52	0.09	0.24	0.51	0.05
Delay/Veh:	12.9	16.1	16.1	13.3	14.1	13.0	25.3	15.6	12.9	21.0	12.1	9.3
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:	12.9	16.1	16.1	13.3	14.1	13.0	25.3	15.6	12.9	21.0	12.1	9.3
LOS by Move:	B	B	B	B	B	B	C	B	B	C	B	A
HCM2kAvgQ:	0	5	5	1	2	1	1	5	1	1	6	0

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #69 Riverside Ave. and Foothill Blvd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.610
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 20.0
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name:	Riverside Ave.						Foothill Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 1			1 0 1 1 0			1 0 2 0 1			1 0 2 0 1		
Volume Module:												
Base Vol:	101	308	104	167	549	131	83	678	64	111	642	95
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:	101	308	104	167	549	131	83	678	64	111	642	95
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	324	109	176	578	138	87	714	67	117	676	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	106	324	109	176	578	138	87	714	67	117	676	100
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:	106	324	109	176	578	138	87	714	67	117	676	100
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	1.61	0.39	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	2906	694	1700	3600	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.06	0.09	0.06	0.10	0.20	0.20	0.05	0.20	0.04	0.07	0.19	0.06
Crit Moves:	****				****			****		****		
Green/Cycle:	0.10	0.21	0.21	0.22	0.33	0.33	0.15	0.33	0.33	0.11	0.29	0.29
Volume/Cap:	0.61	0.43	0.29	0.47	0.61	0.61	0.34	0.61	0.12	0.61	0.66	0.19
Delay/Veh:	31.9	20.9	20.3	21.4	17.9	17.9	23.5	18.0	14.3	31.0	20.4	16.4
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:	31.9	20.9	20.3	21.4	17.9	17.9	23.5	18.0	14.3	31.0	20.4	16.4
LOS by Move:	C	C	C	C	B	B	C	B	B	C	C	B
HCM2kAvgQ:	3	3	2	4	7	7	2	6	1	3	7	2

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #70 Sierra Ave. and Arrow Blvd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.430
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 17.7
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Sierra Ave.						Arrow Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	67	378	61	54	648	39	25	246	51	41	364	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:	67	378	61	54	648	39	25	246	51	41	364	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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	71	398	64	57	682	41	26	259	54	43	383	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	398	64	57	682	41	26	259	54	43	383	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	71	398	64	57	682	41	26	259	54	43	383	31
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.72	0.28	1.00	1.89	0.11	1.00	1.66	0.34	1.00	1.85	0.15
Final Sat.:	1700	3100	500	1700	3396	204	1700	2982	618	1700	3334	266
Capacity Analysis Module:												
Vol/Sat:	0.04	0.13	0.13	0.03	0.20	0.20	0.02	0.09	0.09	0.03	0.11	0.11
Crit Moves:	****				****		****				****	
Green/Cycle:	0.10	0.29	0.29	0.23	0.42	0.42	0.10	0.17	0.17	0.17	0.24	0.24
Volume/Cap:	0.41	0.44	0.44	0.15	0.47	0.47	0.15	0.51	0.51	0.15	0.47	0.47
Delay/Veh:	27.0	17.4	17.4	18.6	12.7	12.7	25.1	23.3	23.3	21.4	19.9	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:	27.0	17.4	17.4	18.6	12.7	12.7	25.1	23.3	23.3	21.4	19.9	19.9
LOS by Move:	C	B	B	B	B	B	C	C	C	C	B	B
HCM2kAvgQ:	2	4	4	1	5	5	1	3	3	1	4	4

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #71 Alder Ave. and Arrow Blvd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.305
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 18.5
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Alder Ave.						Arrow Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	0 1		1 0 2	0 1	
Volume Module:												
Base Vol:	65	217	47	17	273	41	61	165	80	44	323	66
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:	65	217	47	17	273	41	61	165	80	44	323	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:	68	228	49	18	287	43	64	174	84	46	340	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	68	228	49	18	287	43	64	174	84	46	340	69
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:	68	228	49	18	287	43	64	174	84	46	340	69
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	1.64	0.36	1.00	1.74	0.26	1.00	1.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	2959	641	1700	3130	470	1700	1800	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.04	0.08	0.08	0.01	0.09	0.09	0.04	0.10	0.05	0.03	0.09	0.04
Crit Moves:	****				****		****				****	
Green/Cycle:	0.13	0.22	0.22	0.22	0.30	0.30	0.12	0.22	0.22	0.22	0.31	0.31
Volume/Cap:	0.30	0.36	0.36	0.05	0.30	0.30	0.30	0.45	0.22	0.13	0.30	0.12
Delay/Veh:	24.3	20.2	20.2	18.7	16.3	16.3	24.8	21.2	19.6	19.1	15.9	15.0
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:	24.3	20.2	20.2	18.7	16.3	16.3	24.8	21.2	19.6	19.1	15.9	15.0
LOS by Move:	C	C	C	B	B	B	C	C	B	B	B	B
HCM2kAvgQ:	2	3	3	0	3	3	1	3	1	1	3	1

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #72 Cedar Ave. and Rialto Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.449
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 16.2
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Cedar Ave.						Rialto Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	81	513	68	98	693	66	65	113	86	44	226	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:	81	513	68	98	693	66	65	113	86	44	226	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:	85	540	72	103	729	69	68	119	91	46	238	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	85	540	72	103	729	69	68	119	91	46	238	38
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:	85	540	72	103	729	69	68	119	91	46	238	38
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	1.77	0.23	1.00	1.83	0.17	1.00	1.14	0.86	1.00	1.73	0.27
Final Sat.:	1700	3179	421	1700	3287	313	1700	2044	1556	1700	3105	495
Capacity Analysis Module:												
Vol/Sat:	0.05	0.17	0.17	0.06	0.22	0.22	0.04	0.06	0.06	0.03	0.08	0.08
Crit Moves:	****				****		****				****	
Green/Cycle:	0.11	0.38	0.38	0.22	0.49	0.49	0.10	0.13	0.13	0.13	0.17	0.17
Volume/Cap:	0.45	0.45	0.45	0.27	0.45	0.45	0.40	0.43	0.43	0.20	0.45	0.45
Delay/Veh:	26.8	14.3	14.3	19.7	10.3	10.3	26.9	24.5	24.5	23.6	23.0	23.0
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:	26.8	14.3	14.3	19.7	10.3	10.3	26.9	24.5	24.5	23.6	23.0	23.0
LOS by Move:	C	B	B	B	B	B	C	C	C	C	C	C
HCM2kAvgQ:	2	5	5	2	5	5	2	2	2	1	3	3

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #73 Cactus Ave. and Rialto Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.206
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 8.9
Optimal Cycle: OPTIMIZED Level Of Service: A

Street Name:	Cactus Ave.						Rialto Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	34	311	86	91	340	67	25	208	41	67	184	66
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	311	86	91	340	67	25	208	41	67	184	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:	36	327	91	96	358	71	26	219	43	71	194	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	327	91	96	358	71	26	219	43	71	194	69
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	36	327	91	96	358	71	26	219	43	71	194	69
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	1.57	0.43	1.00	1.67	0.33	1.00	1.67	0.33	1.00	1.47	0.53
Final Sat.:	1700	2820	780	1700	3007	593	1700	3007	593	1700	2650	950
Capacity Analysis Module:												
Vol/Sat:	0.02	0.12	0.12	0.06	0.12	0.12	0.02	0.07	0.07	0.04	0.07	0.07
Crit Moves:					****						****	
Green/Cycle:	0.58	0.58	0.58	0.58	0.58	0.58	0.36	0.36	0.36	0.36	0.36	0.36
Volume/Cap:	0.04	0.20	0.20	0.10	0.21	0.21	0.04	0.21	0.21	0.12	0.21	0.21
Delay/Veh:	5.5	6.1	6.1	5.7	6.1	6.1	12.7	13.5	13.5	13.1	13.5	13.5
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:	5.5	6.1	6.1	5.7	6.1	6.1	12.7	13.5	13.5	13.1	13.5	13.5
LOS by Move:	A	A	A	A	A	A	B	B	B	B	B	B
HCM2kAvgQ:	0	2	2	1	2	2	0	2	2	1	2	2

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #74 Cedar Ave. and Merrill Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.714
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 17.6
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Cedar Ave.						Merrill Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	101	1023	59	290	1228	156	180	393	66	113	344	157
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:	101	1023	59	290	1228	156	180	393	66	113	344	157
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	1077	62	305	1293	164	189	414	69	119	362	165
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	106	1077	62	305	1293	164	189	414	69	119	362	165
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:	106	1077	62	305	1293	164	189	414	69	119	362	165
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	1.89	0.11	1.00	1.77	0.23	1.00	1.71	0.29	1.00	1.37	0.63
Final Sat.:	1700	3404	196	1700	3194	406	1700	3082	518	1700	2472	1128
Capacity Analysis Module:												
Vol/Sat:	0.06	0.32	0.32	0.18	0.40	0.40	0.11	0.13	0.13	0.07	0.15	0.15
Crit Moves:		****		****							****	
Green/Cycle:	0.14	0.44	0.44	0.25	0.56	0.56	0.21	0.21	0.21	0.21	0.21	0.21
Volume/Cap:	0.45	0.71	0.71	0.71	0.73	0.73	0.54	0.65	0.65	0.34	0.71	0.71
Delay/Veh:	25.2	15.2	15.2	26.1	11.2	11.2	23.1	24.0	24.0	21.0	25.5	25.5
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:	25.2	15.2	15.2	26.1	11.2	11.2	23.1	24.0	24.0	21.0	25.5	25.5
LOS by Move:	C	B	B	C	B	B	C	C	C	C	C	C
HCM2kAvgQ:	3	10	10	7	12	12	4	5	5	2	6	6

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
AM Peak Hour

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

Intersection #75 Cactus Ave. and Merrill Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.254
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 14.0
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Cactus Ave.						Merrill Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	15	275	32	64	372	84	88	225	70	45	234	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:	15	275	32	64	372	84	88	225	70	45	234	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:	16	289	34	67	392	88	93	237	74	47	246	60
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	289	34	67	392	88	93	237	74	47	246	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
FinalVolume:	16	289	34	67	392	88	93	237	74	47	246	60
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	1.79	0.21	1.00	1.63	0.37	1.00	1.53	0.47	1.00	1.61	0.39
Final Sat.:	1700	3225	375	1700	2937	663	1700	2746	854	1700	2895	705
Capacity Analysis Module:												
Vol/Sat:	0.01	0.09	0.09	0.04	0.13	0.13	0.05	0.09	0.09	0.03	0.09	0.09
Crit Moves:	****				****			****				
Green/Cycle:	0.10	0.29	0.29	0.29	0.49	0.49	0.31	0.31	0.31	0.31	0.31	0.31
Volume/Cap:	0.09	0.31	0.31	0.14	0.27	0.27	0.17	0.27	0.27	0.09	0.27	0.27
Delay/Veh:	24.8	16.6	16.6	15.7	9.2	9.2	15.1	15.6	15.6	14.6	15.5	15.5
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:	24.8	16.6	16.6	15.7	9.2	9.2	15.1	15.6	15.6	14.6	15.5	15.5
LOS by Move:	C	B	B	B	A	A	B	B	B	B	B	B
HCM2kAvgQ:	0	3	3	1	3	3	1	2	2	1	2	2

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #1 Devore Rd & I-215 NB On/Off-Ramps / Arrowhead Bl

Average Delay (sec/veh): 4.4 Worst Case Level Of Service: B[14.2]

Street Name:	Devore Rd						I-215 NB On/Off-Ramps / Arrowhead					
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	1! 0	0	0 0	1! 0	0
Volume Module:AM Peak Hour												
Base Vol:	3	302	143	42	89	0	4	5	7	30	0	175
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	302	143	42	89	0	4	5	7	30	0	175
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:	3	318	151	44	94	0	4	5	7	32	0	184
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	3	318	151	44	94	0	4	5	7	32	0	184
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	94	xxxx	xxxxx	468	xxxx	xxxxx	674	657	94	588	582	393
Potent Cap.:	1513	xxxx	xxxxx	1104	xxxx	xxxxx	371	387	969	424	428	660
Move Cap.:	1513	xxxx	xxxxx	1104	xxxx	xxxxx	259	371	969	402	409	660
Volume/Cap:	0.00	xxxx	xxxx	0.04	xxxx	xxxx	0.02	0.01	0.01	0.08	0.00	0.28
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.4	xxxx	xxxxx	8.4	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
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	442	xxxxx	xxxx	603	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	1.6	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	8.4	xxxx	xxxxx	xxxxx	13.5	xxxxx	xxxxx	14.2	xxxxx
Shared LOS:	*	*	*	A	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			13.5			14.2		
ApproachLOS:	*			*			B			B		

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #2 I-215 SB On/Off-Ramps & Cajon Bl

Average Delay (sec/veh): 3.9 Worst Case Level Of Service: A[9.4]

Street Name:	I-215 SB On/Off-Ramps									Cajon Bl									
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	1	0	1	0	0	0	0	1	0	1
Volume Module:AM Peak Hour																				
Base Vol:	0	0	0	105		0	17				13	22			0	0	14			148
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	105		0	17				13	22			0	0	14			148
User Adj:	1.00	1.00	1.00	1.00		1.00	1.00				1.00	1.00			1.00	1.00	1.00			1.00
PHF Adj:	0.95	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	111		0	18				14	23			0	0	15			156
Reduct Vol:	0	0	0	0		0	0				0	0			0	0	0			0
FinalVolume:	0	0	0	111		0	18				14	23			0	0	15			156
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx	6.4		6.5	6.2				4.1	xxxx	xxxxx		xxxxx	xxxx	xxxxx			
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5		4.0	3.3				2.2	xxxx	xxxxx		xxxxx	xxxx	xxxxx			
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx	65		65	15				171	xxxx	xxxxx		xxxx	xxxx	xxxxx			
Potent Cap.:	xxxx	xxxx	xxxxx	945		829	1071				1419	xxxx	xxxxx		xxxx	xxxx	xxxxx			
Move Cap.:	xxxx	xxxx	xxxxx	938		821	1071				1419	xxxx	xxxxx		xxxx	xxxx	xxxxx			
Volume/Cap:	xxxx	xxxx	xxxx	0.12		0.00	0.02				0.01	xxxx	xxxx		xxxx	xxxx	xxxx			
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx		xxxx	xxxxx				0.0	xxxx	xxxxx		xxxx	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx		xxxx	xxxxx				7.6	xxxx	xxxxx		xxxxx	xxxx	xxxxx			
LOS by Move:	*	*	*	*		*	*				A	*	*		*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx		955	xxxxx				xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx		0.5	xxxxx				xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx		9.4	xxxxx				xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*		A	*				*	*	*		*	*	*			
ApproachDel:	xxxxxx					9.4					xxxxxx					xxxxxx				
ApproachLOS:	*					A					*					*				

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #3 Glen Helen Pkwy & Cajon Bl

Cycle (sec):	100	Critical Vol./Cap.(X):	0.497
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	12.0
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Glen Helen Pkwy						Cajon Bl					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 1	0 0	1	1 0	1 0	1	0 1	0 1	0	0 1	0 1	0
Volume Module:AM Peak Hour												
Base Vol:	81	182	227	55	34	45	58	56	14	44	14	211
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:	81	182	227	55	34	45	58	56	14	44	14	211
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:	85	192	239	58	36	47	61	59	15	46	15	222
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	85	192	239	58	36	47	61	59	15	46	15	222
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	85	192	239	58	36	47	61	59	15	46	15	222
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:	0.31	0.69	1.00	1.00	1.00	1.00	0.91	0.87	0.22	0.33	0.67	1.00
Final Sat.:	172	386	640	444	473	521	427	443	112	171	352	599
Capacity Analysis Module:												
Vol/Sat:	0.50	0.50	0.37	0.13	0.08	0.09	0.14	0.13	0.13	0.27	0.04	0.37
Crit Moves:	****			****			****					****
Delay/Veh:	14.7	14.7	11.2	11.4	10.4	9.7	11.0	10.3	10.2	11.6	11.6	11.6
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:	14.7	14.7	11.2	11.4	10.4	9.7	11.0	10.3	10.2	11.6	11.6	11.6
LOS by Move:	B	B	B	B	B	A	B	B	B	B	B	B
ApproachDel:	13.1			10.6			10.6			11.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	13.1			10.6			10.6			11.6		
LOS by Appr:	B			B			B			B		
AllWayAvgQ:	0.9	0.9	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.5	0.5

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #4 Palm Ave & I-215 NB On/Off-Ramps

Average Delay (sec/veh): 8.4 Worst Case Level Of Service: D[30.8]

Street Name:	Palm Ave						I-215 NB On/Off-Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1	1 0	0	0 0	2 0	1	0 0	0 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	87	708	0	0	375	357	0	0	0	112	3	419
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:	87	708	0	0	375	357	0	0	0	112	3	419
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:	92	745	0	0	395	376	0	0	0	118	3	441
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	92	745	0	0	395	376	0	0	0	118	3	441
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	771	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1126	1699	373
Potent Cap.:	853	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	202	93	630
Move Cap.:	853	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	184	83	630
Volume/Cap:	0.11	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.64	0.04	0.70
Level Of Service Module:												
2Way95thQ:	0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	5.6
Control Del:	9.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	22.9
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	C
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	179	xxxx	xxxxx
SharedQueue:	0.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.0	xxxx	xxxxx
Shrd ConDel:	9.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	59.5	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	*	*	F	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			30.8		
ApproachLOS:	*			*			*			D		

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #5 Palm Ave & I-215 SB On/Off-Ramps / Kendall Dr.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.865
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 26.3
Optimal Cycle: 0 Level Of Service: D

Street Name:	Palm Ave						I-215 SB On/Off-Ramps / Kendall 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			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	1 0		0 1 0	0 1		0 1 0	0 1	
Volume Module:												
Base Vol:	85	345	90	265	119	106	157	61	30	25	5	299
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:	85	345	90	265	119	106	157	61	30	25	5	299
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:	89	363	95	279	125	112	165	64	32	26	5	315
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	363	95	279	125	112	165	64	32	26	5	315
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:	89	363	95	279	125	112	165	64	32	26	5	315
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	1.06	0.94	0.72	0.28	1.00	0.83	0.17	1.00
Final Sat.:	388	420	445	389	430	412	281	109	433	325	65	456
Capacity Analysis Module:												
Vol/Sat:	0.23	0.86	0.21	0.72	0.29	0.27	0.59	0.59	0.07	0.08	0.08	0.69
Crit Moves:		****		****				****				****
Delay/Veh:	14.2	44.3	12.5	30.4	14.5	13.3	22.4	22.4	11.1	12.2	12.2	24.4
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:	14.2	44.3	12.5	30.4	14.5	13.3	22.4	22.4	11.1	12.2	12.2	24.4
LOS by Move:	B	E	B	D	B	B	C	C	B	B	B	C
ApproachDel:		33.9			22.9			21.0			23.3	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		33.9			22.9			21.0			23.3	
LOS by Appr:		D			C			C			C	
AllWayAvgQ:	0.3	3.9	0.2	2.0	0.4	0.3	1.2	1.2	0.1	0.1	0.1	1.8

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #6 University Pkwy & I-215 NB On/Off-Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.694
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 17.0
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	University Pkwy						I-215 NB On/Off-Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2	0 0		0 0 3	0 1		0 0 0	0 0		0 1 0	0 2	
Volume Module:												
Base Vol:	93	555	0	0	1248	225	0	0	0	458	4	1106
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:	93	555	0	0	1248	225	0	0	0	458	4	1106
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:	98	584	0	0	1314	237	0	0	0	482	4	1164
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	98	584	0	0	1314	237	0	0	0	482	4	1164
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:	98	584	0	0	1314	237	0	0	0	482	4	1164
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	0.00	0.00	3.00	1.00	0.00	0.00	0.00	0.99	0.01	2.00
Final Sat.:	1700	3600	0	0	5400	1800	0	0	0	1686	15	3600
Capacity Analysis Module:												
Vol/Sat:	0.06	0.16	0.00	0.00	0.24	0.13	0.00	0.00	0.00	0.29	0.29	0.32
Crit Moves:	****				****							****
Green/Cycle:	0.10	0.27	0.00	0.00	0.34	0.34	0.00	0.00	0.00	0.46	0.46	0.46
Volume/Cap:	0.58	0.59	0.00	0.00	0.71	0.38	0.00	0.00	0.00	0.63	0.63	0.71
Delay/Veh:	30.6	19.8	0.0	0.0	18.4	15.3	0.0	0.0	0.0	14.0	14.0	14.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	30.6	19.8	0.0	0.0	18.4	15.3	0.0	0.0	0.0	14.0	14.0	14.5
LOS by Move:	C	B	A	A	B	B	A	A	A	B	B	B
HCM2kAvgQ:	3	6	0	0	9	4	0	0	0	8	8	10

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 University Pkwy & I-215 SB On/Off-Ramps

Cycle (sec): 90 Critical Vol./Cap.(X): 1.162
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 72.3
Optimal Cycle: OPTIMIZED Level Of Service: E

Street Name:	University Pkwy						I-215 SB On/Off-Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 1	1 0		1 0 2	0 0		0 1 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	417	725	882	872	0	184	1	72	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	417	725	882	872	0	184	1	72	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	439	763	928	918	0	194	1	76	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	439	763	928	918	0	194	1	76	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	439	763	928	918	0	194	1	76	0	0	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	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	2.00	0.00	0.99	0.01	1.00	0.00	0.00	0.00
Final Sat.:	0	1800	1800	1700	3600	0	1691	9	1800	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.24	0.42	0.55	0.25	0.00	0.11	0.11	0.04	0.00	0.00	0.00
Crit Moves:			****	****				****				
Green/Cycle:	0.00	0.36	0.36	0.47	0.66	0.00	0.10	0.10	0.10	0.00	0.00	0.00
Volume/Cap:	0.00	0.67	1.16	1.16	0.39	0.00	1.16	1.16	0.43	0.00	0.00	0.00
Delay/Veh:	0.0	25.0	112.4	110.4	7.0	0.0	160.4	160	39.8	0.0	0.0	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:	0.0	25.0	112.4	110.4	7.0	0.0	160.4	160	39.8	0.0	0.0	0.0
LOS by Move:	A	C	F	F	A	A	F	F	D	A	A	A
HCM2kAvgQ:	0	11	38	47	6	0	12	12	2	0	0	0

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #8 I-15 SB On/Off-Ramps & Glen Helen Pkwy

Average Delay (sec/veh): 7.2 Worst Case Level Of Service: B[10.6]

Street Name:	I-15 SB On/Off-Ramps									Glen Helen Pkwy												
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	1	0	0	1	0	0	0	1	1	0	1	0	2	0	0		
Volume Module:																						
Base Vol:	0	0	0			11	4		0		0	5		3		118	2		0			
Growth Adj:	1.00	1.00	1.00			1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00			
Initial Bse:	0	0	0			11	4		0		0	5		3		118	2		0			
User Adj:	1.00	1.00	1.00			1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00			
PHF Adj:	0.95	0.95	0.95			0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95			
PHF Volume:	0	0	0			12	4		0		0	5		3		124	2		0			
Reduct Vol:	0	0	0			0	0		0		0	0		0		0	0		0			
FinalVolume:	0	0	0			12	4		0		0	5		3		124	2		0			
Critical Gap Module:																						
Critical Gp:	xxxxx	xxxx	xxxxx			6.8	6.5		6.9		xxxxx	xxxx		xxxxx		4.1	xxxx		xxxxx			
FollowUpTim:	xxxxx	xxxx	xxxxx			3.5	4.0		3.3		xxxxx	xxxx		xxxxx		2.2	xxxx		xxxxx			
Capacity Module:																						
Cnflict Vol:	xxxx	xxxx	xxxxx			253	259		1		xxxx	xxxx		xxxxx		8	xxxx		xxxxx			
Potent Cap.:	xxxx	xxxx	xxxxx			719	649		1089		xxxx	xxxx		xxxxx		1625	xxxx		xxxxx			
Move Cap.:	xxxx	xxxx	xxxxx			677	599		1089		xxxx	xxxx		xxxxx		1625	xxxx		xxxxx			
Volume/Cap:	xxxx	xxxx	xxxx			0.02	0.01		0.00		xxxx	xxxx		xxxx		0.08	xxxx		xxxx			
Level Of Service Module:																						
2Way95thQ:	xxxx	xxxx	xxxxx			0.1	xxxx		xxxxx		xxxx	xxxx		xxxxx		0.2	xxxx		xxxxx			
Control Del:	xxxxx	xxxx	xxxxx			10.4	xxxx		xxxxx		xxxxx	xxxx		xxxxx		7.4	xxxx		xxxxx			
LOS by Move:	*	*	*			B	*		*		*	*		*		A	*		*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT		
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx		599		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx		0.0		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx		11.0		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx			
Shared LOS:	*	*	*			*	*		B		*	*		*		*	*		*			
ApproachDel:	xxxxxx					10.6					xxxxxx					xxxxxx						
ApproachLOS:	*					B					*					*						

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #9 I-15 NB On/Off-Ramps & Glen Helen Pkwy

Average Delay (sec/veh): 33.1 Worst Case Level Of Service: E[37.1]

Street Name:	I-15 NB On/Off-Ramps									Glen Helen Pkwy									
Approach:	North Bound					South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	1	1	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	1	1	0
Volume Module:																				
Base Vol:	6	678	488			0	0	0			14	2	0			0	113	17		
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Initial Bse:	6	678	488			0	0	0			14	2	0			0	113	17		
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:	6	714	514			0	0	0			15	2	0			0	119	18		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
FinalVolume:	6	714	514			0	0	0			15	2	0			0	119	18		
Critical Gap Module:																				
Critical Gp:	6.8	6.5	6.9	xxxxx	xxxx	xxxxx					4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx					2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Capacity Module:																				
Cnflict Vol:	91	168	1	xxxx	xxxx	xxxxx					137	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Potent Cap.:	905	728	1089	xxxx	xxxx	xxxxx					1460	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Move Cap.:	898	721	1089	xxxx	xxxx	xxxxx					1460	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Volume/Cap:	0.01	0.99	0.47	xxxx	xxxx	xxxx					0.01	xxxx	xxxx	xxxx	xxxx	xxxx				
Level Of Service Module:																				
2Way95thQ:	0.0	xxxx	2.6	xxxx	xxxx	xxxxx					0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Control Del:	9.0	xxxx	11.2	xxxxx	xxxx	xxxxx					7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
LOS by Move:	A	*	B	*	*	*					A	*	*	*	*	*				
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	721	xxxx	xxxxx	xxxx	xxxx	xxxxx					xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				
SharedQueue:	11.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx					xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shrd ConDel:	55.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx					xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shared LOS:	F	*	*	*	*	*					*	*	*	*	*	*				
ApproachDel:	37.1			xxxxxx							xxxxxx					xxxxxx				
ApproachLOS:	E			*							*					*				

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #11 Lytle Creek Rd & Sierra Ave

Average Delay (sec/veh): 6.9 Worst Case Level Of Service: B[11.9]

Street Name:	Lytle Creek Rd						Sierra Ave / Lytle Creek Rd					
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	1! 0	0	0 0	0 0	0	0 0	0 1	0	0 1	0 0	0
Volume Module:												
Base Vol:	51	0	287	0	0	0	0	119	32	15	101	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:	51	0	287	0	0	0	0	119	32	15	101	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:	54	0	302	0	0	0	0	125	34	16	106	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	54	0	302	0	0	0	0	125	34	16	106	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	280	280	142	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	159	xxxx	xxxxx
Potent Cap.:	714	632	911	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1433	xxxx	xxxxx
Move Cap.:	708	625	911	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1433	xxxx	xxxxx
Volume/Cap:	0.08	0.00	0.33	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	873	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	2.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	11.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:		11.9		xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:		B			*			*			*	

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #12 I-15 SB On/Off-Ramps & Sierra Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.664
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	15.5
Optimal Cycle:	0	Level Of Service:	C

Street Name:	I-15 SB On/Off-Ramps						Sierra Ave					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	0 0	0	0 1	0 0	1	0 0	0 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	0	0	0	244	3	51	0	294	86	206	141	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	244	3	51	0	294	86	206	141	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	257	3	54	0	309	91	217	148	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	257	3	54	0	309	91	217	148	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	257	3	54	0	309	91	217	148	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:	0.00	0.00	0.00	0.99	0.01	1.00	0.00	0.77	0.23	1.00	2.00	0.00
Final Sat.:	0	0	0	498	6	601	0	466	136	536	1154	0
Capacity Analysis Module:												
Vol/Sat:	xxxx	xxxx	xxxx	0.52	0.52	0.09	xxxx	0.66	0.66	0.40	0.13	xxxx
Crit Moves:					****			****		****		
Delay/Veh:	0.0	0.0	0.0	16.2	16.2	8.9	0.0	19.2	19.2	13.4	9.6	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:	0.0	0.0	0.0	16.2	16.2	8.9	0.0	19.2	19.2	13.4	9.6	0.0
LOS by Move:	*	*	*	C	C	A	*	C	C	B	A	*
ApproachDel:	xxxxxx			15.0			19.2			11.9		
Delay Adj:	xxxxx			1.00			1.00			1.00		
ApprAdjDel:	xxxxxx			15.0			19.2			11.9		
LOS by Appr:	*			B			C			B		
AllWayAvgQ:	0.0	0.0	0.0	0.9	0.9	0.1	1.7	1.7	1.7	0.6	0.1	0.0

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #13 I-15 NB On/Off-Ramps & Sierra Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.907
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	25.6
Optimal Cycle:	0	Level Of Service:	D

Street Name:	I-15 NB On/Off-Ramps						Sierra Ave					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	1! 0	0	0 0	0 0	0	1 0	1 0	0	0 0	1 1	0
Volume Module:												
Base Vol:	112	61	143	0	0	0	166	384	0	0	237	533
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	61	143	0	0	0	166	384	0	0	237	533
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:	118	64	151	0	0	0	175	404	0	0	249	561
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	118	64	151	0	0	0	175	404	0	0	249	561
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:	118	64	151	0	0	0	175	404	0	0	249	561
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	0.09	0.91	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Final Sat.:	922	-434	434	0	0	0	489	533	0	0	545	618
Capacity Analysis Module:												
Vol/Sat:	0.13	-0.15	0.35	xxxx	xxxx	xxxx	0.36	0.76	xxxx	xxxx	0.46	0.91
Crit Moves:			****					****				****
Delay/Veh:	14.6	15.4	15.4	0.0	0.0	0.0	13.7	26.8	0.0	0.0	14.4	39.9
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:	14.6	15.4	15.4	0.0	0.0	0.0	13.7	26.8	0.0	0.0	14.4	39.9
LOS by Move:	B	C	C	*	*	*	B	D	*	*	B	E
ApproachDel:	14.6			xxxxxx			22.8			32.1		
Delay Adj:	1.00			xxxxx			1.00			1.00		
ApprAdjDel:	14.6			xxxxxx			22.8			32.1		
LOS by Appr:	B			*			C			D		
AllWayAvgQ:	0.7	0.7	0.7	0.0	0.0	0.0	0.5	2.6	0.0	0.0	0.8	5.4

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #15 Lytle Creek Rd. and Duncan Canyon Rd.

Average Delay (sec/veh): 3.2 Worst Case Level Of Service: A[8.8]

Street Name:	Lytle Creek Rd.						Duncan Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 0 1 0			0 1 0 0 0		
Volume Module:												
Base Vol:	27	0	5	0	0	0	0	11	33	3	17	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:	27	0	5	0	0	0	0	11	33	3	17	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:	28	0	5	0	0	0	0	12	35	3	18	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	28	0	5	0	0	0	0	12	35	3	18	0
Critical Gap Module:												
Critical Gp:	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	53	xxxx	29	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	46	xxxx	xxxxx
Potent Cap.:	960	xxxx	1052	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1574	xxxx	xxxxx
Move Cap.:	959	xxxx	1052	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1574	xxxx	xxxxx
Volume/Cap:	0.03	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.1	xxxx	0.0	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	8.9	xxxx	8.4	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx
LOS by Move:	A	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	A	*	*
ApproachDel:	8.8			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	A			*			*			*		

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #16 I-15 SB On/Off Ramps and Summit Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.864
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 21.2
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name:	I-15 SB On/Off Ramps							Summit Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L - T - R			L - T - R			L - T - R			L - T - R			
Control:	Split Phase			Split Phase			Protected			Protected			
Rights:	Include			Include			Include			Include			
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 2 0 0			0 0 2 0 1		
Volume Module:												
Base Vol:	0	0	0	314	0	245	306	747	0	0	1347	512
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	314	0	245	306	747	0	0	1347	512
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	331	0	258	322	786	0	0	1418	539
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	331	0	258	322	786	0	0	1418	539
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	331	0	258	322	786	0	0	1418	539
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1700	0	1800	1700	3600	0	0	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.19	0.00	0.14	0.19	0.22	0.00	0.00	0.39	0.30
Crit Moves:				****			****				****	
Green/Cycle:	0.00	0.00	0.00	0.22	0.00	0.22	0.22	0.46	0.00	0.00	0.46	0.46
Volume/Cap:	0.00	0.00	0.00	0.86	0.00	0.64	0.86	0.47	0.00	0.00	0.86	0.66
Delay/Veh:	0.0	0.0	0.0	40.5	0.0	24.4	41.0	11.3	0.0	0.0	19.7	14.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	40.5	0.0	24.4	41.0	11.3	0.0	0.0	19.7	14.6
LOS by Move:	A	A	A	D	A	C	D	B	A	A	B	B
HCM2kAvgQ:	0	0	0	10	0	6	9	5	0	0	15	9

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #17 I-15 NB On/Off Ramps and Summit Ave.

Cycle (sec): 90 Critical Vol./Cap.(X): 1.240
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 99.4
Optimal Cycle: OPTIMIZED Level Of Service: F

Street Name:	I-15 NB On/Off Ramps						Summit Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 2 0 0			0 0 2 0 1		
Volume Module:												
Base Vol:	0	0	0	954	0	535	300	765	0	0	1302	401
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	954	0	535	300	765	0	0	1302	401
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	1004	0	563	316	805	0	0	1371	422
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1004	0	563	316	805	0	0	1371	422
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	1004	0	563	316	805	0	0	1371	422
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1700	0	1800	1700	3600	0	0	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.59	0.00	0.31	0.19	0.22	0.00	0.00	0.38	0.23
Crit Moves:				****			****				****	
Green/Cycle:	0.00	0.00	0.00	0.48	0.00	0.48	0.15	0.35	0.00	0.00	0.31	0.31
Volume/Cap:	0.00	0.00	0.00	1.24	0.00	0.66	1.24	0.64	0.00	0.00	1.24	0.76
Delay/Veh:	0.0	0.0	0.0	142.0	0.0	19.8	175.0	25.4	0.0	0.0	147	34.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	142.0	0.0	19.8	175.0	25.4	0.0	0.0	147	34.5
LOS by Move:	A	A	A	F	A	B	F	C	A	A	F	C
HCM2kAvgQ:	0	0	0	57	0	13	20	10	0	0	38	12

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #18 Sierra Ave & Riverside Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.781
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 22.8
Optimal Cycle: 0 Level Of Service: C

Street Name:	Sierra Ave						Riverside Ave					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 1	0 1		1 0 1	0 0		0 0 0	0 0		1 0 0	0 1	
Volume Module:												
Base Vol:	0	378	107	328	213	0	0	0	0	105	0	385
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	378	107	328	213	0	0	0	0	105	0	385
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	398	113	345	224	0	0	0	0	111	0	405
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	398	113	345	224	0	0	0	0	111	0	405
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	398	113	345	224	0	0	0	0	111	0	405
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	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	510	553	482	512	0	0	0	0	460	0	548
Capacity Analysis Module:												
Vol/Sat:	xxxx	0.78	0.20	0.72	0.44	xxxx	xxxx	xxxx	xxxx	0.24	xxxx	0.74
Crit Moves:		****		****								****
Delay/Veh:	0.0	29.5	10.5	26.1	14.7	0.0	0.0	0.0	0.0	12.6	0.0	24.3
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:	0.0	29.5	10.5	26.1	14.7	0.0	0.0	0.0	0.0	12.6	0.0	24.3
LOS by Move:	*	D	B	D	B	*	*	*	*	B	*	C
ApproachDel:		25.3			21.6			xxxxxx			21.8	
Delay Adj:		1.00			1.00			xxxxx			1.00	
ApprAdjDel:		25.3			21.6			xxxxxx			21.8	
LOS by Appr:		D			C			*			C	
AllWayAvgQ:	0.0	2.8	0.2	2.1	0.7	0.0	0.0	0.0	0.0	0.3	0.0	2.3

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #19 Live Oak Ave & Riverside Ave

Cycle (sec): 60 Critical Vol./Cap.(X): 0.253
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 14.7
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Live Oak Ave						Riverside Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 1 0			1 0 2 0 0		
Volume Module:												
Base Vol:	125	0	77	0	0	0	0	204	169	67	345	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:	125	0	77	0	0	0	0	204	169	67	345	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:	132	0	81	0	0	0	0	215	178	71	363	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	132	0	81	0	0	0	0	215	178	71	363	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	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:	132	0	81	0	0	0	0	215	178	71	363	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	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.09	0.91	1.00	2.00	0.00
Final Sat.:	1700	0	1800	0	0	0	0	1969	1631	1700	3600	0
Capacity Analysis Module:												
Vol/Sat:	0.08	0.00	0.05	0.00	0.00	0.00	0.00	0.11	0.11	0.04	0.10	0.00
Crit Moves:	****							****		****		
Green/Cycle:	0.31	0.00	0.31	0.00	0.00	0.00	0.00	0.43	0.43	0.16	0.30	0.00
Volume/Cap:	0.25	0.00	0.15	0.00	0.00	0.00	0.00	0.25	0.25	0.25	0.34	0.00
Delay/Veh:	15.9	0.0	15.3	0.0	0.0	0.0	0.0	11.0	11.0	22.4	16.6	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:	15.9	0.0	15.3	0.0	0.0	0.0	0.0	11.0	11.0	22.4	16.6	0.0
LOS by Move:	B	A	B	A	A	A	A	B	B	C	B	A
HCM2kAvgQ:	2	0	1	0	0	0	0	2	2	1	3	0

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #20 Alder Ave. and Riverside Ave.

Average Delay (sec/veh): 3.4 Worst Case Level Of Service: B[12.6]

Street Name:	Alder Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 1 0			1 0 2 0 0		
Volume Module:												
Base Vol:	73	0	99	0	0	0	0	236	51	96	318	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:	73	0	99	0	0	0	0	236	51	96	318	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:	77	0	104	0	0	0	0	248	54	101	335	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	77	0	104	0	0	0	0	248	54	101	335	0
Critical Gap Module:												
Critical Gp:	6.8	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	645	xxxx	151	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	302	xxxx	xxxxx
Potent Cap.:	410	xxxx	875	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1270	xxxx	xxxxx
Move Cap.:	385	xxxx	875	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1270	xxxx	xxxxx
Volume/Cap:	0.20	xxxx	0.12	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.08	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.7	xxxx	0.4	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx
Control Del:	16.7	xxxx	9.7	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.1	xxxx	xxxxx
LOS by Move:	C	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	12.6			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	B			*			*			*		

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #21 Locust Ave. and Riverside Ave.

Average Delay (sec/veh): 3.0 Worst Case Level Of Service: B[12.8]

Street Name:	Locust Ave.									Riverside Ave.								
Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	0	0	1	0	0	0	0	0	0	0	1	1	0	1	0	2	0	0
Volume Module:																				
Base Vol:	46		0		112	0		0		0	0		318		22	123		384		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:	46		0		112	0		0		0	0		318		22	123		384		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:	48		0		118	0		0		0	0		335		23	129		404		0
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
FinalVolume:	48		0		118	0		0		0	0		335		23	129		404		0
Critical Gap Module:																				
Critical Gp:	6.8	xxxx		6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		4.1	xxxx	xxxxx						
FollowUpTim:	3.5	xxxx		3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		2.2	xxxx	xxxxx						
Capacity Module:																				
Cnflict Vol:	807	xxxx		179	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		358	xxxx	xxxxx						
Potent Cap.:	323	xxxx		839	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		1212	xxxx	xxxxx						
Move Cap.:	297	xxxx		839	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		1212	xxxx	xxxxx						
Volume/Cap:	0.16	xxxx		0.14	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx		0.11	xxxx	xxxx						
Level Of Service Module:																				
2Way95thQ:	0.6	xxxx		0.5	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		0.4	xxxx	xxxxx						
Control Del:	19.5	xxxx		10.0	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		8.3	xxxx	xxxxx						
LOS by Move:	C	*		A	*	*	*	*	*	*		A	*	*						
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx		xxxxx		xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx	xxxx		xxxxx		xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shrd ConDel:	xxxxx	xxxx		xxxxx		xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	*	*		*		*	*	*			*	*	*			*	*	*		
ApproachDel:		12.8				xxxxxx					xxxxxx					xxxxxx				
ApproachLOS:		B				*					*					*				

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #22 Linden Ave. and Riverside Ave.

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: C[15.3]

Street Name:	Linden Ave.						Riverside Ave.					
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	1! 0	0	0 0	0 0	0	0 0	1 1	0	0 1	0 0	0
Volume Module:												
Base Vol:	18	0	59	0	0	0	0	482	35	104	481	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:	18	0	59	0	0	0	0	482	35	104	481	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:	19	0	62	0	0	0	0	507	37	109	506	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	19	0	62	0	0	0	0	507	37	109	506	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1251	1251	272	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	544	xxxx	xxxxx
Potent Cap.:	192	174	771	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1035	xxxx	xxxxx
Move Cap.:	176	154	771	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1035	xxxx	xxxxx
Volume/Cap:	0.11	0.00	0.08	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.11	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.9	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	430	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.4	xxxx	xxxxx
Shrd ConDel:	xxxxx	15.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.9	xxxx	xxxxx
Shared LOS:	*	C	*	*	*	*	*	*	*	A	*	*
ApproachDel:	15.3			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	C			*			*			*		

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #23 Ayala Dr. and Riverside Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.447
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 16.2
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Ayala Dr.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0 0 2			0 0 0 0 0			0 0 1 1 0			1 0 2 0 0		
Volume Module:												
Base Vol:	85	0	354	0	0	0	0	493	48	227	455	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:	85	0	354	0	0	0	0	493	48	227	455	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:	89	0	373	0	0	0	0	519	51	239	479	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	0	373	0	0	0	0	519	51	239	479	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	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:	89	0	373	0	0	0	0	519	51	239	479	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	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.00	2.00	0.00	0.00	0.00	0.00	1.82	0.18	1.00	2.00	0.00
Final Sat.:	1700	0	3600	0	0	0	0	3281	319	1700	3600	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.00	0.10	0.00	0.00	0.00	0.00	0.16	0.16	0.14	0.13	0.00
Crit Moves:			****					****		****		
Green/Cycle:	0.23	0.00	0.23	0.00	0.00	0.00	0.00	0.35	0.35	0.31	0.38	0.00
Volume/Cap:	0.23	0.00	0.45	0.00	0.00	0.00	0.00	0.45	0.45	0.45	0.35	0.00
Delay/Veh:	19.0	0.0	20.1	0.0	0.0	0.0	0.0	15.1	15.1	17.0	13.4	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:	19.0	0.0	20.1	0.0	0.0	0.0	0.0	15.1	15.1	17.0	13.4	0.0
LOS by Move:	B	A	C	A	A	A	A	B	B	B	B	A
HCM2kAvgQ:	2	0	3	0	0	0	0	4	4	4	3	0

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #24 Knollwood Ave. and Riverside Ave.

Cycle (sec): 120 Critical Vol./Cap.(X): 0.250
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 5.6
Optimal Cycle: OPTIMIZED Level Of Service: A

Street Name:	Knollwood Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 2 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	0	0	0	4	0	17	46	804	0	0	636	26
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	4	0	17	46	804	0	0	636	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	4	0	18	48	846	0	0	669	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	4	0	18	48	846	0	0	669	27
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	4	0	18	48	846	0	0	669	27
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.92	0.08
Final Sat.:	0	0	0	1700	0	1800	1700	3600	0	0	3459	141
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.24	0.00	0.00	0.19	0.19
Crit Moves:				****				****		****		
Green/Cycle:	0.00	0.00	0.00	0.05	0.00	0.05	0.18	0.85	0.00	0.00	0.72	0.72
Volume/Cap:	0.00	0.00	0.00	0.05	0.00	0.20	0.15	0.28	0.00	0.00	0.27	0.27
Delay/Veh:	0.0	0.0	0.0	54.5	0.0	55.8	41.3	1.8	0.0	0.0	6.1	6.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	54.5	0.0	55.8	41.3	1.8	0.0	0.0	6.1	6.1
LOS by Move:	A	A	A	D	A	E	D	A	A	A	A	A
HCM2kAvgQ:	0	0	0	0	0	1	2	3	0	0	4	4

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #25 Country Club Dr. and Riverside Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.408
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 12.2
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Country Club Dr.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 1 0	0 1		1 0	0 1 0		1 0	1 1 0		1 0	1 1 0	
Volume Module:												
Base Vol:	42	41	159	21	9	53	26	747	24	79	615	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:	42	41	159	21	9	53	26	747	24	79	615	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:	44	43	167	22	9	56	27	786	25	83	647	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	43	167	22	9	56	27	786	25	83	647	40
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:	44	43	167	22	9	56	27	786	25	83	647	40
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.52	0.48	1.00	1.00	0.15	0.85	1.00	1.94	0.06	1.00	1.88	0.12
Final Sat.:	885	863	1800	1700	261	1539	1700	3488	112	1700	3391	209
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.09	0.01	0.04	0.04	0.02	0.23	0.23	0.05	0.19	0.19
Crit Moves:			****					****		****		
Green/Cycle:	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.55	0.55	0.12	0.44	0.44
Volume/Cap:	0.22	0.22	0.41	0.06	0.16	0.16	0.07	0.41	0.41	0.41	0.43	0.43
Delay/Veh:	19.1	19.1	20.4	18.2	18.7	18.7	18.1	7.9	7.9	25.8	11.8	11.8
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:	19.1	19.1	20.4	18.2	18.7	18.7	18.1	7.9	7.9	25.8	11.8	11.8
LOS by Move:	B	B	C	B	B	B	B	A	A	C	B	B
HCM2kAvgQ:	1	1	3	0	1	1	0	5	5	2	5	5

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #26 Riverside Ave. and Dwy.(Shopping Ctr.)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.436
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 9.6
Optimal Cycle: OPTIMIZED Level Of Service: A

Street Name:	Riverside Ave.						Dwy.(Shopping Ctr.)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 0			0 0 1 1 0			1 0 0 0 1			0 0 0 0 0		
Volume Module:												
Base Vol:	86	940	0	0	957	11	90	0	117	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	86	940	0	0	957	11	90	0	117	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	91	989	0	0	1007	12	95	0	123	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	989	0	0	1007	12	95	0	123	0	0	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	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:	91	989	0	0	1007	12	95	0	123	0	0	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	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.98	0.02	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1700	3600	0	0	3559	41	1700	0	1800	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.27	0.00	0.00	0.28	0.28	0.06	0.00	0.07	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green/Cycle:	0.12	0.55	0.00	0.00	0.63	0.63	0.15	0.00	0.15	0.00	0.00	0.00
Volume/Cap:	0.45	0.50	0.00	0.00	0.45	0.45	0.37	0.00	0.45	0.00	0.00	0.00
Delay/Veh:	26.2	8.6	0.0	0.0	5.9	5.9	23.7	0.0	24.3	0.0	0.0	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:	26.2	8.6	0.0	0.0	5.9	5.9	23.7	0.0	24.3	0.0	0.0	0.0
LOS by Move:	C	A	A	A	A	A	C	A	C	A	A	A
HCM2kAvgQ:	2	6	0	0	5	5	2	0	3	0	0	0

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #28 Alder Ave. and Casa Grande Dr.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.227
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 16.6
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Alder Ave.						Casa Grande Dr.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	1 0		1 0 1	0 1		1 0 1	0 1	
Volume Module:												
Base Vol:	34	183	104	50	86	7	6	36	15	61	72	69
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	183	104	50	86	7	6	36	15	61	72	69
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	193	109	53	91	7	6	38	16	64	76	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	193	109	53	91	7	6	38	16	64	76	73
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	36	193	109	53	91	7	6	38	16	64	76	73
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.85	0.15	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	1800	1800	1700	3329	271	1700	1800	1800	1700	1800	1800
Capacity Analysis Module:												
Vol/Sat:	0.02	0.11	0.06	0.03	0.03	0.03	0.00	0.02	0.01	0.04	0.04	0.04
Crit Moves:		****		****				****		****		
Green/Cycle:	0.30	0.47	0.47	0.14	0.30	0.30	0.13	0.10	0.10	0.16	0.13	0.13
Volume/Cap:	0.07	0.23	0.13	0.23	0.09	0.09	0.03	0.21	0.09	0.23	0.32	0.30
Delay/Veh:	15.0	9.7	9.2	23.7	15.1	15.1	22.7	25.4	24.7	22.2	24.3	24.3
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:	15.0	9.7	9.2	23.7	15.1	15.1	22.7	25.4	24.7	22.2	24.3	24.3
LOS by Move:	B	A	A	C	B	B	C	C	C	C	C	C
HCM2kAvgQ:	1	2	1	1	1	1	0	1	0	1	2	2

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #29 Locust Ave. and Casa Grande Dr.

Average Delay (sec/veh): 5.7 Worst Case Level Of Service: B[10.7]

Street Name:	Locust Ave.								Casa Grande Dr.							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	0 1	0 0	0		0 0	0 1	0		1 0	0 0	1		0 0	0 0	0	
Volume Module:																
Base Vol:	220	157	0	0	102	37	23	0	206	0	0	0				
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Initial Bse:	220	157	0	0	102	37	23	0	206	0	0	0				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95				
PHF Volume:	232	165	0	0	107	39	24	0	217	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
FinalVolume:	232	165	0	0	107	39	24	0	217	0	0	0				
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx				
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx				
Capacity Module:																
Cnflict Vol:	146	xxxx	xxxxx	xxxx	xxxx	xxxxx	755	xxxx	127	xxxx	xxxx	xxxxx				
Potent Cap.:	1448	xxxx	xxxxx	xxxx	xxxx	xxxxx	379	xxxx	929	xxxx	xxxx	xxxxx				
Move Cap.:	1448	xxxx	xxxxx	xxxx	xxxx	xxxxx	326	xxxx	929	xxxx	xxxx	xxxxx				
Volume/Cap:	0.16	xxxx	xxxx	xxxx	xxxx	xxxx	0.07	xxxx	0.23	xxxx	xxxx	xxxx				
Level Of Service Module:																
2Way95thQ:	0.6	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	0.9	xxxx	xxxx	xxxxx				
Control Del:	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	16.9	xxxx	10.1	xxxxx	xxxx	xxxxx				
LOS by Move:	A	*	*	*	*	*	C	*	B	*	*	*				
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:	0.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shrd ConDel:	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	*				
ApproachDel:	xxxxxx			xxxxxx			10.7			xxxxxx						
ApproachLOS:	*			*			B			*						

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #30 Sierra Ave. and Summit Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.714
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 16.3
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Sierra Ave.						Summit Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 0		0 0 2	1 0		1 0 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	140	891	0	0	531	68	196	0	157	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	140	891	0	0	531	68	196	0	157	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	147	938	0	0	559	72	206	0	165	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	147	938	0	0	559	72	206	0	165	0	0	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	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:	147	938	0	0	559	72	206	0	165	0	0	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	0.94	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	2.66	0.34	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1700	1800	0	0	4787	613	1700	0	1800	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.09	0.52	0.00	0.00	0.12	0.12	0.12	0.00	0.09	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.35	0.65	0.00	0.00	0.40	0.40	0.15	0.00	0.15	0.00	0.00	0.00
Volume/Cap:	0.25	0.80	0.00	0.00	0.29	0.29	0.80	0.00	0.61	0.00	0.00	0.00
Delay/Veh:	14.3	11.8	0.0	0.0	12.2	12.2	41.1	0.0	27.7	0.0	0.0	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:	14.3	11.8	0.0	0.0	12.2	12.2	41.1	0.0	27.7	0.0	0.0	0.0
LOS by Move:	B	B	A	A	B	B	D	A	C	A	A	A
HCM2kAvgQ:	2	15	0	0	3	3	6	0	4	0	0	0

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #31 Locust Ave. and Bohnert Ave.

Average Delay (sec/veh): 4.4 Worst Case Level Of Service: C[24.6]

Street Name:	Locust Ave.						Bohnert Ave.					
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	1 0	0 1	0	0 0	1! 0	0
Volume Module:												
Base Vol:	6	340	120	55	287	3	1	0	3	95	0	55
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	340	120	55	287	3	1	0	3	95	0	55
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:	6	358	126	58	302	3	1	0	3	100	0	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	6	358	126	58	302	3	1	0	3	100	0	58
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	305	xxxx	xxxxx	484	xxxx	xxxxx	882	916	304	855	855	421
Potent Cap.:	1267	xxxx	xxxxx	1089	xxxx	xxxxx	269	274	741	281	298	637
Move Cap.:	1267	xxxx	xxxxx	1089	xxxx	xxxxx	233	258	741	267	280	637
Volume/Cap:	0.00	xxxx	xxxx	0.05	xxxx	xxxx	0.00	0.00	0.00	0.37	0.00	0.09
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.2	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.9	xxxx	xxxxx	8.5	xxxx	xxxxx	20.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	C	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	741	xxxx	339	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.0	xxxxx	2.4	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	9.9	xxxxx	24.6	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	A	*	C	*
ApproachDel:	xxxxxx			xxxxxx			12.5			24.6		
ApproachLOS:	*			*			B			C		

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #32 Ayala Dr. and Bohnert Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.624
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 15.5
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Ayala Dr.						Bohnert Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		0 1 0	0 1		0 1 0	0 1	
Volume Module:												
Base Vol:	67	607	550	12	180	18	22	225	43	163	196	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:	67	607	550	12	180	18	22	225	43	163	196	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	71	639	579	13	189	19	23	237	45	172	206	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	639	579	13	189	19	23	237	45	172	206	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	71	639	579	13	189	19	23	237	45	172	206	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	1.05	0.95	1.00	1.82	0.18	0.09	0.91	1.00	0.47	0.53	1.00
Final Sat.:	1700	1889	1711	1700	3273	327	159	1631	1800	796	957	1800
Capacity Analysis Module:												
Vol/Sat:	0.04	0.34	0.34	0.01	0.06	0.06	0.15	0.15	0.03	0.22	0.22	0.01
Crit Moves:		****		****							****	
Green/Cycle:	0.29	0.49	0.49	0.10	0.29	0.29	0.31	0.31	0.31	0.31	0.31	0.31
Volume/Cap:	0.14	0.69	0.69	0.07	0.20	0.20	0.47	0.47	0.08	0.69	0.69	0.02
Delay/Veh:	15.7	13.1	13.1	24.7	15.9	15.9	17.3	17.3	14.7	21.9	21.9	14.3
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:	15.7	13.1	13.1	24.7	15.9	15.9	17.3	17.3	14.7	21.9	21.9	14.3
LOS by Move:	B	B	B	C	B	B	B	B	B	C	C	B
HCM2kAvgQ:	1	10	10	0	2	2	4	4	1	8	8	0

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #33 Sierra Ave. and Sierra Lakes Pkwy/Casmalia St.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.701
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 19.8
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Sierra Ave.						Sierra Lakes Pkwy/Casmalia St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	2 0 3 0 1			2 0 3 0 1			2 0 2 0 1			2 0 2 0 1		
Volume Module:												
Base Vol:	668	824	240	125	496	101	119	463	526	235	229	84
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:	668	824	240	125	496	101	119	463	526	235	229	84
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:	703	867	253	132	522	106	125	487	554	247	241	88
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	703	867	253	132	522	106	125	487	554	247	241	88
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:	703	867	253	132	522	106	125	487	554	247	241	88
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.89	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3200	5400	1800	3200	5400	1800	3200	3600	1800	3200	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.22	0.16	0.14	0.04	0.10	0.06	0.04	0.14	0.31	0.08	0.07	0.05
Crit Moves:	****				****				****	****		
Green/Cycle:	0.31	0.28	0.28	0.17	0.14	0.14	0.27	0.44	0.44	0.11	0.27	0.27
Volume/Cap:	0.70	0.58	0.50	0.24	0.70	0.43	0.14	0.31	0.70	0.70	0.24	0.18
Delay/Veh:	20.4	19.2	19.0	21.6	27.7	24.9	16.5	11.0	16.5	31.9	17.1	16.8
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:	20.4	19.2	19.0	21.6	27.7	24.9	16.5	11.0	16.5	31.9	17.1	16.8
LOS by Move:	C	B	B	C	C	C	B	B	B	C	B	B
HCM2kAvgQ:	8	5	5	1	5	2	1	3	10	4	2	1

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #34 Alder Ave. and Casmalia St.

Cycle (sec): 130 Critical Vol./Cap.(X): 1.187
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 124.2
Optimal Cycle: OPTIMIZED Level Of Service: F

Street Name:	Alder Ave.						Casmalia St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 0	1 0		1 0 1	0 1	
Volume Module:												
Base Vol:	44	123	777	38	164	18	71	407	49	596	264	25
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	123	777	38	164	18	71	407	49	596	264	25
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	129	818	40	173	19	75	428	52	627	278	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	129	818	40	173	19	75	428	52	627	278	26
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	129	818	40	173	19	75	428	52	627	278	26
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.80	0.20	1.00	0.89	0.11	1.00	1.00	1.00
Final Sat.:	1700	1800	1800	1700	3244	356	1700	1607	193	1700	1800	1800
Capacity Analysis Module:												
Vol/Sat:	0.03	0.07	0.45	0.02	0.05	0.05	0.04	0.27	0.27	0.37	0.15	0.01
Crit Moves:			****	****				****		****		
Green/Cycle:	0.19	0.37	0.37	0.05	0.22	0.22	0.12	0.22	0.22	0.30	0.40	0.40
Volume/Cap:	0.14	0.19	1.22	0.51	0.24	0.24	0.37	1.22	1.22	1.22	0.39	0.04
Delay/Veh:	43.6	27.6	152.0	66.1	41.5	41.5	53.8	171	171.4	161.7	28.0	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:	43.6	27.6	152.0	66.1	41.5	41.5	53.8	171	171.4	161.7	28.0	23.7
LOS by Move:	D	C	F	E	D	D	D	F	F	F	C	C
HCM2kAvgQ:	2	3	53	2	3	3	3	32	32	43	8	1

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #35 Locust Ave. and Casmalia St.

Cycle (sec): 75 Critical Vol./Cap.(X): 0.711
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 28.0
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name:	Locust Ave.						Casmalia St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 0	1 0		1 0 0	1 0	
Volume Module:												
Base Vol:	9	83	4	11	148	296	290	753	20	7	467	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:	9	83	4	11	148	296	290	753	20	7	467	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	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	9	87	4	12	156	312	305	793	21	7	492	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	87	4	12	156	312	305	793	21	7	492	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
FinalVolume:	9	87	4	12	156	312	305	793	21	7	492	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	1.91	0.09	1.00	1.00	1.00	1.00	0.97	0.03	1.00	0.98	0.02
Final Sat.:	1700	3434	166	1700	1800	1800	1700	1753	47	1700	1762	38
Capacity Analysis Module:												
Vol/Sat:	0.01	0.03	0.03	0.01	0.09	0.17	0.18	0.45	0.45	0.00	0.28	0.28
Crit Moves:	****					****		****		****		
Green/Cycle:	0.08	0.14	0.14	0.14	0.20	0.20	0.24	0.53	0.53	0.08	0.37	0.37
Volume/Cap:	0.07	0.18	0.18	0.05	0.43	0.85	0.75	0.85	0.85	0.05	0.75	0.75
Delay/Veh:	32.1	28.5	28.5	27.9	26.3	41.0	34.1	22.6	22.6	32.0	25.3	25.3
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:	32.1	28.5	28.5	27.9	26.3	41.0	34.1	22.6	22.6	32.0	25.3	25.3
LOS by Move:	C	C	C	C	C	D	C	C	C	C	C	C
HCM2kAvgQ:	0	1	1	0	4	10	9	19	19	0	12	12

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #36 Ayala Dr. and Casmalia St.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.624
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.3
Optimal Cycle: OPTIMIZED		Level Of Service:	B

Street Name:	Ayala Dr.						Casmalia St.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2	0 0		0 0 1	1 0		1 0 0	0 2		0 0 0	0 0	
Volume Module:												
Base Vol:	66	701	0	0	176	230	576	0	89	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	66	701	0	0	176	230	576	0	89	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	69	738	0	0	185	242	606	0	94	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	69	738	0	0	185	242	606	0	94	0	0	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	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:	69	738	0	0	185	242	606	0	94	0	0	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	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.00	1.00	1.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	1700	3600	0	0	1800	1800	1700	0	3600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.04	0.20	0.00	0.00	0.10	0.13	0.36	0.00	0.03	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.17	0.29	0.00	0.00	0.22	0.22	0.51	0.00	0.51	0.00	0.00	0.00
Volume/Cap:	0.24	0.70	0.00	0.00	0.46	0.60	0.70	0.00	0.05	0.00	0.00	0.00
Delay/Veh:	22.1	21.1	0.0	0.0	20.5	22.2	13.9	0.0	7.5	0.0	0.0	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:	22.1	21.1	0.0	0.0	20.5	22.2	13.9	0.0	7.5	0.0	0.0	0.0
LOS by Move:	C	C	A	A	C	C	B	A	A	A	A	A
HCM2kAvgQ:	1	8	0	0	3	5	10	0	0	0	0	0

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #37 Sierra Ave. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec): 80 Critical Vol./Cap.(X): 0.208
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 1.4
Optimal Cycle: OPTIMIZED Level Of Service: A

Street Name:	Sierra Ave.						SR-210 Fwy. WB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Ignore			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 3	0 2		0 0 2	0 2		0 0 0	0 0		1 0 1!	0 1	
Volume Module:												
Base Vol:	0	997	491	0	523	234	0	0	0	6	0	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:	0	997	491	0	523	234	0	0	0	6	0	22
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	1049	0	0	551	0	0	0	0	6	0	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1049	0	0	551	0	0	0	0	6	0	23
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1049	0	0	551	0	0	0	0	6	0	23
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	3.00	2.00	0.00	2.00	2.00	0.00	0.00	0.00	1.22	0.00	1.78
Final Sat.:	0	5400	3600	0	3600	3600	0	0	0	2081	0	3197
Capacity Analysis Module:												
Vol/Sat:	0.00	0.19	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Crit Moves:		****								****		
Green/Cycle:	0.00	0.88	0.00	0.00	0.88	0.00	0.00	0.00	0.00	0.08	0.00	0.08
Volume/Cap:	0.00	0.22	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.04	0.00	0.10
Delay/Veh:	0.0	0.8	0.0	0.0	0.8	0.0	0.0	0.0	0.0	34.4	0.0	34.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.8	0.0	0.0	0.8	0.0	0.0	0.0	0.0	34.4	0.0	34.6
LOS by Move:	A	A	A	A	A	A	A	A	A	C	A	C
HCM2kAvgQ:	0	1	0	0	1	0	0	0	0	0	0	0

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #38 Sierra Ave. and SR-210 Fwy. EB Off Ramp/Highland Ave.

Cycle (sec): 100 Critical Vol./Cap.(X): 0.903
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 40.0
Optimal Cycle: OPTIMIZED Level Of Service: D

Street Name:	Sierra Ave.						SR-210 Fwy. EB Off Ramp/Highland					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	1 1	0	1 0	2 0	0	1 0	1 1	0	1 0	0 0	2
Volume Module:												
Base Vol:	0	1065	64	79	432	0	321	961	508	36	0	134
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	1065	64	79	432	0	321	961	508	36	0	134
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	1121	67	83	455	0	338	1012	535	38	0	141
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1121	67	83	455	0	338	1012	535	38	0	141
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1121	67	83	455	0	338	1012	535	38	0	141
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	1.89	0.11	1.00	2.00	0.00	1.00	1.31	0.69	1.00	0.00	2.00
Final Sat.:	0	3396	204	1700	3600	0	1700	2355	1245	1700	0	3600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.33	0.33	0.05	0.13	0.00	0.20	0.43	0.43	0.02	0.00	0.04
Crit Moves:		****		****				****		****		
Green/Cycle:	0.00	0.35	0.35	0.06	0.28	0.00	0.39	0.45	0.45	0.06	0.00	0.12
Volume/Cap:	0.00	0.95	0.95	0.82	0.46	0.00	0.51	0.95	0.95	0.37	0.00	0.33
Delay/Veh:	0.0	46.8	46.8	84.2	30.3	0.0	23.6	38.7	38.7	47.5	0.0	40.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	46.8	46.8	84.2	30.3	0.0	23.6	38.7	38.7	47.5	0.0	40.9
LOS by Move:	A	D	D	F	C	A	C	D	D	D	A	D
HCM2kAvgQ:	0	23	23	5	6	0	9	28	28	2	0	2

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #39 Alder Ave. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.807
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 10.8
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Alder Ave.						SR-210 Fwy. WB On/Off Ramps					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 0			0 0 1 1 0			0 0 0 0 0			0 0 0 0 0		
Volume Module:												
Base Vol:	558	959	0	0	95	697	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	558	959	0	0	95	697	0	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	587	1009	0	0	100	734	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	587	1009	0	0	100	734	0	0	0	0	0	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	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:	587	1009	0	0	100	734	0	0	0	0	0	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	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	1700	3600	0	0	1800	1800	0	0	0	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.35	0.28	0.00	0.00	0.06	0.41	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:	****					****						
Green/Cycle:	0.43	0.93	0.00	0.00	0.51	0.51	0.00	0.00	0.00	0.00	0.00	0.00
Volume/Cap:	0.81	0.30	0.00	0.00	0.11	0.81	0.00	0.00	0.00	0.00	0.00	0.00
Delay/Veh:	21.6	0.2	0.0	0.0	7.8	17.2	0.0	0.0	0.0	0.0	0.0	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:	21.6	0.2	0.0	0.0	7.8	17.2	0.0	0.0	0.0	0.0	0.0	0.0
LOS by Move:	C	A	A	A	A	B	A	A	A	A	A	A
HCM2kAvgQ:	13	1	0	0	1	14	0	0	0	0	0	0

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #40 Alder Ave. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.796
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 13.6
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Alder Ave.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 2	0 0		0 0 2	0 0		1 0 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	632	0	0	101	0	901	0	639	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	632	0	0	101	0	901	0	639	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	665	0	0	106	0	948	0	673	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	665	0	0	106	0	948	0	673	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	665	0	0	106	0	948	0	673	0	0	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	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	2.00	0.00	0.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3600	0	0	3600	0	1700	0	1800	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.18	0.00	0.00	0.03	0.00	0.56	0.00	0.37	0.00	0.00	0.00
Crit Moves:		****					****					
Green/Cycle:	0.00	0.23	0.00	0.00	0.23	0.00	0.70	0.00	0.70	0.00	0.00	0.00
Volume/Cap:	0.00	0.80	0.00	0.00	0.13	0.00	0.80	0.00	0.53	0.00	0.00	0.00
Delay/Veh:	0.0	27.0	0.0	0.0	18.3	0.0	9.9	0.0	4.7	0.0	0.0	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:	0.0	27.0	0.0	0.0	18.3	0.0	9.9	0.0	4.7	0.0	0.0	0.0
LOS by Move:	A	C	A	A	B	A	A	A	A	A	A	A
HCM2kAvgQ:	0	8	0	0	1	0	15	0	6	0	0	0

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #49 State St. and Highland Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.764
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 19.6
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	State St.						Highland Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	2 0 2	0 1		1 0 2	0 1		0 1 0	0 2		0 0 0	0 0	
Volume Module:												
Base Vol:	775	131	26	25	129	191	104	232	1098	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	775	131	26	25	129	191	104	232	1098	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	816	138	27	26	136	201	109	244	1156	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	816	138	27	26	136	201	109	244	1156	0	0	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	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:	816	138	27	26	136	201	109	244	1156	0	0	0
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.89	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	0.32	0.68	2.00	0.00	0.00	0.00
Final Sat.:	3200	3600	1800	1700	3600	1800	547	1221	3600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.25	0.04	0.02	0.02	0.04	0.11	0.20	0.20	0.32	0.00	0.00	0.00
Crit Moves:	****					****			****			
Green/Cycle:	0.33	0.24	0.24	0.24	0.15	0.15	0.42	0.42	0.42	0.00	0.00	0.00
Volume/Cap:	0.76	0.16	0.06	0.06	0.26	0.76	0.48	0.48	0.76	0.00	0.00	0.00
Delay/Veh:	21.2	18.1	17.7	17.7	23.0	37.1	13.1	13.1	17.2	0.0	0.0	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:	21.2	18.1	17.7	17.7	23.0	37.1	13.1	13.1	17.2	0.0	0.0	0.0
LOS by Move:	C	B	B	B	C	D	B	B	B	A	A	A
HCM2kAvgQ:	10	1	0	0	1	6	5	5	11	0	0	0

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #50 California St. and Highland Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.439
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 10.7
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	California St.						Highland Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0	0	0 1 0	0	1	0 0 0	1	0	1 1 0	1	0	0 0 1
Volume Module:												
Base Vol:	0	214	145	101	154	0	1	261	22	311	0	341
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	214	145	101	154	0	1	261	22	311	0	341
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	225	153	106	162	0	1	275	23	327	0	359
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	225	153	106	162	0	1	275	23	327	0	359
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	225	153	106	162	0	1	275	23	327	0	359
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.60	0.40	0.41	0.59	0.00	1.00	1.84	0.16	1.00	0.00	1.00
Final Sat.:	0	1073	727	697	1062	0	1700	3320	280	1700	0	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.21	0.21	0.15	0.15	0.00	0.00	0.08	0.08	0.19	0.00	0.20
Crit Moves:		****										****
Green/Cycle:	0.00	0.48	0.48	0.48	0.48	0.00	0.45	0.45	0.45	0.45	0.00	0.45
Volume/Cap:	0.00	0.44	0.44	0.32	0.32	0.00	0.00	0.18	0.18	0.42	0.00	0.44
Delay/Veh:	0.0	10.7	10.7	9.8	9.8	0.0	8.9	9.8	9.8	11.4	0.0	11.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	10.7	10.7	9.8	9.8	0.0	8.9	9.8	9.8	11.4	0.0	11.5
LOS by Move:	A	B	B	A	A	A	A	A	A	B	A	B
HCM2kAvgQ:	0	5	5	3	3	0	0	2	2	5	0	5

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #51 Medical Ctr. Dr. and Highland Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.405
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 11.0
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Medical Ctr. Dr.						Highland Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	113	101	368	18	63	28	12	434	56	203	532	26
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:	113	101	368	18	63	28	12	434	56	203	532	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	119	106	387	19	66	29	13	457	59	214	560	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	119	106	387	19	66	29	13	457	59	214	560	27
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	119	106	387	19	66	29	13	457	59	214	560	27
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.38	0.62	1.00	1.77	0.23	1.00	1.91	0.09
Final Sat.:	1700	1800	1800	1700	2492	1108	1700	3189	411	1700	3432	168
Capacity Analysis Module:												
Vol/Sat:	0.07	0.06	0.22	0.01	0.03	0.03	0.01	0.14	0.14	0.13	0.16	0.16
Crit Moves:			****								****	
Green/Cycle:	0.53	0.53	0.53	0.53	0.53	0.53	0.40	0.40	0.40	0.40	0.40	0.40
Volume/Cap:	0.13	0.11	0.41	0.02	0.05	0.05	0.02	0.36	0.36	0.31	0.41	0.41
Delay/Veh:	7.2	7.0	8.6	6.7	6.8	6.8	10.8	12.7	12.7	12.5	13.0	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:	7.2	7.0	8.6	6.7	6.8	6.8	10.8	12.7	12.7	12.5	13.0	13.0
LOS by Move:	A	A	A	A	A	A	B	B	B	B	B	B
HCM2kAvgQ:	1	1	5	0	0	0	0	4	4	3	4	4

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #52 Mt. Vernon Ave. and Highland Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.596
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 17.5
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Mt. Vernon Ave.						Highland Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	56	217	153	79	105	178	336	501	52	101	548	206
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:	56	217	153	79	105	178	336	501	52	101	548	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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	59	228	161	83	111	187	354	527	55	106	577	217
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	59	228	161	83	111	187	354	527	55	106	577	217
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:	59	228	161	83	111	187	354	527	55	106	577	217
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	1.17	0.83	1.00	1.00	1.00	1.00	1.81	0.19	1.00	1.45	0.55
Final Sat.:	1700	2111	1489	1700	1800	1800	1700	3261	339	1700	2616	984
Capacity Analysis Module:												
Vol/Sat:	0.03	0.11	0.11	0.05	0.06	0.10	0.21	0.16	0.16	0.06	0.22	0.22
Crit Moves:		****					****				****	
Green/Cycle:	0.18	0.18	0.18	0.18	0.18	0.18	0.35	0.44	0.44	0.27	0.37	0.37
Volume/Cap:	0.19	0.60	0.60	0.27	0.34	0.57	0.60	0.36	0.36	0.23	0.60	0.60
Delay/Veh:	21.1	24.1	24.1	21.6	21.6	24.0	17.7	11.2	11.2	17.1	16.0	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:	21.1	24.1	24.1	21.6	21.6	24.0	17.7	11.2	11.2	17.1	16.0	16.0
LOS by Move:	C	C	C	C	C	C	B	B	B	B	B	B
HCM2kAvgQ:	1	4	4	2	2	4	7	4	4	2	7	7

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #53 Sierra Ave. and Highland Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.398
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 8.4
Optimal Cycle: OPTIMIZED Level Of Service: A

Street Name:	Sierra Ave.						Highland Ave.					
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			Split Phase			Split Phase		
Rights:	Include			Ovl			Ovl			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	2 0 2	0 0		0 0 2	0 1		2 0 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	124	918	0	0	881	70	183	0	163	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	124	918	0	0	881	70	183	0	163	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	131	966	0	0	927	74	193	0	172	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	131	966	0	0	927	74	193	0	172	0	0	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	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:	131	966	0	0	927	74	193	0	172	0	0	0
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.89	1.00	1.00	0.94	1.00	1.00	0.89	1.00	1.00	0.94	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	2.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	3200	3600	0	0	3600	1800	3200	0	1800	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.04	0.27	0.00	0.00	0.26	0.04	0.06	0.00	0.10	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green/Cycle:	0.10	0.68	0.00	0.00	0.58	0.80	0.22	0.00	0.32	0.00	0.00	0.00
Volume/Cap:	0.41	0.39	0.00	0.00	0.44	0.05	0.28	0.00	0.30	0.00	0.00	0.00
Delay/Veh:	26.2	4.2	0.0	0.0	7.1	1.3	19.8	0.0	15.8	0.0	0.0	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:	26.2	4.2	0.0	0.0	7.1	1.3	19.8	0.0	15.8	0.0	0.0	0.0
LOS by Move:	C	A	A	A	A	A	B	A	B	A	A	A
HCM2kAvgQ:	2	4	0	0	5	0	2	0	3	0	0	0

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #54 Alder Ave. and Highland Ave.

Cycle (sec): 85 Critical Vol./Cap.(X): 0.885
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 38.0
Optimal Cycle: OPTIMIZED Level Of Service: D

Street Name:	Alder Ave.						Highland Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	0 1		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	40	310	53	373	392	9	24	1071	158	49	118	294
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:	40	310	53	373	392	9	24	1071	158	49	118	294
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:	42	326	56	393	413	9	25	1127	166	52	124	309
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	42	326	56	393	413	9	25	1127	166	52	124	309
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:	42	326	56	393	413	9	25	1127	166	52	124	309
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.74	0.26	1.00	1.00	1.00
Final Sat.:	1700	1800	1800	1700	1800	1800	1700	3137	463	1700	1800	1800
Capacity Analysis Module:												
Vol/Sat:	0.02	0.18	0.03	0.23	0.23	0.01	0.01	0.36	0.36	0.03	0.07	0.17
Crit Moves:		****		****				****		****		
Green/Cycle:	0.11	0.20	0.20	0.25	0.34	0.34	0.13	0.39	0.39	0.07	0.33	0.33
Volume/Cap:	0.24	0.92	0.16	0.92	0.67	0.02	0.11	0.92	0.92	0.43	0.21	0.53
Delay/Veh:	35.6	62.8	28.5	56.8	26.8	18.6	32.6	35.2	35.2	40.3	20.8	24.0
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:	35.6	62.8	28.5	56.8	26.8	18.6	32.6	35.2	35.2	40.3	20.8	24.0
LOS by Move:	D	E	C	E	C	B	C	D	D	D	C	C
HCM2kAvgQ:	1	12	1	15	10	0	1	21	21	2	2	7

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #55 Ayala Dr. and Easton St.

Cycle (sec): 85 Critical Vol./Cap.(X): 1.120
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 65.5
Optimal Cycle: OPTIMIZED Level Of Service: E

Street Name:	Ayala Dr.						Easton St.					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2	0 0		0 0 1	1 1		1 0 0	0 2		0 0 0	0 0	
Volume Module:												
Base Vol:	557	556	0	0	450	113	911	0	1740	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	557	556	0	0	450	113	911	0	1740	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	586	585	0	0	474	119	959	0	1832	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	586	585	0	0	474	119	959	0	1832	0	0	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	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:	586	585	0	0	474	119	959	0	1832	0	0	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	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	1.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	1700	3600	0	0	3600	1800	1700	0	3600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.34	0.16	0.00	0.00	0.13	0.07	0.56	0.00	0.51	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green/Cycle:	0.31	0.43	0.00	0.00	0.12	0.12	0.50	0.00	0.50	0.00	0.00	0.00
Volume/Cap:	1.12	0.38	0.00	0.00	1.12	0.56	1.12	0.00	1.01	0.00	0.00	0.00
Delay/Veh:	105.9	16.9	0.0	0.0	114	36.1	90.2	0.0	44.6	0.0	0.0	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:	105.9	16.9	0.0	0.0	114	36.1	90.2	0.0	44.6	0.0	0.0	0.0
LOS by Move:	F	B	A	A	F	D	F	A	D	A	A	A
HCM2kAvgQ:	29	5	0	0	13	4	44	0	33	0	0	0

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #56 Riverside Ave. and Easton St.

Cycle (sec): 110 Critical Vol./Cap.(X): 1.202
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 101.5
Optimal Cycle: OPTIMIZED Level Of Service: F

Street Name:	Riverside Ave.						Easton St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	0 1		1 0 2	0 1		2 0 2	0 1	
Volume Module:												
Base Vol:	72	498	580	701	370	73	63	452	52	353	282	517
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:	72	498	580	701	370	73	63	452	52	353	282	517
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:	76	524	611	738	389	77	66	476	55	372	297	544
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	76	524	611	738	389	77	66	476	55	372	297	544
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:	76	524	611	738	389	77	66	476	55	372	297	544
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	0.89	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	1700	1800	1800	1700	1800	1800	1700	3600	1800	3200	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.04	0.29	0.34	0.43	0.22	0.04	0.04	0.13	0.03	0.12	0.08	0.30
Crit Moves:			****	****			****					****
Green/Cycle:	0.13	0.28	0.28	0.35	0.50	0.50	0.05	0.16	0.16	0.14	0.25	0.25
Volume/Cap:	0.35	1.06	1.23	1.23	0.43	0.09	0.72	0.83	0.19	0.83	0.34	1.23
Delay/Veh:	44.9	96.6	161.1	154.3	17.8	14.3	74.3	54.5	40.4	58.1	34.4	164.5
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:	44.9	96.6	161.1	154.3	17.8	14.3	74.3	54.5	40.4	58.1	34.4	164.5
LOS by Move:	D	F	F	F	B	B	E	D	D	E	C	F
HCM2kAvgQ:	3	26	37	47	8	1	4	10	2	9	4	33

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #57 Easton St. and Highland Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.620
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	4.5
Optimal Cycle: OPTIMIZED		Level Of Service:	A

Street Name:	Easton St.						Easton St. / Highland Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 1 0			1 0 2 0 0		
Volume Module:												
Base Vol:	150	0	67	0	0	0	0	1529	132	48	958	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:	150	0	67	0	0	0	0	1529	132	48	958	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:	158	0	71	0	0	0	0	1609	139	51	1008	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	158	0	71	0	0	0	0	1609	139	51	1008	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	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:	158	0	71	0	0	0	0	1609	139	51	1008	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	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.84	0.16	1.00	2.00	0.00
Final Sat.:	1700	0	1800	0	0	0	0	3314	286	1700	3600	0
Capacity Analysis Module:												
Vol/Sat:	0.09	0.00	0.04	0.00	0.00	0.00	0.00	0.49	0.49	0.03	0.28	0.00
Crit Moves:	****							****				
Green/Cycle:	0.15	0.00	0.15	0.00	0.00	0.00	0.00	0.78	0.78	0.78	0.78	0.00
Volume/Cap:	0.62	0.00	0.26	0.00	0.00	0.00	0.00	0.62	0.62	0.04	0.36	0.00
Delay/Veh:	28.5	0.0	23.1	0.0	0.0	0.0	0.0	3.2	3.2	1.5	2.0	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:	28.5	0.0	23.1	0.0	0.0	0.0	0.0	3.2	3.2	1.5	2.0	0.0
LOS by Move:	C	A	C	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	4	0	1	0	0	0	0	8	8	0	3	0

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #58 Sierra Ave. and Baseline Rd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.695
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 22.0
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name:	Sierra Ave.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 1			1 0 2 0 1			1 0 1 1 0			1 0 1 0 1		
Volume Module:												
Base Vol:	84	647	74	210	677	34	112	422	68	112	365	151
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:	84	647	74	210	677	34	112	422	68	112	365	151
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:	88	681	78	221	713	36	118	444	72	118	384	159
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	681	78	221	713	36	118	444	72	118	384	159
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:	88	681	78	221	713	36	118	444	72	118	384	159
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	2.00	1.00	1.00	1.72	0.28	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3100	500	1700	1800	1800
Capacity Analysis Module:												
Vol/Sat:	0.05	0.19	0.04	0.13	0.20	0.02	0.07	0.14	0.14	0.07	0.21	0.09
Crit Moves:		****		****			****				****	
Green/Cycle:	0.15	0.27	0.27	0.19	0.31	0.31	0.10	0.24	0.24	0.17	0.31	0.31
Volume/Cap:	0.34	0.69	0.16	0.69	0.65	0.07	0.69	0.60	0.60	0.41	0.69	0.29
Delay/Veh:	23.4	21.8	16.8	29.3	19.4	14.8	37.8	21.4	21.4	23.3	22.1	16.1
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:	23.4	21.8	16.8	29.3	19.4	14.8	37.8	21.4	21.4	23.3	22.1	16.1
LOS by Move:	C	C	B	C	B	B	D	C	C	C	C	B
HCM2kAvgQ:	2	7	1	6	7	0	4	5	5	3	8	2

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #59 Alder Ave. and Baseline Rd.

Cycle (sec): 95 Critical Vol./Cap.(X): 0.919
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 46.8
Optimal Cycle: OPTIMIZED Level Of Service: D

Street Name:	Alder Ave.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0	1 0	1 0	1 0	1 0	1 0	1 0	1 0	1 0	1 0	1 0	1 0
Volume Module:												
Base Vol:	51	246	58	325	392	31	52	565	68	81	589	147
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	51	246	58	325	392	31	52	565	68	81	589	147
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	54	259	61	342	413	33	55	595	72	85	620	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	259	61	342	413	33	55	595	72	85	620	155
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	54	259	61	342	413	33	55	595	72	85	620	155
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.81	0.19	1.00	1.00	1.00	1.00	0.89	0.11	1.00	0.80	0.20
Final Sat.:	1700	1457	343	1700	1800	1800	1700	1607	193	1700	1440	360
Capacity Analysis Module:												
Vol/Sat:	0.03	0.18	0.18	0.20	0.23	0.02	0.03	0.37	0.37	0.05	0.43	0.43
Crit Moves:		****		****			****				****	
Green/Cycle:	0.09	0.19	0.19	0.21	0.31	0.31	0.06	0.44	0.44	0.08	0.45	0.45
Volume/Cap:	0.37	0.95	0.95	0.95	0.73	0.06	0.51	0.84	0.84	0.67	0.95	0.95
Delay/Veh:	42.5	73.9	73.9	71.3	34.0	22.9	47.1	31.4	31.4	55.3	45.1	45.1
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:	42.5	73.9	73.9	71.3	34.0	22.9	47.1	31.4	31.4	55.3	45.1	45.1
LOS by Move:	D	E	E	E	C	C	D	C	C	E	D	D
HCM2kAvgQ:	2	14	14	15	12	1	2	20	20	4	27	27

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #60 Cedar Ave./Ayala Dr. and Baseline Rd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.671
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 21.2
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name:	Cedar Ave./Ayala Dr.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		2 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	128	275	101	400	525	22	90	801	132	112	621	91
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:	128	275	101	400	525	22	90	801	132	112	621	91
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:	135	289	106	421	553	23	95	843	139	118	654	96
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	135	289	106	421	553	23	95	843	139	118	654	96
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	289	106	421	553	23	95	843	139	118	654	96
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	1.46	0.54	2.00	1.92	0.08	1.00	1.72	0.28	1.00	1.74	0.26
Final Sat.:	1700	2633	967	3200	3455	145	1700	3091	509	1700	3140	460
Capacity Analysis Module:												
Vol/Sat:	0.08	0.11	0.11	0.13	0.16	0.16	0.06	0.27	0.27	0.07	0.21	0.21
Crit Moves:	****				****			****		****		
Green/Cycle:	0.12	0.16	0.16	0.19	0.24	0.24	0.17	0.41	0.41	0.10	0.34	0.34
Volume/Cap:	0.67	0.68	0.68	0.68	0.67	0.67	0.34	0.67	0.67	0.67	0.60	0.60
Delay/Veh:	33.9	26.8	26.8	25.4	22.8	22.8	22.8	15.7	15.7	35.6	17.1	17.1
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:	33.9	26.8	26.8	25.4	22.8	22.8	22.8	15.7	15.7	35.6	17.1	17.1
LOS by Move:	C	C	C	C	C	C	C	B	B	D	B	B
HCM2kAvgQ:	4	5	5	6	6	6	2	9	9	4	7	7

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #61 Cactus Ave. and Baseline Rd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.693
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 18.8
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Cactus Ave.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	0 1		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	79	242	44	73	153	135	71	1136	51	108	718	48
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:	79	242	44	73	153	135	71	1136	51	108	718	48
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:	83	255	46	77	161	142	75	1196	54	114	756	51
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	83	255	46	77	161	142	75	1196	54	114	756	51
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:	83	255	46	77	161	142	75	1196	54	114	756	51
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.91	0.09	1.00	1.87	0.13
Final Sat.:	1700	1800	1800	1700	1800	1800	1700	3445	155	1700	3374	226
Capacity Analysis Module:												
Vol/Sat:	0.05	0.14	0.03	0.05	0.09	0.08	0.04	0.35	0.35	0.07	0.22	0.22
Crit Moves:		****		****				****		****		
Green/Cycle:	0.15	0.19	0.19	0.10	0.15	0.15	0.18	0.47	0.47	0.10	0.40	0.40
Volume/Cap:	0.33	0.73	0.13	0.45	0.61	0.54	0.25	0.73	0.73	0.67	0.56	0.56
Delay/Veh:	23.8	30.6	20.2	27.4	28.1	25.9	21.7	14.4	14.4	35.9	14.6	14.6
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:	23.8	30.6	20.2	27.4	28.1	25.9	21.7	14.4	14.4	35.9	14.6	14.6
LOS by Move:	C	C	C	C	C	C	C	B	B	D	B	B
HCM2kAvgQ:	2	6	1	2	4	3	1	11	11	4	6	6

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

Traffix 7.8.0115 (c) 2007 Dowling Assoc. Licensed to CRAIN & ASSOC., L.A.

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #62 Riverside Ave. and Baseline Rd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.792
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 25.8
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name:	Riverside Ave.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		2 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	124	302	72	207	614	80	505	801	40	260	668	25
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:	124	302	72	207	614	80	505	801	40	260	668	25
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:	131	318	76	218	646	84	532	843	42	274	703	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	131	318	76	218	646	84	532	843	42	274	703	26
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:	131	318	76	218	646	84	532	843	42	274	703	26
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	0.89	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.61	0.39	1.00	1.77	0.23	2.00	1.90	0.10	1.00	1.93	0.07
Final Sat.:	1700	2907	693	1700	3185	415	3200	3429	171	1700	3470	130
Capacity Analysis Module:												
Vol/Sat:	0.08	0.11	0.11	0.13	0.20	0.20	0.17	0.25	0.25	0.16	0.20	0.20
Crit Moves:	****				****			****		****		
Green/Cycle:	0.10	0.16	0.16	0.19	0.26	0.26	0.23	0.31	0.31	0.20	0.28	0.28
Volume/Cap:	0.77	0.67	0.67	0.67	0.80	0.80	0.72	0.80	0.80	0.80	0.72	0.72
Delay/Veh:	45.2	26.5	26.5	27.8	25.8	25.8	24.8	23.0	23.0	34.9	22.0	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:	45.2	26.5	26.5	27.8	25.8	25.8	24.8	23.0	23.0	34.9	22.0	22.0
LOS by Move:	D	C	C	C	C	C	C	C	C	C	C	C
HCM2kAvgQ:	5	5	5	5	9	9	7	10	10	8	8	8

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #63 Pepper Ave. and Baseline. Rd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.441
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 6.6
Optimal Cycle: OPTIMIZED Level Of Service: A

Street Name:	Pepper Ave.						Baseline. Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 1	1 0	1	1 0	1 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	157	66	170	34	40	26	26	1076	119	96	747	53
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:	157	66	170	34	40	26	26	1076	119	96	747	53
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:	165	69	179	36	42	27	27	1133	125	101	786	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	165	69	179	36	42	27	27	1133	125	101	786	56
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:	165	69	179	36	42	27	27	1133	125	101	786	56
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	1800	1800	1700	1800	1800	1700	3600	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.10	0.04	0.10	0.02	0.02	0.02	0.02	0.31	0.07	0.06	0.22	0.03
Crit Moves:	****							****				
Green/Cycle:	0.22	0.22	0.22	0.22	0.22	0.22	0.71	0.71	0.71	0.71	0.71	0.71
Volume/Cap:	0.44	0.18	0.45	0.10	0.11	0.07	0.02	0.44	0.10	0.08	0.31	0.04
Delay/Veh:	20.8	19.0	21.1	18.7	18.8	18.6	2.5	3.7	2.7	2.7	3.2	2.6
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:	20.8	19.0	21.1	18.7	18.8	18.6	2.5	3.7	2.7	2.7	3.2	2.6
LOS by Move:	C	B	C	B	B	B	A	A	A	A	A	A
HCM2kAvgQ:	3	1	3	1	1	0	0	5	1	1	3	0

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #65 Sierra Ave. and Foothill Blvd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.910
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 29.4
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name:	Sierra Ave.						Foothill Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 2	0 1		1 0 2	0 1		1 0 2	0 1	
Volume Module:												
Base Vol:	168	626	202	201	603	89	147	1016	214	202	662	190
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:	168	626	202	201	603	89	147	1016	214	202	662	190
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:	177	659	213	212	635	94	155	1069	225	213	697	200
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	177	659	213	212	635	94	155	1069	225	213	697	200
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	177	659	213	212	635	94	155	1069	225	213	697	200
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.51	0.49	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	2722	878	1700	3600	1800	1700	3600	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.10	0.24	0.24	0.12	0.18	0.05	0.09	0.30	0.13	0.13	0.19	0.11
Crit Moves:		****		****				****		****		
Green/Cycle:	0.15	0.27	0.27	0.14	0.25	0.25	0.16	0.33	0.33	0.14	0.31	0.31
Volume/Cap:	0.70	0.91	0.91	0.91	0.70	0.21	0.58	0.91	0.38	0.91	0.63	0.36
Delay/Veh:	32.4	33.8	33.8	61.2	22.7	17.9	26.5	29.9	16.0	61.0	19.1	16.7
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:	32.4	33.8	33.8	61.2	22.7	17.9	26.5	29.9	16.0	61.0	19.1	16.7
LOS by Move:	C	C	C	E	C	B	C	C	B	E	B	B
HCM2kAvgQ:	5	12	12	8	7	1	4	14	4	8	7	3

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #66 Alder Ave. and Foothill Blvd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.639
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 15.1
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Alder Ave.						Foothill Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0	1 0	1 0	1 0	1 0	1 0	1 0 2	0 1	1 0	1 0	1 1	0
Volume Module: AM Peak Hour												
Base Vol:	92	251	92	75	288	81	80	1134	77	23	820	62
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:	92	251	92	75	288	81	80	1134	77	23	820	62
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	102	278	102	83	319	90	89	1257	85	25	909	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	102	278	102	83	319	90	89	1257	85	25	909	69
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:	102	278	102	83	319	90	89	1257	85	25	909	69
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.73	0.27	1.00	1.56	0.44	1.00	2.00	1.00	1.00	1.86	0.14
Final Sat.:	1700	1317	483	1700	2810	790	1700	3600	1800	1700	3347	253
Capacity Analysis Module:												
Vol/Sat:	0.06	0.21	0.21	0.05	0.11	0.11	0.05	0.35	0.05	0.01	0.27	0.27
Crit Moves:		****						****		****		
Green/Cycle:	0.30	0.30	0.30	0.30	0.30	0.30	0.16	0.50	0.50	0.10	0.44	0.44
Volume/Cap:	0.20	0.70	0.70	0.16	0.38	0.38	0.32	0.70	0.10	0.15	0.62	0.62
Delay/Veh:	15.8	22.6	22.6	15.5	16.7	16.7	23.0	12.8	8.0	25.1	13.8	13.8
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:	15.8	22.6	22.6	15.5	16.7	16.7	23.0	12.8	8.0	25.1	13.8	13.8
LOS by Move:	B	C	C	B	B	B	C	B	A	C	B	B
HCM2kAvgQ:	2	8	8	1	3	3	2	10	1	1	8	8

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #67 Cedar Ave. and Foothill Blvd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.807
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 25.0
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name:	Cedar Ave.						Foothill Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 2	0 1		1 0 2	0 1	
Volume Module:												
Base Vol:	171	578	113	166	506	62	174	900	165	212	658	114
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:	171	578	113	166	506	62	174	900	165	212	658	114
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:	180	608	119	175	533	65	183	947	174	223	693	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	180	608	119	175	533	65	183	947	174	223	693	120
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:	180	608	119	175	533	65	183	947	174	223	693	120
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	1.67	0.33	1.00	1.78	0.22	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3011	589	1700	3207	393	1700	3600	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.11	0.20	0.20	0.10	0.17	0.17	0.11	0.26	0.10	0.13	0.19	0.07
Crit Moves:		****		****				****		****		
Green/Cycle:	0.15	0.25	0.25	0.13	0.23	0.23	0.18	0.33	0.33	0.16	0.31	0.31
Volume/Cap:	0.72	0.81	0.81	0.81	0.72	0.72	0.61	0.81	0.30	0.81	0.61	0.21
Delay/Veh:	34.2	26.5	26.5	45.0	24.4	24.4	26.6	22.7	15.4	40.1	18.5	15.3
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:	34.2	26.5	26.5	45.0	24.4	24.4	26.6	22.7	15.4	40.1	18.5	15.3
LOS by Move:	C	C	C	D	C	C	C	C	B	D	B	B
HCM2kAvgQ:	5	9	9	6	7	7	4	11	3	7	6	2

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #68 Cactus Ave. and Foothill Blvd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.749
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 17.8
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Cactus Ave.						Foothill Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0	1 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	52	382	120	40	253	49	84	1104	44	93	872	89
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:	52	382	120	40	253	49	84	1104	44	93	872	89
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:	55	402	126	42	266	52	88	1162	46	98	918	94
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	402	126	42	266	52	88	1162	46	98	918	94
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:	55	402	126	42	266	52	88	1162	46	98	918	94
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.76	0.24	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	1370	430	1700	3600	1800	1700	3600	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.03	0.29	0.29	0.02	0.07	0.03	0.05	0.32	0.03	0.06	0.25	0.05
Crit Moves:		****						****		****		
Green/Cycle:	0.38	0.38	0.38	0.38	0.38	0.38	0.15	0.42	0.42	0.10	0.37	0.37
Volume/Cap:	0.08	0.77	0.77	0.07	0.19	0.08	0.36	0.77	0.06	0.58	0.68	0.14
Delay/Veh:	11.9	21.6	21.6	11.8	12.5	11.9	23.9	17.5	10.4	30.6	17.3	12.5
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:	11.9	21.6	21.6	11.8	12.5	11.9	23.9	17.5	10.4	30.6	17.3	12.5
LOS by Move:	B	C	C	B	B	B	C	B	B	C	B	B
HCM2kAvgQ:	1	11	11	1	2	1	2	11	1	3	8	1

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #69 Riverside Ave. and Foothill Blvd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.905
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 32.2
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name:	Riverside Ave.						Foothill Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 1			1 0 1 1 0			1 0 2 0 1			1 0 2 0 1		
Volume Module:												
Base Vol:	301	575	216	309	617	130	216	1011	133	135	715	153
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:	301	575	216	309	617	130	216	1011	133	135	715	153
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:	317	605	227	325	649	137	227	1064	140	142	753	161
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	317	605	227	325	649	137	227	1064	140	142	753	161
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:	317	605	227	325	649	137	227	1064	140	142	753	161
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	1.65	0.35	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	2973	627	1700	3600	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.19	0.17	0.13	0.19	0.22	0.22	0.13	0.30	0.08	0.08	0.21	0.09
Crit Moves:	****				****			****		****		
Green/Cycle:	0.20	0.21	0.21	0.24	0.24	0.24	0.17	0.32	0.32	0.10	0.26	0.26
Volume/Cap:	0.91	0.81	0.61	0.81	0.91	0.91	0.81	0.91	0.24	0.84	0.81	0.35
Delay/Veh:	51.0	29.4	24.5	33.5	36.2	36.2	40.1	30.5	15.1	55.2	26.2	18.6
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:	51.0	29.4	24.5	33.5	36.2	36.2	40.1	30.5	15.1	55.2	26.2	18.6
LOS by Move:	D	C	C	C	D	D	D	C	B	E	C	B
HCM2kAvgQ:	10	8	5	9	11	11	7	14	2	5	9	3

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #70 Sierra Ave. and Arrow Blvd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.776
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 26.0
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name:	Sierra Ave.						Arrow Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	265	851	50	166	748	73	90	771	57	42	440	51
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:	265	851	50	166	748	73	90	771	57	42	440	51
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:	279	896	53	175	787	77	95	812	60	44	463	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	279	896	53	175	787	77	95	812	60	44	463	54
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:	279	896	53	175	787	77	95	812	60	44	463	54
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	1.89	0.11	1.00	1.82	0.18	1.00	1.86	0.14	1.00	1.79	0.21
Final Sat.:	1700	3400	200	1700	3280	320	1700	3352	248	1700	3226	374
Capacity Analysis Module:												
Vol/Sat:	0.16	0.26	0.26	0.10	0.24	0.24	0.06	0.24	0.24	0.03	0.14	0.14
Crit Moves:	****				****			****		****		
Green/Cycle:	0.19	0.34	0.34	0.13	0.28	0.28	0.16	0.29	0.29	0.10	0.23	0.23
Volume/Cap:	0.84	0.76	0.76	0.76	0.84	0.84	0.35	0.84	0.84	0.26	0.63	0.63
Delay/Veh:	40.8	20.4	20.4	39.2	26.7	26.7	23.3	26.5	26.5	25.8	22.4	22.4
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:	40.8	20.4	20.4	39.2	26.7	26.7	23.3	26.5	26.5	25.8	22.4	22.4
LOS by Move:	D	C	C	D	C	C	C	C	C	C	C	C
HCM2kAvgQ:	8	10	10	5	11	11	2	11	11	1	5	5

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #71 Alder Ave. and Arrow Blvd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.647
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 19.8
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Alder Ave.						Arrow Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	0 1		1 0 2	0 1	
Volume Module:												
Base Vol:	65	217	47	66	299	43	100	673	122	44	326	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:	65	217	47	66	299	43	100	673	122	44	326	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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	68	228	49	69	315	45	105	708	128	46	343	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	68	228	49	69	315	45	105	708	128	46	343	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	68	228	49	69	315	45	105	708	128	46	343	31
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.64	0.36	1.00	1.75	0.25	1.00	1.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	2959	641	1700	3147	453	1700	1800	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.04	0.08	0.08	0.04	0.10	0.10	0.06	0.39	0.07	0.03	0.10	0.02
Crit Moves:	****				****			****		****		
Green/Cycle:	0.10	0.12	0.12	0.12	0.14	0.14	0.32	0.53	0.53	0.10	0.32	0.32
Volume/Cap:	0.40	0.66	0.66	0.35	0.74	0.74	0.20	0.74	0.13	0.27	0.30	0.05
Delay/Veh:	26.9	29.1	29.1	25.4	30.9	30.9	15.2	14.0	7.2	25.9	15.7	14.3
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:	26.9	29.1	29.1	25.4	30.9	30.9	15.2	14.0	7.2	25.9	15.7	14.3
LOS by Move:	C	C	C	C	C	C	B	B	A	C	B	B
HCM2kAvgQ:	2	4	4	2	5	5	2	12	1	1	3	0

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #72 Cedar Ave. and Rialto Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.598
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 19.7
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Cedar Ave.						Rialto Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	124	681	75	91	699	100	98	488	136	41	173	85
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:	124	681	75	91	699	100	98	488	136	41	173	85
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:	131	717	79	96	736	105	103	514	143	43	182	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	131	717	79	96	736	105	103	514	143	43	182	89
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:	131	717	79	96	736	105	103	514	143	43	182	89
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	1.80	0.20	1.00	1.75	0.25	1.00	1.56	0.44	1.00	1.34	0.66
Final Sat.:	1700	3243	357	1700	3149	451	1700	2815	785	1700	2414	1186
Capacity Analysis Module:												
Vol/Sat:	0.08	0.22	0.22	0.06	0.23	0.23	0.06	0.18	0.18	0.03	0.08	0.08
Crit Moves:	****				****			****		****		
Green/Cycle:	0.12	0.33	0.33	0.15	0.36	0.36	0.19	0.28	0.28	0.10	0.19	0.19
Volume/Cap:	0.64	0.66	0.66	0.37	0.64	0.64	0.32	0.64	0.64	0.25	0.39	0.39
Delay/Veh:	32.1	18.6	18.6	23.9	17.0	17.0	21.4	20.2	20.2	25.7	21.6	21.6
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:	32.1	18.6	18.6	23.9	17.0	17.0	21.4	20.2	20.2	25.7	21.6	21.6
LOS by Move:	C	B	B	C	B	B	C	C	C	C	C	C
HCM2kAvgQ:	4	8	8	2	8	8	2	6	6	1	3	3

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #73 Cactus Ave. and Rialto Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.317
Loss Time (sec): 4 (Y+R=4.0 sec) Average Delay (sec/veh): 9.7
Optimal Cycle: OPTIMIZED Level Of Service: A

Street Name:	Cactus Ave.						Rialto Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	36	374	82	67	263	52	115	459	97	55	228	83
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:	36	374	82	67	263	52	115	459	97	55	228	83
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:	38	394	86	71	277	55	121	483	102	58	240	87
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	394	86	71	277	55	121	483	102	58	240	87
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:	38	394	86	71	277	55	121	483	102	58	240	87
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	1.64	0.36	1.00	1.67	0.33	1.00	1.65	0.35	1.00	1.47	0.53
Final Sat.:	1700	2953	647	1700	3006	594	1700	2972	628	1700	2639	961
Capacity Analysis Module:												
Vol/Sat:	0.02	0.13	0.13	0.04	0.09	0.09	0.07	0.16	0.16	0.03	0.09	0.09
Crit Moves:		****						****				
Green/Cycle:	0.42	0.42	0.42	0.42	0.42	0.42	0.51	0.51	0.51	0.51	0.51	0.51
Volume/Cap:	0.05	0.32	0.32	0.10	0.22	0.22	0.14	0.32	0.32	0.07	0.18	0.18
Delay/Veh:	10.3	11.7	11.7	10.6	11.2	11.2	7.7	8.6	8.6	7.4	7.9	7.9
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:	10.3	11.7	11.7	10.6	11.2	11.2	7.7	8.6	8.6	7.4	7.9	7.9
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
HCM2kAvgQ:	0	3	3	1	2	2	1	3	3	1	2	2

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

Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #74 Cedar Ave. and Merrill Ave.

Cycle (sec): 65 Critical Vol./Cap.(X): 0.986
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 32.2
Optimal Cycle: OPTIMIZED Level Of Service: C

Street Name:	Cedar Ave.						Merrill Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	120	1343	178	231	1113	148	196	953	98	102	521	182
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:	120	1343	178	231	1113	148	196	953	98	102	521	182
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:	126	1414	187	243	1172	156	206	1003	103	107	548	192
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	126	1414	187	243	1172	156	206	1003	103	107	548	192
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:	126	1414	187	243	1172	156	206	1003	103	107	548	192
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	1.77	0.23	1.00	1.77	0.23	1.00	1.81	0.19	1.00	1.48	0.52
Final Sat.:	1700	3179	421	1700	3177	423	1700	3264	336	1700	2668	932
Capacity Analysis Module:												
Vol/Sat:	0.07	0.44	0.44	0.14	0.37	0.37	0.12	0.31	0.31	0.06	0.21	0.21
Crit Moves:		****		****				****				
Green/Cycle:	0.12	0.45	0.45	0.15	0.48	0.48	0.31	0.31	0.31	0.31	0.31	0.31
Volume/Cap:	0.62	0.99	0.99	0.99	0.77	0.77	0.39	0.99	0.99	0.20	0.66	0.66
Delay/Veh:	33.1	36.7	36.7	81.0	16.3	16.3	18.0	45.7	45.7	16.6	20.8	20.8
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:	33.1	36.7	36.7	81.0	16.3	16.3	18.0	45.7	45.7	16.6	20.8	20.8
LOS by Move:	C	D	D	F	B	B	B	D	D	B	C	C
HCM2kAvgQ:	4	24	24	10	13	13	4	18	18	2	8	8

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

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Lytle Creek Ranch Project
Existing 2007 Traffic Condition
PM Peak Hour

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

Intersection #75 Cactus Ave. and Merrill Ave.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.358
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 13.1
Optimal Cycle: OPTIMIZED Level Of Service: B

Street Name:	Cactus Ave.						Merrill Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	24	314	37	38	315	59	82	614	62	43	336	62
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:	24	314	37	38	315	59	82	614	62	43	336	62
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:	25	331	39	40	332	62	86	646	65	45	354	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	331	39	40	332	62	86	646	65	45	354	65
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:	25	331	39	40	332	62	86	646	65	45	354	65
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	1.79	0.21	1.00	1.68	0.32	1.00	1.82	0.18	1.00	1.69	0.31
Final Sat.:	1700	3221	379	1700	3032	568	1700	3270	330	1700	3039	561
Capacity Analysis Module:												
Vol/Sat:	0.01	0.10	0.10	0.02	0.11	0.11	0.05	0.20	0.20	0.03	0.12	0.12
Crit Moves:	****				****			****				
Green/Cycle:	0.10	0.19	0.19	0.19	0.28	0.28	0.52	0.52	0.52	0.52	0.52	0.52
Volume/Cap:	0.15	0.53	0.53	0.12	0.38	0.38	0.10	0.38	0.38	0.05	0.23	0.23
Delay/Veh:	25.1	22.4	22.4	20.3	17.5	17.5	7.5	8.9	8.9	7.3	8.0	8.0
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:	25.1	22.4	22.4	20.3	17.5	17.5	7.5	8.9	8.9	7.3	8.0	8.0
LOS by Move:	C	C	C	C	B	B	A	A	A	A	A	A
HCM2kAvgQ:	1	4	4	1	3	3	1	4	4	0	2	2

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

Future (2030) Without Project Traffic Condition

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Lytle Creek Ranch Project
Future 2030 Without Project Condition
AM Peak Hour

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

Intersection #1 Devore Rd & I-215 NB On/Off-Ramps / Arrowhead Bl

Average Delay (sec/veh): 6.2 Worst Case Level Of Service: C[19.1]

Street Name:	Devore Rd						I-215 NB On/Off-Ramps / Arrowhead					
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 1 0	0	0	0 0 1!	0	0	0 0 1!	0	0
Volume Module:	AM Peak Hour											
Base Vol:	0	75	141	159	294	0	0	0	0	105	0	115
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	75	141	159	294	0	0	0	0	105	0	115
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	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	79	148	167	309	0	0	0	0	111	0	121
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	79	148	167	309	0	0	0	0	111	0	121
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	227	xxxx	xxxxx	858	872	309	797	797	153
Potent Cap.:	xxxx	xxxx	xxxxx	1353	xxxx	xxxxx	279	291	735	358	322	898
Move Cap.:	xxxx	xxxx	xxxxx	1353	xxxx	xxxxx	216	252	735	321	278	898
Volume/Cap:	xxxx	xxxx	xxxx	0.12	xxxx	xxxx	0.00	0.00	0.00	0.34	0.00	0.13
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0	xxxxx	xxxx	483	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	2.6	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	19.1	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	C	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			19.1		
ApproachLOS:	*			*			*			C		

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
AM Peak Hour

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

Intersection #2 I-215 SB On/Off-Ramps & Cajon Bl

Average Delay (sec/veh): 11.9 Worst Case Level Of Service: B[13.7]

Street Name:	I-215 SB On/Off-Ramps									Cajon Bl									
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	1	0	1	0	0	0	0	1	0	1
Volume Module:AM Peak Hour																				
Base Vol:	0	0	0	444		0	68				1	32		0		0	38		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:	0	0	0	444		0	68				1	32		0		0	38		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	0.95		0.95	0.95				0.95	0.95		0.95		0.95	0.95		0.95	
PHF Volume:	0	0	0	467		0	72				1	34		0		0	40		9	
Reduct Vol:	0	0	0	0		0	0				0	0		0		0	0		0	
FinalVolume:	0	0	0	467		0	72				1	34		0		0	40		9	
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx	6.4		6.5	6.2				4.1	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5		4.0	3.3				2.2	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx	76		76	40				49	xxxx		xxxxx		xxxx	xxxx		xxxxx	
Potent Cap.:	xxxx	xxxx	xxxxx	932		818	1037				1570	xxxx		xxxxx		xxxx	xxxx		xxxxx	
Move Cap.:	xxxx	xxxx	xxxxx	932		818	1037				1570	xxxx		xxxxx		xxxx	xxxx		xxxxx	
Volume/Cap:	xxxx	xxxx	xxxx	0.50		0.00	0.07				0.00	xxxx		xxxx		xxxx	xxxx		xxxx	
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx		xxxx	xxxxx				0.0	xxxx		xxxxx		xxxx	xxxx		xxxxx	
Control Del:	xxxxx	xxxx	xxxxx	xxxxx		xxxx	xxxxx				7.3	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
LOS by Move:	*	*	*	*		*	*				A	*		*		*	*		*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx		945	xxxxx				xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx		3.7	xxxxx				xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx		13.7	xxxxx				xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx	
Shared LOS:	*	*	*	*		B	*				*	*		*		*	*		*	
ApproachDel:	xxxxxx					13.7					xxxxxx					xxxxxx				
ApproachLOS:	*					B					*					*				

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
AM Peak Hour

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

Intersection #3 Glen Helen Pkwy & Cajon Bl

Cycle (sec):	100	Critical Vol./Cap.(X):	0.766
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	20.4
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Glen Helen Pkwy						Cajon Bl					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 1	0 0	1	1 0	1 0	1	0 1	0 1	0	0 1	0 1	0
Volume Module:AM Peak Hour												
Base Vol:	19	92	367	222	148	20	58	396	17	130	0	60
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	19	92	367	222	148	20	58	396	17	130	0	60
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	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	97	386	234	156	21	61	417	18	137	0	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	97	386	234	156	21	61	417	18	137	0	63
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:	20	97	386	234	156	21	61	417	18	137	0	63
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:	0.17	0.83	1.00	1.00	1.00	1.00	0.25	1.68	0.07	1.00	0.37	0.63
Final Sat.:	77	371	504	391	411	441	109	755	33	390	159	273
Capacity Analysis Module:												
Vol/Sat:	0.26	0.26	0.77	0.60	0.38	0.05	0.56	0.55	0.55	0.35	0.00	0.23
Crit Moves:			****	****			****			****		
Delay/Veh:	13.1	13.1	28.1	23.4	16.0	10.8	19.7	19.2	18.9	15.8	12.7	12.7
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:	13.1	13.1	28.1	23.4	16.0	10.8	19.7	19.2	18.9	15.8	12.7	12.7
LOS by Move:	B	B	D	C	C	B	C	C	C	C	B	B
ApproachDel:	24.6			19.9			19.3			14.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	24.6			19.9			19.3			14.5		
LOS by Appr:	C			C			C			B		
AllWayAvgQ:	0.3	0.3	2.6	1.3	0.5	0.0	1.1	1.1	1.1	0.5	0.3	0.3

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

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Lytle Creek Ranch Project
Future 2030 Without Project Condition
AM Peak Hour

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

Intersection #4 Palm Ave & I-215 NB On/Off-Ramps

Average Delay (sec/veh): 96.1 Worst Case Level Of Service: F[289.3]

Street Name:	Palm Ave						I-215 NB On/Off-Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1	1 0	0	0 0	2 0	1	0 0	0 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	14	670	0	0	757	57	0	0	0	386	1	358
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	670	0	0	757	57	0	0	0	386	1	358
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	705	0	0	797	60	0	0	0	406	1	377
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	15	705	0	0	797	60	0	0	0	406	1	377
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	857	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1133	1592	353
Potent Cap.:	792	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	200	108	649
Move Cap.:	792	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	197	106	649
Volume/Cap:	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	2.07	0.01	0.58
Level Of Service Module:												
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	3.7
Control Del:	9.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	17.9
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	C
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	196	xxxx	xxxxx
SharedQueue:	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	31.3	xxxx	xxxxx
Shrd ConDel:	9.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	540.3	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	*	*	F	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			289.3		
ApproachLOS:	*			*			*			F		

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
AM Peak Hour

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

Intersection #5 Palm Ave & I-215 SB On/Off-Ramps / Kendall Dr.

Cycle (sec):	100	Critical Vol./Cap.(X):	1.884
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	181.4
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Palm Ave						I-215 SB On/Off-Ramps / Kendall 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			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	1 0		0 1 0	0 1		0 1 0	0 1	
Volume Module:												
Base Vol:	87	68	55	653	238	266	178	332	112	109	0	464
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:	87	68	55	653	238	266	178	332	112	109	0	464
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:	92	72	58	687	251	280	187	349	118	115	0	488
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	92	72	58	687	251	280	187	349	118	115	0	488
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	72	58	687	251	280	187	349	118	115	0	488
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	1.00	1.00	0.35	0.65	1.00	1.00	0.00	1.00
Final Sat.:	303	315	336	365	383	413	135	252	421	370	0	429
Capacity Analysis Module:												
Vol/Sat:	0.30	0.23	0.17	1.88	0.65	0.68	1.39	1.39	0.28	0.31	xxxx	1.14
Crit Moves:	****			****				****				****
Delay/Veh:	19.3	17.1	15.3	430.2	28.0	27.5	214.4	214	14.3	16.5	0.0	115.3
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:	19.3	17.1	15.3	430.2	28.0	27.5	214.4	214	14.3	16.5	0.0	115.3
LOS by Move:	C	C	C	F	D	D	F	F	B	C	*	F
ApproachDel:	17.5			254.9			178.4			96.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	17.5			254.9			178.4			96.5		
LOS by Appr:	C			F			F			F		
AllWayAvgQ:	0.4	0.3	0.2	42.3	1.7	1.9	21.8	21.8	0.4	0.4	0.4	12.4

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

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2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 University Pkwy & I-215 NB On/Off-Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.766
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.6
Optimal Cycle:	60	Level Of Service:	B

Street Name:	University Pkwy						I-215 NB On/Off-Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2	0 0		0 0 3	0 1		0 0 0	0 0		0 1 0	0 2	
Volume Module:												
Base Vol:	84	572	0	0	1502	538	0	0	0	479	0	1169
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:	84	572	0	0	1502	538	0	0	0	479	0	1169
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:	88	602	0	0	1581	566	0	0	0	504	0	1231
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	602	0	0	1581	566	0	0	0	504	0	1231
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:	88	602	0	0	1581	566	0	0	0	504	0	1231
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	0.95
Lanes:	1.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.00	0.00	2.00
Final Sat.:	1800	3800	0	0	5700	1900	0	0	0	1800	0	3600
Capacity Analysis Module:												
Vol/Sat:	0.05	0.16	0.00	0.00	0.28	0.30	0.00	0.00	0.00	0.28	0.00	0.34
Crit Moves:	****					****						****
Green/Cycle:	0.10	0.29	0.00	0.00	0.37	0.37	0.00	0.00	0.00	0.43	0.00	0.43
Volume/Cap:	0.49	0.55	0.00	0.00	0.74	0.80	0.00	0.00	0.00	0.66	0.00	0.80
Delay/Veh:	27.7	18.6	0.0	0.0	17.8	23.3	0.0	0.0	0.0	15.7	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:	27.7	18.6	0.0	0.0	17.8	23.3	0.0	0.0	0.0	15.7	0.0	18.0
LOS by Move:	C	B	A	A	B	C	A	A	A	B	A	B
HCM2kAvgQ:	2	5	0	0	10	12	0	0	0	9	0	13

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

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2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 University Pkwy & I-215 SB On/Off-Ramps

Cycle (sec):	90	Critical Vol./Cap.(X):	1.070
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	58.5
Optimal Cycle:	130	Level Of Service:	E

Street Name:	University Pkwy						I-215 SB On/Off-Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 1	1 0		1 0 2	0 0		0 1 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	429	403	1105	861	0	209	0	112	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	429	403	1105	861	0	209	0	112	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	452	424	1163	906	0	220	0	118	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	452	424	1163	906	0	220	0	118	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	452	424	1163	906	0	220	0	118	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.03	0.97	1.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	1959	1841	1800	3800	0	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.23	0.23	0.65	0.24	0.00	0.12	0.00	0.06	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.00	0.22	0.22	0.60	0.64	0.00	0.11	0.00	0.11	0.00	0.00	0.00
Volume/Cap:	0.00	1.07	1.07	1.07	0.37	0.00	1.07	0.00	0.54	0.00	0.00	0.00
Delay/Veh:	0.0	87.3	87.3	66.0	7.7	0.0	122.5	0.0	40.5	0.0	0.0	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:	0.0	87.3	87.3	66.0	7.7	0.0	122.5	0.0	40.5	0.0	0.0	0.0
LOS by Move:	A	F	F	E	A	A	F	A	D	A	A	A
HCM2kAvgQ:	0	20	20	49	6	0	12	0	4	0	0	0

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

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2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 I-15 SB On/Off-Ramps & Glen Helen Pkwy

Average Delay (sec/veh): 9.1 Worst Case Level Of Service: B[10.8]

Street Name:	I-15 SB On/Off-Ramps									Glen Helen Pkwy												
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	1	0	0	1	0	0	0	1	1	0	1	0	2	0	0		
Volume Module:																						
Base Vol:	0	0	0			17	6		5		0	0		0		128	14		0			
Growth Adj:	1.00	1.00	1.00			1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00			
Initial Bse:	0	0	0			17	6		5		0	0		0		128	14		0			
User Adj:	1.00	1.00	1.00			1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00			
PHF Adj:	0.95	0.95	0.95			0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95			
PHF Volume:	0	0	0			18	6		5		0	0		0		135	15		0			
Reduct Vol:	0	0	0			0	0		0		0	0		0		0	0		0			
FinalVolume:	0	0	0			18	6		5		0	0		0		135	15		0			
Critical Gap Module:																						
Critical Gp:	xxxxx	xxxx	xxxxx			6.8	6.5		6.9		xxxxx	xxxx		xxxxx		4.1	xxxx		xxxxx			
FollowUpTim:	xxxxx	xxxx	xxxxx			3.5	4.0		3.3		xxxxx	xxxx		xxxxx		2.2	xxxx		xxxxx			
Capacity Module:																						
Cnflict Vol:	xxxx	xxxx	xxxxx			284	284		7		xxxx	xxxx		xxxxx		0	xxxx		xxxxx			
Potent Cap.:	xxxx	xxxx	xxxxx			688	628		1079		xxxx	xxxx		xxxxx		900	xxxx		xxxxx			
Move Cap.:	xxxx	xxxx	xxxxx			609	534		1079		xxxx	xxxx		xxxxx		900	xxxx		xxxxx			
Volume/Cap:	xxxx	xxxx	xxxx			0.03	0.01		0.00		xxxx	xxxx		xxxx		0.15	xxxx		xxxx			
Level Of Service Module:																						
2Way95thQ:	xxxx	xxxx	xxxxx			0.1	xxxx		xxxxx		xxxx	xxxx		xxxxx		0.5	xxxx		xxxxx			
Control Del:	xxxxx	xxxx	xxxxx			11.1	xxxx		xxxxx		xxxxx	xxxx		xxxxx		9.7	xxxx		xxxxx			
LOS by Move:	*	*	*			B	*		*		*	*		*		A	*		*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT		
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx		693		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx		0.1		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx		10.3		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx			
Shared LOS:	*	*	*			*	*		B		*	*		*		*	*		*			
ApproachDel:	xxxxxx					10.8					xxxxxx					xxxxxx						
ApproachLOS:	*					B					*					*						

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

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2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 I-15 NB On/Off-Ramps & Glen Helen Pkwy

Average Delay (sec/veh): 7.4 Worst Case Level Of Service: B[10.3]

Street Name:	I-15 NB On/Off-Ramps									Glen Helen Pkwy									
Approach:	North Bound					South Bound					East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	1	1	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	1	1	0
Volume Module:																				
Base Vol:	12		10		386	0		0		0	2		18		0	0		130		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:	12		10		386	0		0		0	2		18		0	0		130		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		0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95	
PHF Volume:	13		11		406	0		0		0	2		19		0	0		137		11
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
FinalVolume:	13		11		406	0		0		0	2		19		0	0		137		11
Critical Gap Module:																				
Critical Gp:	6.8		6.5		6.9	xxxxx		xxxx		xxxxx	4.1		xxxx		xxxxx	xxxxx		xxxx		xxxxx
FollowUpTim:	3.5		4.0		3.3	xxxxx		xxxx		xxxxx	2.2		xxxx		xxxxx	xxxxx		xxxx		xxxxx
Capacity Module:																				
Cnflict Vol:	92		171		9	xxxx		xxxx		xxxxx	147		xxxx		xxxxx	xxxx		xxxx		xxxxx
Potent Cap.:	904		726		1076	xxxx		xxxx		xxxxx	1447		xxxx		xxxxx	xxxx		xxxx		xxxxx
Move Cap.:	903		725		1076	xxxx		xxxx		xxxxx	1447		xxxx		xxxxx	xxxx		xxxx		xxxxx
Volume/Cap:	0.01	0.01		0.38		xxxx		xxxx		xxxx	0.00		xxxx		xxxx	xxxx		xxxx		xxxx
Level Of Service Module:																				
2Way95thQ:	0.0		xxxx		1.8	xxxx		xxxx		xxxxx	0.0		xxxx		xxxxx	xxxx		xxxx		xxxxx
Control Del:	9.0		xxxx		10.4	xxxxx		xxxx		xxxxx	7.5		xxxx		xxxxx	xxxxx		xxxx		xxxxx
LOS by Move:	A		*		B	*		*		*	A		*		*	*		*		*
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	783		xxxx		xxxxx	xxxx		xxxx		xxxxx	xxxx		xxxx		xxxxx	xxxx		xxxx		xxxxx
SharedQueue:	0.1		xxxx		xxxxx	xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx
Shrd ConDel:	9.7		xxxx		xxxxx	xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx	xxxxx		xxxx		xxxxx
Shared LOS:	A		*		*	*		*		*	*		*		*	*		*		*
ApproachDel:	10.3					xxxxxx					xxxxxx					xxxxxx				
ApproachLOS:	B					*					*					*				

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

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2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #10 Glen Helen Pkwy & Lytle Creek Rd

Average Delay (sec/veh): 291.0 Worst Case Level Of Service: F[1078.5]

Street Name:	Glen Helen Pkwy									Lytle Creek Rd									
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	1	0	0	0	1	0	1	0	0	0	0	0	1	0	1
Volume Module:																				
Base Vol:	0	0	0			524	0			10	27	1170			0	0		52		197
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			524	0			10	27	1170			0	0		52		197
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			552	0			11	28	1232			0	0		55		207
Reduct Vol:	0	0	0			0	0			0	0	0			0	0		0		0
FinalVolume:	0	0	0			552	0			11	28	1232			0	0		55		207
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			1343	xxxx			55	262	xxxx	xxxxx		xxxx	xxxx		xxxxx		
Potent Cap.:	xxxx	xxxx	xxxxx			169	xxxx			1018	1314	xxxx	xxxxx		xxxx	xxxx		xxxxx		
Move Cap.:	xxxx	xxxx	xxxxx			166	xxxx			1018	1314	xxxx	xxxxx		xxxx	xxxx		xxxxx		
Volume/Cap:	xxxx	xxxx	xxxx			3.32	xxxx			0.01	0.02	xxxx	xxxx		xxxx	xxxx		xxxx		
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx			52.1	xxxx			0.0	0.1	xxxx	xxxxx		xxxx	xxxx		xxxxx		
Control Del:	xxxxx	xxxx	xxxxx			1099	xxxx			8.6	7.8	xxxx	xxxxx		xxxxx	xxxx		xxxxx		
LOS by Move:	*	*	*			F	*			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			7.8	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	*	*	*			*	*	*			A	*	*			*	*	*		
ApproachDel:	xxxxxx					1078.5					xxxxxx					xxxxxx				
ApproachLOS:	*					F					*					*				

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

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2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Lytle Creek Rd & Sierra Ave

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: E[48.3]

Street Name:	Lytle Creek Rd						Sierra Ave / Lytle Creek Rd					
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	1! 0	0	0 0	0 0	0	0 0	0 1	0	0 1	0 0	0
Volume Module:												
Base Vol:	2	0	16	0	0	0	0	1644	6	2	276	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:	2	0	16	0	0	0	0	1644	6	2	276	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	2	0	17	0	0	0	0	1731	6	2	291	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	2	0	17	0	0	0	0	1731	6	2	291	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	2028	2028	1734	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1737	xxxx	xxxxx
Potent Cap.:	64	58	110	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	367	xxxx	xxxxx
Move Cap.:	64	58	110	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	367	xxxx	xxxxx
Volume/Cap:	0.03	0.00	0.15	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	14.9	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	B	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	102	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	48.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	14.9	xxxx	xxxxx
Shared LOS:	*	E	*	*	*	*	*	*	*	B	*	*
ApproachDel:		48.3		xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:		E			*			*			*	

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

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

Intersection #12 I-15 SB On/Off-Ramps & Sierra Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	3.832
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	806.2
Optimal Cycle:	0	Level Of Service:	F

Street Name:	I-15 SB On/Off-Ramps						Sierra Ave					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	0 0	0	0 1	0 0	1	0 0	0 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	0	0	0	372	23	219	0	604	1288	543	122	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	372	23	219	0	604	1288	543	122	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	392	24	231	0	636	1356	572	128	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	392	24	231	0	636	1356	572	128	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	392	24	231	0	636	1356	572	128	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:	0.00	0.00	0.00	0.94	0.06	1.00	0.00	0.32	0.68	1.00	2.00	0.00
Final Sat.:	0	0	0	431	27	536	0	166	354	456	968	0
Capacity Analysis Module:												
Vol/Sat:	xxxx	xxxx	xxxx	0.91	0.91	0.43	xxxx	3.83	3.83	1.25	0.13	xxxx
Crit Moves:					****			****		****		
Delay/Veh:	0.0	0.0	0.0	50.2	50.2	14.4	0.0	1294	1294	155.2	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:	0.0	0.0	0.0	50.2	50.2	14.4	0.0	1294	1294	155.2	11.2	0.0
LOS by Move:	*	*	*	F	F	B	*	F	F	F	B	*
ApproachDel:	xxxxxx			37.4			1293.7			128.8		
Delay Adj:	xxxxx			1.00			1.00			1.00		
ApprAdjDel:	xxxxxx			37.4			1293.7			128.8		
LOS by Appr:	*			E			F			F		
AllWayAvgQ:	0.0	0.0	0.0	5.0	5.0	0.7	185	185	185.3	18.3	0.2	0.0

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #13 I-15 NB On/Off-Ramps & Sierra Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	1.697
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	146.9
Optimal Cycle:	0	Level Of Service:	F

Street Name:	I-15 NB On/Off-Ramps						Sierra Ave					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	1! 0	0	0 0	0 0	0	1 0	1 0	0	0 0	1 1	0
Volume Module:												
Base Vol:	100	2	201	0	0	0	145	831	0	0	560	378
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:	100	2	201	0	0	0	145	831	0	0	560	378
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:	105	2	212	0	0	0	153	875	0	0	589	398
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	105	2	212	0	0	0	153	875	0	0	589	398
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:	105	2	212	0	0	0	153	875	0	0	589	398
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	0.01	0.99	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.19	0.81
Final Sat.:	890	-460	460	0	0	0	467	515	0	0	653	474
Capacity Analysis Module:												
Vol/Sat:	0.12	-0.00	0.46	xxxx	xxxx	xxxx	0.33	1.70	xxxx	xxxx	0.90	0.84
Crit Moves:			****					****			****	
Delay/Veh:	15.4	16.4	16.4	0.0	0.0	0.0	13.6	340	0.0	0.0	43.8	32.6
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:	15.4	16.4	16.4	0.0	0.0	0.0	13.6	340	0.0	0.0	43.8	32.6
LOS by Move:	C	C	C	*	*	*	B	F	*	*	E	D
ApproachDel:	15.4			xxxxxx			291.2			39.3		
Delay Adj:	1.00			xxxxx			1.00			1.00		
ApprAdjDel:	15.4			xxxxxx			291.2			39.3		
LOS by Appr:	C			*			F			E		
AllWayAvgQ:	0.8	0.8	0.8	0.0	0.0	0.0	0.4	47.2	0.0	0.0	5.5	3.9

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

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Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #14 I-15 SB On/Off Ramps and Duncan Canyon Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.578
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.4
Optimal Cycle:	60	Level Of Service:	B

Street Name:	I-15 SB On/Off Ramps						Duncan Canyon Rd.					
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			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 1 0 0			0 0 1 0 1		
Volume Module:												
Base Vol:	0	0	0	1	0	40	690	190	0	0	170	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:	0	0	0	1	0	40	690	190	0	0	170	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:	0	0	0	1	0	42	726	200	0	0	179	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1	0	42	726	200	0	0	179	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:	0	0	0	1	0	42	726	200	0	0	179	25
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Final Sat.:	0	0	0	1800	0	1900	1800	1900	0	0	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.02	0.40	0.11	0.00	0.00	0.09	0.01
Crit Moves:						****	****				****	
Green/Cycle:	0.00	0.00	0.00	0.10	0.00	0.10	0.65	0.80	0.00	0.00	0.15	0.15
Volume/Cap:	0.00	0.00	0.00	0.01	0.00	0.22	0.62	0.13	0.00	0.00	0.62	0.09
Delay/Veh:	0.0	0.0	0.0	24.3	0.0	25.4	7.3	1.4	0.0	0.0	28.0	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:	0.0	0.0	0.0	24.3	0.0	25.4	7.3	1.4	0.0	0.0	28.0	22.0
LOS by Move:	A	A	A	C	A	C	A	A	A	A	C	C
HCM2kAvgQ:	0	0	0	0	0	1	9	1	0	0	4	0

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #15 Lytle Creek Rd. and Duncan Canyon Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.184
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	15.4
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Lytle Creek Rd.						Duncan Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0 1 0			0 1 0 0 1			1 0 0 1 0			0 1 0 0 1		
Volume Module:												
Base Vol:	40	0	0	31	21	65	155	31	3	0	70	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:	40	0	0	31	21	65	155	31	3	0	70	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:	42	0	0	33	22	68	163	33	3	0	74	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	42	0	0	33	22	68	163	33	3	0	74	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:	42	0	0	33	22	68	163	33	3	0	74	25
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	0.61	0.39	1.00	1.00	0.91	0.09	0.00	1.00	1.00
Final Sat.:	1800	1900	0	1096	743	1900	1800	1732	168	0	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.02	0.00	0.00	0.03	0.03	0.04	0.09	0.02	0.02	0.00	0.04	0.01
Crit Moves:						****	****				****	
Green/Cycle:	0.20	0.00	0.00	0.20	0.20	0.20	0.49	0.35	0.35	0.00	0.21	0.21
Volume/Cap:	0.12	0.00	0.00	0.15	0.15	0.18	0.18	0.05	0.05	0.00	0.18	0.06
Delay/Veh:	20.0	0.0	0.0	20.2	20.2	20.4	8.6	12.9	12.9	0.0	19.7	19.0
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:	20.0	0.0	0.0	20.2	20.2	20.4	8.6	12.9	12.9	0.0	19.7	19.0
LOS by Move:	C	A	A	C	C	C	A	B	B	A	B	B
HCM2kAvgQ:	1	0	0	1	1	1	2	0	0	0	1	0

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #16 I-15 SB On/Off Ramps and Summit Ave.

Cycle (sec):	90	Critical Vol./Cap.(X):	1.156
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	78.9
Optimal Cycle:	130	Level Of Service:	E

Street Name:	I-15 SB On/Off Ramps						Summit Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 2 0 0			0 0 2 0 1		
Volume Module:												
Base Vol:	0	0	0	282	0	259	669	587	0	0	567	944
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	282	0	259	669	587	0	0	567	944
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	297	0	273	704	618	0	0	597	994
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	297	0	273	704	618	0	0	597	994
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	297	0	273	704	618	0	0	597	994
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1800	0	1900	1800	3800	0	0	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.14	0.39	0.16	0.00	0.00	0.16	0.52
Crit Moves:				****			****					****
Green/Cycle:	0.00	0.00	0.00	0.14	0.00	0.14	0.34	0.56	0.00	0.00	0.45	0.45
Volume/Cap:	0.00	0.00	0.00	1.16	0.00	1.01	1.16	0.29	0.00	0.00	0.35	1.16
Delay/Veh:	0.0	0.0	0.0	143.6	0.0	94.8	117.6	10.4	0.0	0.0	16.1	108.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	143.6	0.0	94.8	117.6	10.4	0.0	0.0	16.1	108.0
LOS by Move:	A	A	A	F	A	F	F	B	A	A	B	F
HCM2kAvgQ:	0	0	0	17	0	13	36	4	0	0	5	47

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #17 I-15 NB On/Off Ramps and Summit Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.816
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	19.2
Optimal Cycle:	60	Level Of Service:	B

Street Name:	I-15 NB On/Off Ramps						Summit Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	0 0	0	1 0	0 0	1	1 0	2 0	0	0 0	2 0	1
Volume Module:												
Base Vol:	0	0	0	481	0	195	151	715	0	0	1316	262
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	481	0	195	151	715	0	0	1316	262
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	506	0	205	159	753	0	0	1385	276
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	506	0	205	159	753	0	0	1385	276
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	506	0	205	159	753	0	0	1385	276
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1800	0	1900	1800	3800	0	0	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.28	0.00	0.11	0.09	0.20	0.00	0.00	0.36	0.15
Crit Moves:				****			****				****	
Green/Cycle:	0.00	0.00	0.00	0.34	0.00	0.34	0.11	0.37	0.00	0.00	0.45	0.45
Volume/Cap:	0.00	0.00	0.00	0.82	0.00	0.31	0.82	0.54	0.00	0.00	0.82	0.32
Delay/Veh:	0.0	0.0	0.0	26.1	0.0	14.7	48.8	15.3	0.0	0.0	17.6	11.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	26.1	0.0	14.7	48.8	15.3	0.0	0.0	17.6	11.0
LOS by Move:	A	A	A	C	A	B	D	B	A	A	B	B
HCM2kAvgQ:	0	0	0	12	0	3	6	6	0	0	14	3

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

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

Intersection #18 Sierra Ave & Riverside Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	1.457
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	136.2
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Sierra Ave						Riverside Ave					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 1	0 1		1 0 1	0 0		0 0 0	0 0		1 0 0	0 1	
Volume Module:												
Base Vol:	0	295	66	646	427	0	0	0	0	61	0	655
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	295	66	646	427	0	0	0	0	61	0	655
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	311	69	680	449	0	0	0	0	64	0	689
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	311	69	680	449	0	0	0	0	64	0	689
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	311	69	680	449	0	0	0	0	64	0	689
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	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	462	506	467	499	0	0	0	0	447	0	531
Capacity Analysis Module:												
Vol/Sat:	xxxx	0.67	0.14	1.46	0.90	xxxx	xxxx	xxxx	xxxx	0.14	xxxx	1.30
Crit Moves:		****		****								****
Delay/Veh:	0.0	24.9	10.9	238.1	46.0	0.0	0.0	0.0	0.0	12.0	0.0	168.8
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:	0.0	24.9	10.9	238.1	46.0	0.0	0.0	0.0	0.0	12.0	0.0	168.8
LOS by Move:	*	C	B	F	E	*	*	*	*	B	*	F
ApproachDel:		22.3		161.7			xxxxxx			155.4		
Delay Adj:		1.00		1.00			xxxxx			1.00		
ApprAdjDel:		22.3		161.7			xxxxxx			155.4		
LOS by Appr:		C		F			*			F		
AllWayAvgQ:	0.0	1.9	0.2	29.5	5.0	0.0	0.0	0.0	0.0	0.2	0.0	23.5

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

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

Intersection #19 Live Oak Ave & Riverside Ave

Cycle (sec):	60	Critical Vol./Cap.(X):	0.435
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	14.6
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Live Oak Ave						Riverside Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 1 0			1 0 2 0 0		
Volume Module:												
Base Vol:	298	0	64	0	0	0	0	566	150	32	439	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:	298	0	64	0	0	0	0	566	150	32	439	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:	314	0	67	0	0	0	0	596	158	34	462	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	314	0	67	0	0	0	0	596	158	34	462	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	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:	314	0	67	0	0	0	0	596	158	34	462	0
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	0.00	1.00	0.00	0.00	0.00	0.00	1.58	0.42	1.00	2.00	0.00
Final Sat.:	1800	0	1900	0	0	0	0	3004	796	1800	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.17	0.00	0.04	0.00	0.00	0.00	0.00	0.20	0.20	0.02	0.12	0.00
Crit Moves:	****							****		****		
Green/Cycle:	0.37	0.00	0.37	0.00	0.00	0.00	0.00	0.43	0.43	0.10	0.29	0.00
Volume/Cap:	0.47	0.00	0.09	0.00	0.00	0.00	0.00	0.47	0.47	0.19	0.42	0.00
Delay/Veh:	14.7	0.0	12.2	0.0	0.0	0.0	0.0	12.5	12.5	25.3	17.5	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:	14.7	0.0	12.2	0.0	0.0	0.0	0.0	12.5	12.5	25.3	17.5	0.0
LOS by Move:	B	A	B	A	A	A	A	B	B	C	B	A
HCM2kAvgQ:	5	0	1	0	0	0	0	5	5	1	4	0

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

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

Intersection #20 Alder Ave. and Riverside Ave.

Average Delay (sec/veh): 4.2 Worst Case Level Of Service: C[20.5]

Street Name:	Alder Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 1 0			1 0 2 0 0		
Volume Module:												
Base Vol:	91	0	140	0	0	0	0	584	81	85	341	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:	91	0	140	0	0	0	0	584	81	85	341	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:	96	0	147	0	0	0	0	615	85	89	359	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	96	0	147	0	0	0	0	615	85	89	359	0
Critical Gap Module:												
Critical Gp:	6.8	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1016	xxxx	350	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	700	xxxx	xxxxx
Potent Cap.:	238	xxxx	652	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	906	xxxx	xxxxx
Move Cap.:	220	xxxx	652	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	906	xxxx	xxxxx
Volume/Cap:	0.44	xxxx	0.23	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.10	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	2.0	xxxx	0.9	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx
Control Del:	33.5	xxxx	12.1	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.4	xxxx	xxxxx
LOS by Move:	D	*	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	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	20.5			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	C			*			*			*		

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

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

Intersection #21 Locust Ave. and Riverside Ave.

Average Delay (sec/veh): 2.6 Worst Case Level Of Service: C[19.5]

Street Name:	Locust Ave.									Riverside Ave.								
Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	0	0	1	0	0	0	0	0	0	0	1	1	0	1	0	2	0	0
Volume Module:																				
Base Vol:	50		0		98	0		0		0	0		743		43	75		374		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:	50		0		98	0		0		0	0		743		43	75		374		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:	53		0		103	0		0		0	0		782		45	79		394		0
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
FinalVolume:	53		0		103	0		0		0	0		782		45	79		394		0
Critical Gap Module:																				
Critical Gp:	6.8	xxxx		6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx						4.1	xxxx	xxxxx		
FollowUpTim:	3.5	xxxx		3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx						2.2	xxxx	xxxxx		
Capacity Module:																				
Cnflict Vol:	1159	xxxx		414	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx						827	xxxx	xxxxx		
Potent Cap.:	192	xxxx		593	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx						813	xxxx	xxxxx		
Move Cap.:	178	xxxx		593	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx						813	xxxx	xxxxx		
Volume/Cap:	0.30	xxxx		0.17	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx						0.10	xxxx	xxxx		
Level Of Service Module:																				
2Way95thQ:	1.2	xxxx		0.6	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx						0.3	xxxx	xxxxx		
Control Del:	33.6	xxxx		12.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx						9.9	xxxx	xxxxx		
LOS by Move:	D	*		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			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shrd ConDel:	xxxxx	xxxx		xxxxx		xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	*	*		*		*	*	*			*	*	*			*	*	*		
ApproachDel:		19.5				xxxxxx					xxxxxx					xxxxxx				
ApproachLOS:		C				*					*					*				

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

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

Intersection #22 Linden Ave. and Riverside Ave.

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: E[40.4]

Street Name:	Linden Ave.						Riverside Ave.					
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	1! 0	0	0 0	0 0	0	0 0	1 1	0	0 1	0 0	0
Volume Module:												
Base Vol:	7	0	2	0	0	0	0	916	74	60	573	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	7	0	2	0	0	0	0	916	74	60	573	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	7	0	2	0	0	0	0	964	78	63	603	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	7	0	2	0	0	0	0	964	78	63	603	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1733	1733	521	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1042	xxxx	xxxxx
Potent Cap.:	98	89	559	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	675	xxxx	xxxxx
Move Cap.:	90	80	559	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	675	xxxx	xxxxx
Volume/Cap:	0.08	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.09	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.9	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	B	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	111	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.3	xxxx	xxxxx
Shrd ConDel:	xxxxx	40.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.9	xxxx	xxxxx
Shared LOS:	*	E	*	*	*	*	*	*	*	B	*	*
ApproachDel:		40.4			xxxxxx			xxxxxx			xxxxxx	
ApproachLOS:		E			*			*			*	

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

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

Intersection #23 Ayala Dr. and Riverside Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.585
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	16.0
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Ayala Dr.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0 0 2			0 0 0 0 0			0 0 1 1 0			1 0 2 0 0		
Volume Module:												
Base Vol:	98	0	269	0	0	0	0	714	195	372	536	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:	98	0	269	0	0	0	0	714	195	372	536	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:	103	0	283	0	0	0	0	752	205	392	564	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	103	0	283	0	0	0	0	752	205	392	564	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	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:	103	0	283	0	0	0	0	752	205	392	564	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	0.00	2.00	0.00	0.00	0.00	0.00	1.57	0.43	1.00	2.00	0.00
Final Sat.:	1800	0	3600	0	0	0	0	2985	815	1800	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.00	0.08	0.00	0.00	0.00	0.00	0.25	0.25	0.22	0.15	0.00
Crit Moves:	****							****		****		
Green/Cycle:	0.13	0.00	0.13	0.00	0.00	0.00	0.00	0.41	0.41	0.36	0.46	0.00
Volume/Cap:	0.44	0.00	0.61	0.00	0.00	0.00	0.00	0.61	0.61	0.61	0.32	0.00
Delay/Veh:	25.5	0.0	27.0	0.0	0.0	0.0	0.0	14.5	14.5	17.5	10.4	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:	25.5	0.0	27.0	0.0	0.0	0.0	0.0	14.5	14.5	17.5	10.4	0.0
LOS by Move:	C	A	C	A	A	A	A	B	B	B	B	A
HCM2kAvgQ:	2	0	4	0	0	0	0	8	8	7	3	0

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

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

Intersection #24 Knollwood Ave. and Riverside Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.305
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	7.2
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Knollwood Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	0 0	0	1 0	0 0	1	1 0	2 0	0	0 0	1 1	0
Volume Module:												
Base Vol:	0	0	0	9	0	88	13	972	0	0	813	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	9	0	88	13	972	0	0	813	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	9	0	93	14	1023	0	0	856	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	9	0	93	14	1023	0	0	856	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:	0	0	0	9	0	93	14	1023	0	0	856	17
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.96	0.04
Final Sat.:	0	0	0	1800	0	1900	1800	3800	0	0	3727	73
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.01	0.00	0.05	0.01	0.27	0.00	0.00	0.23	0.23
Crit Moves:				****				****		****		
Green/Cycle:	0.00	0.00	0.00	0.12	0.00	0.12	0.24	0.68	0.00	0.00	0.54	0.54
Volume/Cap:	0.00	0.00	0.00	0.04	0.00	0.40	0.03	0.40	0.00	0.00	0.42	0.42
Delay/Veh:	0.0	0.0	0.0	23.3	0.0	25.4	17.7	4.4	0.0	0.0	8.3	8.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	23.3	0.0	25.4	17.7	4.4	0.0	0.0	8.3	8.3
LOS by Move:	A	A	A	C	A	C	B	A	A	A	A	A
HCM2kAvgQ:	0	0	0	0	0	2	0	4	0	0	5	5

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

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

Intersection #25 Country Club Dr. and Riverside Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.426
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	12.3
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Country Club Dr.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 1 0	0 1		1 0	0 1 0		1 0	1 1 0		1 0	1 1 0	
Volume Module:												
Base Vol:	97	6	10	17	15	204	110	814	123	4	557	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:	97	6	10	17	15	204	110	814	123	4	557	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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	102	6	11	18	16	215	116	857	129	4	586	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	102	6	11	18	16	215	116	857	129	4	586	3
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:	102	6	11	18	16	215	116	857	129	4	586	3
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.94	0.06	1.00	1.00	0.07	0.93	1.00	1.74	0.26	1.00	1.99	0.01
Final Sat.:	1700	105	1900	1800	130	1770	1800	3301	499	1800	3780	20
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.01	0.01	0.12	0.12	0.06	0.26	0.26	0.00	0.16	0.16
Crit Moves:					****			****		****		
Green/Cycle:	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.55	0.55	0.10	0.39	0.39
Volume/Cap:	0.24	0.24	0.02	0.04	0.48	0.48	0.25	0.48	0.48	0.02	0.40	0.40
Delay/Veh:	18.0	18.0	16.8	16.9	19.7	19.7	18.2	8.6	8.6	24.4	13.3	13.3
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:	18.0	18.0	16.8	16.9	19.7	19.7	18.2	8.6	8.6	24.4	13.3	13.3
LOS by Move:	B	B	B	B	B	B	B	A	A	C	B	B
HCM2kAvgQ:	2	2	0	0	4	4	2	6	6	0	4	4

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

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

Intersection #26 Riverside Ave. and Dwy.(Shopping Ctr.)

Cycle (sec):	80	Critical Vol./Cap.(X):	0.355
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	6.9
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Riverside Ave.						Dwy.(Shopping Ctr.)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 0			0 0 1 1 0			1 0 0 0 1			0 0 0 0 0		
Volume Module:												
Base Vol:	46	544	0	0	1030	2	26	0	32	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	46	544	0	0	1030	2	26	0	32	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	48	573	0	0	1084	2	27	0	34	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	48	573	0	0	1084	2	27	0	34	0	0	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	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:	48	573	0	0	1084	2	27	0	34	0	0	0
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	0.00	0.00	1.99	0.01	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1800	3800	0	0	3793	7	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.15	0.00	0.00	0.29	0.29	0.02	0.00	0.02	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green/Cycle:	0.08	0.57	0.00	0.00	0.78	0.78	0.08	0.00	0.08	0.00	0.00	0.00
Volume/Cap:	0.36	0.27	0.00	0.00	0.37	0.37	0.20	0.00	0.24	0.00	0.00	0.00
Delay/Veh:	36.8	8.9	0.0	0.0	2.9	2.9	35.5	0.0	35.7	0.0	0.0	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:	36.8	8.9	0.0	0.0	2.9	2.9	35.5	0.0	35.7	0.0	0.0	0.0
LOS by Move:	D	A	A	A	A	A	D	A	D	A	A	A
HCM2kAvgQ:	2	4	0	0	4	4	1	0	1	0	0	0

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

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

Intersection #27 Sierra Ave. and Casa Grande Dr.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.450
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	11.2
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Sierra Ave.						Casa Grande Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 1	0 1		1 0 1	0 0		0 0 0	0 0		1 0 0	0 1	
Volume Module:												
Base Vol:	0	410	164	182	607	0	0	0	0	143	0	128
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	410	164	182	607	0	0	0	0	143	0	128
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	432	173	192	639	0	0	0	0	151	0	135
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	432	173	192	639	0	0	0	0	151	0	135
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	432	173	192	639	0	0	0	0	151	0	135
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	1900	1900	1800	1900	0	0	0	0	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.23	0.09	0.11	0.34	0.00	0.00	0.00	0.00	0.08	0.00	0.07
Crit Moves:	****				****					****		
Green/Cycle:	0.00	0.52	0.52	0.24	0.67	0.00	0.00	0.00	0.00	0.17	0.00	0.17
Volume/Cap:	0.00	0.43	0.17	0.43	0.50	0.00	0.00	0.00	0.00	0.50	0.00	0.43
Delay/Veh:	0.0	9.2	7.6	19.8	5.3	0.0	0.0	0.0	0.0	24.1	0.0	23.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	9.2	7.6	19.8	5.3	0.0	0.0	0.0	0.0	24.1	0.0	23.4
LOS by Move:	A	A	A	B	A	A	A	A	A	C	A	C
HCM2kAvgQ:	0	5	2	4	6	0	0	0	0	3	0	3

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

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

Intersection #28 Alder Ave. and Casa Grande Dr.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.314
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.9
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Alder Ave.						Casa Grande Dr.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	1 0		1 0 1	0 1		1 0 1	0 1	
Volume Module:												
Base Vol:	82	79	134	59	139	36	59	101	237	76	20	19
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:	82	79	134	59	139	36	59	101	237	76	20	19
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:	86	83	141	62	146	38	62	106	249	80	21	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	86	83	141	62	146	38	62	106	249	80	21	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	86	83	141	62	146	38	62	106	249	80	21	20
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.59	0.41	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	1900	1900	1800	3018	782	1800	1900	1900	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.05	0.04	0.07	0.03	0.05	0.05	0.03	0.06	0.13	0.04	0.01	0.01
Crit Moves:	****				****				****	****		
Green/Cycle:	0.15	0.15	0.15	0.15	0.15	0.15	0.28	0.42	0.42	0.14	0.28	0.28
Volume/Cap:	0.31	0.29	0.48	0.22	0.31	0.31	0.12	0.13	0.31	0.31	0.04	0.04
Delay/Veh:	23.3	23.0	24.5	22.7	22.9	22.9	16.2	10.8	11.9	23.8	15.8	15.8
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:	23.3	23.0	24.5	22.7	22.9	22.9	16.2	10.8	11.9	23.8	15.8	15.8
LOS by Move:	C	C	C	C	C	C	B	B	B	C	B	B
HCM2kAvgQ:	2	2	3	1	2	2	1	1	3	2	0	0

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

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

Intersection #29 Locust Ave. and Casa Grande Dr.

Average Delay (sec/veh): 4.3 Worst Case Level Of Service: B[11.6]

Street Name:	Locust Ave.								Casa Grande Dr.							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	0 1	0 0	0		0 0	0 1	0		1 0	0 0	1		0 0	0 0	0	
Volume Module:																
Base Vol:	39	254	0	0	221	5	16	0	247	0	0	0				
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Initial Bse:	39	254	0	0	221	5	16	0	247	0	0	0				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95				
PHF Volume:	41	267	0	0	233	5	17	0	260	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
FinalVolume:	41	267	0	0	233	5	17	0	260	0	0	0				
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx				
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx				
Capacity Module:																
Cnflict Vol:	238	xxxx	xxxxx	xxxx	xxxx	xxxxx	585	xxxx	235	xxxx	xxxx	xxxxx				
Potent Cap.:	1341	xxxx	xxxxx	xxxx	xxxx	xxxxx	477	xxxx	809	xxxx	xxxx	xxxxx				
Move Cap.:	1341	xxxx	xxxxx	xxxx	xxxx	xxxxx	465	xxxx	809	xxxx	xxxx	xxxxx				
Volume/Cap:	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.04	xxxx	0.32	xxxx	xxxx	xxxx				
Level Of Service Module:																
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	1.4	xxxx	xxxx	xxxxx				
Control Del:	7.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	13.0	xxxx	11.5	xxxxx	xxxx	xxxxx				
LOS by Move:	A	*	*	*	*	*	B	*	B	*	*	*				
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:	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shrd ConDel:	7.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	*				
ApproachDel:	xxxxxx			xxxxxx			11.6			xxxxxx						
ApproachLOS:	*			*			B			*						

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
AM Peak Hour

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

Intersection #30 Sierra Ave. and Summit Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.527
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	15.4
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Sierra Ave.						Summit Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	1 0	0	0 0	2 1	0	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	187	531	0	0	822	28	86	0	325	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	187	531	0	0	822	28	86	0	325	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	197	559	0	0	865	29	91	0	342	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	197	559	0	0	865	29	91	0	342	0	0	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	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:	197	559	0	0	865	29	91	0	342	0	0	0
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	2.90	0.10	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1800	1900	0	0	5512	188	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.11	0.29	0.00	0.00	0.16	0.16	0.05	0.00	0.18	0.00	0.00	0.00
Crit Moves:		****		****					****			
Green/Cycle:	0.24	0.50	0.00	0.00	0.35	0.35	0.30	0.00	0.30	0.00	0.00	0.00
Volume/Cap:	0.45	0.59	0.00	0.00	0.45	0.45	0.17	0.00	0.59	0.00	0.00	0.00
Delay/Veh:	19.9	11.8	0.0	0.0	15.1	15.1	15.5	0.0	19.4	0.0	0.0	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:	19.9	11.8	0.0	0.0	15.1	15.1	15.5	0.0	19.4	0.0	0.0	0.0
LOS by Move:	B	B	A	A	B	B	B	A	B	A	A	A
HCM2kAvgQ:	4	8	0	0	5	5	1	0	6	0	0	0

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #31 Locust Ave. and Bohnert Ave.

Average Delay (sec/veh): 2.3 Worst Case Level Of Service: C[21.6]

Street Name:	Locust Ave.						Bohnert Ave.					
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	1 0	0 1	0	0 0	1! 0	0
Volume Module:												
Base Vol:	11	481	10	16	404	17	7	1	2	41	2	51
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	481	10	16	404	17	7	1	2	41	2	51
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:	12	506	11	17	425	18	7	1	2	43	2	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	12	506	11	17	425	18	7	1	2	43	2	54
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	443	xxxx	xxxxx	517	xxxx	xxxxx	1031	1008	434	1004	1012	512
Potent Cap.:	1128	xxxx	xxxxx	1059	xxxx	xxxxx	213	242	626	222	241	566
Move Cap.:	1128	xxxx	xxxxx	1059	xxxx	xxxxx	188	236	626	216	235	566
Volume/Cap:	0.01	xxxx	xxxx	0.02	xxxx	xxxx	0.04	0.00	0.00	0.20	0.01	0.09
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	8.2	xxxx	xxxxx	8.5	xxxx	xxxxx	24.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	C	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	404	xxxx	326	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.0	xxxxx	1.3	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	14.0	xxxxx	20.8	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	B	*	C	*
ApproachDel:	xxxxxx			xxxxxx			21.6			20.8		
ApproachLOS:	*			*			C			C		

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #32 Ayala Dr. and Bohnert Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.214
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	12.5
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Ayala Dr.						Bohnert Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		0 1 0	0 1		0 1 0	0 1	
Volume Module:												
Base Vol:	11	257	42	36	396	40	30	30	16	61	53	25
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	257	42	36	396	40	30	30	16	61	53	25
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:	12	271	44	38	417	42	32	32	17	64	56	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	271	44	38	417	42	32	32	17	64	56	26
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:	12	271	44	38	417	42	32	32	17	64	56	26
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	1.72	0.28	1.00	1.82	0.18	0.51	0.49	1.00	0.55	0.45	1.00
Final Sat.:	1800	3266	534	1800	3451	349	924	924	1900	987	858	1900
Capacity Analysis Module:												
Vol/Sat:	0.01	0.08	0.08	0.02	0.12	0.12	0.03	0.03	0.01	0.07	0.07	0.01
Crit Moves:	****				****						****	
Green/Cycle:	0.10	0.31	0.31	0.31	0.52	0.52	0.28	0.28	0.28	0.28	0.28	0.28
Volume/Cap:	0.06	0.27	0.27	0.07	0.23	0.23	0.12	0.12	0.03	0.23	0.23	0.05
Delay/Veh:	24.6	15.7	15.7	14.6	7.9	7.9	16.2	16.2	15.7	16.9	16.9	15.8
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:	24.6	15.7	15.7	14.6	7.9	7.9	16.2	16.2	15.7	16.9	16.9	15.8
LOS by Move:	C	B	B	B	A	A	B	B	B	B	B	B
HCM2kAvgQ:	0	2	2	1	2	2	1	1	0	2	2	0

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

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Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #33 Sierra Ave. and Sierra Lakes Pkwy/Casmalia St.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.553
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	19.5
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Sierra Ave.						Sierra Lakes Pkwy/Casmalia St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	2 0 3 0 1			2 0 3 0 1			2 0 2 0 1			2 0 2 0 1		
Volume Module:												
Base Vol:	225	581	85	110	905	80	67	152	340	174	137	79
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:	225	581	85	110	905	80	67	152	340	174	137	79
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	237	612	89	116	953	84	71	160	358	183	144	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	237	612	89	116	953	84	71	160	358	183	144	83
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:	237	612	89	116	953	84	71	160	358	183	144	83
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3400	5700	1900	3400	5700	1900	3400	3800	1900	3400	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.07	0.11	0.05	0.03	0.17	0.04	0.02	0.04	0.19	0.05	0.04	0.04
Crit Moves:	****				****				****	****		
Green/Cycle:	0.13	0.22	0.22	0.21	0.30	0.30	0.22	0.34	0.34	0.10	0.22	0.22
Volume/Cap:	0.55	0.49	0.21	0.17	0.55	0.15	0.09	0.12	0.55	0.54	0.17	0.20
Delay/Veh:	26.3	20.7	19.4	19.7	18.0	15.4	18.7	13.7	17.2	27.4	19.1	19.3
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:	26.3	20.7	19.4	19.7	18.0	15.4	18.7	13.7	17.2	27.4	19.1	19.3
LOS by Move:	C	C	B	B	B	B	B	B	B	C	B	B
HCM2kAvgQ:	3	4	1	1	6	1	1	1	6	3	1	1

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

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

Intersection #34 Alder Ave. and Casmalia St.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.637
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	22.9
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Alder Ave.						Casmalia St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 0	1 0		1 0 1	0 1	
Volume Module:												
Base Vol:	180	432	284	30	458	35	17	195	28	364	154	50
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:	180	432	284	30	458	35	17	195	28	364	154	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:	189	455	299	32	482	37	18	205	29	383	162	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	189	455	299	32	482	37	18	205	29	383	162	53
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:	189	455	299	32	482	37	18	205	29	383	162	53
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	1.21	0.79	1.00	1.86	0.14	1.00	0.87	0.13	1.00	1.00	1.00
Final Sat.:	1800	2293	1507	1800	3530	270	1800	1661	239	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.11	0.20	0.20	0.02	0.14	0.14	0.01	0.12	0.12	0.21	0.09	0.03
Crit Moves:		****		****				****		****		
Green/Cycle:	0.17	0.28	0.28	0.10	0.22	0.22	0.24	0.18	0.18	0.31	0.24	0.24
Volume/Cap:	0.63	0.70	0.70	0.18	0.63	0.63	0.04	0.70	0.70	0.70	0.35	0.11
Delay/Veh:	27.5	21.2	21.2	25.2	22.9	22.9	17.5	29.5	29.5	22.3	19.4	17.9
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:	27.5	21.2	21.2	25.2	22.9	22.9	17.5	29.5	29.5	22.3	19.4	17.9
LOS by Move:	C	C	C	C	C	C	B	C	C	C	B	B
HCM2kAvgQ:	5	8	8	1	5	5	0	6	6	8	3	1

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

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Lytle Creek Ranch Project
Future 2030 Without Project Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #35 Locust Ave. and Casmalia St.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.595
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	20.8
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Locust Ave.						Casmalia St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 0	1 0		1 0 0	1 0	
Volume Module:												
Base Vol:	0	61	1	45	132	194	274	289	1	6	285	162
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	61	1	45	132	194	274	289	1	6	285	162
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	64	1	47	139	204	288	304	1	6	300	171
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	64	1	47	139	204	288	304	1	6	300	171
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	64	1	47	139	204	288	304	1	6	300	171
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	1.97	0.03	1.00	1.00	1.00	1.00	0.99	0.01	1.00	0.64	0.36
Final Sat.:	1800	3739	61	1800	1900	1900	1800	1893	7	1800	1211	689
Capacity Analysis Module:												
Vol/Sat:	0.00	0.02	0.02	0.03	0.07	0.11	0.16	0.16	0.16	0.00	0.25	0.25
Crit Moves:	****					****	****				****	
Green/Cycle:	0.00	0.13	0.13	0.13	0.16	0.16	0.24	0.37	0.37	0.23	0.37	0.37
Volume/Cap:	0.00	0.13	0.13	0.20	0.46	0.67	0.67	0.43	0.43	0.02	0.67	0.67
Delay/Veh:	0.0	23.2	23.2	23.8	23.3	27.2	24.9	14.4	14.4	17.7	18.5	18.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	23.2	23.2	23.8	23.3	27.2	24.9	14.4	14.4	17.7	18.5	18.5
LOS by Move:	A	C	C	C	C	C	C	B	B	B	B	B
HCM2kAvgQ:	0	1	1	1	3	5	6	5	5	0	9	9

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

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

Intersection #36 Ayala Dr. and Casmalia St.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.595
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	17.1
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Ayala Dr.						Casmalia St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	0 1		1 0 1	0 1	
Volume Module:												
Base Vol:	219	525	45	1	703	12	50	73	378	169	16	5
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:	219	525	45	1	703	12	50	73	378	169	16	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	231	553	47	1	740	13	53	77	398	178	17	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	231	553	47	1	740	13	53	77	398	178	17	5
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	231	553	47	1	740	13	53	77	398	178	17	5
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.84	0.16	1.00	1.97	0.03	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	3500	300	1800	3736	64	1800	1900	1900	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.13	0.16	0.16	0.00	0.20	0.20	0.03	0.04	0.21	0.10	0.01	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.22	0.34	0.34	0.21	0.33	0.33	0.35	0.35	0.35	0.35	0.35	0.35
Volume/Cap:	0.60	0.47	0.47	0.00	0.60	0.60	0.08	0.11	0.60	0.28	0.03	0.01
Delay/Veh:	23.7	16.0	16.0	18.6	17.4	17.4	13.0	13.2	17.4	14.2	12.7	12.6
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:	23.7	16.0	16.0	18.6	17.4	17.4	13.0	13.2	17.4	14.2	12.7	12.6
LOS by Move:	C	B	B	B	B	B	B	B	B	B	B	B
HCM2kAvgQ:	5	5	5	0	7	7	1	1	7	3	0	0

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

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

Intersection #37 Sierra Ave. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.229
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	4.2
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Sierra Ave.						SR-210 Fwy. WB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Ignore			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 3	0 2		0 0 2	0 2		0 0 0	0 0		1 0 1!	0 1	
Volume Module:												
Base Vol:	0	461	996	0	691	273	0	0	0	51	0	109
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	461	996	0	691	273	0	0	0	51	0	109
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	485	0	0	727	0	0	0	0	54	0	115
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	485	0	0	727	0	0	0	0	54	0	115
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	485	0	0	727	0	0	0	0	54	0	115
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	3.00	2.00	0.00	2.00	2.00	0.00	0.00	0.00	1.33	0.00	1.67
Final Sat.:	0	5700	3600	0	3800	3600	0	0	0	2395	0	3172
Capacity Analysis Module:												
Vol/Sat:	0.00	0.09	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.02	0.00	0.04
Crit Moves:					****					****		
Green/Cycle:	0.00	0.78	0.00	0.00	0.78	0.00	0.00	0.00	0.00	0.15	0.00	0.15
Volume/Cap:	0.00	0.11	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.15	0.00	0.24
Delay/Veh:	0.0	1.5	0.0	0.0	1.8	0.0	0.0	0.0	0.0	22.3	0.0	22.8
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:	0.0	1.5	0.0	0.0	1.8	0.0	0.0	0.0	0.0	22.3	0.0	22.8
LOS by Move:	A	A	A	A	A	A	A	A	A	C	A	C
HCM2kAvgQ:	0	1	0	0	2	0	0	0	0	1	0	1

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

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2000 HCM Operations Method (Base Volume Alternative)

Intersection #38 Sierra Ave. and SR-210 Fwy. EB Off Ramp/Highland Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.492
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.9
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Sierra Ave.						SR-210 Fwy. EB Off Ramp/Highland					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Ignore			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 2	0 1		0 0 2	0 1		1 0 1!	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	895	423	0	791	0	505	0	579	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	895	423	0	791	0	505	0	579	0	0	0
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	942	0	0	833	0	532	0	609	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	942	0	0	833	0	532	0	609	0	0	0
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	942	0	0	833	0	532	0	609	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	1.00	0.00	2.00	1.00	1.48	0.00	1.52	0.00	0.00	0.00
Final Sat.:	0	3800	1900	0	3800	1900	2663	0	2889	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.00	0.00	0.22	0.00	0.20	0.00	0.21	0.00	0.00	0.00
Crit Moves:		****							****			
Green/Cycle:	0.00	0.50	0.00	0.00	0.50	0.00	0.43	0.00	0.43	0.00	0.00	0.00
Volume/Cap:	0.00	0.49	0.00	0.00	0.43	0.00	0.47	0.00	0.49	0.00	0.00	0.00
Delay/Veh:	0.0	10.0	0.0	0.0	9.6	0.0	12.4	0.0	12.6	0.0	0.0	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:	0.0	10.0	0.0	0.0	9.6	0.0	12.4	0.0	12.6	0.0	0.0	0.0
LOS by Move:	A	B	A	A	A	A	B	A	B	A	A	A
HCM2kAvgQ:	0	6	0	0	5	0	5	0	6	0	0	0

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

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

Intersection #39 Alder Ave. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.542
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	11.9
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Alder Ave.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	1 0	0 1	0
Volume Module:												
Base Vol:	194	771	0	0	427	440	0	0	0	236	0	51
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:	194	771	0	0	427	440	0	0	0	236	0	51
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:	204	812	0	0	449	463	0	0	0	248	0	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	204	812	0	0	449	463	0	0	0	248	0	54
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:	204	812	0	0	449	463	0	0	0	248	0	54
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	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1800	3800	0	0	1900	1900	0	0	0	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.11	0.21	0.00	0.00	0.24	0.24	0.00	0.00	0.00	0.14	0.00	0.03
Crit Moves:	****				****					****		
Green/Cycle:	0.21	0.65	0.00	0.00	0.44	0.44	0.00	0.00	0.00	0.25	0.00	0.25
Volume/Cap:	0.54	0.33	0.00	0.00	0.54	0.56	0.00	0.00	0.00	0.54	0.00	0.11
Delay/Veh:	22.8	4.9	0.0	0.0	12.9	13.0	0.0	0.0	0.0	20.7	0.0	17.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	22.8	4.9	0.0	0.0	12.9	13.0	0.0	0.0	0.0	20.7	0.0	17.3
LOS by Move:	C	A	A	A	B	B	A	A	A	C	A	B
HCM2kAvgQ:	4	4	0	0	7	7	0	0	0	5	0	1

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

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

Intersection #40 Alder Ave. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.748
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	19.5
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Alder Ave.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 1	1 0		1 0 2	0 0		0 1 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	514	288	300	376	0	472	0	413	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	514	288	300	376	0	472	0	413	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	541	303	316	396	0	497	0	435	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	541	303	316	396	0	497	0	435	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	541	303	316	396	0	497	0	435	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.28	0.72	1.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	2435	1365	1800	3800	0	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.22	0.22	0.18	0.10	0.00	0.28	0.00	0.23	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.00	0.30	0.30	0.23	0.53	0.00	0.37	0.00	0.37	0.00	0.00	0.00
Volume/Cap:	0.00	0.75	0.75	0.75	0.20	0.00	0.75	0.00	0.62	0.00	0.00	0.00
Delay/Veh:	0.0	21.9	21.9	28.6	7.4	0.0	21.2	0.0	17.2	0.0	0.0	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:	0.0	21.9	21.9	28.6	7.4	0.0	21.2	0.0	17.2	0.0	0.0	0.0
LOS by Move:	A	C	C	C	A	A	C	A	B	A	A	A
HCM2kAvgQ:	0	9	9	8	2	0	10	0	7	0	0	0

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

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

Intersection #41 Ayala Dr. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.842
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	20.3
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Ayala Dr.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	1 0	0 1	0
Volume Module:												
Base Vol:	285	647	0	0	935	316	0	0	0	418	0	194
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:	285	647	0	0	935	316	0	0	0	418	0	194
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:	300	681	0	0	984	333	0	0	0	440	0	204
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	300	681	0	0	984	333	0	0	0	440	0	204
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:	300	681	0	0	984	333	0	0	0	440	0	204
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	0.00	0.00	1.49	0.51	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1800	3800	0	0	2840	960	0	0	0	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.17	0.18	0.00	0.00	0.35	0.35	0.00	0.00	0.00	0.24	0.00	0.11
Crit Moves:	****				****					****		
Green/Cycle:	0.20	0.61	0.00	0.00	0.41	0.41	0.00	0.00	0.00	0.29	0.00	0.29
Volume/Cap:	0.84	0.29	0.00	0.00	0.84	0.84	0.00	0.00	0.00	0.84	0.00	0.37
Delay/Veh:	39.5	5.6	0.0	0.0	20.2	20.2	0.0	0.0	0.0	31.7	0.0	17.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.5	5.6	0.0	0.0	20.2	20.2	0.0	0.0	0.0	31.7	0.0	17.3
LOS by Move:	D	A	A	A	C	C	A	A	A	C	A	B
HCM2kAvgQ:	9	3	0	0	14	14	0	0	0	11	0	3

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

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

Intersection #42 Ayala Dr. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.735
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	16.5
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Ayala Dr.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 2	0 1		1 0 2	0 0		0 1 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	786	353	569	781	0	147	0	200	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	786	353	569	781	0	147	0	200	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	827	372	599	822	0	155	0	211	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	827	372	599	822	0	155	0	211	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	827	372	599	822	0	155	0	211	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3800	1900	1800	3800	0	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.22	0.20	0.33	0.22	0.00	0.09	0.00	0.11	0.00	0.00	0.00
Crit Moves:		****		****					****			
Green/Cycle:	0.00	0.30	0.30	0.45	0.75	0.00	0.15	0.00	0.15	0.00	0.00	0.00
Volume/Cap:	0.00	0.73	0.66	0.73	0.29	0.00	0.57	0.00	0.73	0.00	0.00	0.00
Delay/Veh:	0.0	21.5	21.4	17.0	2.5	0.0	26.5	0.0	33.8	0.0	0.0	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:	0.0	21.5	21.4	17.0	2.5	0.0	26.5	0.0	33.8	0.0	0.0	0.0
LOS by Move:	A	C	C	B	A	A	C	A	C	A	A	A
HCM2kAvgQ:	0	9	7	11	3	0	4	0	6	0	0	0

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

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

Intersection #43 Riverside Ave. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.708
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	16.9
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Riverside Ave.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	1 0	1! 0	1
Volume Module:												
Base Vol:	208	341	0	0	767	296	0	0	0	656	0	250
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:	208	341	0	0	767	296	0	0	0	656	0	250
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:	219	359	0	0	807	312	0	0	0	691	0	263
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	219	359	0	0	807	312	0	0	0	691	0	263
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:	219	359	0	0	807	312	0	0	0	691	0	263
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	0.00	0.00	1.44	0.56	0.00	0.00	0.00	1.73	0.00	1.27
Final Sat.:	1800	3800	0	0	2742	1058	0	0	0	3123	0	2404
Capacity Analysis Module:												
Vol/Sat:	0.12	0.09	0.00	0.00	0.29	0.29	0.00	0.00	0.00	0.22	0.00	0.11
Crit Moves:	****				****					****		
Green/Cycle:	0.17	0.59	0.00	0.00	0.42	0.42	0.00	0.00	0.00	0.31	0.00	0.31
Volume/Cap:	0.71	0.16	0.00	0.00	0.71	0.71	0.00	0.00	0.00	0.71	0.00	0.35
Delay/Veh:	30.8	5.7	0.0	0.0	16.0	16.0	0.0	0.0	0.0	20.0	0.0	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:	30.8	5.7	0.0	0.0	16.0	16.0	0.0	0.0	0.0	20.0	0.0	16.0
LOS by Move:	C	A	A	A	B	B	A	A	A	B	A	B
HCM2kAvgQ:	6	2	0	0	10	10	0	0	0	8	0	3

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

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

Intersection #44 Riverside Ave. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec):	110	Critical Vol./Cap.(X):	1.398
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	157.2
Optimal Cycle:	130	Level Of Service:	F

Street Name:	Riverside Ave.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 2	0 1		1 0 2	0 0		0 1 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	459	1148	904	519	0	90	0	284	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	459	1148	904	519	0	90	0	284	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	483	1208	952	546	0	95	0	299	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	483	1208	952	546	0	95	0	299	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	483	1208	952	546	0	95	0	299	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3800	1900	1800	3800	0	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.13	0.64	0.53	0.14	0.00	0.05	0.00	0.16	0.00	0.00	0.00
Crit Moves:			****	****					****			
Green/Cycle:	0.00	0.45	0.45	0.38	0.83	0.00	0.11	0.00	0.11	0.00	0.00	0.00
Volume/Cap:	0.00	0.28	1.40	1.40	0.17	0.00	0.47	0.00	1.40	0.00	0.00	0.00
Delay/Veh:	0.0	18.8	216.2	222.3	1.8	0.0	47.4	0.0	253.9	0.0	0.0	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:	0.0	18.8	216.2	222.3	1.8	0.0	47.4	0.0	253.9	0.0	0.0	0.0
LOS by Move:	A	B	F	F	A	A	D	A	F	A	A	A
HCM2kAvgQ:	0	5	83	70	2	0	4	0	23	0	0	0

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

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

Intersection #45 Pepper Ave. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.617
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	15.1
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Pepper Ave.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	1 0	0 1	0
Volume Module:												
Base Vol:	226	89	0	0	122	77	0	0	0	629	0	95
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:	226	89	0	0	122	77	0	0	0	629	0	95
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:	238	94	0	0	128	81	0	0	0	662	0	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	238	94	0	0	128	81	0	0	0	662	0	100
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:	238	94	0	0	128	81	0	0	0	662	0	100
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	0.00	0.00	1.23	0.77	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1800	3800	0	0	2330	1470	0	0	0	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.13	0.02	0.00	0.00	0.06	0.06	0.00	0.00	0.00	0.37	0.00	0.05
Crit Moves:	****				****					****		
Green/Cycle:	0.21	0.31	0.00	0.00	0.10	0.10	0.00	0.00	0.00	0.59	0.00	0.59
Volume/Cap:	0.63	0.08	0.00	0.00	0.55	0.55	0.00	0.00	0.00	0.63	0.00	0.09
Delay/Veh:	24.7	14.6	0.0	0.0	27.5	27.5	0.0	0.0	0.0	9.2	0.0	5.4
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:	24.7	14.6	0.0	0.0	27.5	27.5	0.0	0.0	0.0	9.2	0.0	5.4
LOS by Move:	C	B	A	A	C	C	A	A	A	A	A	A
HCM2kAvgQ:	5	1	0	0	3	3	0	0	0	9	0	1

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

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

Intersection #46 Pepper Ave. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.515
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	11.3
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Pepper Ave.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 2	0 1		1 0 2	0 0		0 1 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	299	429	116	649	0	16	0	285	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	299	429	116	649	0	16	0	285	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	315	452	122	683	0	17	0	300	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	315	452	122	683	0	17	0	300	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	315	452	122	683	0	17	0	300	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3800	1900	1800	3800	0	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.08	0.24	0.07	0.18	0.00	0.01	0.00	0.16	0.00	0.00	0.00
Crit Moves:			****	****					****			
Green/Cycle:	0.00	0.46	0.46	0.13	0.59	0.00	0.31	0.00	0.31	0.00	0.00	0.00
Volume/Cap:	0.00	0.18	0.51	0.51	0.30	0.00	0.03	0.00	0.51	0.00	0.00	0.00
Delay/Veh:	0.0	9.5	11.9	26.2	6.1	0.0	14.6	0.0	17.9	0.0	0.0	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:	0.0	9.5	11.9	26.2	6.1	0.0	14.6	0.0	17.9	0.0	0.0	0.0
LOS by Move:	A	A	B	C	A	A	B	A	B	A	A	A
HCM2kAvgQ:	0	2	6	3	3	0	0	0	5	0	0	0

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #47 State St. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec):	70	Critical Vol./Cap.(X):	0.969
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	26.8
Optimal Cycle:	126	Level Of Service:	C

Street Name:	State St.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 0			0 0 2 0 1			0 0 0 0 0			1 0 1! 0 1		
Volume Module:												
Base Vol:	595	1001	0	0	831	850	0	0	0	173	0	180
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:	595	1001	0	0	831	850	0	0	0	173	0	180
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:	626	1054	0	0	875	895	0	0	0	182	0	189
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	626	1054	0	0	875	895	0	0	0	182	0	189
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:	626	1054	0	0	875	895	0	0	0	182	0	189
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	0.00	0.00	2.00	1.00	0.00	0.00	0.00	1.50	0.00	1.50
Final Sat.:	1800	3800	0	0	3800	1900	0	0	0	2706	0	2843
Capacity Analysis Module:												
Vol/Sat:	0.35	0.28	0.00	0.00	0.23	0.47	0.00	0.00	0.00	0.07	0.00	0.07
Crit Moves:	****					****				****		
Green/Cycle:	0.35	0.83	0.00	0.00	0.48	0.48	0.00	0.00	0.00	0.09	0.00	0.09
Volume/Cap:	0.99	0.33	0.00	0.00	0.48	0.99	0.00	0.00	0.00	0.78	0.00	0.78
Delay/Veh:	55.2	1.5	0.0	0.0	12.7	45.1	0.0	0.0	0.0	39.8	0.0	39.3
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:	55.2	1.5	0.0	0.0	12.7	45.1	0.0	0.0	0.0	39.8	0.0	39.3
LOS by Move:	E	A	A	A	B	D	A	A	A	D	A	D
HCM2kAvgQ:	21	3	0	0	7	27	0	0	0	5	0	5

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

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

Intersection #48 State St. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec):	80	Critical Vol./Cap.(X):	0.745
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	33.6
Optimal Cycle:	60	Level Of Service:	C

Street Name:	State St.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 2	0 1		1 0 1!	0 1		0 1	0 0 1	
Volume Module:												
Base Vol:	328	1268	0	0	717	441	815	0	786	4	7	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:	328	1268	0	0	717	441	815	0	786	4	7	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	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	345	1335	0	0	755	464	858	0	827	4	7	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	345	1335	0	0	755	464	858	0	827	4	7	9
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:	345	1335	0	0	755	464	858	0	827	4	7	9
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	0.00	1.00	2.00	1.00	1.52	0.00	1.48	0.38	0.62	1.00
Final Sat.:	1800	3800	0	1800	3800	1900	2741	0	2807	677	1185	1900
Capacity Analysis Module:												
Vol/Sat:	0.19	0.35	0.00	0.00	0.20	0.24	0.31	0.00	0.29	0.01	0.01	0.00
Crit Moves:		****		****			****				****	
Green/Cycle:	0.21	0.40	0.00	0.00	0.26	0.26	0.35	0.00	0.35	0.08	0.08	0.08
Volume/Cap:	0.92	0.89	0.00	0.00	0.75	0.92	0.89	0.00	0.83	0.08	0.08	0.07
Delay/Veh:	59.5	29.1	0.0	0.0	30.3	51.7	29.8	0.0	26.9	34.7	34.7	34.6
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:	59.5	29.1	0.0	0.0	30.3	51.7	29.8	0.0	26.9	34.7	34.7	34.6
LOS by Move:	E	C	A	A	C	D	C	A	C	C	C	C
HCM2kAvgQ:	13	19	0	0	10	16	18	0	15	0	0	0

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

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

Intersection #49 State St. and Highland Ave.

Cycle (sec):	120	Critical Vol./Cap.(X):	1.163
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	115.9
Optimal Cycle:	130	Level Of Service:	F

Street Name:	State St.						Highland Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	2 0 2	0 1		1 0 2	0 1		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	128	574	256	1	745	8	3	9	470	991	27	8
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:	128	574	256	1	745	8	3	9	470	991	27	8
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:	135	604	269	1	784	8	3	9	495	1043	28	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	135	604	269	1	784	8	3	9	495	1043	28	8
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	604	269	1	784	8	3	9	495	1043	28	8
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.54	0.46
Final Sat.:	3400	3800	1900	1800	3800	1900	1800	1900	1900	1800	2931	869
Capacity Analysis Module:												
Vol/Sat:	0.04	0.16	0.14	0.00	0.21	0.00	0.00	0.00	0.26	0.58	0.01	0.01
Crit Moves:	****				****				****	****		
Green/Cycle:	0.05	0.17	0.17	0.05	0.17	0.17	0.35	0.22	0.22	0.49	0.35	0.35
Volume/Cap:	0.79	0.93	0.83	0.01	1.18	0.03	0.00	0.02	1.18	1.18	0.03	0.03
Delay/Veh:	78.3	69.5	64.5	53.8	147	41.1	25.0	36.7	151.4	125.2	25.2	25.2
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:	78.3	69.5	64.5	53.8	147	41.1	25.0	36.7	151.4	125.2	25.2	25.2
LOS by Move:	E	E	E	D	F	D	C	D	F	F	C	C
HCM2kAvgQ:	5	15	12	0	25	0	0	0	31	63	0	0

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

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

Intersection #50 California St. and Highland Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.490
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	9.3
Optimal Cycle:	60	Level Of Service:	A

Street Name:	California St.						Highland Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	29	98	36	150	12	136	48	163	1	7	761	277
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:	29	98	36	150	12	136	48	163	1	7	761	277
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:	31	103	38	158	13	143	51	172	1	7	801	292
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	103	38	158	13	143	51	172	1	7	801	292
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:	31	103	38	158	13	143	51	172	1	7	801	292
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.19	0.59	0.22	0.52	0.04	0.44	1.00	1.99	0.01	1.00	1.47	0.53
Final Sat.:	335	1131	416	930	74	844	1800	3777	23	1800	2786	1014
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.09	0.17	0.17	0.17	0.03	0.05	0.05	0.00	0.29	0.29
Crit Moves:					****						****	
Green/Cycle:	0.35	0.35	0.35	0.35	0.35	0.35	0.59	0.59	0.59	0.59	0.59	0.59
Volume/Cap:	0.26	0.26	0.26	0.49	0.49	0.49	0.05	0.08	0.08	0.01	0.49	0.49
Delay/Veh:	14.3	14.3	14.3	16.0	16.0	16.0	5.3	5.4	5.4	5.1	7.4	7.4
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:	14.3	14.3	14.3	16.0	16.0	16.0	5.3	5.4	5.4	5.1	7.4	7.4
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
HCM2kAvgQ:	2	2	2	5	5	5	0	1	1	0	6	6

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

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

Intersection #51 Medical Ctr. Dr. and Highland Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.382
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	6.4
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Medical Ctr. Dr.						Highland Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	99	53	158	13	20	15	8	338	30	187	930	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:	99	53	158	13	20	15	8	338	30	187	930	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:	104	56	166	14	21	16	8	356	32	197	979	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	104	56	166	14	21	16	8	356	32	197	979	43
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:	104	56	166	14	21	16	8	356	32	197	979	43
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.14	0.86	1.00	1.84	0.16	1.00	1.92	0.08
Final Sat.:	1800	1900	1900	1800	2171	1629	1800	3490	310	1800	3640	160
Capacity Analysis Module:												
Vol/Sat:	0.06	0.03	0.09	0.01	0.01	0.01	0.00	0.10	0.10	0.11	0.27	0.27
Crit Moves:			****								****	
Green/Cycle:	0.23	0.23	0.23	0.23	0.23	0.23	0.70	0.70	0.70	0.70	0.70	0.70
Volume/Cap:	0.25	0.13	0.38	0.03	0.04	0.04	0.01	0.14	0.14	0.16	0.38	0.38
Delay/Veh:	19.2	18.4	20.0	18.0	18.0	18.0	2.6	2.9	2.9	3.0	3.7	3.7
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:	19.2	18.4	20.0	18.0	18.0	18.0	2.6	2.9	2.9	3.0	3.7	3.7
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
HCM2kAvgQ:	2	1	3	0	0	0	0	1	1	1	4	4

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

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

Intersection #52 Mt. Vernon Ave. and Highland Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.524
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	14.7
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Mt. Vernon Ave.						Highland Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	89	98	152	62	218	284	91	388	56	137	907	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:	89	98	152	62	218	284	91	388	56	137	907	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:	94	103	160	65	229	299	96	408	59	144	955	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	94	103	160	65	229	299	96	408	59	144	955	38
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:	94	103	160	65	229	299	96	408	59	144	955	38
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.75	0.25	1.00	1.92	0.08
Final Sat.:	1800	1900	1900	1800	1900	1900	1800	3321	479	1800	3655	145
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.08	0.04	0.12	0.16	0.05	0.12	0.12	0.08	0.26	0.26
Crit Moves:						****	****				****	
Green/Cycle:	0.30	0.30	0.30	0.30	0.30	0.30	0.10	0.33	0.33	0.27	0.50	0.50
Volume/Cap:	0.17	0.18	0.28	0.12	0.40	0.52	0.52	0.37	0.37	0.30	0.52	0.52
Delay/Veh:	15.7	15.6	16.2	15.3	16.9	17.9	28.4	15.5	15.5	17.8	10.5	10.5
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:	15.7	15.6	16.2	15.3	16.9	17.9	28.4	15.5	15.5	17.8	10.5	10.5
LOS by Move:	B	B	B	B	B	B	C	B	B	B	B	B
HCM2kAvgQ:	1	1	2	1	4	5	3	4	4	2	7	7

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

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

Intersection #53 Sierra Ave. and Highland Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.409
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	12.7
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Sierra Ave.						Highland Ave.					
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			Ovl			Ovl			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	2 0 2	0 1		2 0 2	0 1		2 0 2	0 1		2 0 2	0 1	
Volume Module:												
Base Vol:	411	1163	15	10	1043	295	88	11	123	3	7	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:	411	1163	15	10	1043	295	88	11	123	3	7	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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	433	1224	16	11	1098	311	93	12	129	3	7	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	433	1224	16	11	1098	311	93	12	129	3	7	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	433	1224	16	11	1098	311	93	12	129	3	7	2
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3400	3800	1900	3400	3800	1900	3400	3800	1900	3400	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.13	0.32	0.01	0.00	0.29	0.16	0.03	0.00	0.07	0.00	0.00	0.00
Crit Moves:		****		****			****				****	
Green/Cycle:	0.20	0.57	0.57	0.10	0.46	0.56	0.10	0.10	0.30	0.10	0.10	0.10
Volume/Cap:	0.62	0.57	0.01	0.03	0.62	0.29	0.27	0.03	0.22	0.01	0.02	0.01
Delay/Veh:	23.6	8.7	5.7	24.4	12.9	7.0	25.4	24.4	15.8	24.3	24.4	24.4
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:	23.6	8.7	5.7	24.4	12.9	7.0	25.4	24.4	15.8	24.3	24.4	24.4
LOS by Move:	C	A	A	C	B	A	C	C	B	C	C	C
HCM2kAvgQ:	5	8	0	0	9	3	1	0	2	0	0	0

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

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

Intersection #54 Alder Ave. and Highland Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.668
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	21.8
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Alder Ave.						Highland Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	0 1		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	80	558	33	186	457	153	15	233	58	114	351	200
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:	80	558	33	186	457	153	15	233	58	114	351	200
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	84	587	35	196	481	161	16	245	61	120	369	211
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	84	587	35	196	481	161	16	245	61	120	369	211
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	84	587	35	196	481	161	16	245	61	120	369	211
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.60	0.40	1.00	1.27	0.73
Final Sat.:	1800	1900	1900	1800	1900	1900	1800	3043	757	1800	2421	1379
Capacity Analysis Module:												
Vol/Sat:	0.05	0.31	0.02	0.11	0.25	0.08	0.01	0.08	0.08	0.07	0.15	0.15
Crit Moves:		****		****			****				****	
Green/Cycle:	0.16	0.42	0.42	0.15	0.40	0.40	0.10	0.15	0.15	0.15	0.21	0.21
Volume/Cap:	0.29	0.74	0.04	0.74	0.63	0.21	0.09	0.53	0.53	0.44	0.74	0.74
Delay/Veh:	22.8	18.7	10.5	35.5	16.0	11.8	24.7	24.4	24.4	24.2	26.3	26.3
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:	22.8	18.7	10.5	35.5	16.0	11.8	24.7	24.4	24.4	24.2	26.3	26.3
LOS by Move:	C	B	B	D	B	B	C	C	C	C	C	C
HCM2kAvgQ:	2	11	0	6	8	2	0	3	3	3	7	7

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

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

Intersection #55 Ayala Dr. and Easton St.

Cycle (sec):	80	Critical Vol./Cap.(X):	0.858
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	31.7
Optimal Cycle:	75	Level Of Service:	C

Street Name:	Ayala Dr.						Easton St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 1			1 0 2 0 1			1 0 1 1 0			1 0 1 1 0		
Volume Module:												
Base Vol:	302	894	40	17	888	145	235	95	542	84	126	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:	302	894	40	17	888	145	235	95	542	84	126	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:	318	941	42	18	935	153	247	100	571	88	133	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	318	941	42	18	935	153	247	100	571	88	133	43
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:	318	941	42	18	935	153	247	100	571	88	133	43
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	2.00	1.00	1.00	1.00	1.00	1.00	1.51	0.49
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	1900	1900	1800	2867	933
Capacity Analysis Module:												
Vol/Sat:	0.18	0.25	0.02	0.01	0.25	0.08	0.14	0.05	0.30	0.05	0.05	0.05
Crit Moves:	****				****				****	****		
Green/Cycle:	0.20	0.37	0.37	0.11	0.28	0.28	0.27	0.34	0.34	0.08	0.15	0.15
Volume/Cap:	0.88	0.67	0.06	0.09	0.88	0.29	0.51	0.15	0.88	0.65	0.31	0.31
Delay/Veh:	51.5	22.3	16.3	32.0	35.8	22.8	25.6	18.3	35.8	47.0	30.8	30.8
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:	51.5	22.3	16.3	32.0	35.8	22.8	25.6	18.3	35.8	47.0	30.8	30.8
LOS by Move:	D	C	B	C	D	C	C	B	D	D	C	C
HCM2kAvgQ:	11	11	1	0	14	3	6	2	17	4	2	2

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

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

Intersection #56 Riverside Ave. and Easton St.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.812
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	27.4
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Riverside Ave.						Easton St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 2	0 1		2 0 2	0 1	
Volume Module:												
Base Vol:	75	957	40	53	662	122	367	229	107	114	234	328
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:	75	957	40	53	662	122	367	229	107	114	234	328
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:	79	1007	42	56	697	128	386	241	113	120	246	345
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	79	1007	42	56	697	128	386	241	113	120	246	345
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:	79	1007	42	56	697	128	386	241	113	120	246	345
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	1.92	0.08	1.00	1.69	0.31	1.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	1800	3648	152	1800	3209	591	1800	3800	1900	3400	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.04	0.28	0.28	0.03	0.22	0.22	0.21	0.06	0.06	0.04	0.06	0.18
Crit Moves:		****		****			****					****
Green/Cycle:	0.13	0.31	0.31	0.10	0.28	0.28	0.24	0.23	0.23	0.23	0.21	0.21
Volume/Cap:	0.34	0.88	0.88	0.31	0.76	0.76	0.88	0.28	0.26	0.16	0.31	0.88
Delay/Veh:	24.6	27.0	27.0	26.1	23.0	23.0	39.5	19.4	19.4	18.7	20.4	42.5
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:	24.6	27.0	27.0	26.1	23.0	23.0	39.5	19.4	19.4	18.7	20.4	42.5
LOS by Move:	C	C	C	C	C	C	D	B	B	B	C	D
HCM2kAvgQ:	2	13	13	1	9	9	11	2	2	1	2	10

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

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

Intersection #57 Easton St. and Highland Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.254
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	9.0
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Easton St.						Easton St. / Highland Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 1 0			1 0 2 0 0		
Volume Module:												
Base Vol:	188	0	39	0	0	0	0	195	130	17	459	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:	188	0	39	0	0	0	0	195	130	17	459	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:	198	0	41	0	0	0	0	205	137	18	483	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	198	0	41	0	0	0	0	205	137	18	483	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	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:	198	0	41	0	0	0	0	205	137	18	483	0
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	0.00	1.00	0.00	0.00	0.00	0.00	1.20	0.80	1.00	2.00	0.00
Final Sat.:	1800	0	1900	0	0	0	0	2280	1520	1800	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.11	0.00	0.02	0.00	0.00	0.00	0.00	0.09	0.09	0.01	0.13	0.00
Crit Moves:	****										****	
Green/Cycle:	0.43	0.00	0.43	0.00	0.00	0.00	0.00	0.50	0.50	0.50	0.50	0.00
Volume/Cap:	0.25	0.00	0.05	0.00	0.00	0.00	0.00	0.18	0.18	0.02	0.25	0.00
Delay/Veh:	11.0	0.0	9.9	0.0	0.0	0.0	0.0	8.3	8.3	7.6	8.6	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:	11.0	0.0	9.9	0.0	0.0	0.0	0.0	8.3	8.3	7.6	8.6	0.0
LOS by Move:	B	A	A	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	3	0	0	0	0	0	0	2	2	0	3	0

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

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

Intersection #58 Sierra Ave. and Baseline Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.452
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	17.5
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Sierra Ave.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 1			1 0 2 0 1			1 0 1 1 0			1 0 1 0 1		
Volume Module:												
Base Vol:	55	611	53	112	718	32	52	391	63	60	123	93
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:	55	611	53	112	718	32	52	391	63	60	123	93
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:	58	643	56	118	756	34	55	412	66	63	129	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	58	643	56	118	756	34	55	412	66	63	129	98
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:	58	643	56	118	756	34	55	412	66	63	129	98
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	2.00	1.00	1.00	1.72	0.28	1.00	1.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3273	527	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.03	0.17	0.03	0.07	0.20	0.02	0.03	0.13	0.13	0.04	0.07	0.05
Crit Moves:	****				****			****		****		
Green/Cycle:	0.10	0.32	0.32	0.19	0.41	0.41	0.18	0.26	0.26	0.10	0.18	0.18
Volume/Cap:	0.32	0.53	0.09	0.35	0.49	0.04	0.17	0.49	0.49	0.35	0.38	0.29
Delay/Veh:	26.1	17.2	14.4	21.7	13.3	10.7	21.1	19.3	19.3	26.4	22.4	21.8
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:	26.1	17.2	14.4	21.7	13.3	10.7	21.1	19.3	19.3	26.4	22.4	21.8
LOS by Move:	C	B	B	C	B	B	C	B	B	C	C	C
HCM2kAvgQ:	1	5	1	2	6	0	1	4	4	2	3	2

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

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

Intersection #59 Alder Ave. and Baseline Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.765
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	29.5
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Alder Ave.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0	1 0	0	1 0	1	1 0	0	1 0	1 0	0	1 0	0
Volume Module:												
Base Vol:	156	448	15	133	339	104	56	449	140	4	122	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:	156	448	15	133	339	104	56	449	140	4	122	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:	164	472	16	140	357	109	59	473	147	4	128	41
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	164	472	16	140	357	109	59	473	147	4	128	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
FinalVolume:	164	472	16	140	357	109	59	473	147	4	128	41
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	0.97	0.03	1.00	1.00	1.00	1.00	0.76	0.24	1.00	0.76	0.24
Final Sat.:	1800	1838	62	1800	1900	1900	1800	1448	452	1800	1440	460
Capacity Analysis Module:												
Vol/Sat:	0.09	0.26	0.26	0.08	0.19	0.06	0.03	0.33	0.33	0.00	0.09	0.09
Crit Moves:		****		****				****		****		
Green/Cycle:	0.14	0.29	0.29	0.10	0.26	0.26	0.24	0.37	0.37	0.10	0.24	0.24
Volume/Cap:	0.67	0.87	0.87	0.78	0.73	0.22	0.14	0.87	0.87	0.02	0.38	0.38
Delay/Veh:	31.5	34.5	34.5	45.4	26.0	17.8	18.2	29.2	29.2	24.4	19.7	19.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	31.5	34.5	34.5	45.4	26.0	17.8	18.2	29.2	29.2	24.4	19.7	19.7
LOS by Move:	C	C	C	D	C	B	B	C	C	C	B	B
HCM2kAvgQ:	4	12	12	5	8	2	1	14	14	0	3	3

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

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

Intersection #60 Cedar Ave./Ayala Dr. and Baseline Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.498
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.7
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Cedar Ave./Ayala Dr.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		2 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	162	617	144	97	709	10	28	242	142	145	162	27
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:	162	617	144	97	709	10	28	242	142	145	162	27
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:	171	649	152	102	746	11	29	255	149	153	171	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	171	649	152	102	746	11	29	255	149	153	171	28
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:	171	649	152	102	746	11	29	255	149	153	171	28
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	1.62	0.38	2.00	1.97	0.03	1.00	1.26	0.74	1.00	1.71	0.29
Final Sat.:	1800	3081	719	3400	3747	53	1800	2395	1405	1800	3257	543
Capacity Analysis Module:												
Vol/Sat:	0.09	0.21	0.21	0.03	0.20	0.20	0.02	0.11	0.11	0.08	0.05	0.05
Crit Moves:		****		****				****		****		
Green/Cycle:	0.17	0.40	0.40	0.10	0.33	0.33	0.18	0.20	0.20	0.16	0.18	0.18
Volume/Cap:	0.56	0.52	0.52	0.30	0.60	0.60	0.09	0.52	0.52	0.52	0.29	0.29
Delay/Veh:	25.4	13.9	13.9	25.6	17.4	17.4	20.5	22.0	22.0	24.8	21.4	21.4
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:	25.4	13.9	13.9	25.6	17.4	17.4	20.5	22.0	22.0	24.8	21.4	21.4
LOS by Move:	C	B	B	C	B	B	C	C	C	C	C	C
HCM2kAvgQ:	4	6	6	1	7	7	1	4	4	4	2	2

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

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

Intersection #61 Cactus Ave. and Baseline Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.515
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.8
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Cactus Ave.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	0 1		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	69	190	73	45	386	162	82	468	57	80	261	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:	69	190	73	45	386	162	82	468	57	80	261	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:	73	200	77	47	406	171	86	493	60	84	275	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	73	200	77	47	406	171	86	493	60	84	275	40
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:	73	200	77	47	406	171	86	493	60	84	275	40
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.78	0.22	1.00	1.75	0.25
Final Sat.:	1800	1900	1900	1800	1900	1900	1800	3387	413	1800	3317	483
Capacity Analysis Module:												
Vol/Sat:	0.04	0.11	0.04	0.03	0.21	0.09	0.05	0.15	0.15	0.05	0.08	0.08
Crit Moves:	****				****			****		****		
Green/Cycle:	0.10	0.25	0.25	0.24	0.40	0.40	0.18	0.27	0.27	0.10	0.18	0.18
Volume/Cap:	0.40	0.41	0.16	0.11	0.54	0.23	0.26	0.54	0.54	0.47	0.45	0.45
Delay/Veh:	26.8	19.2	17.5	17.8	14.7	12.1	21.4	19.3	19.3	27.4	22.2	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:	26.8	19.2	17.5	17.8	14.7	12.1	21.4	19.3	19.3	27.4	22.2	22.2
LOS by Move:	C	B	B	B	B	B	C	B	B	C	C	C
HCM2kAvgQ:	2	3	1	1	6	2	2	5	5	2	3	3

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

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

Intersection #62 Riverside Ave. and Baseline Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.557
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	19.5
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Riverside Ave.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		2 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	144	471	50	73	707	136	148	326	53	89	376	54
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:	144	471	50	73	707	136	148	326	53	89	376	54
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:	152	496	53	77	744	143	156	343	56	94	396	57
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	152	496	53	77	744	143	156	343	56	94	396	57
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:	152	496	53	77	744	143	156	343	56	94	396	57
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.81	0.19	1.00	1.68	0.32	2.00	1.72	0.28	1.00	1.75	0.25
Final Sat.:	1800	3435	365	1800	3187	613	3400	3269	531	1800	3323	477
Capacity Analysis Module:												
Vol/Sat:	0.08	0.14	0.14	0.04	0.23	0.23	0.05	0.10	0.10	0.05	0.12	0.12
Crit Moves:	****				****		****				****	
Green/Cycle:	0.15	0.33	0.33	0.23	0.41	0.41	0.10	0.16	0.16	0.15	0.21	0.21
Volume/Cap:	0.57	0.44	0.44	0.19	0.57	0.57	0.46	0.66	0.66	0.35	0.57	0.57
Delay/Veh:	26.7	16.0	16.0	18.9	14.1	14.1	26.4	26.5	26.5	23.6	22.3	22.3
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:	26.7	16.0	16.0	18.9	14.1	14.1	26.4	26.5	26.5	23.6	22.3	22.3
LOS by Move:	C	B	B	B	B	B	C	C	C	C	C	C
HCM2kAvgQ:	4	4	4	1	7	7	2	5	5	2	5	5

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

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

Intersection #63 Pepper Ave. and Baseline. Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.464
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	8.4
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Pepper Ave.						Baseline. Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 1	1 0	1	1 0	1 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	117	460	17	149	657	183	106	145	124	25	173	92
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	117	460	17	149	657	183	106	145	124	25	173	92
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	123	484	18	157	692	193	112	153	131	26	182	97
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	123	484	18	157	692	193	112	153	131	26	182	97
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	123	484	18	157	692	193	112	153	131	26	182	97
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.42	1.58	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	762	2996	1900	1800	1900	1900	1800	3800	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.16	0.16	0.01	0.09	0.36	0.10	0.06	0.04	0.07	0.01	0.05	0.05
Crit Moves:					****				****			
Green/Cycle:	0.79	0.79	0.79	0.79	0.79	0.79	0.15	0.15	0.15	0.15	0.15	0.15
Volume/Cap:	0.21	0.21	0.01	0.11	0.46	0.13	0.42	0.27	0.46	0.10	0.32	0.34
Delay/Veh:	1.7	1.7	1.4	1.6	2.4	1.6	24.3	22.9	24.6	22.3	23.2	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:	1.7	1.7	1.4	1.6	2.4	1.6	24.3	22.9	24.6	22.3	23.2	23.7
LOS by Move:	A	A	A	A	A	A	C	C	C	C	C	C
HCM2kAvgQ:	2	2	0	1	5	1	2	1	3	1	2	2

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

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

Intersection #64 State St. and Baseline Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.323
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	9.7
Optimal Cycle:	60	Level Of Service:	A

Street Name:	State St.						Baseline Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	0 1		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	26	193	10	232	403	110	115	212	71	18	123	124
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	193	10	232	403	110	115	212	71	18	123	124
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:	27	203	11	244	424	116	121	223	75	19	129	131
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	27	203	11	244	424	116	121	223	75	19	129	131
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:	27	203	11	244	424	116	121	223	75	19	129	131
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.50	0.50	1.00	1.00	1.00
Final Sat.:	1800	1900	1900	1800	1900	1900	1800	2847	953	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.02	0.11	0.01	0.14	0.22	0.06	0.07	0.08	0.08	0.01	0.07	0.07
Crit Moves:					****			****				
Green/Cycle:	0.69	0.69	0.69	0.69	0.69	0.69	0.24	0.24	0.24	0.24	0.24	0.24
Volume/Cap:	0.02	0.15	0.01	0.20	0.32	0.09	0.28	0.32	0.32	0.04	0.28	0.28
Delay/Veh:	2.9	3.3	2.9	3.4	3.8	3.1	18.8	18.9	18.9	17.4	18.6	18.7
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:	2.9	3.3	2.9	3.4	3.8	3.1	18.8	18.9	18.9	17.4	18.6	18.7
LOS by Move:	A	A	A	A	A	A	B	B	B	B	B	B
HCM2kAvgQ:	0	1	0	2	3	1	2	3	3	0	2	2

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

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

Intersection #65 Sierra Ave. and Foothill Blvd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.544
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	19.9
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Sierra Ave.						Foothill Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 2	0 1		1 0 2	0 1		1 0 2	0 1	
Volume Module:												
Base Vol:	82	381	86	198	649	104	181	637	82	115	579	130
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:	82	381	86	198	649	104	181	637	82	115	579	130
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:	86	401	91	208	683	109	191	671	86	121	609	137
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	86	401	91	208	683	109	191	671	86	121	609	137
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:	86	401	91	208	683	109	191	671	86	121	609	137
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	1.63	0.37	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3100	700	1800	3800	1900	1800	3800	1900	1800	3800	1900

Capacity Analysis Module:												
Vol/Sat:	0.05	0.13	0.13	0.12	0.18	0.06	0.11	0.18	0.05	0.07	0.16	0.07
Crit Moves:	****				****			****		****		
Green/Cycle:	0.10	0.22	0.22	0.20	0.33	0.33	0.18	0.32	0.32	0.12	0.27	0.27
Volume/Cap:	0.48	0.58	0.58	0.58	0.55	0.18	0.60	0.55	0.14	0.55	0.60	0.27
Delay/Veh:	27.5	21.7	21.7	23.9	17.2	14.6	26.1	17.4	14.7	27.8	20.3	17.7
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:	27.5	21.7	21.7	23.9	17.2	14.6	26.1	17.4	14.7	27.8	20.3	17.7
LOS by Move:	C	C	C	C	B	B	C	B	B	C	C	B
HCM2kAvgQ:	2	5	5	5	6	2	4	6	1	3	6	2

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
AM Peak Hour

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

Intersection #66 Alder Ave. and Foothill Blvd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.412
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	14.8
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Alder Ave.						Foothill Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0	1 0	0	1 0	1 1	0	1 0	2 0	1	1 0	1 1	0
Volume Module:AM Peak Hour												
Base Vol:	59	279	9	82	287	232	188	678	73	8	450	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:	59	279	9	82	287	232	188	678	73	8	450	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:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	65	309	10	91	318	257	208	751	81	9	499	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	65	309	10	91	318	257	208	751	81	9	499	54
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:	65	309	10	91	318	257	208	751	81	9	499	54
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	0.97	0.03	1.00	1.11	0.89	1.00	2.00	1.00	1.00	1.80	0.20
Final Sat.:	1800	1841	59	1800	2101	1699	1800	3800	1900	1800	3427	373
Capacity Analysis Module:												
Vol/Sat:	0.04	0.17	0.17	0.05	0.15	0.15	0.12	0.20	0.04	0.00	0.15	0.15
Crit Moves:		****						****		****		
Green/Cycle:	0.37	0.37	0.37	0.37	0.37	0.37	0.24	0.43	0.43	0.10	0.30	0.30
Volume/Cap:	0.10	0.46	0.46	0.14	0.41	0.41	0.49	0.46	0.10	0.05	0.49	0.49
Delay/Veh:	12.5	14.9	14.9	12.7	14.3	14.3	20.7	12.2	10.1	24.5	17.7	17.7
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:	12.5	14.9	14.9	12.7	14.3	14.3	20.7	12.2	10.1	24.5	17.7	17.7
LOS by Move:	B	B	B	B	B	B	C	B	B	C	B	B
HCM2kAvgQ:	1	5	5	1	4	4	4	5	1	0	5	5

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
AM Peak Hour

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

Intersection #67 Cedar Ave. and Foothill Blvd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.775
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	21.3
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Cedar Ave.						Foothill Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 2	0 1		1 0 2	0 1	
Volume Module:												
Base Vol:	159	932	107	113	1222	60	105	513	233	139	254	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:	159	932	107	113	1222	60	105	513	233	139	254	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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	167	981	113	119	1286	63	111	540	245	146	267	47
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	167	981	113	119	1286	63	111	540	245	146	267	47
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:	167	981	113	119	1286	63	111	540	245	146	267	47
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	1.79	0.21	1.00	1.91	0.09	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3409	391	1800	3622	178	1800	3800	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.09	0.29	0.29	0.07	0.36	0.36	0.06	0.14	0.13	0.08	0.07	0.02
Crit Moves:	****				****			****		****		
Green/Cycle:	0.12	0.43	0.43	0.15	0.46	0.46	0.14	0.18	0.18	0.10	0.14	0.14
Volume/Cap:	0.77	0.67	0.67	0.44	0.77	0.77	0.43	0.77	0.70	0.77	0.49	0.17
Delay/Veh:	41.6	14.8	14.8	24.4	15.9	15.9	24.5	28.8	29.4	44.1	24.3	22.8
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:	41.6	14.8	14.8	24.4	15.9	15.9	24.5	28.8	29.4	44.1	24.3	22.8
LOS by Move:	D	B	B	C	B	B	C	C	C	D	C	C
HCM2kAvgQ:	5	9	9	3	13	13	2	7	6	5	3	1

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
AM Peak Hour

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

Intersection #68 Cactus Ave. and Foothill Blvd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.429
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	14.5
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Cactus Ave.						Foothill Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0	1 0	1	1 0 2	0 1		1 0 2	0 1		1 0 2	0 1	
Volume Module:												
Base Vol:	18	242	62	68	365	29	29	633	64	72	415	32
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	242	62	68	365	29	29	633	64	72	415	32
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:	19	255	65	72	384	31	31	666	67	76	437	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	255	65	72	384	31	31	666	67	76	437	34
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:	19	255	65	72	384	31	31	666	67	76	437	34
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	0.80	0.20	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	1512	388	1800	3800	1900	1800	3800	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.01	0.17	0.17	0.04	0.10	0.02	0.02	0.18	0.04	0.04	0.11	0.02
Crit Moves:		****						****		****		
Green/Cycle:	0.39	0.39	0.39	0.39	0.39	0.39	0.24	0.41	0.41	0.10	0.27	0.27
Volume/Cap:	0.03	0.43	0.43	0.10	0.26	0.04	0.07	0.43	0.09	0.42	0.42	0.07
Delay/Veh:	11.2	13.7	13.7	11.6	12.4	11.3	17.9	12.9	10.9	27.0	18.3	16.3
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:	11.2	13.7	13.7	11.6	12.4	11.3	17.9	12.9	10.9	27.0	18.3	16.3
LOS by Move:	B	B	B	B	B	B	B	B	B	C	B	B
HCM2kAvgQ:	0	5	5	1	3	0	0	5	1	2	4	0

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
AM Peak Hour

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

Intersection #69 Riverside Ave. and Foothill Blvd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.549
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	19.4
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Riverside Ave.						Foothill Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2	0 1		1 0 1	1 0		1 0 2	0 1		1 0 2	0 1	
Volume Module:												
Base Vol:	99	468	114	164	521	115	114	670	61	96	516	119
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	99	468	114	164	521	115	114	670	61	96	516	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:	104	493	120	173	548	121	120	705	64	101	543	125
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	104	493	120	173	548	121	120	705	64	101	543	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
FinalVolume:	104	493	120	173	548	121	120	705	64	101	543	125
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	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	3113	687	1800	3800	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.06	0.13	0.06	0.10	0.18	0.18	0.07	0.19	0.03	0.06	0.14	0.07
Crit Moves:	****				****			****		****		
Green/Cycle:	0.11	0.24	0.24	0.19	0.32	0.32	0.18	0.34	0.34	0.10	0.26	0.26
Volume/Cap:	0.55	0.54	0.26	0.52	0.55	0.55	0.37	0.55	0.10	0.55	0.55	0.25
Delay/Veh:	28.9	20.5	18.8	23.4	17.3	17.3	22.3	16.6	13.7	29.1	19.9	17.9
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:	28.9	20.5	18.8	23.4	17.3	17.3	22.3	16.6	13.7	29.1	19.9	17.9
LOS by Move:	C	C	B	C	B	B	C	B	B	C	B	B
HCM2kAvgQ:	3	5	2	4	6	6	2	6	1	3	5	2

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
AM Peak Hour

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

Intersection #70 Sierra Ave. and Arrow Blvd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.543
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.5
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Sierra Ave.						Arrow Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	50	464	128	65	820	17	27	456	99	96	292	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:	50	464	128	65	820	17	27	456	99	96	292	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:	53	488	135	68	863	18	28	480	104	101	307	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	53	488	135	68	863	18	28	480	104	101	307	40
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:	53	488	135	68	863	18	28	480	104	101	307	40
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.57	0.43	1.00	1.96	0.04	1.00	1.64	0.36	1.00	1.77	0.23
Final Sat.:	1800	2978	822	1800	3723	77	1800	3122	678	1800	3362	438
Capacity Analysis Module:												
Vol/Sat:	0.03	0.16	0.16	0.04	0.23	0.23	0.02	0.15	0.15	0.06	0.09	0.09
Crit Moves:	****				****			****		****		
Green/Cycle:	0.10	0.31	0.31	0.19	0.40	0.40	0.18	0.27	0.27	0.10	0.18	0.18
Volume/Cap:	0.29	0.53	0.53	0.20	0.58	0.58	0.09	0.58	0.58	0.56	0.50	0.50
Delay/Veh:	25.9	17.5	17.5	20.8	14.6	14.6	20.5	19.9	19.9	29.7	22.6	22.6
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:	25.9	17.5	17.5	20.8	14.6	14.6	20.5	19.9	19.9	29.7	22.6	22.6
LOS by Move:	C	B	B	C	B	B	C	B	B	C	C	C
HCM2kAvgQ:	1	5	5	1	7	7	1	6	6	3	4	4

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

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Lytle Creek Ranch Project
Future 2030 Without Project Condition
AM Peak Hour

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

Intersection #71 Alder Ave. and Arrow Blvd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.693
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	21.2
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Alder Ave.						Arrow Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	0 1		1 0 2	0 1	
Volume Module:												
Base Vol:	27	218	174	43	273	12	68	674	129	160	339	167
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:	27	218	174	43	273	12	68	674	129	160	339	167
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	28	229	183	45	287	13	72	709	136	168	357	176
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	28	229	183	45	287	13	72	709	136	168	357	176
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	28	229	183	45	287	13	72	709	136	168	357	176
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	1.11	0.89	1.00	1.92	0.08	1.00	1.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	2113	1687	1800	3640	160	1800	1900	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.02	0.11	0.11	0.03	0.08	0.08	0.04	0.37	0.07	0.09	0.09	0.09
Crit Moves:		****		****				****		****		
Green/Cycle:	0.12	0.14	0.14	0.10	0.12	0.12	0.31	0.50	0.50	0.12	0.31	0.31
Volume/Cap:	0.13	0.75	0.75	0.25	0.65	0.65	0.13	0.75	0.14	0.75	0.30	0.30
Delay/Veh:	23.7	30.4	30.4	25.7	28.2	28.2	14.9	15.5	8.2	38.6	15.9	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:	23.7	30.4	30.4	25.7	28.2	28.2	14.9	15.5	8.2	38.6	15.9	16.0
LOS by Move:	C	C	C	C	C	C	B	B	A	D	B	B
HCM2kAvgQ:	1	6	6	1	4	4	1	12	1	5	3	3

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
AM Peak Hour

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

Intersection #72 Cedar Ave. and Rialto Ave.

Cycle (sec):	70	Critical Vol./Cap.(X):	0.811
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	30.7
Optimal Cycle:	61	Level Of Service:	C

Street Name:	Cedar Ave.						Rialto Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	133	847	139	311	1106	169	289	620	237	45	371	60
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	133	847	139	311	1106	169	289	620	237	45	371	60
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	140	892	146	327	1164	178	304	653	249	47	391	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	140	892	146	327	1164	178	304	653	249	47	391	63
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:	140	892	146	327	1164	178	304	653	249	47	391	63
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	1.72	0.28	1.00	1.73	0.27	1.00	1.45	0.55	1.00	1.72	0.28
Final Sat.:	1800	3264	536	1800	3296	504	1800	2749	1051	1800	3271	529
Capacity Analysis Module:												
Vol/Sat:	0.08	0.27	0.27	0.18	0.35	0.35	0.17	0.24	0.24	0.03	0.12	0.12
Crit Moves:		****		****				****		****		
Green/Cycle:	0.10	0.32	0.32	0.21	0.42	0.42	0.21	0.27	0.27	0.09	0.15	0.15
Volume/Cap:	0.76	0.87	0.87	0.87	0.83	0.83	0.80	0.87	0.87	0.31	0.80	0.80
Delay/Veh:	47.0	29.4	29.4	45.1	22.0	22.0	37.8	31.9	31.9	31.2	36.8	36.8
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:	47.0	29.4	29.4	45.1	22.0	22.0	37.8	31.9	31.9	31.2	36.8	36.8
LOS by Move:	D	C	C	D	C	C	D	C	C	C	D	D
HCM2kAvgQ:	5	14	14	11	16	16	9	13	13	1	7	7

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

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Lytle Creek Ranch Project
Future 2030 Without Project Condition
AM Peak Hour

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

Intersection #73 Cactus Ave. and Rialto Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.418
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	9.7
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Cactus Ave.						Rialto Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	54	279	105	86	381	83	68	766	178	113	341	69
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:	54	279	105	86	381	83	68	766	178	113	341	69
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:	57	294	111	91	401	87	72	806	187	119	359	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	294	111	91	401	87	72	806	187	119	359	73
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:	57	294	111	91	401	87	72	806	187	119	359	73
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	1.45	0.55	1.00	1.64	0.36	1.00	1.62	0.38	1.00	1.66	0.34
Final Sat.:	1800	2761	1039	1800	3120	680	1800	3083	717	1800	3160	640
Capacity Analysis Module:												
Vol/Sat:	0.03	0.11	0.11	0.05	0.13	0.13	0.04	0.26	0.26	0.07	0.11	0.11
Crit Moves:					****			****				
Green/Cycle:	0.31	0.31	0.31	0.31	0.31	0.31	0.63	0.63	0.63	0.63	0.63	0.63
Volume/Cap:	0.10	0.35	0.35	0.16	0.42	0.42	0.06	0.42	0.42	0.11	0.18	0.18
Delay/Veh:	14.9	16.3	16.3	15.3	16.7	16.7	4.4	5.8	5.8	4.5	4.8	4.8
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:	14.9	16.3	16.3	15.3	16.7	16.7	4.4	5.8	5.8	4.5	4.8	4.8
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
HCM2kAvgQ:	1	3	3	1	4	4	1	5	5	1	2	2

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

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Lytle Creek Ranch Project
Future 2030 Without Project Condition
AM Peak Hour

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

Intersection #74 Cedar Ave. and Merrill Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.888
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	21.8
Optimal Cycle:	72	Level Of Service:	C

Street Name:	Cedar Ave.						Merrill Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	159	1470	85	284	1795	167	215	471	118	147	328	136
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:	159	1470	85	284	1795	167	215	471	118	147	328	136
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:	167	1547	89	299	1889	176	226	496	124	155	345	143
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	167	1547	89	299	1889	176	226	496	124	155	345	143
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:	167	1547	89	299	1889	176	226	496	124	155	345	143
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	1.89	0.11	1.00	1.83	0.17	1.00	1.60	0.40	1.00	1.41	0.59
Final Sat.:	1800	3592	208	1800	3477	323	1800	3039	761	1800	2686	1114
Capacity Analysis Module:												
Vol/Sat:	0.09	0.43	0.43	0.17	0.54	0.54	0.13	0.16	0.16	0.09	0.13	0.13
Crit Moves:	****				****			****				
Green/Cycle:	0.10	0.52	0.52	0.20	0.61	0.61	0.18	0.18	0.18	0.18	0.18	0.18
Volume/Cap:	0.89	0.83	0.83	0.83	0.89	0.89	0.68	0.89	0.89	0.47	0.70	0.70
Delay/Veh:	62.8	15.5	15.5	38.3	14.5	14.5	28.7	37.2	37.2	22.9	26.1	26.1
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:	62.8	15.5	15.5	38.3	14.5	14.5	28.7	37.2	37.2	22.9	26.1	26.1
LOS by Move:	E	B	B	D	B	B	C	D	D	C	C	C
HCM2kAvgQ:	6	16	16	9	20	20	6	9	9	3	6	6

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
AM Peak Hour

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

Intersection #75 Cactus Ave. and Merrill Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.309
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	13.7
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Cactus Ave.						Merrill Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	14	283	31	72	569	91	92	221	94	58	216	58
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	283	31	72	569	91	92	221	94	58	216	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:	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	298	33	76	599	96	97	233	99	61	227	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	15	298	33	76	599	96	97	233	99	61	227	61
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	298	33	76	599	96	97	233	99	61	227	61
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	1.80	0.20	1.00	1.72	0.28	1.00	1.40	0.60	1.00	1.58	0.42
Final Sat.:	1800	3425	375	1800	3276	524	1800	2666	1134	1800	2996	804
Capacity Analysis Module:												
Vol/Sat:	0.01	0.09	0.09	0.04	0.18	0.18	0.05	0.09	0.09	0.03	0.08	0.08
Crit Moves:	****				****			****				
Green/Cycle:	0.10	0.32	0.32	0.32	0.54	0.54	0.26	0.26	0.26	0.26	0.26	0.26
Volume/Cap:	0.08	0.27	0.27	0.13	0.34	0.34	0.21	0.34	0.34	0.13	0.29	0.29
Delay/Veh:	24.7	15.3	15.3	14.6	7.8	7.8	17.7	18.3	18.3	17.2	18.0	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:	24.7	15.3	15.3	14.6	7.8	7.8	17.7	18.3	18.3	17.2	18.0	18.0
LOS by Move:	C	B	B	B	A	A	B	B	B	B	B	B
HCM2kAvgQ:	0	2	2	1	4	4	2	3	3	1	2	2

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
PM Peak Hour

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

Intersection #1 Devore Rd & I-215 NB On/Off-Ramps / Arrowhead Bl

Average Delay (sec/veh): 80.7 Worst Case Level Of Service: F[302.6]

Street Name:	Devore Rd						I-215 NB On/Off-Ramps / Arrowhead					
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	1! 0	0	0 0	1! 0	0
Volume Module:	AM Peak Hour											
Base Vol:	3	470	414	72	219	0	2	5	9	135	0	294
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	470	414	72	219	0	2	5	9	135	0	294
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:	3	495	436	76	231	0	2	5	9	142	0	309
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	3	495	436	76	231	0	2	5	9	142	0	309
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	231	xxxx	xxxxx	931	xxxx	xxxxx	1256	1319	231	1108	1101	713
Potent Cap.:	1349	xxxx	xxxxx	743	xxxx	xxxxx	150	159	814	189	214	435
Move Cap.:	1349	xxxx	xxxxx	743	xxxx	xxxxx	40	141	814	166	190	435
Volume/Cap:	0.00	xxxx	xxxx	0.10	xxxx	xxxx	0.05	0.04	0.01	0.85	0.00	0.71
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.7	xxxx	xxxxx	10.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	165	xxxxx	xxxx	289	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxxx	0.3	xxxxx	xxxxx	26.7	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	10.4	xxxx	xxxxx	xxxxx	29.2	xxxxx	xxxxx	303	xxxxx
Shared LOS:	*	*	*	B	*	*	*	D	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			29.2			302.6		
ApproachLOS:	*			*			D			F		

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
PM Peak Hour

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

Intersection #2 I-215 SB On/Off-Ramps & Cajon Bl

Average Delay (sec/veh): 7.8 Worst Case Level Of Service: B[13.0]

Street Name:	I-215 SB On/Off-Ramps									Cajon Bl									
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	1	0	1	0	0	0	0	1	0	1
Volume Module: AM Peak Hour																				
Base Vol:	0	0	0		299	0		49		34	100		0		0	0		19		113
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		1.00
Initial Bse:	0	0	0		299	0		49		34	100		0		0	0		19		113
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		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		0.95
PHF Volume:	0	0	0		315	0		52		36	105		0		0	0		20		119
Reduct Vol:	0	0	0		0	0		0		0	0		0		0	0		0		0
FinalVolume:	0	0	0		315	0		52		36	105		0		0	0		20		119
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx		6.4	6.5		6.2		4.1	xxxx	xxxxx	xxxxx		xxxx	xxxxx				
FollowUpTim:	xxxxx	xxxx	xxxxx		3.5	4.0		3.3		2.2	xxxx	xxxxx	xxxxx		xxxx	xxxxx				
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx		197	197		20		139	xxxx	xxxxx		xxxx	xxxx	xxxxx				
Potent Cap.:	xxxx	xxxx	xxxxx		796	702		1064		1457	xxxx	xxxxx		xxxx	xxxx	xxxxx				
Move Cap.:	xxxx	xxxx	xxxxx		782	685		1064		1457	xxxx	xxxxx		xxxx	xxxx	xxxxx				
Volume/Cap:	xxxx	xxxx	xxxx		0.40	0.00		0.05		0.02	xxxx	xxxx		xxxx	xxxx	xxxx				
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx		xxxx	xxxx		xxxxx		0.1	xxxx	xxxxx		xxxx	xxxx	xxxxx				
Control Del:	xxxxx	xxxx	xxxxx		xxxxx	xxxx		xxxxx		7.5	xxxx	xxxxx		xxxxx	xxxx	xxxxx				
LOS by Move:	*	*	*		*	*		*		A	*	*		*	*	*				
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	812		xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx				
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	2.4		xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx				
Shrd ConDel:	xxxxx	xxxx	xxxxx		xxxxx	13.0		xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx				
Shared LOS:	*	*	*		*	B		*		*	*	*		*	*	*				
ApproachDel:	xxxxxx					13.0				xxxxxx					xxxxxx					
ApproachLOS:	*					B				*					*					

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
PM Peak Hour

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

Intersection #3 Glen Helen Pkwy & Cajon Bl

Cycle (sec):	100	Critical Vol./Cap.(X):	1.076
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	51.7
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Glen Helen Pkwy						Cajon Bl					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 1	0 0	1	1 0	1 0	1	0 1	0 1	0	0 1	0 1	0
Volume Module:AM Peak Hour												
Base Vol:	58	346	386	125	203	43	164	142	94	187	10	380
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:	58	346	386	125	203	43	164	142	94	187	10	380
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:	61	364	406	132	214	45	173	149	99	197	11	400
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	61	364	406	132	214	45	173	149	99	197	11	400
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:	61	364	406	132	214	45	173	149	99	197	11	400
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:	0.14	0.86	1.00	1.00	1.00	1.00	0.82	0.71	0.47	0.65	0.35	1.00
Final Sat.:	57	338	431	307	323	339	286	262	177	245	133	426
Capacity Analysis Module:												
Vol/Sat:	1.08	1.08	0.94	0.43	0.66	0.13	0.60	0.57	0.56	0.80	0.08	0.94
Crit Moves:		****			****		****					****
Delay/Veh:	97.3	97.3	58.5	22.1	31.7	14.4	26.3	23.6	22.7	40.6	40.6	58.3
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:	97.3	97.3	58.5	22.1	31.7	14.4	26.3	23.6	22.7	40.6	40.6	58.3
LOS by Move:	F	F	F	C	D	B	D	C	C	E	E	F
ApproachDel:		78.3			26.5			24.5			50.7	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		78.3			26.5			24.5			50.7	
LOS by Appr:		F			D			C			F	
AllWayAvgQ:	9.4	9.4	5.7	0.7	1.6	0.1	1.3	1.1	1.1	3.0	5.6	5.6

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

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Lytle Creek Ranch Project
Future 2030 Without Project Condition
PM Peak Hour

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

Intersection #4 Palm Ave & I-215 NB On/Off-Ramps

Average Delay (sec/veh): 88.6 Worst Case Level Of Service: F[235.9]

Street Name:	Palm Ave						I-215 NB On/Off-Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1	1 0	0	0 0	2 0	1	0 0	0 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	77	854	0	0	401	274	0	0	0	207	4	751
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	854	0	0	401	274	0	0	0	207	4	751
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:	81	899	0	0	422	288	0	0	0	218	4	791
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	81	899	0	0	422	288	0	0	0	218	4	791
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	711	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1272	1772	449
Potent Cap.:	898	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	162	84	562
Move Cap.:	898	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	150	76	562
Volume/Cap:	0.09	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	1.45	0.06	1.41
Level Of Service Module:												
2Way95thQ:	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	36.6
Control Del:	9.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	213.9
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	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	148	xxxx	xxxxx
SharedQueue:	0.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	14.9	xxxx	xxxxx
Shrd ConDel:	9.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	314.1	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	*	*	F	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			235.9		
ApproachLOS:	*			*			*			F		

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #5 Palm Ave & I-215 SB On/Off-Ramps / Kendall Dr.

Cycle (sec):	100	Critical Vol./Cap.(X):	1.899
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	167.6
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Palm Ave						I-215 SB On/Off-Ramps / Kendall 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			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	1 0		0 1 0	0 1		0 1 0	0 1	
Volume Module:												
Base Vol:	129	282	163	382	102	128	369	319	93	31	9	285
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:	129	282	163	382	102	128	369	319	93	31	9	285
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:	136	297	172	402	107	135	388	336	98	33	9	300
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	136	297	172	402	107	135	388	336	98	33	9	300
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:	136	297	172	402	107	135	388	336	98	33	9	300
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	1.00	1.00	0.54	0.46	1.00	0.78	0.22	1.00
Final Sat.:	340	360	384	345	355	382	205	177	415	275	80	401
Capacity Analysis Module:												
Vol/Sat:	0.40	0.82	0.45	1.16	0.30	0.35	1.90	1.90	0.24	0.12	0.12	0.75
Crit Moves:		****		****			****					****
Delay/Veh:	19.8	45.3	19.1	133.0	16.8	16.7	435.8	436	13.7	14.0	14.0	33.0
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:	19.8	45.3	19.1	133.0	16.8	16.7	435.8	436	13.7	14.0	14.0	33.0
LOS by Move:	C	E	C	F	C	C	F	F	B	B	B	D
ApproachDel:		32.1			89.3			385.5			30.6	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		32.1			89.3			385.5			30.6	
LOS by Appr:		D			F			F			D	
AllWayAvgQ:	0.6	3.3	0.8	11.5	0.4	0.5	44.9	44.9	0.3	0.1	0.1	2.4

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

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

Intersection #6 University Pkwy & I-215 NB On/Off-Ramps

Cycle (sec):	80	Critical Vol./Cap.(X):	0.971
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	34.1
Optimal Cycle:	130	Level Of Service:	C

Street Name:	University Pkwy							I-215 NB On/Off-Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R	
Control:	Protected			Protected			Split Phase			Split Phase			
Rights:	Include			Include			Include			Include			
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6	
Lanes:	1 0	2 0	0	0 0	3 0	1	0 0	0 0	0	0 1	0 0	2	
Volume Module:													
Base Vol:	122	663	0	0	1770	391	0	0	0	633	7	1711	
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:	122	663	0	0	1770	391	0	0	0	633	7	1711	
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:	128	698	0	0	1863	412	0	0	0	666	7	1801	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	128	698	0	0	1863	412	0	0	0	666	7	1801	
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:	128	698	0	0	1863	412	0	0	0	666	7	1801	
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	0.95	
Lanes:	1.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	0.99	0.01	2.00	
Final Sat.:	1800	3800	0	0	5700	1900	0	0	0	1781	20	3600	
Capacity Analysis Module:													
Vol/Sat:	0.07	0.18	0.00	0.00	0.33	0.22	0.00	0.00	0.00	0.37	0.37	0.50	
Crit Moves:	****				****							****	
Green/Cycle:	0.08	0.29	0.00	0.00	0.34	0.34	0.00	0.00	0.00	0.51	0.51	0.51	
Volume/Cap:	0.95	0.63	0.00	0.00	0.97	0.64	0.00	0.00	0.00	0.73	0.73	0.97	
Delay/Veh:	99.3	25.7	0.0	0.0	40.9	24.8	0.0	0.0	0.0	18.0	18.0	33.9	
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:	99.3	25.7	0.0	0.0	40.9	24.8	0.0	0.0	0.0	18.0	18.0	33.9	
LOS by Move:	F	C	A	A	D	C	A	A	A	B	B	C	
HCM2kAvgQ:	7	8	0	0	21	9	0	0	0	15	15	30	

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

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

Intersection #7 University Pkwy & I-215 SB On/Off-Ramps

Cycle (sec): 115 Critical Vol./Cap.(X): 1.453
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 150.6
Optimal Cycle: 130 Level Of Service: F

Street Name:	University Pkwy						I-215 SB On/Off-Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 1	1 0		1 0 2	0 0		0 1 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	598	906	1355	1096	0	140	1	39	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	598	906	1355	1096	0	140	1	39	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	629	954	1426	1154	0	147	1	41	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	629	954	1426	1154	0	147	1	41	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	629	954	1426	1154	0	147	1	41	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	2.00	0.00	0.99	0.01	1.00	0.00	0.00	0.00
Final Sat.:	0	1900	1900	1800	3800	0	1788	13	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.33	0.50	0.79	0.30	0.00	0.08	0.08	0.02	0.00	0.00	0.00
Crit Moves:			****	****			****					
Green/Cycle:	0.00	0.35	0.35	0.55	0.76	0.00	0.06	0.06	0.06	0.00	0.00	0.00
Volume/Cap:	0.00	0.96	1.45	1.45	0.40	0.00	1.45	1.45	0.38	0.00	0.00	0.00
Delay/Veh:	0.0	50.5	246.4	235.5	4.8	0.0	304.0	304	54.5	0.0	0.0	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:	0.0	50.5	246.4	235.5	4.8	0.0	304.0	304	54.5	0.0	0.0	0.0
LOS by Move:	A	D	F	F	A	A	F	F	D	A	A	A
HCM2kAvgQ:	0	27	71	110	7	0	13	13	2	0	0	0

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

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

Intersection #8 I-15 SB On/Off-Ramps & Glen Helen Pkwy

Average Delay (sec/veh): 7.9 Worst Case Level Of Service: B[10.5]

Street Name:	I-15 SB On/Off-Ramps									Glen Helen Pkwy												
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	1	0	0	1	0	0	0	1	1	0	1	0	2	0	0		
Volume Module:																						
Base Vol:	0	0	0			14	0		53		0	7		3		349	10		0			
Growth Adj:	1.00	1.00	1.00			1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00			
Initial Bse:	0	0	0			14	0		53		0	7		3		349	10		0			
User Adj:	1.00	1.00	1.00			1.00	1.00		1.00		1.00	1.00		1.00		1.00	1.00		1.00			
PHF Adj:	0.95	0.95	0.95			0.95	0.95		0.95		0.95	0.95		0.95		0.95	0.95		0.95			
PHF Volume:	0	0	0			15	0		56		0	7		3		367	11		0			
Reduct Vol:	0	0	0			0	0		0		0	0		0		0	0		0			
FinalVolume:	0	0	0			15	0		56		0	7		3		367	11		0			
Critical Gap Module:																						
Critical Gp:	xxxxx	xxxx	xxxxx			6.8	6.5		6.9		xxxxx	xxxx		xxxxx		4.1	xxxx		xxxxx			
FollowUpTim:	xxxxx	xxxx	xxxxx			3.5	4.0		3.3		xxxxx	xxxx		xxxxx		2.2	xxxx		xxxxx			
Capacity Module:																						
Cnflict Vol:	xxxx	xxxx	xxxxx			749	756		5		xxxx	xxxx		xxxxx		11	xxxx		xxxxx			
Potent Cap.:	xxxx	xxxx	xxxxx			352	340		1083		xxxx	xxxx		xxxxx		1622	xxxx		xxxxx			
Move Cap.:	xxxx	xxxx	xxxxx			290	263		1083		xxxx	xxxx		xxxxx		1622	xxxx		xxxxx			
Volume/Cap:	xxxx	xxxx	xxxx			0.05	0.00		0.05		xxxx	xxxx		xxxx		0.23	xxxx		xxxx			
Level Of Service Module:																						
2Way95thQ:	xxxx	xxxx	xxxxx			0.2	xxxx		xxxxx		xxxx	xxxx		xxxxx		0.9	xxxx		xxxxx			
Control Del:	xxxxx	xxxx	xxxxx			18.1	xxxx		xxxxx		xxxxx	xxxx		xxxxx		7.9	xxxx		xxxxx			
LOS by Move:	*	*	*			C	*		*		*	*		*		A	*		*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT		
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx		1083		xxxx	xxxx		xxxxx		xxxx	xxxx		xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx		0.2		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx		8.5		xxxxx	xxxx		xxxxx		xxxxx	xxxx		xxxxx			
Shared LOS:	*	*	*			*	*		A		*	*		*		*	*		*			
ApproachDel:	xxxxxx					10.5					xxxxxx					xxxxxx						
ApproachLOS:	*					B					*					*						

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

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

Intersection #9 I-15 NB On/Off-Ramps & Glen Helen Pkwy

Average Delay (sec/veh): 6.3 Worst Case Level Of Service: B[11.2]

Street Name:	I-15 NB On/Off-Ramps									Glen Helen Pkwy									
Approach:	North Bound					South Bound				East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	1	1	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	1	1	0
Volume Module:																				
Base Vol:	32		0		487	0		0		0	12		8		0	0		329		68
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		0		487	0		0		0	12		8		0	0		329		68
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:	34		0		513	0		0		0	13		8		0	0		346		72
Reduct Vol:	0		0		0	0		0		0	0		0		0	0		0		0
FinalVolume:	34		0		513	0		0		0	13		8		0	0		346		72
Critical Gap Module:																				
Critical Gp:	6.8	6.5			6.9	xxxxx	xxxx	xxxxx			4.1	xxxx	xxxxx	xxxxx		xxxx	xxxxx			
FollowUpTim:	3.5	4.0			3.3	xxxxx	xxxx	xxxxx			2.2	xxxx	xxxxx	xxxxx		xxxx	xxxxx			
Capacity Module:																				
Cnflict Vol:	207	452			4	xxxx	xxxx	xxxxx			418	xxxx	xxxxx			xxxx	xxxxx			
Potent Cap.:	768	506			1084	xxxx	xxxx	xxxxx			1152	xxxx	xxxxx			xxxx	xxxxx			
Move Cap.:	762	501			1084	xxxx	xxxx	xxxxx			1152	xxxx	xxxxx			xxxx	xxxxx			
Volume/Cap:	0.04	0.00			0.47	xxxx	xxxx	xxxx			0.01	xxxx	xxxx			xxxx	xxxx			
Level Of Service Module:																				
2Way95thQ:	0.1	xxxx			2.6	xxxx	xxxx	xxxxx			0.0	xxxx	xxxxx			xxxx	xxxxx			
Control Del:	9.8	xxxx			11.3	xxxxx	xxxx	xxxxx			8.2	xxxx	xxxxx	xxxxx		xxxx	xxxxx			
LOS by Move:	A	*			B	*	*	*			A	*	*	*		*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	762	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	0.1	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shrd ConDel:	9.8	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	A	*		*		*	*		*		*	*		*		*	*		*	
ApproachDel:		11.2				xxxxxx					xxxxxx					xxxxxx				
ApproachLOS:		B				*					*					*				

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #10 Glen Helen Pkwy & Lytle Creek Rd

Average Delay (sec/veh): 465.8 Worst Case Level Of Service: F[2642.1]

Street Name:	Glen Helen Pkwy									Lytle Creek Rd									
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	1	0	0	0	1	0	1	0	0	0	0	0	1	0	1
Volume Module:																				
Base Vol:	0	0	0			430	0			67	23	1013			0	0		881		406
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			430	0			67	23	1013			0	0		881		406
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			453	0			71	24	1066			0	0		927		427
Reduct Vol:	0	0	0			0	0			0	0	0			0	0		0		0
FinalVolume:	0	0	0			453	0			71	24	1066			0	0		927		427
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			2042	xxxx			927	1355	xxxx	xxxxx		xxxx	xxxx		xxxxx		
Potent Cap.:	xxxx	xxxx	xxxxx			63	xxxx			328	514	xxxx	xxxxx		xxxx	xxxx		xxxxx		
Move Cap.:	xxxx	xxxx	xxxxx			60	xxxx			328	514	xxxx	xxxxx		xxxx	xxxx		xxxxx		
Volume/Cap:	xxxx	xxxx	xxxx			7.49	xxxx			0.22	0.05	xxxx	xxxx		xxxx	xxxx		xxxx		
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx			52.3	xxxx			0.8	0.1	xxxx	xxxxx		xxxx	xxxx		xxxxx		
Control Del:	xxxxx	xxxx	xxxxx			3051	xxxx			19.0	12.3	xxxx	xxxxx		xxxxx	xxxx		xxxxx		
LOS by Move:	*	*	*			F	*			C	B	*	*		*	*		*		
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			12.3	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	*	*	*			*	*	*			B	*	*			*	*	*		
ApproachDel:	xxxxxx					2642.1					xxxxxx					xxxxxx				
ApproachLOS:	*					F					*					*				

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

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

Intersection #11 Lytle Creek Rd & Sierra Ave

Average Delay (sec/veh): 225.9 Worst Case Level Of Service: F[2229.5]

Street Name:	Lytle Creek Rd						Sierra Ave / Lytle Creek Rd					
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 1!	0	0	0 0	0	0	0 0	0	1	0 1	0	0
Volume Module:												
Base Vol:	71	0	236	0	0	0	0	1408	18	6	1291	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:	71	0	236	0	0	0	0	1408	18	6	1291	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:	75	0	248	0	0	0	0	1482	19	6	1359	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	75	0	248	0	0	0	0	1482	19	6	1359	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	2863	2863	1492	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1501	xxxx	xxxxx
Potent Cap.:	19	17	153	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	452	xxxx	xxxxx
Move Cap.:	19	17	153	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	452	xxxx	xxxxx
Volume/Cap:	4.02	0.00	1.62	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	13.1	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	B	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	57	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	36.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	2229	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	13.1	xxxx	xxxxx
Shared LOS:	*	F	*	*	*	*	*	*	*	B	*	*
ApproachDel:	2229.5			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	F			*			*			*		

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

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

Intersection #12 I-15 SB On/Off-Ramps & Sierra Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	3.270
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	506.5
Optimal Cycle:	0	Level Of Service:	F

Street Name:	I-15 SB On/Off-Ramps						Sierra Ave					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	0 0	0	0 1	0 0	1	0 0	0 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	0	0	0	207	5	308	0	1011	596	412	995	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	207	5	308	0	1011	596	412	995	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	218	5	324	0	1064	627	434	1047	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	218	5	324	0	1064	627	434	1047	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	218	5	324	0	1064	627	434	1047	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:	0.00	0.00	0.00	0.98	0.02	1.00	0.00	0.63	0.37	1.00	2.00	0.00
Final Sat.:	0	0	0	383	9	449	0	325	192	465	996	0
Capacity Analysis Module:												
Vol/Sat:	xxxx	xxxx	xxxx	0.57	0.57	0.72	xxxx	3.27	3.27	0.93	1.05	xxxx
Crit Moves:						****		****			****	
Delay/Veh:	0.0	0.0	0.0	23.1	23.1	28.4	0.0	1042	1042	53.7	80.8	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:	0.0	0.0	0.0	23.1	23.1	28.4	0.0	1042	1042	53.7	80.8	0.0
LOS by Move:	*	*	*	C	C	D	*	F	F	F	F	*
ApproachDel:	xxxxxx			26.2			1041.6			72.8		
Delay Adj:	xxxxx			1.00			1.00			1.00		
ApprAdjDel:	xxxxxx			26.2			1041.6			72.8		
LOS by Appr:	*			D			F			F		
AllWayAvgQ:	0.0	0.0	0.0	1.2	1.2	2.2	148	148	148.2	5.6	9.8	0.0

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

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

Intersection #13 I-15 NB On/Off-Ramps & Sierra Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	1.962
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	307.6
Optimal Cycle:	0	Level Of Service:	F

Street Name:	I-15 NB On/Off-Ramps						Sierra Ave					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	1! 0	0	0 0	0 0	0	1 0	1 0	0	0 0	1 1	0
Volume Module:												
Base Vol:	864	0	395	0	0	0	470	759	0	0	535	618
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:	864	0	395	0	0	0	470	759	0	0	535	618
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:	909	0	416	0	0	0	495	799	0	0	563	651
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	909	0	416	0	0	0	495	799	0	0	563	651
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:	909	0	416	0	0	0	495	799	0	0	563	651
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:	1.37	0.01	0.62	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Final Sat.:	941	-401	252	0	0	0	385	407	0	0	407	442
Capacity Analysis Module:												
Vol/Sat:	0.97	0.00	1.65	xxxx	xxxx	xxxx	1.28	1.96	xxxx	xxxx	1.38	1.47
Crit Moves:			****					****				****
Delay/Veh:	334.8	326	326.1	0.0	0.0	0.0	173.1	462	0.0	0.0	211	245.6
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:	334.8	326	326.1	0.0	0.0	0.0	173.1	462	0.0	0.0	211	245.6
LOS by Move:	F	F	F	*	*	*	F	F	*	*	F	F
ApproachDel:	336.4			xxxxxx			351.3			229.7		
Delay Adj:	1.00			xxxxx			1.00			1.00		
ApprAdjDel:	336.4			xxxxxx			351.3			229.7		
LOS by Appr:	F			*			F			F		
AllWayAvgQ:	35.0	35.0	35.0	0.0	0.0	0.0	17.2	50.9	0.0	0.0	22.6	28.8

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

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

Intersection #14 I-15 SB On/Off Ramps and Duncan Canyon Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.716
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.4
Optimal Cycle:	60	Level Of Service:	B

Street Name:	I-15 SB On/Off Ramps						Duncan Canyon Rd.					
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			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 1 0 0			0 0 1 0 1		
Volume Module:												
Base Vol:	0	0	0	22	0	254	285	184	0	0	608	59
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	22	0	254	285	184	0	0	608	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:	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	23	0	267	300	194	0	0	640	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	23	0	267	300	194	0	0	640	62
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	23	0	267	300	194	0	0	640	62
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Final Sat.:	0	0	0	1800	0	1900	1800	1900	0	0	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.01	0.00	0.14	0.17	0.10	0.00	0.00	0.34	0.03
Crit Moves:						****	****				****	
Green/Cycle:	0.00	0.00	0.00	0.15	0.00	0.20	0.23	0.70	0.00	0.00	0.47	0.47
Volume/Cap:	0.00	0.00	0.00	0.09	0.00	0.72	0.72	0.14	0.00	0.00	0.72	0.07
Delay/Veh:	0.0	0.0	0.0	22.2	0.0	29.0	27.0	3.0	0.0	0.0	15.5	8.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	22.2	0.0	29.0	27.0	3.0	0.0	0.0	15.5	8.7
LOS by Move:	A	A	A	C	A	C	C	A	A	A	B	A
HCM2kAvgQ:	0	0	0	0	0	6	7	1	0	0	11	1

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
PM Peak Hour

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

Intersection #15 Lytle Creek Rd. and Duncan Canyon Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.464
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	11.5
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Lytle Creek Rd.						Duncan Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0	1 0	0	0 1 0	0	1	1 0 0	1 0	0	0 1 0	0	1
Volume Module:												
Base Vol:	33	0	0	35	33	532	128	55	3	0	86	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:	33	0	0	35	33	532	128	55	3	0	86	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:	35	0	0	37	35	560	135	58	3	0	91	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	0	0	37	35	560	135	58	3	0	91	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
FinalVolume:	35	0	0	37	35	560	135	58	3	0	91	1
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	0.53	0.47	1.00	1.00	0.95	0.05	0.00	1.00	1.00
Final Sat.:	1800	1900	0	951	896	1900	1800	1802	98	0	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.02	0.00	0.00	0.04	0.04	0.29	0.07	0.03	0.03	0.00	0.05	0.00
Crit Moves:						****	****				****	
Green/Cycle:	0.64	0.00	0.00	0.64	0.64	0.64	0.16	0.13	0.13	0.00	0.10	0.10
Volume/Cap:	0.03	0.00	0.00	0.06	0.06	0.46	0.46	0.24	0.24	0.00	0.46	0.01
Delay/Veh:	4.1	0.0	0.0	4.2	4.2	5.9	24.0	23.9	23.9	0.0	27.1	24.2
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:	4.1	0.0	0.0	4.2	4.2	5.9	24.0	23.9	23.9	0.0	27.1	24.2
LOS by Move:	A	A	A	A	A	A	C	C	C	A	C	C
HCM2kAvgQ:	0	0	0	1	1	6	3	1	1	0	2	0

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

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Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #16 I-15 SB On/Off Ramps and Summit Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.792
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.7
Optimal Cycle:	60	Level Of Service:	B

Street Name:	I-15 SB On/Off Ramps						Summit Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 2 0 0			0 0 2 0 1		
Volume Module:												
Base Vol:	0	0	0	406	0	253	222	704	0	0	1247	456
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	406	0	253	222	704	0	0	1247	456
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	427	0	266	234	741	0	0	1313	480
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	427	0	266	234	741	0	0	1313	480
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	427	0	266	234	741	0	0	1313	480
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1800	0	1900	1800	3800	0	0	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.24	0.00	0.14	0.13	0.20	0.00	0.00	0.35	0.25
Crit Moves:				****			****				****	
Green/Cycle:	0.00	0.00	0.00	0.30	0.00	0.30	0.16	0.40	0.00	0.00	0.44	0.44
Volume/Cap:	0.00	0.00	0.00	0.79	0.00	0.47	0.79	0.49	0.00	0.00	0.79	0.58
Delay/Veh:	0.0	0.0	0.0	27.1	0.0	17.7	37.7	13.8	0.0	0.0	17.3	13.8
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:	0.0	0.0	0.0	27.1	0.0	17.7	37.7	13.8	0.0	0.0	17.3	13.8
LOS by Move:	A	A	A	C	A	B	D	B	A	A	B	B
HCM2kAvgQ:	0	0	0	10	0	4	7	6	0	0	13	7

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

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Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #17 I-15 NB On/Off Ramps and Summit Ave.

Cycle (sec):	95	Critical Vol./Cap.(X):	1.312
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	124.6
Optimal Cycle:	130	Level Of Service:	F

Street Name:	I-15 NB On/Off Ramps									Summit Ave.								
Approach:	North Bound				South Bound				East Bound				West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Split Phase					Split Phase					Protected					Protected				
Rights:	Include					Include					Include					Include				
Min. Green:	6	6	6			6	6	6			6	6	6			6	6	6		
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0	2	0	0	0	0	2	0	1
Volume Module:																				
Base Vol:	0	0	0			1265	0	492			272	803	0			0	1193	457		
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			1265	0	492			272	803	0			0	1193	457		
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			1332	0	518			286	845	0			0	1256	481		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
Reduced Vol:	0	0	0			1332	0	518			286	845	0			0	1256	481		
PCE Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
FinalVolume:	0	0	0			1332	0	518			286	845	0			0	1256	481		
Saturation Flow Module:																				
Sat/Lane:	1900	1900	1900			1900	1900	1900			1900	1900	1900			1900	1900	1900		
Adjustment:	0.95	1.00	1.00			0.95	1.00	1.00			0.95	1.00	1.00			0.95	1.00	1.00		
Lanes:	0.00	0.00	0.00			1.00	0.00	1.00			1.00	2.00	0.00			0.00	2.00	1.00		
Final Sat.:	0	0	0			1800	0	1900			1800	3800	0			0	3800	1900		
Capacity Analysis Module:																				
Vol/Sat:	0.00	0.00	0.00			0.74	0.00	0.27			0.16	0.22	0.00			0.00	0.33	0.25		
Crit Moves:						****					****						****			
Green/Cycle:	0.00	0.00	0.00			0.56	0.00	0.56			0.12	0.29	0.00			0.00	0.25	0.25		
Volume/Cap:	0.00	0.00	0.00			1.31	0.00	0.48			1.31	0.77	0.00			0.00	1.31	1.01		
Delay/Veh:	0.0	0.0	0.0			168.3	0.0	12.8			211.0	34.0	0.0			0.0	184	78.0		
User DelAdj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
AdjDel/Veh:	0.0	0.0	0.0			168.3	0.0	12.8			211.0	34.0	0.0			0.0	184	78.0		
LOS by Move:	A	A	A			F	A	B			F	C	A			A	F	E		
HCM2kAvgQ:	0	0	0			83	0	9			20	13	0			0	39	21		

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

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

Intersection #18 Sierra Ave & Riverside Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 1.728
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 186.2
Optimal Cycle: 0 Level Of Service: F

Street Name:	Sierra Ave						Riverside Ave					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 1	0 1		1 0 1	0 0		0 0 0	0 0		1 0 0	0 1	
Volume Module:												
Base Vol:	0	494	102	729	431	0	0	0	0	118	0	652
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	494	102	729	431	0	0	0	0	118	0	652
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	520	107	767	454	0	0	0	0	124	0	686
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	520	107	767	454	0	0	0	0	124	0	686
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	520	107	767	454	0	0	0	0	124	0	686
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	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	452	491	444	474	0	0	0	0	433	0	508
Capacity Analysis Module:												
Vol/Sat:	xxxx	1.15	0.22	1.73	0.96	xxxx	xxxx	xxxx	xxxx	0.29	xxxx	1.35
Crit Moves:		****		****								****
Delay/Veh:	0.0	117	12.0	356.1	58.8	0.0	0.0	0.0	0.0	14.2	0.0	191.5
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:	0.0	117	12.0	356.1	58.8	0.0	0.0	0.0	0.0	14.2	0.0	191.5
LOS by Move:	*	F	B	F	F	*	*	*	*	B	*	F
ApproachDel:		98.9		245.6			xxxxxx			164.3		
Delay Adj:		1.00		1.00			xxxxx			1.00		
ApprAdjDel:		98.9		245.6			xxxxxx			164.3		
LOS by Appr:		F		F			*			F		
AllWayAvgQ:	0.0	13.3	0.3	42.6	6.4	0.0	0.0	0.0	0.0	0.4	0.0	25.6

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

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Lytle Creek Ranch Project
Future 2030 Without Project Condition
PM Peak Hour

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

Intersection #19 Live Oak Ave & Riverside Ave

Cycle (sec):	60	Critical Vol./Cap.(X):	0.422
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	13.0
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Live Oak Ave						Riverside Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 1 0			1 0 2 0 0		
Volume Module:												
Base Vol:	231	0	86	0	0	0	0	567	241	36	598	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:	231	0	86	0	0	0	0	567	241	36	598	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:	243	0	91	0	0	0	0	597	254	38	629	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	243	0	91	0	0	0	0	597	254	38	629	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	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:	243	0	91	0	0	0	0	597	254	38	629	0
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	0.00	1.00	0.00	0.00	0.00	0.00	1.40	0.60	1.00	2.00	0.00
Final Sat.:	1800	0	1900	0	0	0	0	2667	1133	1800	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.14	0.00	0.05	0.00	0.00	0.00	0.00	0.22	0.22	0.02	0.17	0.00
Crit Moves:	****							****		****		
Green/Cycle:	0.30	0.00	0.30	0.00	0.00	0.00	0.00	0.50	0.50	0.10	0.37	0.00
Volume/Cap:	0.45	0.00	0.16	0.00	0.00	0.00	0.00	0.45	0.45	0.21	0.44	0.00
Delay/Veh:	17.5	0.0	15.5	0.0	0.0	0.0	0.0	9.9	9.9	25.4	14.3	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:	17.5	0.0	15.5	0.0	0.0	0.0	0.0	9.9	9.9	25.4	14.3	0.0
LOS by Move:	B	A	B	A	A	A	A	A	A	C	B	A
HCM2kAvgQ:	4	0	1	0	0	0	0	5	5	1	5	0

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #20 Alder Ave. and Riverside Ave.

Average Delay (sec/veh): 6.9 Worst Case Level Of Service: E[37.0]

Street Name:	Alder Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 1 0			1 0 2 0 0		
Volume Module:												
Base Vol:	140	0	110	0	0	0	0	529	126	90	461	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:	140	0	110	0	0	0	0	529	126	90	461	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:	147	0	116	0	0	0	0	557	133	95	485	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	147	0	116	0	0	0	0	557	133	95	485	0
Critical Gap Module:												
Critical Gp:	6.8	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1055	xxxx	345	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	689	xxxx	xxxxx
Potent Cap.:	224	xxxx	657	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	914	xxxx	xxxxx
Move Cap.:	206	xxxx	657	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	914	xxxx	xxxxx
Volume/Cap:	0.71	xxxx	0.18	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.10	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	4.6	xxxx	0.6	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx
Control Del:	56.8	xxxx	11.6	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.4	xxxx	xxxxx
LOS by Move:	F	*	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	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:		37.0			xxxxxx			xxxxxx			xxxxxx	
ApproachLOS:		E			*			*			*	

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #21 Locust Ave. and Riverside Ave.

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: C[18.1]

Street Name:	Locust Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 1 0			1 0 2 0 0		
Volume Module:												
Base Vol:	38	0	54	0	0	0	0	596	36	86	525	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:	38	0	54	0	0	0	0	596	36	86	525	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:	40	0	57	0	0	0	0	627	38	91	553	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	40	0	57	0	0	0	0	627	38	91	553	0
Critical Gap Module:												
Critical Gp:	6.8	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1104	xxxx	333	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	665	xxxx	xxxxx
Potent Cap.:	209	xxxx	669	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	934	xxxx	xxxxx
Move Cap.:	193	xxxx	669	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	934	xxxx	xxxxx
Volume/Cap:	0.21	xxxx	0.08	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.10	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.8	xxxx	0.3	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx
Control Del:	28.5	xxxx	10.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.3	xxxx	xxxxx
LOS by Move:	D	*	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	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	18.1			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	C			*			*			*		

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

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

Intersection #22 Linden Ave. and Riverside Ave.

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: D[32.1]

Street Name:	Linden Ave.						Riverside Ave.					
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	1! 0	0	0 0	0 0	0	0 0	1 1	0	0 1	0 0	0
Volume Module:												
Base Vol:	18	0	20	0	0	0	0	719	63	64	742	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:	18	0	20	0	0	0	0	719	63	64	742	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:	19	0	21	0	0	0	0	757	66	67	781	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	19	0	21	0	0	0	0	757	66	67	781	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1706	1706	412	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	823	xxxx	xxxxx
Potent Cap.:	102	92	645	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	815	xxxx	xxxxx
Move Cap.:	95	84	645	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	815	xxxx	xxxxx
Volume/Cap:	0.20	0.00	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.08	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.8	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	172	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.3	xxxx	xxxxx
Shrd ConDel:	xxxxx	32.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.8	xxxx	xxxxx
Shared LOS:	*	D	*	*	*	*	*	*	*	A	*	*
ApproachDel:		32.1		xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:		D			*			*			*	

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

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

Intersection #23 Ayala Dr. and Riverside Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.388
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	13.5
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Ayala Dr.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0 0 2			0 0 0 0 0			0 0 1 1 0			1 0 2 0 0		
Volume Module:												
Base Vol:	151	0	296	0	0	0	0	609	116	102	582	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:	151	0	296	0	0	0	0	609	116	102	582	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:	159	0	312	0	0	0	0	641	122	107	613	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	159	0	312	0	0	0	0	641	122	107	613	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	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:	159	0	312	0	0	0	0	641	122	107	613	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	0.00	2.00	0.00	0.00	0.00	0.00	1.68	0.32	1.00	2.00	0.00
Final Sat.:	1800	0	3600	0	0	0	0	3192	608	1800	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.09	0.00	0.09	0.00	0.00	0.00	0.00	0.20	0.20	0.06	0.16	0.00
Crit Moves:	****							****		****		
Green/Cycle:	0.23	0.00	0.23	0.00	0.00	0.00	0.00	0.52	0.52	0.15	0.41	0.00
Volume/Cap:	0.39	0.00	0.38	0.00	0.00	0.00	0.00	0.39	0.39	0.39	0.39	0.00
Delay/Veh:	20.2	0.0	19.9	0.0	0.0	0.0	0.0	8.8	8.8	23.7	12.4	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:	20.2	0.0	19.9	0.0	0.0	0.0	0.0	8.8	8.8	23.7	12.4	0.0
LOS by Move:	C	A	B	A	A	A	A	A	A	C	B	A
HCM2kAvgQ:	3	0	3	0	0	0	0	4	4	2	4	0

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

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

Intersection #24 Knollwood Ave. and Riverside Ave.

Cycle (sec):	130	Critical Vol./Cap.(X):	0.270
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	5.3
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Knollwood Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 2 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	0	0	0	9	0	17	34	909	0	0	632	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	9	0	17	34	909	0	0	632	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	9	0	18	36	957	0	0	665	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	9	0	18	36	957	0	0	665	40
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	9	0	18	36	957	0	0	665	40
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.89	0.11
Final Sat.:	0	0	0	1800	0	1900	1800	3800	0	0	3584	216
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.01	0.00	0.01	0.02	0.25	0.00	0.00	0.19	0.19
Crit Moves:				****				****		****		
Green/Cycle:	0.00	0.00	0.00	0.05	0.00	0.05	0.18	0.86	0.00	0.00	0.73	0.73
Volume/Cap:	0.00	0.00	0.00	0.11	0.00	0.20	0.11	0.29	0.00	0.00	0.26	0.26
Delay/Veh:	0.0	0.0	0.0	60.1	0.0	60.9	44.7	1.7	0.0	0.0	6.0	6.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	60.1	0.0	60.9	44.7	1.7	0.0	0.0	6.0	6.0
LOS by Move:	A	A	A	E	A	E	D	A	A	A	A	A
HCM2kAvgQ:	0	0	0	0	0	1	1	4	0	0	5	5

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

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

Intersection #25 Country Club Dr. and Riverside Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.296
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.8
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Country Club Dr.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 1	0 0	1	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	94	16	18	2	2	96	83	668	46	8	568	6
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:	94	16	18	2	2	96	83	668	46	8	568	6
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:	99	17	19	2	2	101	87	703	48	8	598	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	99	17	19	2	2	101	87	703	48	8	598	6
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:	99	17	19	2	2	101	87	703	48	8	598	6
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.86	0.14	1.00	1.00	0.02	0.98	1.00	1.87	0.13	1.00	1.98	0.02
Final Sat.:	1550	264	1900	1800	39	1861	1800	3555	245	1800	3760	40
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.01	0.00	0.05	0.05	0.05	0.20	0.20	0.00	0.16	0.16
Crit Moves:		****						****		****		
Green/Cycle:	0.20	0.20	0.20	0.20	0.20	0.20	0.27	0.60	0.60	0.10	0.43	0.43
Volume/Cap:	0.33	0.33	0.05	0.01	0.28	0.28	0.18	0.33	0.33	0.05	0.37	0.37
Delay/Veh:	21.3	21.3	19.7	19.5	21.0	21.0	16.9	5.9	5.9	24.5	11.6	11.6
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:	21.3	21.3	19.7	19.5	21.0	21.0	16.9	5.9	5.9	24.5	11.6	11.6
LOS by Move:	C	C	B	B	C	C	B	A	A	C	B	B
HCM2kAvgQ:	2	2	0	0	2	2	1	4	4	0	4	4

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

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

Intersection #26 Riverside Ave. and Dwy.(Shopping Ctr.)

Cycle (sec):	60	Critical Vol./Cap.(X):	0.417
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	8.5
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Riverside Ave.						Dwy.(Shopping Ctr.)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 0			0 0 1 1 0			1 0 0 0 1			0 0 0 0 0		
Volume Module:												
Base Vol:	87	1162	0	0	1010	10	91	0	116	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	87	1162	0	0	1010	10	91	0	116	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	92	1223	0	0	1063	11	96	0	122	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	92	1223	0	0	1063	11	96	0	122	0	0	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	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	1223	0	0	1063	11	96	0	122	0	0	0
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	0.00	0.00	1.98	0.02	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1800	3800	0	0	3763	37	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.32	0.00	0.00	0.28	0.28	0.05	0.00	0.06	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.20	0.67	0.00	0.00	0.57	0.57	0.13	0.00	0.13	0.00	0.00	0.00
Volume/Cap:	0.25	0.48	0.00	0.00	0.50	0.50	0.40	0.00	0.48	0.00	0.00	0.00
Delay/Veh:	20.6	5.1	0.0	0.0	8.0	8.0	24.9	0.0	25.5	0.0	0.0	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:	20.6	5.1	0.0	0.0	8.0	8.0	24.9	0.0	25.5	0.0	0.0	0.0
LOS by Move:	C	A	A	A	A	A	C	A	C	A	A	A
HCM2kAvgQ:	2	6	0	0	6	6	2	0	3	0	0	0

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

Lytle Creek Ranch Project
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #27 Sierra Ave. and Casa Grande Dr.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.779
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	16.2
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Sierra Ave.						Casa Grande Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 1	0 1		1 0 1	0 0		0 0 0	0 0		1 0 0	0 1	
Volume Module:												
Base Vol:	0	872	123	145	577	0	0	0	0	112	0	288
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	872	123	145	577	0	0	0	0	112	0	288
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	918	129	153	607	0	0	0	0	118	0	303
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	918	129	153	607	0	0	0	0	118	0	303
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	918	129	153	607	0	0	0	0	118	0	303
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	1900	1900	1800	1900	0	0	0	0	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.48	0.07	0.08	0.32	0.00	0.00	0.00	0.00	0.07	0.00	0.16
Crit Moves:		****		****								****
Green/Cycle:	0.00	0.62	0.62	0.11	0.56	0.00	0.00	0.00	0.00	0.20	0.00	0.20
Volume/Cap:	0.00	0.78	0.11	0.78	0.58	0.00	0.00	0.00	0.00	0.32	0.00	0.78
Delay/Veh:	0.0	11.8	4.7	44.0	9.5	0.0	0.0	0.0	0.0	20.8	0.0	32.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	11.8	4.7	44.0	9.5	0.0	0.0	0.0	0.0	20.8	0.0	32.3
LOS by Move:	A	B	A	D	A	A	A	A	A	C	A	C
HCM2kAvgQ:	0	14	1	5	8	0	0	0	0	2	0	8

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

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

Intersection #28 Alder Ave. and Casa Grande Dr.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.568
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	20.8
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Alder Ave.						Casa Grande Dr.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	1 0		1 0 1	0 1		1 0 1	0 1	
Volume Module:												
Base Vol:	352	290	140	10	181	25	26	13	230	174	24	20
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:	352	290	140	10	181	25	26	13	230	174	24	20
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:	371	305	147	11	191	26	27	14	242	183	25	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	371	305	147	11	191	26	27	14	242	183	25	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	371	305	147	11	191	26	27	14	242	183	25	21
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.76	0.24	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	1900	1900	1800	3339	461	1800	1900	1900	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.21	0.16	0.08	0.01	0.06	0.06	0.02	0.01	0.13	0.10	0.01	0.01
Crit Moves:	****				****				****	****		
Green/Cycle:	0.36	0.29	0.29	0.18	0.10	0.10	0.20	0.22	0.22	0.18	0.20	0.20
Volume/Cap:	0.57	0.56	0.27	0.03	0.57	0.57	0.08	0.03	0.57	0.57	0.07	0.05
Delay/Veh:	16.5	19.6	16.9	20.4	27.8	27.8	19.5	18.2	22.5	24.9	19.4	19.4
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:	16.5	19.6	16.9	20.4	27.8	27.8	19.5	18.2	22.5	24.9	19.4	19.4
LOS by Move:	B	B	B	C	C	C	B	B	C	C	B	B
HCM2kAvgQ:	7	6	2	0	3	3	0	0	5	4	0	0

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

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Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #29 Locust Ave. and Casa Grande Dr.

Average Delay (sec/veh): 5.1 Worst Case Level Of Service: A[9.9]

Street Name:	Locust Ave.						Casa Grande Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1 0 0 0			0 0 0 1 0			1 0 0 0 1			0 0 0 0 0		
Volume Module:												
Base Vol:	174	113	0	0	137	2	1	0	161	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	174	113	0	0	137	2	1	0	161	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	183	119	0	0	144	2	1	0	169	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	183	119	0	0	144	2	1	0	169	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	146	xxxx	xxxxx	xxxx	xxxx	xxxxx	631	xxxx	145	xxxx	xxxx	xxxxx
Potent Cap.:	1448	xxxx	xxxxx	xxxx	xxxx	xxxxx	448	xxxx	907	xxxx	xxxx	xxxxx
Move Cap.:	1448	xxxx	xxxxx	xxxx	xxxx	xxxxx	400	xxxx	907	xxxx	xxxx	xxxxx
Volume/Cap:	0.13	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	0.19	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	0.7	xxxx	xxxx	xxxxx
Control Del:	7.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	14.0	xxxx	9.9	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	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:	0.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	7.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			9.9			xxxxxx		
ApproachLOS:	*			*			A			*		

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #30 Sierra Ave. and Summit Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.707
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	17.3
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Sierra Ave.						Summit Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 0		0 0 2	1 0		1 0 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	324	884	0	0	581	70	134	0	265	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	324	884	0	0	581	70	134	0	265	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	341	931	0	0	612	74	141	0	279	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	341	931	0	0	612	74	141	0	279	0	0	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	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:	341	931	0	0	612	74	141	0	279	0	0	0
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	2.68	0.32	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1800	1900	0	0	5087	613	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.19	0.49	0.00	0.00	0.12	0.12	0.08	0.00	0.15	0.00	0.00	0.00
Crit Moves:		****		****					****			
Green/Cycle:	0.44	0.62	0.00	0.00	0.28	0.28	0.18	0.00	0.18	0.00	0.00	0.00
Volume/Cap:	0.43	0.80	0.00	0.00	0.43	0.43	0.42	0.00	0.80	0.00	0.00	0.00
Delay/Veh:	12.1	12.6	0.0	0.0	18.0	18.0	22.5	0.0	35.3	0.0	0.0	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:	12.1	12.6	0.0	0.0	18.0	18.0	22.5	0.0	35.3	0.0	0.0	0.0
LOS by Move:	B	B	A	A	B	B	C	A	D	A	A	A
HCM2kAvgQ:	5	15	0	0	4	4	3	0	7	0	0	0

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #31 Locust Ave. and Bohnert Ave.

Average Delay (sec/veh): 2.6 Worst Case Level Of Service: C[19.0]

Street Name:	Locust Ave.						Bohnert Ave.					
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	1 0	0 1	0	0 0	1! 0	0
Volume Module:												
Base Vol:	5	312	51	37	372	4	1	0	3	62	0	40
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:	5	312	51	37	372	4	1	0	3	62	0	40
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:	5	328	54	39	392	4	1	0	3	65	0	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	5	328	54	39	392	4	1	0	3	65	0	42
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	396	xxxx	xxxxx	382	xxxx	xxxxx	858	864	394	839	839	355
Potent Cap.:	1174	xxxx	xxxxx	1187	xxxx	xxxxx	279	294	660	288	304	693
Move Cap.:	1174	xxxx	xxxxx	1187	xxxx	xxxxx	255	283	660	278	292	693
Volume/Cap:	0.00	xxxx	xxxx	0.03	xxxx	xxxx	0.00	0.00	0.00	0.23	0.00	0.06
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	8.1	xxxx	xxxxx	8.1	xxxx	xxxxx	19.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	C	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	660	xxxx	363	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.0	xxxxx	1.2	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	10.5	xxxxx	19.0	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	B	*	C	*
ApproachDel:	xxxxxx			xxxxxx			12.7			19.0		
ApproachLOS:	*			*			B			C		

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

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

Intersection #32 Ayala Dr. and Bohnert Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.445
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	7.9
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Ayala Dr.						Bohnert Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		0 1 0	0 1		0 1 0	0 1	
Volume Module:												
Base Vol:	86	910	361	13	356	37	9	40	15	32	40	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:	86	910	361	13	356	37	9	40	15	32	40	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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	91	958	380	14	375	39	9	42	16	34	42	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	958	380	14	375	39	9	42	16	34	42	3
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:	91	958	380	14	375	39	9	42	16	34	42	3
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	1.43	0.57	1.00	1.81	0.19	0.19	0.81	1.00	0.46	0.54	1.00
Final Sat.:	1800	2721	1079	1800	3442	358	345	1535	1900	824	1030	1900
Capacity Analysis Module:												
Vol/Sat:	0.05	0.35	0.35	0.01	0.11	0.11	0.03	0.03	0.01	0.04	0.04	0.00
Crit Moves:		****		****							****	
Green/Cycle:	0.38	0.70	0.70	0.10	0.42	0.42	0.10	0.10	0.10	0.10	0.10	0.10
Volume/Cap:	0.13	0.50	0.50	0.08	0.26	0.26	0.27	0.27	0.08	0.41	0.41	0.02
Delay/Veh:	12.1	4.3	4.3	24.7	11.5	11.5	25.8	25.8	24.7	26.8	26.8	24.4
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:	12.1	4.3	4.3	24.7	11.5	11.5	25.8	25.8	24.7	26.8	26.8	24.4
LOS by Move:	B	A	A	C	B	B	C	C	C	C	C	C
HCM2kAvgQ:	1	6	6	0	3	3	1	1	0	2	2	0

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #33 Sierra Ave. and Sierra Lakes Pkwy/Casmalia St.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.796
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	23.5
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Sierra Ave.						Sierra Lakes Pkwy/Casmalia St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	2 0 3 0 1			2 0 3 0 1			2 0 2 0 1			2 0 2 0 1		
Volume Module:												
Base Vol:	712	1007	207	165	595	166	184	505	520	230	306	129
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:	712	1007	207	165	595	166	184	505	520	230	306	129
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:	749	1060	218	174	626	175	194	532	547	242	322	136
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	749	1060	218	174	626	175	194	532	547	242	322	136
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:	749	1060	218	174	626	175	194	532	547	242	322	136
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3400	5700	1900	3400	5700	1900	3400	3800	1900	3400	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.22	0.19	0.11	0.05	0.11	0.09	0.06	0.14	0.29	0.07	0.08	0.07
Crit Moves:	****				****				****	****		
Green/Cycle:	0.27	0.27	0.27	0.14	0.14	0.14	0.23	0.36	0.36	0.10	0.23	0.23
Volume/Cap:	0.81	0.70	0.43	0.36	0.81	0.68	0.25	0.39	0.81	0.71	0.37	0.31
Delay/Veh:	25.6	21.3	18.8	23.7	31.4	31.6	19.1	14.6	24.5	33.1	19.8	19.6
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:	25.6	21.3	18.8	23.7	31.4	31.6	19.1	14.6	24.5	33.1	19.8	19.6
LOS by Move:	C	C	B	C	C	C	B	B	C	C	B	B
HCM2kAvgQ:	10	7	4	2	6	5	2	4	12	4	3	2

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #34 Alder Ave. and Casmalia St.

Cycle (sec):	70	Critical Vol./Cap.(X):	0.899
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	41.8
Optimal Cycle:	84	Level Of Service:	D

Street Name:	Alder Ave.						Casmalia St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 0	1 0		1 0 1	0 1	
Volume Module:												
Base Vol:	218	589	278	73	551	29	54	431	90	384	179	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:	218	589	278	73	551	29	54	431	90	384	179	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:	229	620	293	77	580	31	57	454	95	404	188	60
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	229	620	293	77	580	31	57	454	95	404	188	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
FinalVolume:	229	620	293	77	580	31	57	454	95	404	188	60
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	1.36	0.64	1.00	1.90	0.10	1.00	0.83	0.17	1.00	1.00	1.00
Final Sat.:	1800	2582	1218	1800	3610	190	1800	1572	328	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.13	0.24	0.24	0.04	0.16	0.16	0.03	0.29	0.29	0.22	0.10	0.03
Crit Moves:		****		****				****		****		
Green/Cycle:	0.15	0.26	0.26	0.09	0.19	0.19	0.25	0.31	0.31	0.24	0.29	0.29
Volume/Cap:	0.85	0.94	0.94	0.50	0.85	0.85	0.12	0.94	0.94	0.94	0.34	0.11
Delay/Veh:	49.9	42.2	42.2	33.1	36.5	36.5	20.3	47.4	47.4	55.3	19.8	18.2
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:	49.9	42.2	42.2	33.1	36.5	36.5	20.3	47.4	47.4	55.3	19.8	18.2
LOS by Move:	D	D	D	C	D	D	C	D	D	E	B	B
HCM2kAvgQ:	8	15	15	2	9	9	1	17	17	14	3	1

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

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

Intersection #35 Locust Ave. and Casmalia St.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.468
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.2
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Locust Ave.						Casmalia St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 0	1 0		1 0 0	1 0	
Volume Module:												
Base Vol:	0	19	1	97	177	235	173	489	2	6	268	59
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	19	1	97	177	235	173	489	2	6	268	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:	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	20	1	102	186	247	182	515	2	6	282	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	20	1	102	186	247	182	515	2	6	282	62
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	20	1	102	186	247	182	515	2	6	282	62
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.90	0.10	1.00	1.00	1.00	1.00	0.99	0.01	1.00	0.82	0.18
Final Sat.:	1800	3610	190	1800	1900	1900	1800	1892	8	1800	1557	343
Capacity Analysis Module:												
Vol/Sat:	0.00	0.01	0.01	0.06	0.10	0.13	0.10	0.27	0.27	0.00	0.18	0.18
Crit Moves:	****					****		****		****		
Green/Cycle:	0.00	0.16	0.16	0.16	0.22	0.22	0.20	0.45	0.45	0.10	0.35	0.35
Volume/Cap:	0.00	0.04	0.04	0.36	0.45	0.60	0.51	0.60	0.60	0.04	0.51	0.51
Delay/Veh:	0.0	21.4	21.4	23.3	20.8	22.7	22.8	13.6	13.6	24.5	16.0	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:	0.0	21.4	21.4	23.3	20.8	22.7	22.8	13.6	13.6	24.5	16.0	16.0
LOS by Move:	A	C	C	C	C	C	C	B	B	C	B	B
HCM2kAvgQ:	0	0	0	2	4	5	4	8	8	0	6	6

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

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

Intersection #36 Ayala Dr. and Casmalia St.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.611
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	15.3
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Ayala Dr.						Casmalia St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	0 1		1 0 1	0 1	
Volume Module:												
Base Vol:	343	1197	110	5	377	8	104	162	333	114	21	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:	343	1197	110	5	377	8	104	162	333	114	21	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	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	361	1260	116	5	397	8	109	171	351	120	22	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	361	1260	116	5	397	8	109	171	351	120	22	9
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:	361	1260	116	5	397	8	109	171	351	120	22	9
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	1.83	0.17	1.00	1.96	0.04	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	3480	320	1800	3721	79	1800	1900	1900	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.20	0.36	0.36	0.00	0.11	0.11	0.06	0.09	0.18	0.07	0.01	0.00
Crit Moves:		****		****					****			
Green/Cycle:	0.41	0.53	0.53	0.10	0.22	0.22	0.27	0.27	0.27	0.27	0.27	0.27
Volume/Cap:	0.49	0.68	0.68	0.03	0.49	0.49	0.23	0.33	0.68	0.25	0.04	0.02
Delay/Veh:	13.5	11.4	11.4	24.4	21.0	21.0	17.3	17.9	23.4	17.4	16.2	16.1
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:	13.5	11.4	11.4	24.4	21.0	21.0	17.3	17.9	23.4	17.4	16.2	16.1
LOS by Move:	B	B	B	C	C	C	B	B	C	B	B	B
HCM2kAvgQ:	6	10	10	0	4	4	2	3	7	2	0	0

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

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

Intersection #37 Sierra Ave. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.267
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	6.9
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Sierra Ave.						SR-210 Fwy. WB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Ignore			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	3 0	2	0 0	2 0	2	0 0	0 0	0	1 0	1! 0	1
Volume Module:												
Base Vol:	0	959	595	0	535	250	0	0	0	184	0	206
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	959	595	0	535	250	0	0	0	184	0	206
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	1009	0	0	563	0	0	0	0	194	0	217
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1009	0	0	563	0	0	0	0	194	0	217
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1009	0	0	563	0	0	0	0	194	0	217
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	3.00	2.00	0.00	2.00	2.00	0.00	0.00	0.00	1.49	0.00	1.51
Final Sat.:	0	5700	3600	0	3800	3600	0	0	0	2674	0	2878
Capacity Analysis Module:												
Vol/Sat:	0.00	0.18	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.07	0.00	0.08
Crit Moves:		****								****		
Green/Cycle:	0.00	0.65	0.00	0.00	0.65	0.00	0.00	0.00	0.00	0.28	0.00	0.28
Volume/Cap:	0.00	0.27	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.26	0.00	0.27
Delay/Veh:	0.0	4.4	0.0	0.0	4.2	0.0	0.0	0.0	0.0	16.9	0.0	17.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	4.4	0.0	0.0	4.2	0.0	0.0	0.0	0.0	16.9	0.0	17.0
LOS by Move:	A	A	A	A	A	A	A	A	A	B	A	B
HCM2kAvgQ:	0	3	0	0	2	0	0	0	0	2	0	2

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

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

Intersection #38 Sierra Ave. and SR-210 Fwy. EB Off Ramp/Highland Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.658
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	12.1
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Sierra Ave.						SR-210 Fwy. EB Off Ramp/Highland					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Ignore			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	2 0	1	0 0	2 0	1	1 0	1! 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	0	828	233	0	580	0	696	0	1114	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	828	233	0	580	0	696	0	1114	0	0	0
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	872	0	0	611	0	733	0	1173	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	872	0	0	611	0	733	0	1173	0	0	0
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	872	0	0	611	0	733	0	1173	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	1.00	0.00	2.00	1.00	1.40	0.00	1.60	0.00	0.00	0.00
Final Sat.:	0	3800	1900	0	3800	1900	2515	0	3045	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.23	0.00	0.00	0.16	0.00	0.29	0.00	0.39	0.00	0.00	0.00
Crit Moves:		****							****			
Green/Cycle:	0.00	0.35	0.00	0.00	0.35	0.00	0.58	0.00	0.58	0.00	0.00	0.00
Volume/Cap:	0.00	0.66	0.00	0.00	0.46	0.00	0.50	0.00	0.66	0.00	0.00	0.00
Delay/Veh:	0.0	17.8	0.0	0.0	15.4	0.0	7.4	0.0	9.0	0.0	0.0	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:	0.0	17.8	0.0	0.0	15.4	0.0	7.4	0.0	9.0	0.0	0.0	0.0
LOS by Move:	A	B	A	A	B	A	A	A	A	A	A	A
HCM2kAvgQ:	0	8	0	0	5	0	6	0	10	0	0	0

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #39 Alder Ave. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.977
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	30.3
Optimal Cycle:	120	Level Of Service:	C

Street Name:	Alder Ave.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 0			0 0 1 1 0			0 0 0 0 0			1 0 0 1 0		
Volume Module:												
Base Vol:	309	1004	0	0	328	682	0	0	0	549	0	101
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:	309	1004	0	0	328	682	0	0	0	549	0	101
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:	325	1057	0	0	345	718	0	0	0	578	0	106
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	325	1057	0	0	345	718	0	0	0	578	0	106
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:	325	1057	0	0	345	718	0	0	0	578	0	106
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	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1800	3800	0	0	1900	1900	0	0	0	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.18	0.28	0.00	0.00	0.18	0.38	0.00	0.00	0.00	0.32	0.00	0.06
Crit Moves:	****					****				****		
Green/Cycle:	0.18	0.57	0.00	0.00	0.39	0.39	0.00	0.00	0.00	0.33	0.00	0.33
Volume/Cap:	0.98	0.49	0.00	0.00	0.47	0.98	0.00	0.00	0.00	0.98	0.00	0.17
Delay/Veh:	67.4	7.8	0.0	0.0	13.9	40.0	0.0	0.0	0.0	51.1	0.0	14.5
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:	67.4	7.8	0.0	0.0	13.9	40.0	0.0	0.0	0.0	51.1	0.0	14.5
LOS by Move:	E	A	A	A	B	D	A	A	A	D	A	B
HCM2kAvgQ:	12	6	0	0	5	20	0	0	0	18	0	1

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

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

Intersection #40 Alder Ave. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.756
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	17.6
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Alder Ave.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 1	1 0		1 0 2	0 0		0 1 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	861	141	217	658	0	472	0	158	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	861	141	217	658	0	472	0	158	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	906	148	228	693	0	497	0	166	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	906	148	228	693	0	497	0	166	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	906	148	228	693	0	497	0	166	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.72	0.28	1.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3265	535	1800	3800	0	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.28	0.28	0.13	0.18	0.00	0.28	0.00	0.09	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.00	0.37	0.37	0.17	0.53	0.00	0.37	0.00	0.37	0.00	0.00	0.00
Volume/Cap:	0.00	0.76	0.76	0.76	0.34	0.00	0.76	0.00	0.24	0.00	0.00	0.00
Delay/Veh:	0.0	19.1	19.1	34.2	8.0	0.0	21.7	0.0	13.4	0.0	0.0	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:	0.0	19.1	19.1	34.2	8.0	0.0	21.7	0.0	13.4	0.0	0.0	0.0
LOS by Move:	A	B	B	C	A	A	C	A	B	A	A	A
HCM2kAvgQ:	0	10	10	6	4	0	10	0	2	0	0	0

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

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

Intersection #41 Ayala Dr. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.734
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	17.9
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Ayala Dr.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	1 0	0 1	0
Volume Module:												
Base Vol:	197	1122	0	0	529	293	0	0	0	544	0	556
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:	197	1122	0	0	529	293	0	0	0	544	0	556
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:	207	1181	0	0	557	308	0	0	0	573	0	585
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	207	1181	0	0	557	308	0	0	0	573	0	585
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:	207	1181	0	0	557	308	0	0	0	573	0	585
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	0.00	0.00	1.29	0.71	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1800	3800	0	0	2445	1355	0	0	0	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.12	0.31	0.00	0.00	0.23	0.23	0.00	0.00	0.00	0.32	0.00	0.31
Crit Moves:	****				****					****		
Green/Cycle:	0.16	0.47	0.00	0.00	0.31	0.31	0.00	0.00	0.00	0.43	0.00	0.43
Volume/Cap:	0.73	0.67	0.00	0.00	0.73	0.73	0.00	0.00	0.00	0.73	0.00	0.71
Delay/Veh:	33.7	13.3	0.0	0.0	20.9	20.9	0.0	0.0	0.0	17.8	0.0	16.9
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:	33.7	13.3	0.0	0.0	20.9	20.9	0.0	0.0	0.0	17.8	0.0	16.9
LOS by Move:	C	B	A	A	C	C	A	A	A	B	A	B
HCM2kAvgQ:	6	10	0	0	9	9	0	0	0	11	0	10

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

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

Intersection #42 Ayala Dr. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.895
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	25.6
Optimal Cycle:	74	Level Of Service:	C

Street Name:	Ayala Dr.							SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L - T - R			L - T - R			L - T - R			L - T - R			
Control:	Permitted			Protected			Split Phase			Split Phase			
Rights:	Include			Include			Include			Include			
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6	
Lanes:	0 0	2 0	1	1 0	2 0	0	0 1	0 0	1	0 0	0 0	0	
Volume Module:													
Base Vol:	0	1057	507	361	712	0	260	0	544	0	0	0	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	0	1057	507	361	712	0	260	0	544	0	0	0	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
PHF Volume:	0	1113	534	380	749	0	274	0	573	0	0	0	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	0	1113	534	380	749	0	274	0	573	0	0	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	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:	0	1113	534	380	749	0	274	0	573	0	0	0	
Saturation Flow Module:													
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	
Final Sat.:	0	3800	1900	1800	3800	0	1800	0	1900	0	0	0	
Capacity Analysis Module:													
Vol/Sat:	0.00	0.29	0.28	0.21	0.20	0.00	0.15	0.00	0.30	0.00	0.00	0.00	
Crit Moves:		****		****					****				
Green/Cycle:	0.00	0.33	0.33	0.24	0.56	0.00	0.34	0.00	0.34	0.00	0.00	0.00	
Volume/Cap:	0.00	0.89	0.86	0.89	0.35	0.00	0.45	0.00	0.89	0.00	0.00	0.00	
Delay/Veh:	0.0	27.9	30.4	43.0	7.2	0.0	16.1	0.0	34.0	0.0	0.0	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:	0.0	27.9	30.4	43.0	7.2	0.0	16.1	0.0	34.0	0.0	0.0	0.0	
LOS by Move:	A	C	C	D	A	A	B	A	C	A	A	A	
HCM2kAvgQ:	0	14	13	11	4	0	5	0	14	0	0	0	

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #43 Riverside Ave. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.776
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	17.3
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Riverside Ave.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	1 0	1! 0	1
Volume Module:												
Base Vol:	84	440	0	0	731	394	0	0	0	887	0	809
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:	84	440	0	0	731	394	0	0	0	887	0	809
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:	88	463	0	0	769	415	0	0	0	934	0	852
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	463	0	0	769	415	0	0	0	934	0	852
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:	88	463	0	0	769	415	0	0	0	934	0	852
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	0.00	0.00	1.30	0.70	0.00	0.00	0.00	1.54	0.00	1.46
Final Sat.:	1800	3800	0	0	2469	1331	0	0	0	2766	0	2781
Capacity Analysis Module:												
Vol/Sat:	0.05	0.12	0.00	0.00	0.31	0.31	0.00	0.00	0.00	0.34	0.00	0.31
Crit Moves:	****				****					****		
Green/Cycle:	0.10	0.48	0.00	0.00	0.38	0.38	0.00	0.00	0.00	0.42	0.00	0.42
Volume/Cap:	0.49	0.25	0.00	0.00	0.81	0.81	0.00	0.00	0.00	0.81	0.00	0.74
Delay/Veh:	27.7	9.2	0.0	0.0	20.1	20.1	0.0	0.0	0.0	17.8	0.0	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:	27.7	9.2	0.0	0.0	20.1	20.1	0.0	0.0	0.0	17.8	0.0	16.0
LOS by Move:	C	A	A	A	C	C	A	A	A	B	A	B
HCM2kAvgQ:	2	3	0	0	12	12	0	0	0	13	0	11

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

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

Intersection #44 Riverside Ave. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	1.344
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	128.6
Optimal Cycle:	130	Level Of Service:	F

Street Name:	Riverside Ave.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 2	0 1		1 0 2	0 0		0 1 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	421	921	775	843	0	103	0	541	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	421	921	775	843	0	103	0	541	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	443	969	816	887	0	108	0	569	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	443	969	816	887	0	108	0	569	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	443	969	816	887	0	108	0	569	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3800	1900	1800	3800	0	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.12	0.51	0.45	0.23	0.00	0.06	0.00	0.30	0.00	0.00	0.00
Crit Moves:			****	****					****			
Green/Cycle:	0.00	0.38	0.38	0.34	0.72	0.00	0.22	0.00	0.22	0.00	0.00	0.00
Volume/Cap:	0.00	0.31	1.34	1.34	0.33	0.00	0.27	0.00	1.34	0.00	0.00	0.00
Delay/Veh:	0.0	21.9	194.9	198.7	5.3	0.0	32.5	0.0	208.7	0.0	0.0	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:	0.0	21.9	194.9	198.7	5.3	0.0	32.5	0.0	208.7	0.0	0.0	0.0
LOS by Move:	A	C	F	F	A	A	C	A	F	A	A	A
HCM2kAvgQ:	0	5	61	55	5	0	3	0	37	0	0	0

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

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

Intersection #45 Pepper Ave. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.751
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	17.8
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Pepper Ave.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	1 0	0 1	0
Volume Module:												
Base Vol:	309	450	0	0	127	146	0	0	0	727	0	395
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:	309	450	0	0	127	146	0	0	0	727	0	395
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:	325	474	0	0	134	154	0	0	0	765	0	416
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	325	474	0	0	134	154	0	0	0	765	0	416
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:	325	474	0	0	134	154	0	0	0	765	0	416
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	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1800	3800	0	0	1900	1900	0	0	0	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.18	0.12	0.00	0.00	0.07	0.08	0.00	0.00	0.00	0.43	0.00	0.22
Crit Moves:	****				****					****		
Green/Cycle:	0.24	0.34	0.00	0.00	0.10	0.10	0.00	0.00	0.00	0.56	0.00	0.56
Volume/Cap:	0.76	0.37	0.00	0.00	0.70	0.81	0.00	0.00	0.00	0.76	0.00	0.39
Delay/Veh:	28.8	15.2	0.0	0.0	31.6	39.4	0.0	0.0	0.0	13.4	0.0	7.6
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:	28.8	15.2	0.0	0.0	31.6	39.4	0.0	0.0	0.0	13.4	0.0	7.6
LOS by Move:	C	B	A	A	C	D	A	A	A	B	A	A
HCM2kAvgQ:	8	4	0	0	4	5	0	0	0	13	0	5

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

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

Intersection #46 Pepper Ave. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.656
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	15.3
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Pepper Ave.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 2	0 1		1 0 2	0 0		0 1 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	674	430	180	679	0	84	0	445	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	674	430	180	679	0	84	0	445	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	709	453	189	715	0	88	0	468	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	709	453	189	715	0	88	0	468	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	709	453	189	715	0	88	0	468	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3800	1900	1800	3800	0	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.19	0.24	0.11	0.19	0.00	0.05	0.00	0.25	0.00	0.00	0.00
Crit Moves:			****	****					****			
Green/Cycle:	0.00	0.36	0.36	0.16	0.52	0.00	0.38	0.00	0.38	0.00	0.00	0.00
Volume/Cap:	0.00	0.51	0.66	0.66	0.36	0.00	0.13	0.00	0.66	0.00	0.00	0.00
Delay/Veh:	0.0	15.3	18.3	29.0	8.5	0.0	12.4	0.0	17.7	0.0	0.0	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:	0.0	15.3	18.3	29.0	8.5	0.0	12.4	0.0	17.7	0.0	0.0	0.0
LOS by Move:	A	B	B	C	A	A	B	A	B	A	A	A
HCM2kAvgQ:	0	6	8	5	4	0	1	0	8	0	0	0

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

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

Intersection #47 State St. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec):	110	Critical Vol./Cap.(X):	1.497
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	174.5
Optimal Cycle:	130	Level Of Service:	F

Street Name:	State St.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 0			0 0 2 0 1			0 0 0 0 0			1 0 1! 0 1		
Volume Module:												
Base Vol:	864	639	0	0	682	1361	0	0	0	452	0	215
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:	864	639	0	0	682	1361	0	0	0	452	0	215
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:	909	673	0	0	718	1433	0	0	0	476	0	226
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	909	673	0	0	718	1433	0	0	0	476	0	226
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:	909	673	0	0	718	1433	0	0	0	476	0	226
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	0.00	0.00	2.00	1.00	0.00	0.00	0.00	1.69	0.00	1.31
Final Sat.:	1800	3800	0	0	3800	1900	0	0	0	3041	0	2490
Capacity Analysis Module:												
Vol/Sat:	0.51	0.18	0.00	0.00	0.19	0.75	0.00	0.00	0.00	0.16	0.00	0.09
Crit Moves:	****					****				****		
Green/Cycle:	0.34	0.84	0.00	0.00	0.50	0.50	0.00	0.00	0.00	0.10	0.00	0.10
Volume/Cap:	1.50	0.21	0.00	0.00	0.38	1.50	0.00	0.00	0.00	1.50	0.00	0.87
Delay/Veh:	268.9	1.7	0.0	0.0	16.8	256.7	0.0	0.0	0.0	284.1	0.0	58.6
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:	268.9	1.7	0.0	0.0	16.8	256.7	0.0	0.0	0.0	284.1	0.0	58.6
LOS by Move:	F	A	A	A	B	F	A	A	A	F	A	E
HCM2kAvgQ:	72	2	0	0	7	106	0	0	0	24	0	9

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

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

Intersection #48 State St. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec):	80	Critical Vol./Cap.(X):	1.116
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	71.7
Optimal Cycle:	130	Level Of Service:	E

Street Name:	State St.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 2	0 1		1 0 1!	0 1		0 1	0 0 1	
Volume Module:												
Base Vol:	356	1200	141	123	832	367	663	88	1020	49	64	70
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:	356	1200	141	123	832	367	663	88	1020	49	64	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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	375	1263	148	129	876	386	698	93	1074	52	67	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	375	1263	148	129	876	386	698	93	1074	52	67	74
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:	375	1263	148	129	876	386	698	93	1074	52	67	74
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	1.79	0.21	1.00	2.00	1.00	1.37	0.09	1.54	0.45	0.55	1.00
Final Sat.:	1800	3400	400	1800	3800	1900	2464	176	2922	805	1051	1900
Capacity Analysis Module:												
Vol/Sat:	0.21	0.37	0.37	0.07	0.23	0.20	0.28	0.53	0.37	0.06	0.06	0.04
Crit Moves:		****		****				****		****		
Green/Cycle:	0.19	0.32	0.32	0.08	0.21	0.21	0.45	0.45	0.45	0.08	0.08	0.08
Volume/Cap:	1.11	1.16	1.16	0.96	1.11	0.98	0.62	1.16	0.81	0.85	0.85	0.52
Delay/Veh:	113.6	107	107.4	101.6	97.3	70.5	17.1	99.9	21.1	73.8	73.8	38.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	113.6	107	107.4	101.6	97.3	70.5	17.1	99.9	21.1	73.8	73.8	38.9
LOS by Move:	F	F	F	F	F	E	B	F	C	E	E	D
HCM2kAvgQ:	19	33	33	7	20	15	11	45	17	5	5	3

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

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

Intersection #49 State St. and Highland Ave.

Cycle (sec):	130	Critical Vol./Cap.(X):	1.374
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	195.1
Optimal Cycle:	130	Level Of Service:	F

Street Name:	State St.						Highland Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	2 0 2	0 1		1 0 2	0 1		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	19	570	254	11	755	18	75	147	646	1226	61	128
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	570	254	11	755	18	75	147	646	1226	61	128
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	600	267	12	795	19	79	155	680	1291	64	135
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	600	267	12	795	19	79	155	680	1291	64	135
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:	20	600	267	12	795	19	79	155	680	1291	64	135
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	3400	3800	1900	1800	3800	1900	1800	1900	1900	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.01	0.16	0.14	0.01	0.21	0.01	0.04	0.08	0.36	0.72	0.03	0.07
Crit Moves:	****				****				****	****		
Green/Cycle:	0.05	0.15	0.15	0.05	0.15	0.15	0.29	0.25	0.25	0.50	0.45	0.45
Volume/Cap:	0.13	1.09	0.97	0.14	1.44	0.07	0.15	0.33	1.44	1.44	0.07	0.16
Delay/Veh:	59.9	119	100.5	60.3	263	48.1	34.0	40.0	256.1	236.5	20.2	21.0
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:	59.9	119	100.5	60.3	263	48.1	34.0	40.0	256.1	236.5	20.2	21.0
LOS by Move:	E	F	F	E	F	D	C	D	F	F	C	C
HCM2kAvgQ:	1	19	15	1	32	1	2	5	53	104	1	3

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

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Future 2030 Without Project Condition
PM Peak Hour

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

Intersection #50 California St. and Highland Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.873
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	17.5
Optimal Cycle:	63	Level Of Service:	B

Street Name:	California St.						Highland Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	124	264	309	163	78	73	37	401	21	145	1244	289
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:	124	264	309	163	78	73	37	401	21	145	1244	289
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:	131	278	325	172	82	77	39	422	22	153	1309	304
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	131	278	325	172	82	77	39	422	22	153	1309	304
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:	131	278	325	172	82	77	39	422	22	153	1309	304
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.19	0.37	0.44	0.53	0.24	0.23	1.00	1.90	0.10	1.00	1.62	0.38
Final Sat.:	335	713	834	959	459	429	1800	3611	189	1800	3084	716
Capacity Analysis Module:												
Vol/Sat:	0.39	0.39	0.39	0.18	0.18	0.18	0.02	0.12	0.12	0.08	0.42	0.42
Crit Moves:		****									****	
Green/Cycle:	0.45	0.45	0.45	0.45	0.45	0.45	0.49	0.49	0.49	0.49	0.49	0.49
Volume/Cap:	0.87	0.87	0.87	0.40	0.40	0.40	0.04	0.24	0.24	0.17	0.87	0.87
Delay/Veh:	25.0	25.0	25.0	11.5	11.5	11.5	8.1	9.0	9.0	8.7	18.6	18.6
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:	25.0	25.0	25.0	11.5	11.5	11.5	8.1	9.0	9.0	8.7	18.6	18.6
LOS by Move:	C	C	C	B	B	B	A	A	A	A	B	B
HCM2kAvgQ:	16	16	16	4	4	4	0	2	2	2	17	17

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #51 Medical Ctr. Dr. and Highland Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.518
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	7.9
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Medical Ctr. Dr.						Highland Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	228	15	249	16	47	72	5	758	86	139	1243	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:	228	15	249	16	47	72	5	758	86	139	1243	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:	240	16	262	17	49	76	5	798	91	146	1308	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	240	16	262	17	49	76	5	798	91	146	1308	4
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	240	16	262	17	49	76	5	798	91	146	1308	4
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.80	0.20	1.00	1.99	0.01
Final Sat.:	1800	1900	1900	1800	1900	1900	1800	3413	387	1800	3788	12
Capacity Analysis Module:												
Vol/Sat:	0.13	0.01	0.14	0.01	0.03	0.04	0.00	0.23	0.23	0.08	0.35	0.35
Crit Moves:			****								****	
Green/Cycle:	0.27	0.27	0.27	0.27	0.27	0.27	0.67	0.67	0.67	0.67	0.67	0.67
Volume/Cap:	0.50	0.03	0.52	0.04	0.10	0.15	0.00	0.35	0.35	0.12	0.52	0.52
Delay/Veh:	19.5	16.3	19.6	16.3	16.6	16.9	3.3	4.4	4.4	3.7	5.3	5.3
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:	19.5	16.3	19.6	16.3	16.6	16.9	3.3	4.4	4.4	3.7	5.3	5.3
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
HCM2kAvgQ:	5	0	5	0	1	1	0	4	4	1	7	7

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

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

Intersection #52 Mt. Vernon Ave. and Highland Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.700
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	17.7
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Mt. Vernon Ave.						Highland Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	138	220	216	56	121	219	320	664	113	173	1005	155
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:	138	220	216	56	121	219	320	664	113	173	1005	155
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:	145	232	227	59	127	231	337	699	119	182	1058	163
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	145	232	227	59	127	231	337	699	119	182	1058	163
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:	145	232	227	59	127	231	337	699	119	182	1058	163
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	1.01	0.99	1.00	1.00	1.00	1.00	1.71	0.29	1.00	1.73	0.27
Final Sat.:	1800	1917	1883	1800	1900	1900	1800	3247	553	1800	3292	508
Capacity Analysis Module:												
Vol/Sat:	0.08	0.12	0.12	0.03	0.07	0.12	0.19	0.22	0.22	0.10	0.32	0.32
Crit Moves:						****	****				****	
Green/Cycle:	0.17	0.17	0.17	0.17	0.17	0.17	0.27	0.49	0.49	0.23	0.46	0.46
Volume/Cap:	0.47	0.70	0.70	0.19	0.39	0.70	0.70	0.44	0.44	0.44	0.70	0.70
Delay/Veh:	23.4	26.6	26.6	21.5	22.2	27.6	24.4	9.9	9.9	20.4	14.2	14.2
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:	23.4	26.6	26.6	21.5	22.2	27.6	24.4	9.9	9.9	20.4	14.2	14.2
LOS by Move:	C	C	C	C	C	C	C	A	A	C	B	B
HCM2kAvgQ:	3	6	6	1	2	6	7	5	5	3	10	10

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

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

Intersection #53 Sierra Ave. and Highland Ave.

Cycle (sec):	105	Critical Vol./Cap.(X):	0.523
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.1
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Sierra Ave.						Highland Ave.					
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			Ovl			Ovl			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	2 0 2	0 1		2 0 2	0 1		2 0 2	0 1		2 0 2	0 1	
Volume Module:												
Base Vol:	102	1197	14	16	1529	128	15	2	17	43	33	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:	102	1197	14	16	1529	128	15	2	17	43	33	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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	107	1260	15	17	1609	135	16	2	18	45	35	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	107	1260	15	17	1609	135	16	2	18	45	35	45
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	1260	15	17	1609	135	16	2	18	45	35	45
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3400	3800	1900	3400	3800	1900	3400	3800	1900	3400	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.03	0.33	0.01	0.00	0.42	0.07	0.00	0.00	0.01	0.01	0.01	0.02
Crit Moves:	****				****		****					****
Green/Cycle:	0.06	0.69	0.69	0.12	0.75	0.81	0.06	0.06	0.11	0.06	0.06	0.06
Volume/Cap:	0.55	0.48	0.01	0.04	0.56	0.09	0.08	0.01	0.08	0.23	0.16	0.42
Delay/Veh:	51.6	7.7	5.1	41.0	5.8	2.1	47.1	46.7	41.7	47.9	47.4	50.4
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:	51.6	7.7	5.1	41.0	5.8	2.1	47.1	46.7	41.7	47.9	47.4	50.4
LOS by Move:	D	A	A	D	A	A	D	D	D	D	D	D
HCM2kAvgQ:	3	9	0	0	11	1	0	0	1	1	1	2

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

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

Intersection #54 Alder Ave. and Highland Ave.

Cycle (sec):	75	Critical Vol./Cap.(X):	0.904
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	34.2
Optimal Cycle:	89	Level Of Service:	C

Street Name:	Alder Ave.						Highland Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	0 1		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	24	669	32	121	596	127	70	886	207	108	211	255
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:	24	669	32	121	596	127	70	886	207	108	211	255
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:	25	704	34	127	627	134	74	933	218	114	222	268
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	704	34	127	627	134	74	933	218	114	222	268
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:	25	704	34	127	627	134	74	933	218	114	222	268
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.62	0.38	1.00	1.00	1.00
Final Sat.:	1800	1900	1900	1800	1900	1900	1800	3080	720	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.01	0.37	0.02	0.07	0.33	0.07	0.04	0.30	0.30	0.06	0.12	0.14
Crit Moves:		****		****				****		****		
Green/Cycle:	0.09	0.40	0.40	0.08	0.39	0.39	0.15	0.33	0.33	0.08	0.26	0.26
Volume/Cap:	0.15	0.92	0.04	0.88	0.85	0.18	0.28	0.92	0.92	0.79	0.45	0.54
Delay/Veh:	31.6	37.2	13.6	77.0	30.0	15.2	28.9	35.0	35.0	58.6	23.4	24.5
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:	31.6	37.2	13.6	77.0	30.0	15.2	28.9	35.0	35.0	58.6	23.4	24.5
LOS by Move:	C	D	B	E	C	B	C	D	D	E	C	C
HCM2kAvgQ:	1	20	0	6	16	2	2	17	17	5	5	6

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #55 Ayala Dr. and Easton St.

Cycle (sec):	105	Critical Vol./Cap.(X):	1.176
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	83.9
Optimal Cycle:	130	Level Of Service:	F

Street Name:	Ayala Dr.						Easton St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 1			1 0 2 0 1			1 0 1 1 0			1 0 1 1 0		
Volume Module:												
Base Vol:	323	970	74	42	1151	202	439	310	929	110	178	58
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:	323	970	74	42	1151	202	439	310	929	110	178	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:	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:	340	1021	78	44	1212	213	462	326	978	116	187	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	340	1021	78	44	1212	213	462	326	978	116	187	61
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:	340	1021	78	44	1212	213	462	326	978	116	187	61
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	2.00	1.00	1.00	1.00	1.00	1.00	1.51	0.49
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	1900	1900	1800	2866	934
Capacity Analysis Module:												
Vol/Sat:	0.19	0.27	0.04	0.02	0.32	0.11	0.26	0.17	0.51	0.06	0.07	0.07
Crit Moves:	****				****				****	****		
Green/Cycle:	0.16	0.35	0.35	0.08	0.27	0.27	0.39	0.44	0.44	0.06	0.10	0.10
Volume/Cap:	1.18	0.76	0.12	0.33	1.18	0.41	0.65	0.39	1.18	1.13	0.65	0.65
Delay/Veh:	154.9	32.4	22.9	47.4	129	32.0	28.2	20.2	120.0	176.1	49.5	49.5
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:	154.9	32.4	22.9	47.4	129	32.0	28.2	20.2	120.0	176.1	49.5	49.5
LOS by Move:	F	C	C	D	F	C	C	C	F	F	D	D
HCM2kAvgQ:	21	16	2	2	34	6	13	7	52	8	5	5

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #56 Riverside Ave. and Easton St.

Cycle (sec):	65	Critical Vol./Cap.(X):	0.895
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	31.3
Optimal Cycle:	80	Level Of Service:	C

Street Name:	Riverside Ave.						Easton St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 2	0 1		2 0 2	0 1	
Volume Module:												
Base Vol:	147	902	233	333	893	226	110	732	59	169	397	382
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:	147	902	233	333	893	226	110	732	59	169	397	382
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:	155	949	245	351	940	238	116	771	62	178	418	402
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	155	949	245	351	940	238	116	771	62	178	418	402
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:	155	949	245	351	940	238	116	771	62	178	418	402
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	1.59	0.41	1.00	1.60	0.40	1.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	1800	3020	780	1800	3033	767	1800	3800	1900	3400	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.09	0.31	0.31	0.19	0.31	0.31	0.06	0.20	0.03	0.05	0.11	0.21
Crit Moves:		****		****			****					****
Green/Cycle:	0.13	0.34	0.34	0.21	0.43	0.43	0.09	0.22	0.22	0.10	0.23	0.23
Volume/Cap:	0.68	0.92	0.92	0.92	0.73	0.73	0.70	0.91	0.15	0.52	0.48	0.92
Delay/Veh:	34.9	31.1	31.1	51.8	17.1	17.1	40.8	39.0	20.5	29.1	22.0	48.7
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:	34.9	31.1	31.1	51.8	17.1	17.1	40.8	39.0	20.5	29.1	22.0	48.7
LOS by Move:	C	C	C	D	B	B	D	D	C	C	C	D
HCM2kAvgQ:	5	16	16	12	11	11	4	12	1	3	4	12

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #57 Easton St. and Highland Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.583
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	9.5
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Easton St.						Easton St. / Highland Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 1 0			1 0 2 0 0		
Volume Module:												
Base Vol:	360	0	64	0	0	0	0	870	335	48	543	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:	360	0	64	0	0	0	0	870	335	48	543	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:	379	0	67	0	0	0	0	916	353	51	572	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	379	0	67	0	0	0	0	916	353	51	572	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	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:	379	0	67	0	0	0	0	916	353	51	572	0
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	0.00	1.00	0.00	0.00	0.00	0.00	1.44	0.56	1.00	2.00	0.00
Final Sat.:	1800	0	1900	0	0	0	0	2744	1056	1800	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.21	0.00	0.04	0.00	0.00	0.00	0.00	0.33	0.33	0.03	0.15	0.00
Crit Moves:	****							****				
Green/Cycle:	0.36	0.00	0.36	0.00	0.00	0.00	0.00	0.57	0.57	0.57	0.57	0.00
Volume/Cap:	0.58	0.00	0.10	0.00	0.00	0.00	0.00	0.58	0.58	0.05	0.26	0.00
Delay/Veh:	16.9	0.0	12.8	0.0	0.0	0.0	0.0	8.6	8.6	5.7	6.5	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:	16.9	0.0	12.8	0.0	0.0	0.0	0.0	8.6	8.6	5.7	6.5	0.0
LOS by Move:	B	A	B	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	7	0	1	0	0	0	0	8	8	0	3	0

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #58 Sierra Ave. and Baseline Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.775
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	23.9
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Sierra Ave.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 1			1 0 2 0 1			1 0 1 1 0			1 0 1 0 1		
Volume Module:												
Base Vol:	129	767	88	230	871	48	119	449	85	128	460	146
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:	129	767	88	230	871	48	119	449	85	128	460	146
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:	136	807	93	242	917	51	125	473	89	135	484	154
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	136	807	93	242	917	51	125	473	89	135	484	154
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:	136	807	93	242	917	51	125	473	89	135	484	154
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	2.00	1.00	1.00	1.68	0.32	1.00	1.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3195	605	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.08	0.21	0.05	0.13	0.24	0.03	0.07	0.15	0.15	0.07	0.25	0.08
Crit Moves:		****		****			****				****	
Green/Cycle:	0.13	0.27	0.27	0.17	0.31	0.31	0.10	0.25	0.25	0.17	0.32	0.32
Volume/Cap:	0.58	0.78	0.18	0.78	0.77	0.09	0.70	0.58	0.58	0.44	0.78	0.25
Delay/Veh:	28.3	24.3	16.9	36.2	21.9	14.6	37.4	20.6	20.6	23.3	24.9	15.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.3	24.3	16.9	36.2	21.9	14.6	37.4	20.6	20.6	23.3	24.9	15.1
LOS by Move:	C	C	B	D	C	B	D	C	C	C	C	B
HCM2kAvgQ:	4	9	1	7	10	1	4	5	5	3	10	2

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

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Lytle Creek Ranch Project
Future 2030 Without Project Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #59 Alder Ave. and Baseline Rd.

Cycle (sec):	95	Critical Vol./Cap.(X):	1.044
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	66.2
Optimal Cycle:	130	Level Of Service:	E

Street Name:	Alder Ave.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0	1 0	0	1 0	1	1 0	0	1 0	1	0 0	1	0
Volume Module:												
Base Vol:	173	486	37	185	765	95	123	425	175	50	566	82
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:	173	486	37	185	765	95	123	425	175	50	566	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:	182	512	39	195	805	100	129	447	184	53	596	86
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	182	512	39	195	805	100	129	447	184	53	596	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
FinalVolume:	182	512	39	195	805	100	129	447	184	53	596	86
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	0.93	0.07	1.00	1.00	1.00	1.00	0.71	0.29	1.00	0.87	0.13
Final Sat.:	1800	1766	134	1800	1900	1900	1800	1346	554	1800	1660	240
Capacity Analysis Module:												
Vol/Sat:	0.10	0.29	0.29	0.11	0.42	0.05	0.07	0.33	0.33	0.03	0.36	0.36
Crit Moves:	****				****		****				****	
Green/Cycle:	0.10	0.37	0.37	0.14	0.41	0.41	0.07	0.35	0.35	0.07	0.34	0.34
Volume/Cap:	1.04	0.79	0.79	0.79	1.04	0.13	1.04	0.96	0.96	0.44	1.04	1.04
Delay/Veh:	123.1	33.0	33.0	55.5	72.6	17.8	137.2	55.4	55.4	45.3	78.3	78.3
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:	123.1	33.0	33.0	55.5	72.6	17.8	137.2	55.4	55.4	45.3	78.3	78.3
LOS by Move:	F	C	C	E	E	B	F	E	E	D	E	E
HCM2kAvgQ:	11	16	16	8	34	2	8	24	24	2	29	29

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #60 Cedar Ave./Ayala Dr. and Baseline Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.860
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	27.0
Optimal Cycle:	67	Level Of Service:	C

Street Name:	Cedar Ave./Ayala Dr.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		2 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	299	635	158	307	916	25	98	592	221	144	522	76
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:	299	635	158	307	916	25	98	592	221	144	522	76
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:	315	668	166	323	964	26	103	623	233	152	549	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	315	668	166	323	964	26	103	623	233	152	549	80
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:	315	668	166	323	964	26	103	623	233	152	549	80
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	1.60	0.40	2.00	1.95	0.05	1.00	1.46	0.54	1.00	1.75	0.25
Final Sat.:	1800	3043	757	3400	3699	101	1800	2767	1033	1800	3317	483
Capacity Analysis Module:												
Vol/Sat:	0.17	0.22	0.22	0.10	0.26	0.26	0.06	0.23	0.23	0.08	0.17	0.17
Crit Moves:	****				****			****		****		
Green/Cycle:	0.20	0.35	0.35	0.16	0.30	0.30	0.14	0.26	0.26	0.10	0.23	0.23
Volume/Cap:	0.86	0.63	0.63	0.60	0.86	0.86	0.42	0.86	0.86	0.84	0.74	0.74
Delay/Veh:	41.6	17.4	17.4	25.4	26.6	26.6	24.9	28.9	28.9	55.0	24.9	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:	41.6	17.4	17.4	25.4	26.6	26.6	24.9	28.9	28.9	55.0	24.9	24.9
LOS by Move:	D	B	B	C	C	C	C	C	C	D	C	C
HCM2kAvgQ:	9	7	7	4	12	12	2	11	11	6	7	7

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #61 Cactus Ave. and Baseline Rd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.629

Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 19.7
Optimal Cycle: 60 Level Of Service: B

Street Name:	Cactus Ave.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	0 1		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	104	336	41	68	230	177	82	881	64	98	568	40
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:	104	336	41	68	230	177	82	881	64	98	568	40
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:	109	354	43	72	242	186	86	927	67	103	598	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	109	354	43	72	242	186	86	927	67	103	598	42
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:	109	354	43	72	242	186	86	927	67	103	598	42
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.86	0.14	1.00	1.87	0.13
Final Sat.:	1800	1900	1900	1800	1900	1900	1800	3543	257	1800	3550	250
Capacity Analysis Module:												
Vol/Sat:	0.06	0.19	0.02	0.04	0.13	0.10	0.05	0.26	0.26	0.06	0.17	0.17
Crit Moves:		****		****				****		****		
Green/Cycle:	0.17	0.28	0.28	0.10	0.21	0.21	0.18	0.39	0.39	0.10	0.31	0.31
Volume/Cap:	0.37	0.67	0.08	0.40	0.60	0.46	0.26	0.67	0.67	0.57	0.55	0.55
Delay/Veh:	23.0	22.7	16.1	26.8	24.0	21.5	21.5	16.4	16.4	30.2	17.9	17.9
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:	23.0	22.7	16.1	26.8	24.0	21.5	21.5	16.4	16.4	30.2	17.9	17.9
LOS by Move:	C	C	B	C	C	C	C	B	B	C	B	B
HCM2kAvgQ:	2	7	1	2	5	4	2	9	9	3	6	6

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #62 Riverside Ave. and Baseline Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.843
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	27.6
Optimal Cycle:	64	Level Of Service:	C

Street Name:	Riverside Ave.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		2 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	269	737	97	134	695	68	449	682	60	267	516	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:	269	737	97	134	695	68	449	682	60	267	516	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	283	776	102	141	732	72	473	718	63	281	543	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	283	776	102	141	732	72	473	718	63	281	543	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:	283	776	102	141	732	72	473	718	63	281	543	16
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.77	0.23	1.00	1.82	0.18	2.00	1.84	0.16	1.00	1.94	0.06
Final Sat.:	1800	3358	442	1800	3461	339	3400	3493	307	1800	3693	107
Capacity Analysis Module:												
Vol/Sat:	0.16	0.23	0.23	0.08	0.21	0.21	0.14	0.21	0.21	0.16	0.15	0.15
Crit Moves:	****				****			****		****		
Green/Cycle:	0.19	0.31	0.31	0.13	0.25	0.25	0.21	0.24	0.24	0.19	0.22	0.22
Volume/Cap:	0.84	0.76	0.76	0.59	0.84	0.84	0.67	0.84	0.84	0.84	0.67	0.67
Delay/Veh:	40.8	21.7	21.7	28.5	28.3	28.3	24.3	28.7	28.7	41.0	23.4	23.4
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:	40.8	21.7	21.7	28.5	28.3	28.3	24.3	28.7	28.7	41.0	23.4	23.4
LOS by Move:	D	C	C	C	C	C	C	C	C	D	C	C
HCM2kAvgQ:	8	9	9	4	10	10	6	10	10	8	6	6

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #63 Pepper Ave. and Baseline. Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.467
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.6
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Pepper Ave.						Baseline. Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 1	1 0	1	1 0	1 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	124	580	103	236	474	236	220	626	118	62	368	291
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:	124	580	103	236	474	236	220	626	118	62	368	291
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:	131	611	108	248	499	248	232	659	124	65	387	306
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	131	611	108	248	499	248	232	659	124	65	387	306
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:	131	611	108	248	499	248	232	659	124	65	387	306
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.37	1.63	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	663	3100	1900	1800	1900	1900	1800	3800	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.20	0.20	0.06	0.14	0.26	0.13	0.13	0.17	0.07	0.04	0.10	0.16
Crit Moves:					****			****				
Green/Cycle:	0.56	0.56	0.56	0.56	0.56	0.56	0.37	0.37	0.37	0.37	0.37	0.37
Volume/Cap:	0.35	0.35	0.10	0.25	0.47	0.23	0.35	0.47	0.18	0.10	0.27	0.43
Delay/Veh:	7.3	7.3	6.1	6.8	8.1	6.7	13.9	14.6	12.8	12.4	13.3	14.6
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:	7.3	7.3	6.1	6.8	8.1	6.7	13.9	14.6	12.8	12.4	13.3	14.6
LOS by Move:	A	A	A	A	A	A	B	B	B	B	B	B
HCM2kAvgQ:	4	4	1	3	6	2	3	5	2	1	3	5

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

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Lytle Creek Ranch Project
Future 2030 Without Project Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #64 State St. and Baseline Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.471
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.6
Optimal Cycle:	60	Level Of Service:	B

Street Name:	State St.						Baseline Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	0 1		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	101	403	91	236	291	216	192	699	81	44	388	260
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:	101	403	91	236	291	216	192	699	81	44	388	260
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	424	96	248	306	227	202	736	85	46	408	274
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	106	424	96	248	306	227	202	736	85	46	408	274
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:	106	424	96	248	306	227	202	736	85	46	408	274
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.79	0.21	1.00	1.20	0.80
Final Sat.:	1800	1900	1900	1800	1900	1900	1800	3405	395	1800	2275	1525
Capacity Analysis Module:												
Vol/Sat:	0.06	0.22	0.05	0.14	0.16	0.12	0.11	0.22	0.22	0.03	0.18	0.18
Crit Moves:		****						****				
Green/Cycle:	0.47	0.47	0.47	0.47	0.47	0.47	0.46	0.46	0.46	0.46	0.46	0.46
Volume/Cap:	0.12	0.47	0.11	0.29	0.34	0.25	0.24	0.47	0.47	0.06	0.39	0.39
Delay/Veh:	8.9	11.1	8.8	9.8	10.1	9.6	10.0	11.4	11.4	9.0	10.8	10.8
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:	8.9	11.1	8.8	9.8	10.1	9.6	10.0	11.4	11.4	9.0	10.8	10.8
LOS by Move:	A	B	A	A	B	A	B	B	B	A	B	B
HCM2kAvgQ:	1	6	1	3	4	3	2	6	6	1	4	4

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #65 Sierra Ave. and Foothill Blvd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.970
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	36.2
Optimal Cycle:	108	Level Of Service:	D

Street Name:	Sierra Ave.						Foothill Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 2	0 1		1 0 2	0 1		1 0 2	0 1	
Volume Module:												
Base Vol:	233	795	237	303	710	159	156	993	163	175	870	228
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:	233	795	237	303	710	159	156	993	163	175	870	228
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:	245	837	249	319	747	167	164	1045	172	184	916	240
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	245	837	249	319	747	167	164	1045	172	184	916	240
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:	245	837	249	319	747	167	164	1045	172	184	916	240
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	1.54	0.46	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	2927	873	1800	3800	1900	1800	3800	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.14	0.29	0.29	0.18	0.20	0.09	0.09	0.28	0.09	0.10	0.24	0.13
Crit Moves:		****		****				****		****		
Green/Cycle:	0.20	0.29	0.29	0.18	0.28	0.28	0.11	0.28	0.28	0.11	0.28	0.28
Volume/Cap:	0.70	0.97	0.97	0.97	0.70	0.31	0.80	0.97	0.32	0.97	0.88	0.46
Delay/Veh:	28.5	40.8	40.8	65.7	21.3	17.3	45.4	41.6	17.3	83.0	29.3	18.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.5	40.8	40.8	65.7	21.3	17.3	45.4	41.6	17.3	83.0	29.3	18.7
LOS by Move:	C	D	D	E	C	B	D	D	B	F	C	B
HCM2kAvgQ:	6	16	16	11	8	3	5	16	3	8	12	4

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

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Lytle Creek Ranch Project
Future 2030 Without Project Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #66 Alder Ave. and Foothill Blvd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.768
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.2
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Alder Ave.						Foothill Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0	1 0	1 0	1 0	1 0	1 0	1 0	2 0	1 0	1 0	1 1	0
Volume Module:AM Peak Hour												
Base Vol:	115	375	54	105	424	239	188	1054	75	14	1023	93
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:	115	375	54	105	424	239	188	1054	75	14	1023	93
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	127	416	60	116	470	265	208	1168	83	16	1134	103
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	127	416	60	116	470	265	208	1168	83	16	1134	103
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:	127	416	60	116	470	265	208	1168	83	16	1134	103
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	0.87	0.13	1.00	1.28	0.72	1.00	2.00	1.00	1.00	1.83	0.17
Final Sat.:	1800	1661	239	1800	2430	1370	1800	3800	1900	1800	3483	317
Capacity Analysis Module:												
Vol/Sat:	0.07	0.25	0.25	0.06	0.19	0.19	0.12	0.31	0.04	0.01	0.33	0.33
Crit Moves:		****					****				****	
Green/Cycle:	0.33	0.33	0.33	0.33	0.33	0.33	0.15	0.43	0.43	0.14	0.42	0.42
Volume/Cap:	0.22	0.77	0.77	0.20	0.59	0.59	0.77	0.71	0.10	0.06	0.77	0.77
Delay/Veh:	14.9	24.0	24.0	14.8	17.7	17.7	37.0	15.4	10.1	22.4	17.1	17.1
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:	14.9	24.0	24.0	14.8	17.7	17.7	37.0	15.4	10.1	22.4	17.1	17.1
LOS by Move:	B	C	C	B	B	B	D	B	B	C	B	B
HCM2kAvgQ:	2	10	10	2	7	7	6	10	1	0	12	12

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #67 Cedar Ave. and Foothill Blvd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.957
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	37.1
Optimal Cycle:	101	Level Of Service:	D

Street Name:	Cedar Ave.						Foothill Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 2	0 1		1 0 2	0 1	
Volume Module:												
Base Vol:	310	1118	119	153	1065	98	223	629	263	260	606	112
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:	310	1118	119	153	1065	98	223	629	263	260	606	112
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:	326	1177	125	161	1121	103	235	662	277	274	638	118
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	326	1177	125	161	1121	103	235	662	277	274	638	118
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:	326	1177	125	161	1121	103	235	662	277	274	638	118
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	1.81	0.19	1.00	1.83	0.17	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3434	366	1800	3480	320	1800	3800	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.18	0.34	0.34	0.09	0.32	0.32	0.13	0.17	0.15	0.15	0.17	0.06
Crit Moves:	****				****			****		****		
Green/Cycle:	0.19	0.41	0.41	0.12	0.34	0.34	0.15	0.18	0.18	0.16	0.19	0.19
Volume/Cap:	0.96	0.84	0.84	0.75	0.96	0.96	0.88	0.96	0.80	0.96	0.88	0.32
Delay/Veh:	61.5	20.4	20.4	39.6	35.5	35.5	50.8	48.4	36.0	66.6	35.1	21.4
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:	61.5	20.4	20.4	39.6	35.5	35.5	50.8	48.4	36.0	66.6	35.1	21.4
LOS by Move:	E	C	C	D	D	D	D	D	D	E	D	C
HCM2kAvgQ:	11	14	14	5	17	17	8	11	7	10	9	2

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

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Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #68 Cactus Ave. and Foothill Blvd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.750
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	19.6
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Cactus Ave.						Foothill Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0	1 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	76	528	170	50	336	63	63	846	36	92	831	81
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:	76	528	170	50	336	63	63	846	36	92	831	81
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:	80	556	179	53	354	66	66	891	38	97	875	85
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	556	179	53	354	66	66	891	38	97	875	85
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:	80	556	179	53	354	66	66	891	38	97	875	85
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	0.76	0.24	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	1437	463	1800	3800	1900	1800	3800	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.04	0.39	0.39	0.03	0.09	0.03	0.04	0.23	0.02	0.05	0.23	0.04
Crit Moves:		****						****		****		
Green/Cycle:	0.50	0.50	0.50	0.50	0.50	0.50	0.12	0.30	0.30	0.10	0.28	0.28
Volume/Cap:	0.09	0.78	0.78	0.06	0.19	0.07	0.30	0.78	0.07	0.54	0.82	0.16
Delay/Veh:	8.0	16.4	16.4	7.8	8.4	7.9	24.8	22.5	15.0	28.9	25.4	16.4
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:	8.0	16.4	16.4	7.8	8.4	7.9	24.8	22.5	15.0	28.9	25.4	16.4
LOS by Move:	A	B	B	A	A	A	C	C	B	C	C	B
HCM2kAvgQ:	1	13	13	1	2	1	1	10	1	3	10	1

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

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

Intersection #69 Riverside Ave. and Foothill Blvd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.847
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	27.5
Optimal Cycle:	65	Level Of Service:	C

Street Name:	Riverside Ave.						Foothill Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 1			1 0 1 1 0			1 0 2 0 1			1 0 2 0 1		
Volume Module:												
Base Vol:	299	573	218	298	625	124	204	970	134	142	704	151
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:	299	573	218	298	625	124	204	970	134	142	704	151
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:	315	603	229	314	658	131	215	1021	141	149	741	159
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	315	603	229	314	658	131	215	1021	141	149	741	159
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:	315	603	229	314	658	131	215	1021	141	149	741	159
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	1.67	0.33	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	3171	629	1800	3800	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.17	0.16	0.12	0.17	0.21	0.21	0.12	0.27	0.07	0.08	0.20	0.08
Crit Moves:	****				****			****		****		
Green/Cycle:	0.21	0.21	0.21	0.24	0.24	0.24	0.16	0.32	0.32	0.10	0.26	0.26
Volume/Cap:	0.85	0.74	0.56	0.74	0.85	0.85	0.75	0.85	0.23	0.83	0.75	0.32
Delay/Veh:	39.6	25.6	22.9	28.0	29.1	29.1	35.1	25.1	15.3	53.0	23.9	18.4
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:	39.6	25.6	22.9	28.0	29.1	29.1	35.1	25.1	15.3	53.0	23.9	18.4
LOS by Move:	D	C	C	C	C	C	D	C	B	D	C	B
HCM2kAvgQ:	9	7	5	8	10	10	6	12	2	5	8	3

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

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

Intersection #70 Sierra Ave. and Arrow Blvd.

Cycle (sec):	70	Critical Vol./Cap.(X):	0.904
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	33.6
Optimal Cycle:	86	Level Of Service:	C

Street Name:	Sierra Ave.						Arrow Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	332	1153	143	218	786	42	47	847	50	113	650	81
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:	332	1153	143	218	786	42	47	847	50	113	650	81
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:	349	1214	151	229	827	44	49	892	53	119	684	85
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	349	1214	151	229	827	44	49	892	53	119	684	85
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:	349	1214	151	229	827	44	49	892	53	119	684	85
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	1.78	0.22	1.00	1.90	0.10	1.00	1.89	0.11	1.00	1.78	0.22
Final Sat.:	1800	3381	419	1800	3607	193	1800	3588	212	1800	3379	421
Capacity Analysis Module:												
Vol/Sat:	0.19	0.36	0.36	0.13	0.23	0.23	0.03	0.25	0.25	0.07	0.20	0.20
Crit Moves:		****		****				****		****		
Green/Cycle:	0.24	0.39	0.39	0.14	0.29	0.29	0.11	0.27	0.27	0.09	0.25	0.25
Volume/Cap:	0.80	0.92	0.92	0.92	0.80	0.80	0.26	0.92	0.92	0.77	0.81	0.81
Delay/Veh:	35.0	29.7	29.7	65.6	27.4	27.4	29.5	37.6	37.6	52.2	29.9	29.9
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:	35.0	29.7	29.7	65.6	27.4	27.4	29.5	37.6	37.6	52.2	29.9	29.9
LOS by Move:	C	C	C	E	C	C	C	D	D	D	C	C
HCM2kAvgQ:	10	19	19	9	11	11	1	14	14	5	10	10

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

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

Intersection #71 Alder Ave. and Arrow Blvd.

Cycle (sec):	65	Critical Vol./Cap.(X):	0.912
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	32.0
Optimal Cycle:	86	Level Of Service:	C

Street Name:	Alder Ave.						Arrow Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	0 1		1 0 2	0 1	
Volume Module:												
Base Vol:	133	347	174	143	397	37	54	866	96	158	763	72
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:	133	347	174	143	397	37	54	866	96	158	763	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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	140	365	183	151	418	39	57	912	101	166	803	76
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	140	365	183	151	418	39	57	912	101	166	803	76
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:	140	365	183	151	418	39	57	912	101	166	803	76
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	1.33	0.67	1.00	1.83	0.17	1.00	1.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	2531	1269	1800	3476	324	1800	1900	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.08	0.14	0.14	0.08	0.12	0.12	0.03	0.48	0.05	0.09	0.21	0.04
Crit Moves:		****		****				****		****		
Green/Cycle:	0.11	0.16	0.16	0.09	0.14	0.14	0.19	0.53	0.53	0.10	0.44	0.44
Volume/Cap:	0.72	0.91	0.91	0.91	0.85	0.85	0.17	0.91	0.10	0.91	0.48	0.09
Delay/Veh:	39.9	45.4	45.4	72.9	39.3	39.3	22.2	26.5	7.8	71.7	13.3	10.8
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:	39.9	45.4	45.4	72.9	39.3	39.3	22.2	26.5	7.8	71.7	13.3	10.8
LOS by Move:	D	D	D	E	D	D	C	C	A	E	B	B
HCM2kAvgQ:	5	9	9	6	7	7	1	22	1	7	6	1

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

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

Intersection #72 Cedar Ave. and Rialto Ave.

Cycle (sec):	95	Critical Vol./Cap.(X):	1.030
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	59.1
Optimal Cycle:	130	Level Of Service:	E

Street Name:	Cedar Ave.						Rialto Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	287	1116	111	159	1157	275	192	863	228	102	713	248
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:	287	1116	111	159	1157	275	192	863	228	102	713	248
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:	302	1175	117	167	1218	289	202	908	240	107	751	261
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	302	1175	117	167	1218	289	202	908	240	107	751	261
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:	302	1175	117	167	1218	289	202	908	240	107	751	261
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	1.82	0.18	1.00	1.62	0.38	1.00	1.58	0.42	1.00	1.48	0.52
Final Sat.:	1800	3456	344	1800	3070	730	1800	3006	794	1800	2819	981
Capacity Analysis Module:												
Vol/Sat:	0.17	0.34	0.34	0.09	0.40	0.40	0.11	0.30	0.30	0.06	0.27	0.27
Crit Moves:	****				****		****				****	
Green/Cycle:	0.16	0.43	0.43	0.12	0.39	0.39	0.11	0.30	0.30	0.06	0.26	0.26
Volume/Cap:	1.03	0.79	0.79	0.79	1.03	1.03	1.03	0.99	0.99	0.94	1.03	1.03
Delay/Veh:	100.2	26.0	26.0	58.6	60.7	60.7	114.5	57.9	57.9	109.2	71.8	71.8
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:	100.2	26.0	26.0	58.6	60.7	60.7	114.5	57.9	57.9	109.2	71.8	71.8
LOS by Move:	F	C	C	E	E	E	F	E	E	F	E	E
HCM2kAvgQ:	15	18	18	7	31	31	11	23	23	6	22	22

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

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

Intersection #73 Cactus Ave. and Rialto Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.491
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.2
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Cactus Ave.						Rialto Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	150	536	134	74	278	146	179	818	165	67	745	93
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:	150	536	134	74	278	146	179	818	165	67	745	93
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:	158	564	141	78	293	154	188	861	174	71	784	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	158	564	141	78	293	154	188	861	174	71	784	98
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:	158	564	141	78	293	154	188	861	174	71	784	98
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	1.60	0.40	1.00	1.31	0.69	1.00	1.66	0.34	1.00	1.78	0.22
Final Sat.:	1800	3040	760	1800	2492	1308	1800	3162	638	1800	3378	422
Capacity Analysis Module:												
Vol/Sat:	0.09	0.19	0.19	0.04	0.12	0.12	0.10	0.27	0.27	0.04	0.23	0.23
Crit Moves:		****						****				
Green/Cycle:	0.38	0.38	0.38	0.38	0.38	0.38	0.56	0.56	0.56	0.56	0.56	0.56
Volume/Cap:	0.23	0.49	0.49	0.11	0.31	0.31	0.19	0.49	0.49	0.07	0.42	0.42
Delay/Veh:	12.9	14.5	14.5	12.2	13.3	13.3	6.7	8.3	8.3	6.2	7.9	7.9
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:	12.9	14.5	14.5	12.2	13.3	13.3	6.7	8.3	8.3	6.2	7.9	7.9
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
HCM2kAvgQ:	2	5	5	1	3	3	2	6	6	1	5	5

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
PM Peak Hour

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

Intersection #74 Cedar Ave. and Merrill Ave.

Cycle (sec):	85	Critical Vol./Cap.(X):	1.080
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	55.1
Optimal Cycle:	130	Level Of Service:	E

Street Name:	Cedar Ave.						Merrill Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	191	1937	203	205	1730	183	231	890	161	141	573	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:	191	1937	203	205	1730	183	231	890	161	141	573	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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	201	2039	214	216	1821	193	243	937	169	148	603	191
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	201	2039	214	216	1821	193	243	937	169	148	603	191
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:	201	2039	214	216	1821	193	243	937	169	148	603	191
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	1.81	0.19	1.00	1.81	0.19	1.00	1.69	0.31	1.00	1.52	0.48
Final Sat.:	1800	3440	360	1800	3436	364	1800	3218	582	1800	2888	912
Capacity Analysis Module:												
Vol/Sat:	0.11	0.59	0.59	0.12	0.53	0.53	0.14	0.29	0.29	0.08	0.21	0.21
Crit Moves:		****		****				****				
Green/Cycle:	0.11	0.55	0.55	0.11	0.54	0.54	0.27	0.27	0.27	0.27	0.27	0.27
Volume/Cap:	0.97	1.08	1.08	1.08	0.97	0.97	0.50	1.08	1.08	0.31	0.77	0.77
Delay/Veh:	91.9	64.5	64.5	124.4	32.6	32.6	27.0	83.4	83.4	25.1	32.4	32.4
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:	91.9	64.5	64.5	124.4	32.6	32.6	27.0	83.4	83.4	25.1	32.4	32.4
LOS by Move:	F	E	E	F	C	C	C	F	F	C	C	C
HCM2kAvgQ:	10	45	45	12	33	33	6	24	24	3	12	12

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

Lytle Creek Ranch Project
Future 2030 Without Project Condition
PM Peak Hour

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

Intersection #75 Cactus Ave. and Merrill Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.427
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	14.3
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Cactus Ave.						Merrill Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	41	604	58	35	421	59	94	567	84	63	368	76
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:	41	604	58	35	421	59	94	567	84	63	368	76
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:	43	636	61	37	443	62	99	597	88	66	387	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	636	61	37	443	62	99	597	88	66	387	80
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:	43	636	61	37	443	62	99	597	88	66	387	80
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	1.82	0.18	1.00	1.75	0.25	1.00	1.74	0.26	1.00	1.66	0.34
Final Sat.:	1800	3467	333	1800	3333	467	1800	3310	490	1800	3150	650
Capacity Analysis Module:												
Vol/Sat:	0.02	0.18	0.18	0.02	0.13	0.13	0.05	0.18	0.18	0.04	0.12	0.12
Crit Moves:		****		****				****				
Green/Cycle:	0.22	0.40	0.40	0.10	0.29	0.29	0.40	0.40	0.40	0.40	0.40	0.40
Volume/Cap:	0.11	0.45	0.45	0.20	0.46	0.46	0.14	0.45	0.45	0.09	0.31	0.31
Delay/Veh:	19.0	13.3	13.3	25.4	17.9	17.9	11.6	13.5	13.5	11.4	12.6	12.6
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:	19.0	13.3	13.3	25.4	17.9	17.9	11.6	13.5	13.5	11.4	12.6	12.6
LOS by Move:	B	B	B	C	B	B	B	B	B	B	B	B
HCM2kAvgQ:	1	5	5	1	4	4	1	5	5	1	3	3

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

Future (2030) With Project Traffic Condition

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Lytle Creek Ranch Project
Future 2030 With Project Condition
AM Peak Hour

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

Intersection #1 Devore Rd & I-215 NB On/Off-Ramps / Arrowhead Bl

Average Delay (sec/veh): 6.8 Worst Case Level Of Service: C[22.0]

Street Name:	Devore Rd						I-215 NB On/Off-Ramps / Arrowhead					
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 1	0 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:	AM Peak Hour											
Base Vol:	0	90	142	173	302	0	0	0	0	111	0	115
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	90	142	173	302	0	0	0	0	111	0	115
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	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	95	149	182	318	0	0	0	0	117	0	121
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	95	149	182	318	0	0	0	0	117	0	121
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	244	xxxx	xxxxx	912	926	318	852	852	169
Potent Cap.:	xxxx	xxxx	xxxxx	1334	xxxx	xxxxx	257	271	727	333	299	880
Move Cap.:	xxxx	xxxx	xxxxx	1334	xxxx	xxxxx	196	230	727	294	254	880
Volume/Cap:	xxxx	xxxx	xxxx	0.14	xxxx	xxxx	0.00	0.00	0.00	0.40	0.00	0.14
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.5	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0	xxxxx	xxxx	445	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	3.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	8.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	22.0	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	C	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			22.0		
ApproachLOS:	*			*			*			C		

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

Lytle Creek Ranch Project
Future 2030 With Project Condition
AM Peak Hour

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

Intersection #2 I-215 SB On/Off-Ramps & Cajon Bl

Average Delay (sec/veh): 12.7 Worst Case Level Of Service: B[14.6]

Street Name:	I-215 SB On/Off-Ramps									Cajon Bl									
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	1	0	1	0	0	0	0	1	0	1
Volume Module:AM Peak Hour																				
Base Vol:	0	0	0		469	0		77			1		35		0	0		39		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:	0	0	0		469	0		77			1		35		0	0		39		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		0.95	0.95		0.95			0.95		0.95		0.95	0.95		0.95		0.95
PHF Volume:	0	0	0		494	0		81			1		37		0	0		41		9
Reduct Vol:	0	0	0		0	0		0			0		0		0	0		0		0
FinalVolume:	0	0	0		494	0		81			1		37		0	0		41		9
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx		6.4	6.5		6.2			4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
FollowUpTim:	xxxxx	xxxx	xxxxx		3.5	4.0		3.3			2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx		80	80		41			51	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Potent Cap.:	xxxx	xxxx	xxxxx		927	814		1036			1569	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Move Cap.:	xxxx	xxxx	xxxxx		927	814		1036			1569	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Volume/Cap:	xxxx	xxxx	xxxx		0.53	0.00		0.08			0.00	xxxx	xxxx	xxxx	xxxx	xxxx				
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx		xxxx	xxxx		xxxxx			0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Control Del:	xxxxx	xxxx	xxxxx		xxxxx	xxxx		xxxxx			7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
LOS by Move:	*	*	*		*	*		*			A	*	*	*	*	*				
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	941		xxxxx			xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	4.3		xxxxx			xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shrd ConDel:	xxxxx	xxxx	xxxxx		xxxxx	14.6		xxxxx			xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shared LOS:	*	*	*		*	B		*			*	*	*	*	*	*				
ApproachDel:	xxxxxx					14.6					xxxxxx					xxxxxx				
ApproachLOS:	*					B					*					*				

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

Lytle Creek Ranch Project
Future 2030 With Project Condition
AM Peak Hour

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

Intersection #3 Glen Helen Pkwy & Cajon Bl

Cycle (sec):	100	Critical Vol./Cap.(X):	0.957
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	29.9
Optimal Cycle:	0	Level Of Service:	D

Street Name:	Glen Helen Pkwy									Cajon Bl								
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:	6	6	6			6	6	6			6	6	6			6	6	6		
Lanes:	0	1	0	0	1	1	0	1	0	1	0	1	0	1	0	0	1	0	1	0
Volume Module:AM Peak Hour																				
Base Vol:	20	100	446			222	162	20			66	414	20			140	0	60		
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Initial Bse:	20	100	446			222	162	20			66	414	20			140	0	60		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Adj:	0.95	0.95	0.95			0.95	0.95	0.95			0.95	0.95	0.95			0.95	0.95	0.95		
PHF Volume:	21	105	469			234	171	21			69	436	21			147	0	63		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
Reduced Vol:	21	105	469			234	171	21			69	436	21			147	0	63		
PCE Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
FinalVolume:	21	105	469			234	171	21			69	436	21			147	0	63		
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:	0.17	0.83	1.00			1.00	1.00	1.00			0.26	1.66	0.08			1.00	0.40	0.60		
Final Sat.:	73	363	491			371	390	417			112	711	35			377	166	249		
Capacity Analysis Module:																				
Vol/Sat:	0.29	0.29	0.96			0.63	0.44	0.05			0.62	0.61	0.61			0.39	0.00	0.25		
Crit Moves:			****			****					****					****				
Delay/Veh:	14.0	14.0	56.6			26.4	18.3	11.4			23.2	22.6	22.1			17.5	13.7	13.7		
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:	14.0	14.0	56.6			26.4	18.3	11.4			23.2	22.6	22.1			17.5	13.7	13.7		
LOS by Move:	B	B	F			D	C	B			C	C	C			C	B	B		
ApproachDel:	47.6					22.4					22.7					15.9				
Delay Adj:	1.00					1.00					1.00					1.00				
ApprAdjDel:	47.6					22.4					22.7					15.9				
LOS by Appr:	E					C					C					C				
AllWayAvgQ:	0.4	0.4	6.4			1.5	0.7	0.0			1.4	1.4	1.4			0.6	0.3	0.3		

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

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Lytle Creek Ranch Project
Future 2030 With Project Condition
AM Peak Hour

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

Intersection #4 Palm Ave & I-215 NB On/Off-Ramps

Average Delay (sec/veh): 100.6 Worst Case Level Of Service: F[305.5]

Street Name:	Palm Ave						I-215 NB On/Off-Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1	1 0	0	0 0	2 0	1	0 0	0 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	14	688	0	0	759	65	0	0	0	387	1	360
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	688	0	0	759	65	0	0	0	387	1	360
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	724	0	0	799	68	0	0	0	407	1	379
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	15	724	0	0	799	68	0	0	0	407	1	379
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	867	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1153	1621	362
Potent Cap.:	785	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	194	104	640
Move Cap.:	785	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	191	102	640
Volume/Cap:	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	2.13	0.01	0.59
Level Of Service Module:												
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	3.9
Control Del:	9.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	18.4
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	C
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	191	xxxx	xxxxx
SharedQueue:	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	32.0	xxxx	xxxxx
Shrd ConDel:	9.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	571.9	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	*	*	F	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			305.5		
ApproachLOS:	*			*			*			F		

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

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

Intersection #5 Palm Ave & I-215 SB On/Off-Ramps / Kendall Dr.

Cycle (sec):	100	Critical Vol./Cap.(X):	1.892
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	191.1
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Palm Ave						I-215 SB On/Off-Ramps / Kendall 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			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	1 0		0 1 0	0 1		0 1 0	0 1	
Volume Module:												
Base Vol:	87	68	56	655	238	267	187	353	113	112	0	473
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:	87	68	56	655	238	267	187	353	113	112	0	473
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:	92	72	59	689	251	281	197	372	119	118	0	498
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	92	72	59	689	251	281	197	372	119	118	0	498
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	72	59	689	251	281	197	372	119	118	0	498
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	1.00	1.00	0.35	0.65	1.00	1.00	0.00	1.00
Final Sat.:	302	315	335	364	382	413	134	253	420	370	0	428
Capacity Analysis Module:												
Vol/Sat:	0.30	0.23	0.18	1.89	0.66	0.68	1.47	1.47	0.28	0.32	xxxx	1.16
Crit Moves:	****			****			****					****
Delay/Veh:	19.3	17.1	15.4	434.0	28.1	27.8	249.2	249	14.4	16.7	0.0	123.6
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:	19.3	17.1	15.4	434.0	28.1	27.8	249.2	249	14.4	16.7	0.0	123.6
LOS by Move:	C	C	C	F	D	D	F	F	B	C	*	F
ApproachDel:	17.6			257.2			208.6			103.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	17.6			257.2			208.6			103.1		
LOS by Appr:	C			F			F			F		
AllWayAvgQ:	0.4	0.3	0.2	42.7	1.7	1.9	25.5	25.5	0.4	0.4	0.4	13.4

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

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

Intersection #6 University Pkwy & I-215 NB On/Off-Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.776
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.8
Optimal Cycle:	60	Level Of Service:	B

Street Name:	University Pkwy						I-215 NB On/Off-Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2	0 0	0	0 0 3	0 1		0 0 0	0 0	0	0 1 0	0 2	
Volume Module:												
Base Vol:	86	582	0	0	1513	548	0	0	0	479	0	1177
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:	86	582	0	0	1513	548	0	0	0	479	0	1177
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:	91	613	0	0	1593	577	0	0	0	504	0	1239
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	613	0	0	1593	577	0	0	0	504	0	1239
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:	91	613	0	0	1593	577	0	0	0	504	0	1239
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	0.95
Lanes:	1.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.00	0.00	2.00
Final Sat.:	1800	3800	0	0	5700	1900	0	0	0	1800	0	3600
Capacity Analysis Module:												
Vol/Sat:	0.05	0.16	0.00	0.00	0.28	0.30	0.00	0.00	0.00	0.28	0.00	0.34
Crit Moves:	****					****						****
Green/Cycle:	0.10	0.29	0.00	0.00	0.37	0.37	0.00	0.00	0.00	0.43	0.00	0.43
Volume/Cap:	0.50	0.55	0.00	0.00	0.75	0.81	0.00	0.00	0.00	0.66	0.00	0.81
Delay/Veh:	27.8	18.5	0.0	0.0	17.7	23.7	0.0	0.0	0.0	15.9	0.0	18.5
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:	27.8	18.5	0.0	0.0	17.7	23.7	0.0	0.0	0.0	15.9	0.0	18.5
LOS by Move:	C	B	A	A	B	C	A	A	A	B	A	B
HCM2kAvgQ:	2	5	0	0	10	12	0	0	0	9	0	13

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

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

Intersection #7 University Pkwy & I-215 SB On/Off-Ramps

Cycle (sec):	90	Critical Vol./Cap.(X):	1.083
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	61.8
Optimal Cycle:	130	Level Of Service:	E

Street Name:	University Pkwy						I-215 SB On/Off-Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 1	1 0		1 0 2	0 0		0 1 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	431	403	1116	861	0	218	0	117	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	431	403	1116	861	0	218	0	117	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	454	424	1175	906	0	229	0	123	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	454	424	1175	906	0	229	0	123	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	454	424	1175	906	0	229	0	123	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.03	0.97	1.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	1964	1836	1800	3800	0	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.23	0.23	0.65	0.24	0.00	0.13	0.00	0.06	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.00	0.21	0.21	0.60	0.64	0.00	0.12	0.00	0.12	0.00	0.00	0.00
Volume/Cap:	0.00	1.08	1.08	1.08	0.37	0.00	1.08	0.00	0.55	0.00	0.00	0.00
Delay/Veh:	0.0	92.0	92.0	70.7	7.9	0.0	125.5	0.0	40.4	0.0	0.0	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:	0.0	92.0	92.0	70.7	7.9	0.0	125.5	0.0	40.4	0.0	0.0	0.0
LOS by Move:	A	F	F	E	A	A	F	A	D	A	A	A
HCM2kAvgQ:	0	21	21	51	6	0	13	0	4	0	0	0

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

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

Intersection #8 I-15 SB On/Off-Ramps & Glen Helen Pkwy

Average Delay (sec/veh): 4.0 Worst Case Level Of Service: B[12.7]

Street Name:	I-15 SB On/Off-Ramps									Glen Helen Pkwy												
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	1	0	0	1	0	0	0	1	1	0	1	0	2	0	0		
Volume Module:																						
Base Vol:	0	0	0			17	6			20	0	103			178	223			65	0		
Growth Adj:	1.00	1.00	1.00			1.00	1.00			1.00	1.00	1.00			1.00	1.00			1.00	1.00		
Initial Bse:	0	0	0			17	6			20	0	103			178	223			65	0		
User Adj:	1.00	1.00	1.00			1.00	1.00			1.00	1.00	1.00			1.00	1.00			1.00	1.00		
PHF Adj:	0.95	0.95	0.95			0.95	0.95			0.95	0.95	0.95			0.95	0.95			0.95	0.95		
PHF Volume:	0	0	0			18	6			21	0	108			187	235			68	0		
Reduct Vol:	0	0	0			0	0			0	0	0			0	0			0	0		
FinalVolume:	0	0	0			18	6			21	0	108			187	235			68	0		
Critical Gap Module:																						
Critical Gp:	xxxxx	xxxx	xxxxx			6.8	6.5			6.9	xxxxx	xxxx			xxxxx	4.1			xxxx	xxxxx		
FollowUpTim:	xxxxx	xxxx	xxxxx			3.5	4.0			3.3	xxxxx	xxxx			xxxxx	2.2			xxxx	xxxxx		
Capacity Module:																						
Cnflict Vol:	xxxx	xxxx	xxxxx			592	834			34	xxxx	xxxx			xxxxx	296			xxxx	xxxxx		
Potent Cap.:	xxxx	xxxx	xxxxx			442	306			1038	xxxx	xxxx			xxxxx	1277			xxxx	xxxxx		
Move Cap.:	xxxx	xxxx	xxxxx			380	250			1038	xxxx	xxxx			xxxxx	1277			xxxx	xxxxx		
Volume/Cap:	xxxx	xxxx	xxxx			0.05	0.03			0.02	xxxx	xxxx			xxxx	0.18			xxxx	xxxx		
Level Of Service Module:																						
2Way95thQ:	xxxx	xxxx	xxxxx			0.1	xxxx			xxxxx	xxxx	xxxx			xxxxx	0.7			xxxx	xxxxx		
Control Del:	xxxxx	xxxx	xxxxx			15.0	xxxx			xxxxx	xxxxx	xxxx			xxxxx	8.5			xxxx	xxxxx		
LOS by Move:	*	*	*			B	*			*	*	*			*	A			*	*		
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT		
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx			601	xxxx	xxxx			xxxxx	xxxx			xxxx	xxxxx		
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx			0.1	xxxxx	xxxx			xxxxx	xxxxx			xxxx	xxxxx		
Shrd ConDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx			11.3	xxxxx	xxxx			xxxxx	xxxxx			xxxx	xxxxx		
Shared LOS:	*	*	*			*	*			B	*	*			*	*			*	*		
ApproachDel:	xxxxxx					12.7					xxxxxx					xxxxxx						
ApproachLOS:	*					B					*					*						

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

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

Intersection #9 I-15 NB On/Off-Ramps & Glen Helen Pkwy

Average Delay (sec/veh): 7.2 Worst Case Level Of Service: B[11.6]

Street Name:	I-15 NB On/Off-Ramps						Glen Helen Pkwy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 1 0 0 1			0 0 0 0 0			1 0 2 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	45	10	467	0	0	0	56	68	0	0	242	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:	45	10	467	0	0	0	56	68	0	0	242	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:	47	11	492	0	0	0	59	72	0	0	255	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	47	11	492	0	0	0	59	72	0	0	255	13
Critical Gap Module:												
Critical Gp:	6.8	6.5	6.9	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	317	457	36	xxxx	xxxx	xxxxx	267	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	657	503	1035	xxxx	xxxx	xxxxx	1308	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	634	480	1035	xxxx	xxxx	xxxxx	1308	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.07	0.02	0.47	xxxx	xxxx	xxxx	0.05	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.1	xxxx	2.6	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	10.9	xxxx	11.6	xxxxx	xxxx	xxxxx	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
Shared Cap.:	577	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	11.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	B	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	11.6			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	B			*			*			*		

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

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

Intersection #10 Glen Helen Pkwy & Lytle Creek Rd

Average Delay (sec/veh): 960.0 Worst Case Level Of Service: F[3945.4]

Street Name:	Glen Helen Pkwy									Lytle Creek Rd									
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	1	0	0	0	1	0	1	0	0	0	0	0	1	0	1
Volume Module:																				
Base Vol:	0	0	0			627	0			50	63	1496			0	0		262		285
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			627	0			50	63	1496			0	0		262		285
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			660	0			53	66	1575			0	0		276		300
Reduct Vol:	0	0	0			0	0			0	0	0			0	0		0		0
FinalVolume:	0	0	0			660	0			53	66	1575			0	0		276		300
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			1983	xxxx			276	576	xxxx	xxxxx		xxxx	xxxx		xxxxx		
Potent Cap.:	xxxx	xxxx	xxxxx			68	xxxx			768	1008	xxxx	xxxxx		xxxx	xxxx		xxxxx		
Move Cap.:	xxxx	xxxx	xxxxx			65	xxxx			768	1008	xxxx	xxxxx		xxxx	xxxx		xxxxx		
Volume/Cap:	xxxx	xxxx	xxxx			10.20	xxxx			0.07	0.07	xxxx	xxxx		xxxx	xxxx		xxxx		
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx			77.6	xxxx			0.2	0.2	xxxx	xxxxx		xxxx	xxxx		xxxxx		
Control Del:	xxxxx	xxxx	xxxxx			4259	xxxx			10.0	8.8	xxxx	xxxxx		xxxxx	xxxx		xxxxx		
LOS by Move:	*	*	*			F	*			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			0.2	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shrd ConDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			8.8	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	*	*	*			*	*	*			A	*	*			*	*	*		
ApproachDel:	xxxxxx					3945.4					xxxxxx					xxxxxx				
ApproachLOS:	*					F					*					*				

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

Lytle Creek Ranch Project
Future 2030 With Project Condition
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Lytle Creek Rd & Sierra Ave

Average Delay (sec/veh): 3.8 Worst Case Level Of Service: F[336.6]

Street Name:	Lytle Creek Rd						Sierra Ave / Lytle Creek Rd					
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	1! 0	0	0 0	0 0	0	0 0	0 1	0	0 1	0 0	0
Volume Module:												
Base Vol:	14	0	16	0	0	0	0	2072	6	2	562	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:	14	0	16	0	0	0	0	2072	6	2	562	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:	15	0	17	0	0	0	0	2181	6	2	592	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	15	0	17	0	0	0	0	2181	6	2	592	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	2780	2780	2184	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	2187	xxxx	xxxxx
Potent Cap.:	21	19	59	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	246	xxxx	xxxxx
Move Cap.:	21	19	59	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	246	xxxx	xxxxx
Volume/Cap:	0.70	0.00	0.29	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	19.8	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	C	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	32	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	3.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	337	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	19.8	xxxx	xxxxx
Shared LOS:	*	F	*	*	*	*	*	*	*	C	*	*
ApproachDel:	336.6			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	F			*			*			*		

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

Lytle Creek Ranch Project
Future 2030 With Project Condition
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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #12 I-15 SB On/Off-Ramps & Sierra Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	4.801
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	1049.9
Optimal Cycle:	0	Level Of Service:	F

Street Name:	I-15 SB On/Off-Ramps						Sierra Ave					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	0 0	0	0 1	0 0	1	0 0	0 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	0	0	0	486	23	250	0	884	1436	910	377	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	486	23	250	0	884	1436	910	377	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	512	24	263	0	931	1512	958	397	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	512	24	263	0	931	1512	958	397	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	512	24	263	0	931	1512	958	397	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:	0.00	0.00	0.00	0.95	0.05	1.00	0.00	0.38	0.62	1.00	2.00	0.00
Final Sat.:	0	0	0	422	20	516	0	194	315	448	954	0
Capacity Analysis Module:												
Vol/Sat:	xxxx	xxxx	xxxx	1.21	1.21	0.51	xxxx	4.80	4.80	2.14	0.42	xxxx
Crit Moves:				****				****		****		
Delay/Veh:	0.0	0.0	0.0	140.1	140	16.7	0.0	1730	1730	538.6	15.5	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:	0.0	0.0	0.0	140.1	140	16.7	0.0	1730	1730	538.6	15.5	0.0
LOS by Move:	*	*	*	F	F	C	*	F	F	F	C	*
ApproachDel:	xxxxxx			99.5			1729.5			385.3		
Delay Adj:	xxxxx			1.00			1.00			1.00		
ApprAdjDel:	xxxxxx			99.5			1729.5			385.3		
LOS by Appr:	*			F			F			F		
AllWayAvgQ:	0.0	0.0	0.0	15.9	15.9	1.0	243	243	242.9	65.6	0.7	0.0

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

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

Intersection #13 I-15 NB On/Off-Ramps & Sierra Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	2.827
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	460.8
Optimal Cycle:	0	Level Of Service:	F

Street Name:	I-15 NB On/Off-Ramps						Sierra Ave					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	1! 0	0	0 0	0 0	0	1 0	1 0	0	0 0	1 1	0
Volume Module:												
Base Vol:	161	2	432	0	0	0	181	1189	0	0	1122	481
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:	161	2	432	0	0	0	181	1189	0	0	1122	481
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:	169	2	455	0	0	0	191	1252	0	0	1181	506
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	169	2	455	0	0	0	191	1252	0	0	1181	506
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:	169	2	455	0	0	0	191	1252	0	0	1181	506
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	0.01	0.99	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.40	0.60
Final Sat.:	874	-452	452	0	0	0	416	443	0	0	657	293
Capacity Analysis Module:												
Vol/Sat:	0.19	-0.00	1.01	xxxx	xxxx	xxxx	0.46	2.83	xxxx	xxxx	1.80	1.73
Crit Moves:			****					****			****	
Delay/Veh:	56.0	70.5	70.5	0.0	0.0	0.0	18.4	844	0.0	0.0	386	354.5
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:	56.0	70.5	70.5	0.0	0.0	0.0	18.4	844	0.0	0.0	386	354.5
LOS by Move:	F	F	F	*	*	*	C	F	*	*	F	F
ApproachDel:	56.0			xxxxxx			734.9			376.8		
Delay Adj:	1.00			xxxxx			1.00			1.00		
ApprAdjDel:	56.0			xxxxxx			734.9			376.8		
LOS by Appr:	F			*			F			F		
AllWayAvgQ:	7.6	7.6	7.6	0.0	0.0	0.0	0.8	102	0.0	0.0	49.8	46.7

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

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

Intersection #14 I-15 SB On/Off Ramps and Duncan Canyon Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.590
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.4
Optimal Cycle:	60	Level Of Service:	B

Street Name:	I-15 SB On/Off Ramps						Duncan Canyon Rd.					
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			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 1 0 0			0 0 1 0 1		
Volume Module:												
Base Vol:	0	0	0	2	0	60	690	236	0	0	170	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:	0	0	0	2	0	60	690	236	0	0	170	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:	0	0	0	2	0	63	726	248	0	0	179	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	2	0	63	726	248	0	0	179	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:	0	0	0	2	0	63	726	248	0	0	179	25
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Final Sat.:	0	0	0	1800	0	1900	1800	1900	0	0	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.03	0.40	0.13	0.00	0.00	0.09	0.01
Crit Moves:						****	****				****	
Green/Cycle:	0.00	0.00	0.00	0.10	0.00	0.10	0.65	0.80	0.00	0.00	0.15	0.15
Volume/Cap:	0.00	0.00	0.00	0.01	0.00	0.33	0.62	0.16	0.00	0.00	0.62	0.09
Delay/Veh:	0.0	0.0	0.0	24.4	0.0	26.2	7.3	1.4	0.0	0.0	28.0	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:	0.0	0.0	0.0	24.4	0.0	26.2	7.3	1.4	0.0	0.0	28.0	22.0
LOS by Move:	A	A	A	C	A	C	A	A	A	A	C	C
HCM2kAvgQ:	0	0	0	0	0	1	9	1	0	0	4	0

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

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

Intersection #15 Lytle Creek Rd. and Duncan Canyon Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.214
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	15.0
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Lytle Creek Rd.						Duncan Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0	1 0	0	0 1 0	0	1	1 0 0	1 0	0	0 1 0	0	1
Volume Module:												
Base Vol:	40	0	0	31	21	65	201	32	3	0	70	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:	40	0	0	31	21	65	201	32	3	0	70	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:	42	0	0	33	22	68	212	34	3	0	74	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	42	0	0	33	22	68	212	34	3	0	74	43
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:	42	0	0	33	22	68	212	34	3	0	74	43
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	0.61	0.39	1.00	1.00	0.91	0.09	0.00	1.00	1.00
Final Sat.:	1800	1900	0	1096	743	1900	1800	1737	163	0	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.02	0.00	0.00	0.03	0.03	0.04	0.12	0.02	0.02	0.00	0.04	0.02
Crit Moves:						****	****				****	
Green/Cycle:	0.17	0.00	0.00	0.17	0.17	0.17	0.55	0.37	0.37	0.00	0.18	0.18
Volume/Cap:	0.14	0.00	0.00	0.18	0.18	0.21	0.21	0.05	0.05	0.00	0.21	0.13
Delay/Veh:	21.4	0.0	0.0	21.7	21.7	21.9	7.0	12.3	12.3	0.0	21.2	20.7
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:	21.4	0.0	0.0	21.7	21.7	21.9	7.0	12.3	12.3	0.0	21.2	20.7
LOS by Move:	C	A	A	C	C	C	A	B	B	A	C	C
HCM2kAvgQ:	1	0	0	1	1	1	2	0	0	0	1	1

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

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

Intersection #16 I-15 SB On/Off Ramps and Summit Ave.

Cycle (sec):	90	Critical Vol./Cap.(X):	1.160
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	80.4
Optimal Cycle:	130	Level Of Service:	F

Street Name:	I-15 SB On/Off Ramps						Summit Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 2 0 0			0 0 2 0 1		
Volume Module:												
Base Vol:	0	0	0	288	0	275	669	607	0	0	567	944
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	288	0	275	669	607	0	0	567	944
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	303	0	289	704	639	0	0	597	994
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	303	0	289	704	639	0	0	597	994
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	303	0	289	704	639	0	0	597	994
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1800	0	1900	1800	3800	0	0	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.17	0.00	0.15	0.39	0.17	0.00	0.00	0.16	0.52
Crit Moves:				****			****					****
Green/Cycle:	0.00	0.00	0.00	0.15	0.00	0.15	0.34	0.56	0.00	0.00	0.45	0.45
Volume/Cap:	0.00	0.00	0.00	1.16	0.00	1.05	1.16	0.30	0.00	0.00	0.35	1.16
Delay/Veh:	0.0	0.0	0.0	144.4	0.0	106.2	119.1	10.3	0.0	0.0	16.2	109.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	144.4	0.0	106.2	119.1	10.3	0.0	0.0	16.2	109.6
LOS by Move:	A	A	A	F	A	F	F	B	A	A	B	F
HCM2kAvgQ:	0	0	0	18	0	14	37	5	0	0	5	47

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

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

Intersection #17 I-15 NB On/Off Ramps and Summit Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.829
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	19.8
Optimal Cycle:	60	Level Of Service:	B

Street Name:	I-15 NB On/Off Ramps						Summit Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 2 0 0			0 0 2 0 1		
Volume Module:												
Base Vol:	0	0	0	481	0	195	171	721	0	0	1316	302
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	481	0	195	171	721	0	0	1316	302
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	506	0	205	180	759	0	0	1385	318
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	506	0	205	180	759	0	0	1385	318
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	506	0	205	180	759	0	0	1385	318
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1800	0	1900	1800	3800	0	0	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.28	0.00	0.11	0.10	0.20	0.00	0.00	0.36	0.17
Crit Moves:				****			****				****	
Green/Cycle:	0.00	0.00	0.00	0.34	0.00	0.34	0.12	0.37	0.00	0.00	0.44	0.44
Volume/Cap:	0.00	0.00	0.00	0.83	0.00	0.32	0.83	0.53	0.00	0.00	0.83	0.38
Delay/Veh:	0.0	0.0	0.0	27.5	0.0	15.0	48.3	15.1	0.0	0.0	18.4	11.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	27.5	0.0	15.0	48.3	15.1	0.0	0.0	18.4	11.6
LOS by Move:	A	A	A	C	A	B	D	B	A	A	B	B
HCM2kAvgQ:	0	0	0	12	0	3	6	6	0	0	14	4

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

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

Intersection #18 Sierra Ave & Riverside Ave

Cycle (sec): 100 | Critical Vol./Cap.(X): 2.739
Loss Time (sec): 0 (Y+R=4.0 sec) | Average Delay (sec/veh): 570.2
Optimal Cycle: 0 | Level Of Service: F

Street Name:	Sierra Ave						Riverside Ave					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	1 0	1	1 0	1 0	0	0 0	0 0	0	1 0	0 0	1
Volume Module:												
Base Vol:	0	332	67	1200	462	0	0	0	0	65	0	1283
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	332	67	1200	462	0	0	0	0	65	0	1283
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	349	71	1263	486	0	0	0	0	68	0	1351
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	349	71	1263	486	0	0	0	0	68	0	1351
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	349	71	1263	486	0	0	0	0	68	0	1351
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	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	460	504	461	493	0	0	0	0	443	0	523
Capacity Analysis Module:												
Vol/Sat:	xxxx	0.76	0.14	2.74	0.99	xxxx	xxxx	xxxx	xxxx	0.15	xxxx	2.58
Crit Moves:		****		****								****
Delay/Veh:	0.0	31.2	11.0	803.9	63.8	0.0	0.0	0.0	0.0	12.2	0.0	730.8
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:	0.0	31.2	11.0	803.9	63.8	0.0	0.0	0.0	0.0	12.2	0.0	730.8
LOS by Move:	*	D	B	F	F	*	*	*	*	B	*	F
ApproachDel:		27.8		598.2			xxxxxx			696.2		
Delay Adj:		1.00		1.00			xxxxx			1.00		
ApprAdjDel:		27.8		598.2			xxxxxx			696.2		
LOS by Appr:		D		F			*			F		
AllWayAvgQ:	0.0	2.6	0.2	102	7.4	0.0	0.0	0.0	0.0	0.2	0.0	104.8

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

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

Intersection #19 Live Oak Ave & Riverside Ave

Cycle (sec):	60	Critical Vol./Cap.(X):	0.729
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	21.4
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Live Oak Ave						Riverside Ave					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0 1 0			1 0 0 1 0			1 0 1 1 0			1 0 1 1 0		
Volume Module:												
Base Vol:	315	10	176	111	10	154	139	944	163	86	838	93
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:	315	10	176	111	10	154	139	944	163	86	838	93
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:	332	11	185	117	11	162	146	994	172	91	882	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	332	11	185	117	11	162	146	994	172	91	882	98
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:	332	11	185	117	11	162	146	994	172	91	882	98
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	0.05	0.95	1.00	0.06	0.94	1.00	1.71	0.29	1.00	1.80	0.20
Final Sat.:	1800	102	1798	1800	116	1784	1800	3240	560	1800	3420	380
Capacity Analysis Module:												
Vol/Sat:	0.18	0.10	0.10	0.06	0.09	0.09	0.08	0.31	0.31	0.05	0.26	0.26
Crit Moves:	****				****			****		****		
Green/Cycle:	0.24	0.18	0.18	0.18	0.12	0.12	0.14	0.40	0.40	0.10	0.36	0.36
Volume/Cap:	0.76	0.56	0.56	0.36	0.76	0.76	0.58	0.76	0.76	0.50	0.71	0.71
Delay/Veh:	28.6	24.3	24.3	22.4	39.3	39.3	27.4	17.6	17.6	27.8	18.1	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:	28.6	24.3	24.3	22.4	39.3	39.3	27.4	17.6	17.6	27.8	18.1	18.1
LOS by Move:	C	C	C	C	D	D	C	B	B	C	B	B
HCM2kAvgQ:	8	4	4	2	5	5	4	11	11	2	9	9

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

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

Intersection #20 Alder Ave. and Riverside Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.590
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	14.3
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Alder Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0	1 0		1 0 0	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	94	142	158	111	102	144	129	1044	94	85	737	94
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:	94	142	158	111	102	144	129	1044	94	85	737	94
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:	99	149	166	117	107	152	136	1099	99	89	776	99
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	99	149	166	117	107	152	136	1099	99	89	776	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:	99	149	166	117	107	152	136	1099	99	89	776	99
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	0.47	0.53	1.00	0.41	0.59	1.00	1.83	0.17	1.00	1.77	0.23
Final Sat.:	1800	899	1001	1800	788	1112	1800	3486	314	1800	3370	430
Capacity Analysis Module:												
Vol/Sat:	0.05	0.17	0.17	0.06	0.14	0.14	0.08	0.32	0.32	0.05	0.23	0.23
Crit Moves:		****						****		****		
Green/Cycle:	0.28	0.28	0.28	0.28	0.28	0.28	0.19	0.52	0.52	0.10	0.43	0.43
Volume/Cap:	0.20	0.60	0.60	0.24	0.49	0.49	0.40	0.60	0.60	0.50	0.53	0.53
Delay/Veh:	16.8	20.8	20.8	17.1	18.9	18.9	22.1	10.5	10.5	27.7	12.8	12.8
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:	16.8	20.8	20.8	17.1	18.9	18.9	22.1	10.5	10.5	27.7	12.8	12.8
LOS by Move:	B	C	C	B	B	B	C	B	B	C	B	B
HCM2kAvgQ:	2	6	6	2	5	5	3	8	8	2	6	6

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

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

Intersection #21 Locust Ave. and Riverside Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.575
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	15.3
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Locust Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0	1 0	1 0	1 0 0	1 0	1 0	1 0 1	1 0	1 0	1 0 1	1 0	1 0
Volume Module:												
Base Vol:	59	92	26	126	119	222	230	1082	64	19	635	114
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:	59	92	26	126	119	222	230	1082	64	19	635	114
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:	62	97	27	133	125	234	242	1139	67	20	668	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	97	27	133	125	234	242	1139	67	20	668	120
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:	62	97	27	133	125	234	242	1139	67	20	668	120
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	0.78	0.22	1.00	0.35	0.65	1.00	1.89	0.11	1.00	1.70	0.30
Final Sat.:	1800	1481	419	1800	663	1237	1800	3588	212	1800	3222	578
Capacity Analysis Module:												
Vol/Sat:	0.03	0.07	0.07	0.07	0.19	0.19	0.13	0.32	0.32	0.01	0.21	0.21
Crit Moves:					****			****		****		
Green/Cycle:	0.30	0.30	0.30	0.30	0.30	0.30	0.24	0.50	0.50	0.10	0.36	0.36
Volume/Cap:	0.12	0.22	0.22	0.25	0.63	0.63	0.57	0.63	0.63	0.11	0.57	0.57
Delay/Veh:	15.4	16.0	16.0	16.2	20.5	20.5	22.0	11.6	11.6	24.8	15.8	15.8
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:	15.4	16.0	16.0	16.2	20.5	20.5	22.0	11.6	11.6	24.8	15.8	15.8
LOS by Move:	B	B	B	B	C	C	C	B	B	C	B	B
HCM2kAvgQ:	1	2	2	2	7	7	5	9	9	0	7	7

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

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

****
Intersection #22 Linden Ave. and Riverside Ave.
****

Cycle (sec):	130	Critical Vol./Cap.(X):	1.193
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	100.5
Optimal Cycle:	130	Level Of Service:	F

****

Street Name:	Linden Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	1! 0	0	1 1	0 0	1	1 0	1 1	0	0 0	1! 0	0
Volume Module:												
Base Vol:	21	14	7	178	28	29	66	1355	86	62	927	156
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	14	7	178	28	29	66	1355	86	62	927	156
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	15	7	187	29	31	69	1426	91	65	976	164
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	15	7	187	29	31	69	1426	91	65	976	164
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	22	15	7	187	29	31	69	1426	91	65	976	164
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.52	0.32	0.16	1.74	0.26	1.00	1.00	1.88	0.12	0.06	0.81	0.13
Final Sat.:	924	616	308	3133	493	1900	1800	3573	227	103	1534	258
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.06	0.06	0.02	0.04	0.40	0.40	0.64	0.64	0.64
Crit Moves:	****				****			****		****		
Green/Cycle:	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.33	0.33	0.52	0.79	0.79
Volume/Cap:	0.52	0.52	0.52	1.23	1.23	0.33	0.68	1.23	1.23	1.23	0.81	0.81
Delay/Veh:	66.1	66.1	66.1	203.8	204	61.9	76.6	154	153.5	142.7	11.6	11.6
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:	66.1	66.1	66.1	203.8	204	61.9	76.6	154	153.5	142.7	11.6	11.6
LOS by Move:	E	E	E	F	F	E	E	F	F	F	B	B
HCM2kAvgQ:	3	3	3	9	9	2	4	49	49	76	29	29

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #23 Ayala Dr. and Riverside Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.824
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	17.9
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Ayala Dr.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0 0 2			0 0 0 0 0			0 0 1 1 0			1 0 2 0 0		
Volume Module:												
Base Vol:	171	0	278	0	0	0	0	1079	440	378	959	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:	171	0	278	0	0	0	0	1079	440	378	959	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:	180	0	293	0	0	0	0	1136	463	398	1009	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	180	0	293	0	0	0	0	1136	463	398	1009	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	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:	180	0	293	0	0	0	0	1136	463	398	1009	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	0.00	2.00	0.00	0.00	0.00	0.00	1.42	0.58	1.00	2.00	0.00
Final Sat.:	1800	0	3600	0	0	0	0	2699	1101	1800	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.10	0.00	0.08	0.00	0.00	0.00	0.00	0.42	0.42	0.22	0.27	0.00
Crit Moves:	****							****		****		
Green/Cycle:	0.12	0.00	0.12	0.00	0.00	0.00	0.00	0.51	0.51	0.27	0.57	0.00
Volume/Cap:	0.82	0.00	0.67	0.00	0.00	0.00	0.00	0.82	0.82	0.82	0.47	0.00
Delay/Veh:	47.5	0.0	29.2	0.0	0.0	0.0	0.0	15.4	15.4	31.7	7.9	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:	47.5	0.0	29.2	0.0	0.0	0.0	0.0	15.4	15.4	31.7	7.9	0.0
LOS by Move:	D	A	C	A	A	A	A	B	B	C	A	A
HCM2kAvgQ:	6	0	4	0	0	0	0	15	15	10	6	0

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

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

Intersection #24 Knollwood Ave. and Riverside Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.417
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	8.4
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Knollwood Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 2 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	0	0	0	9	0	153	17	1337	0	0	1168	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	9	0	153	17	1337	0	0	1168	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	9	0	161	18	1407	0	0	1229	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	9	0	161	18	1407	0	0	1229	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:	0	0	0	9	0	161	18	1407	0	0	1229	17
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.97	0.03
Final Sat.:	0	0	0	1800	0	1900	1800	3800	0	0	3749	51
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.01	0.00	0.08	0.01	0.37	0.00	0.00	0.33	0.33
Crit Moves:				****				****		****		
Green/Cycle:	0.00	0.00	0.00	0.15	0.00	0.15	0.18	0.65	0.00	0.00	0.58	0.58
Volume/Cap:	0.00	0.00	0.00	0.04	0.00	0.57	0.06	0.57	0.00	0.00	0.57	0.57
Delay/Veh:	0.0	0.0	0.0	21.9	0.0	26.5	20.7	6.1	0.0	0.0	8.4	8.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	21.9	0.0	26.5	20.7	6.1	0.0	0.0	8.4	8.4
LOS by Move:	A	A	A	C	A	C	C	A	A	A	A	A
HCM2kAvgQ:	0	0	0	0	0	4	0	8	0	0	8	8

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

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

Intersection #25 Country Club Dr. and Riverside Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.678
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	17.2
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Country Club Dr.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 1 0	0 1		1 0	0 1 0		1 0	1 1 0		1 0	1 1 0	
Volume Module:												
Base Vol:	126	113	10	180	240	234	172	1082	163	4	860	59
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:	126	113	10	180	240	234	172	1082	163	4	860	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:	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:	133	119	11	189	253	246	181	1139	172	4	905	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	133	119	11	189	253	246	181	1139	172	4	905	62
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:	133	119	11	189	253	246	181	1139	172	4	905	62
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.54	0.46	1.00	1.00	0.51	0.49	1.00	1.74	0.26	1.00	1.87	0.13
Final Sat.:	973	873	1900	1800	962	938	1800	3302	498	1800	3556	244
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.01	0.11	0.26	0.26	0.10	0.34	0.34	0.00	0.25	0.25
Crit Moves:					****			****		****		
Green/Cycle:	0.35	0.35	0.35	0.35	0.35	0.35	0.16	0.45	0.45	0.10	0.40	0.40
Volume/Cap:	0.39	0.39	0.02	0.30	0.76	0.76	0.64	0.76	0.76	0.02	0.64	0.64
Delay/Veh:	15.3	15.3	12.9	14.6	22.6	22.6	28.6	15.7	15.7	24.4	15.6	15.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	15.3	15.3	12.9	14.6	22.6	22.6	28.6	15.7	15.7	24.4	15.6	15.6
LOS by Move:	B	B	B	B	C	C	C	B	B	C	B	B
HCM2kAvgQ:	4	4	0	3	10	10	5	12	12	0	8	8

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

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

Intersection #26 Riverside Ave. and Dwy.(Shopping Ctr.)

Cycle (sec): 115 Critical Vol./Cap.(X): 0.502
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 5.6
Optimal Cycle: 60 Level Of Service: A

Street Name:	Riverside Ave.						Dwy.(Shopping Ctr.)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 0			0 0 1 1 0			1 0 0 0 1			0 0 0 0 0		
Volume Module:												
Base Vol:	46	943	0	0	1565	2	26	0	32	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	46	943	0	0	1565	2	26	0	32	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	48	993	0	0	1647	2	27	0	34	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	48	993	0	0	1647	2	27	0	34	0	0	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	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:	48	993	0	0	1647	2	27	0	34	0	0	0
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	0.00	0.00	1.99	0.01	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1800	3800	0	0	3795	5	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.26	0.00	0.00	0.43	0.43	0.02	0.00	0.02	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green/Cycle:	0.05	0.75	0.00	0.00	0.84	0.84	0.05	0.00	0.05	0.00	0.00	0.00
Volume/Cap:	0.51	0.35	0.00	0.00	0.51	0.51	0.29	0.00	0.34	0.00	0.00	0.00
Delay/Veh:	57.9	5.1	0.0	0.0	2.6	2.6	54.2	0.0	54.6	0.0	0.0	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:	57.9	5.1	0.0	0.0	2.6	2.6	54.2	0.0	54.6	0.0	0.0	0.0
LOS by Move:	E	A	A	A	A	A	D	A	D	A	A	A
HCM2kAvgQ:	3	6	0	0	8	8	1	0	2	0	0	0

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

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

Intersection #27 Sierra Ave. and Casa Grande Dr.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.469
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	11.3
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Sierra Ave.						Casa Grande Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 1	0 1		1 0 1	0 0		0 0 0	0 0		1 0 0	0 1	
Volume Module:												
Base Vol:	0	440	207	191	631	0	0	0	0	151	0	131
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	440	207	191	631	0	0	0	0	151	0	131
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	463	218	201	664	0	0	0	0	159	0	138
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	463	218	201	664	0	0	0	0	159	0	138
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	463	218	201	664	0	0	0	0	159	0	138
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	1900	1900	1800	1900	0	0	0	0	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.24	0.11	0.11	0.35	0.00	0.00	0.00	0.00	0.09	0.00	0.07
Crit Moves:	****				****					****		
Green/Cycle:	0.00	0.52	0.52	0.24	0.67	0.00	0.00	0.00	0.00	0.17	0.00	0.17
Volume/Cap:	0.00	0.46	0.22	0.46	0.53	0.00	0.00	0.00	0.00	0.53	0.00	0.43
Delay/Veh:	0.0	9.3	7.8	20.3	5.6	0.0	0.0	0.0	0.0	24.5	0.0	23.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	9.3	7.8	20.3	5.6	0.0	0.0	0.0	0.0	24.5	0.0	23.3
LOS by Move:	A	A	A	C	A	A	A	A	A	C	A	C
HCM2kAvgQ:	0	6	2	4	7	0	0	0	0	4	0	3

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

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

Intersection #28 Alder Ave. and Casa Grande Dr.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.410
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	19.6
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Alder Ave.						Casa Grande Dr.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	1 0		1 0 1	0 1		1 0 1	0 1	
Volume Module:												
Base Vol:	82	183	152	82	199	68	111	103	237	127	26	26
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:	82	183	152	82	199	68	111	103	237	127	26	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	86	193	160	86	209	72	117	108	249	134	27	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	86	193	160	86	209	72	117	108	249	134	27	27
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	86	193	160	86	209	72	117	108	249	134	27	27
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.49	0.51	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	1900	1900	1800	2832	968	1800	1900	1900	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.05	0.10	0.08	0.05	0.07	0.07	0.06	0.06	0.13	0.07	0.01	0.01
Crit Moves:		****		****					****	****		
Green/Cycle:	0.18	0.25	0.25	0.12	0.18	0.18	0.25	0.32	0.32	0.18	0.25	0.25
Volume/Cap:	0.26	0.41	0.34	0.41	0.41	0.41	0.26	0.18	0.41	0.41	0.06	0.06
Delay/Veh:	21.5	19.5	19.0	25.9	22.0	22.0	18.3	14.8	16.4	22.6	17.1	17.1
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:	21.5	19.5	19.0	25.9	22.0	22.0	18.3	14.8	16.4	22.6	17.1	17.1
LOS by Move:	C	B	B	C	C	C	B	B	B	C	B	B
HCM2kAvgQ:	2	3	3	2	3	3	2	2	4	3	0	0

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

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Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #29 Locust Ave. and Casa Grande Dr.

Average Delay (sec/veh): 4.3 Worst Case Level Of Service: B[12.5]

Street Name:	Locust Ave.								Casa Grande Dr.							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	0 1	0 0	0		0 0	0 1	0		1 0	0 0	1		0 0	0 0	0	
Volume Module:																
Base Vol:	39	263	0	0	242	68	36	0	247	0	0	0				
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Initial Bse:	39	263	0	0	242	68	36	0	247	0	0	0				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95				
PHF Volume:	41	277	0	0	255	72	38	0	260	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
FinalVolume:	41	277	0	0	255	72	38	0	260	0	0	0				
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx				
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx				
Capacity Module:																
Cnflict Vol:	326	xxxx	xxxxx	xxxx	xxxx	xxxxx	649	xxxx	291	xxxx	xxxx	xxxxx				
Potent Cap.:	1245	xxxx	xxxxx	xxxx	xxxx	xxxxx	437	xxxx	753	xxxx	xxxx	xxxxx				
Move Cap.:	1245	xxxx	xxxxx	xxxx	xxxx	xxxxx	426	xxxx	753	xxxx	xxxx	xxxxx				
Volume/Cap:	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.09	xxxx	0.35	xxxx	xxxx	xxxx				
Level Of Service Module:																
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.3	xxxx	1.5	xxxx	xxxx	xxxxx				
Control Del:	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	14.3	xxxx	12.3	xxxxx	xxxx	xxxxx				
LOS by Move:	A	*	*	*	*	*	B	*	B	*	*	*				
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:	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shrd ConDel:	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	*				
ApproachDel:	xxxxxx			xxxxxx			12.5			xxxxxx						
ApproachLOS:	*			*			B			*						

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #30 Sierra Ave. and Summit Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.544
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	15.5
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Sierra Ave.						Summit Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 0		0 0 2	1 0		1 0 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	188	553	0	0	844	39	137	0	331	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	188	553	0	0	844	39	137	0	331	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	198	582	0	0	888	41	144	0	348	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	198	582	0	0	888	41	144	0	348	0	0	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	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:	198	582	0	0	888	41	144	0	348	0	0	0
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	2.87	0.13	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1800	1900	0	0	5448	252	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.11	0.31	0.00	0.00	0.16	0.16	0.08	0.00	0.18	0.00	0.00	0.00
Crit Moves:		****		****					****			
Green/Cycle:	0.24	0.50	0.00	0.00	0.36	0.36	0.30	0.00	0.30	0.00	0.00	0.00
Volume/Cap:	0.45	0.61	0.00	0.00	0.45	0.45	0.27	0.00	0.61	0.00	0.00	0.00
Delay/Veh:	20.1	12.0	0.0	0.0	14.9	14.9	16.3	0.0	20.0	0.0	0.0	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:	20.1	12.0	0.0	0.0	14.9	14.9	16.3	0.0	20.0	0.0	0.0	0.0
LOS by Move:	C	B	A	A	B	B	B	A	B	A	A	A
HCM2kAvgQ:	4	9	0	0	5	5	2	0	6	0	0	0

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #31 Locust Ave. and Bohnert Ave.

Average Delay (sec/veh): 2.5 Worst Case Level Of Service: C[22.5]

Street Name:	Locust Ave.						Bohnert Ave.					
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	1 0	0 1	0	0 0	1! 0	0
Volume Module:												
Base Vol:	11	485	10	18	421	17	7	1	2	43	2	54
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	485	10	18	421	17	7	1	2	43	2	54
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:	12	511	11	19	443	18	7	1	2	45	2	57
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	12	511	11	19	443	18	7	1	2	45	2	57
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	461	xxxx	xxxxx	521	xxxx	xxxxx	1058	1034	452	1031	1038	516
Potent Cap.:	1111	xxxx	xxxxx	1056	xxxx	xxxxx	204	234	612	213	233	563
Move Cap.:	1111	xxxx	xxxxx	1056	xxxx	xxxxx	178	227	612	207	226	563
Volume/Cap:	0.01	xxxx	xxxx	0.02	xxxx	xxxx	0.04	0.00	0.00	0.22	0.01	0.10
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	8.3	xxxx	xxxxx	8.5	xxxx	xxxxx	26.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	D	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	391	xxxx	317	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.0	xxxxx	1.4	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	14.3	xxxxx	21.8	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	B	*	C	*
ApproachDel:	xxxxxx			xxxxxx			22.5			21.8		
ApproachLOS:	*			*			C			C		

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

Lytle Creek Ranch Project
Future 2030 With Project Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #32 Ayala Dr. and Bohnert Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.330
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	12.6
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Ayala Dr.						Bohnert Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		0 1 0	0 1		0 1 0	0 1	
Volume Module:												
Base Vol:	11	330	68	38	639	40	30	37	16	121	58	25
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	330	68	38	639	40	30	37	16	121	58	25
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:	12	347	72	40	673	42	32	39	17	127	61	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	347	72	40	673	42	32	39	17	127	61	26
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:	12	347	72	40	673	42	32	39	17	127	61	26
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.66	0.34	1.00	1.88	0.12	0.46	0.54	1.00	0.69	0.31	1.00
Final Sat.:	1800	3151	649	1800	3576	224	830	1024	1900	1238	593	1900
Capacity Analysis Module:												
Vol/Sat:	0.01	0.11	0.11	0.02	0.19	0.19	0.04	0.04	0.01	0.10	0.10	0.01
Crit Moves:	****				****						****	
Green/Cycle:	0.10	0.32	0.32	0.29	0.52	0.52	0.28	0.28	0.28	0.28	0.28	0.28
Volume/Cap:	0.06	0.34	0.34	0.08	0.36	0.36	0.13	0.13	0.03	0.36	0.36	0.05
Delay/Veh:	24.6	15.6	15.6	15.4	8.7	8.7	16.2	16.2	15.6	17.6	17.6	15.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.6	15.6	15.6	15.4	8.7	8.7	16.2	16.2	15.6	17.6	17.6	15.7
LOS by Move:	C	B	B	B	A	A	B	B	B	B	B	B
HCM2kAvgQ:	0	3	3	1	4	4	1	1	0	3	3	0

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

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

Intersection #33 Sierra Ave. and Sierra Lakes Pkwy/Casmalia St.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.557
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	19.5
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Sierra Ave.						Sierra Lakes Pkwy/Casmalia St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	2 0 3 0 1			2 0 3 0 1			2 0 2 0 1			2 0 2 0 1		
Volume Module:												
Base Vol:	225	603	85	116	923	80	67	152	340	174	137	79
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:	225	603	85	116	923	80	67	152	340	174	137	79
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	237	635	89	122	972	84	71	160	358	183	144	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	237	635	89	122	972	84	71	160	358	183	144	83
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:	237	635	89	122	972	84	71	160	358	183	144	83
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3400	5700	1900	3400	5700	1900	3400	3800	1900	3400	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.07	0.11	0.05	0.04	0.17	0.04	0.02	0.04	0.19	0.05	0.04	0.04
Crit Moves:	****				****				****	****		
Green/Cycle:	0.12	0.23	0.23	0.20	0.30	0.30	0.22	0.34	0.34	0.10	0.22	0.22
Volume/Cap:	0.56	0.49	0.21	0.18	0.56	0.15	0.09	0.12	0.56	0.54	0.17	0.20
Delay/Veh:	26.4	20.5	19.1	19.9	17.9	15.3	18.8	13.8	17.4	27.4	19.1	19.4
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:	26.4	20.5	19.1	19.9	17.9	15.3	18.8	13.8	17.4	27.4	19.1	19.4
LOS by Move:	C	C	B	B	B	B	B	B	B	C	B	B
HCM2kAvgQ:	3	4	1	1	6	1	1	1	6	3	1	1

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

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

Intersection #34 Alder Ave. and Casmalia St.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.680
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	23.6
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Alder Ave.						Casmalia St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 0	1 0		1 0 1	0 1	
Volume Module:												
Base Vol:	180	554	284	30	569	35	17	201	28	364	154	50
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:	180	554	284	30	569	35	17	201	28	364	154	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:	189	583	299	32	599	37	18	212	29	383	162	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	189	583	299	32	599	37	18	212	29	383	162	53
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:	189	583	299	32	599	37	18	212	29	383	162	53
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	1.32	0.68	1.00	1.88	0.12	1.00	0.88	0.12	1.00	1.00	1.00
Final Sat.:	1800	2512	1288	1800	3580	220	1800	1668	232	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.11	0.23	0.23	0.02	0.17	0.17	0.01	0.13	0.13	0.21	0.09	0.03
Crit Moves:		****		****				****		****		
Green/Cycle:	0.16	0.31	0.31	0.10	0.25	0.25	0.23	0.17	0.17	0.29	0.23	0.23
Volume/Cap:	0.66	0.75	0.75	0.18	0.66	0.66	0.04	0.75	0.75	0.75	0.37	0.12
Delay/Veh:	29.5	21.2	21.2	25.2	21.9	21.9	18.1	32.8	32.8	25.4	20.1	18.5
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:	29.5	21.2	21.2	25.2	21.9	21.9	18.1	32.8	32.8	25.4	20.1	18.5
LOS by Move:	C	C	C	C	C	C	B	C	C	C	C	B
HCM2kAvgQ:	5	9	9	1	7	7	0	6	6	9	3	1

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

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

Intersection #35 Locust Ave. and Casmalia St.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.596
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	20.9
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Locust Ave.						Casmalia St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 0	1 0		1 0 0	1 0	
Volume Module:												
Base Vol:	0	63	1	50	141	194	274	295	1	6	285	164
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	63	1	50	141	194	274	295	1	6	285	164
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	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	66	1	53	148	204	288	311	1	6	300	173
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	66	1	53	148	204	288	311	1	6	300	173
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	66	1	53	148	204	288	311	1	6	300	173
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	1.97	0.03	1.00	1.00	1.00	1.00	0.99	0.01	1.00	0.63	0.37
Final Sat.:	1800	3741	59	1800	1900	1900	1800	1894	6	1800	1206	694
Capacity Analysis Module:												
Vol/Sat:	0.00	0.02	0.02	0.03	0.08	0.11	0.16	0.16	0.16	0.00	0.25	0.25
Crit Moves:	****					****	****				****	
Green/Cycle:	0.00	0.13	0.13	0.13	0.16	0.16	0.24	0.38	0.38	0.23	0.37	0.37
Volume/Cap:	0.00	0.14	0.14	0.23	0.49	0.67	0.67	0.43	0.43	0.02	0.67	0.67
Delay/Veh:	0.0	23.3	23.3	23.9	23.5	27.2	25.0	14.3	14.3	17.9	18.5	18.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	23.3	23.3	23.9	23.5	27.2	25.0	14.3	14.3	17.9	18.5	18.5
LOS by Move:	A	C	C	C	C	C	C	B	B	B	B	B
HCM2kAvgQ:	0	1	1	1	3	5	6	5	5	0	9	9

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

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

Intersection #36 Ayala Dr. and Casmalia St.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.687
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	17.4
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Ayala Dr.						Casmalia St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	0 1		1 0 1	0 1	
Volume Module:												
Base Vol:	219	611	45	4	997	17	58	73	378	169	16	5
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:	219	611	45	4	997	17	58	73	378	169	16	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	231	643	47	4	1049	18	61	77	398	178	17	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	231	643	47	4	1049	18	61	77	398	178	17	5
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	231	643	47	4	1049	18	61	77	398	178	17	5
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.86	0.14	1.00	1.97	0.03	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	3539	261	1800	3736	64	1800	1900	1900	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.13	0.18	0.18	0.00	0.28	0.28	0.03	0.04	0.21	0.10	0.01	0.00
Crit Moves:	****				****				****			
Green/Cycle:	0.19	0.38	0.38	0.21	0.41	0.41	0.30	0.30	0.30	0.30	0.30	0.30
Volume/Cap:	0.69	0.47	0.47	0.01	0.69	0.69	0.11	0.13	0.69	0.32	0.03	0.01
Delay/Veh:	28.6	14.2	14.2	18.7	15.9	15.9	15.1	15.2	21.8	16.4	14.6	14.5
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:	28.6	14.2	14.2	18.7	15.9	15.9	15.1	15.2	21.8	16.4	14.6	14.5
LOS by Move:	C	B	B	B	B	B	B	B	C	B	B	B
HCM2kAvgQ:	6	5	5	0	9	9	1	1	8	3	0	0

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

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

Intersection #37 Sierra Ave. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.246
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	4.6
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Sierra Ave.						SR-210 Fwy. WB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Ignore			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 3	0 2		0 0 2	0 2		0 0 0	0 0		1 0 1!	0 1	
Volume Module:												
Base Vol:	0	481	996	0	709	273	0	0	0	81	0	111
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	481	996	0	709	273	0	0	0	81	0	111
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	506	0	0	746	0	0	0	0	85	0	117
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	506	0	0	746	0	0	0	0	85	0	117
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	506	0	0	746	0	0	0	0	85	0	117
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	3.00	2.00	0.00	2.00	2.00	0.00	0.00	0.00	1.44	0.00	1.56
Final Sat.:	0	5700	3600	0	3800	3600	0	0	0	2583	0	2973
Capacity Analysis Module:												
Vol/Sat:	0.00	0.09	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.03	0.00	0.04
Crit Moves:					****					****		
Green/Cycle:	0.00	0.78	0.00	0.00	0.78	0.00	0.00	0.00	0.00	0.16	0.00	0.16
Volume/Cap:	0.00	0.11	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.21	0.00	0.25
Delay/Veh:	0.0	1.6	0.0	0.0	1.9	0.0	0.0	0.0	0.0	22.2	0.0	22.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	1.6	0.0	0.0	1.9	0.0	0.0	0.0	0.0	22.2	0.0	22.4
LOS by Move:	A	A	A	A	A	A	A	A	A	C	A	C
HCM2kAvgQ:	0	1	0	0	2	0	0	0	0	1	0	1

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

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

Intersection #38 Sierra Ave. and SR-210 Fwy. EB Off Ramp/Highland Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.497
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.9
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Sierra Ave.						SR-210 Fwy. EB Off Ramp/Highland					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Ignore			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 2	0 1		0 0 2	0 1		1 0 1!	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	914	457	0	840	0	505	0	579	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	914	457	0	840	0	505	0	579	0	0	0
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	962	0	0	884	0	532	0	609	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	962	0	0	884	0	532	0	609	0	0	0
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	962	0	0	884	0	532	0	609	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	1.00	0.00	2.00	1.00	1.48	0.00	1.52	0.00	0.00	0.00
Final Sat.:	0	3800	1900	0	3800	1900	2663	0	2889	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.00	0.00	0.23	0.00	0.20	0.00	0.21	0.00	0.00	0.00
Crit Moves:		****							****			
Green/Cycle:	0.00	0.51	0.00	0.00	0.51	0.00	0.42	0.00	0.42	0.00	0.00	0.00
Volume/Cap:	0.00	0.50	0.00	0.00	0.46	0.00	0.47	0.00	0.50	0.00	0.00	0.00
Delay/Veh:	0.0	9.9	0.0	0.0	9.6	0.0	12.6	0.0	12.8	0.0	0.0	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:	0.0	9.9	0.0	0.0	9.6	0.0	12.6	0.0	12.8	0.0	0.0	0.0
LOS by Move:	A	A	A	A	A	A	B	A	B	A	A	A
HCM2kAvgQ:	0	6	0	0	6	0	5	0	6	0	0	0

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

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

Intersection #39 Alder Ave. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.582
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	11.5
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Alder Ave.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	1 0	0 1	0
Volume Module:												
Base Vol:	194	893	0	0	507	471	0	0	0	238	0	51
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:	194	893	0	0	507	471	0	0	0	238	0	51
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:	204	940	0	0	534	496	0	0	0	251	0	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	204	940	0	0	534	496	0	0	0	251	0	54
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:	204	940	0	0	534	496	0	0	0	251	0	54
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	0.00	0.00	1.04	0.96	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1800	3800	0	0	1970	1830	0	0	0	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.11	0.25	0.00	0.00	0.27	0.27	0.00	0.00	0.00	0.14	0.00	0.03
Crit Moves:	****				****					****		
Green/Cycle:	0.20	0.66	0.00	0.00	0.47	0.47	0.00	0.00	0.00	0.24	0.00	0.24
Volume/Cap:	0.58	0.37	0.00	0.00	0.58	0.58	0.00	0.00	0.00	0.58	0.00	0.12
Delay/Veh:	24.4	4.7	0.0	0.0	12.2	12.2	0.0	0.0	0.0	22.2	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:	24.4	4.7	0.0	0.0	12.2	12.2	0.0	0.0	0.0	22.2	0.0	18.0
LOS by Move:	C	A	A	A	B	B	A	A	A	C	A	B
HCM2kAvgQ:	5	4	0	0	8	8	0	0	0	5	0	1

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

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

Intersection #40 Alder Ave. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.811
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	21.3
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Alder Ave.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 1	1 0		1 0 2	0 0		0 1 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	597	292	316	442	0	511	0	413	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	597	292	316	442	0	511	0	413	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	628	307	333	465	0	538	0	435	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	628	307	333	465	0	538	0	435	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	628	307	333	465	0	538	0	435	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.34	0.66	1.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	2552	1248	1800	3800	0	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.25	0.18	0.12	0.00	0.30	0.00	0.23	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.00	0.30	0.30	0.23	0.53	0.00	0.37	0.00	0.37	0.00	0.00	0.00
Volume/Cap:	0.00	0.81	0.81	0.81	0.23	0.00	0.81	0.00	0.62	0.00	0.00	0.00
Delay/Veh:	0.0	23.7	23.7	33.5	7.6	0.0	24.5	0.0	17.2	0.0	0.0	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:	0.0	23.7	23.7	33.5	7.6	0.0	24.5	0.0	17.2	0.0	0.0	0.0
LOS by Move:	A	C	C	C	A	A	C	A	B	A	A	A
HCM2kAvgQ:	0	11	11	9	2	0	12	0	7	0	0	0

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

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

Intersection #41 Ayala Dr. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.932
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	25.8
Optimal Cycle:	89	Level Of Service:	C

Street Name:	Ayala Dr.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2	0 0	0	0 0	1 1	0	0 0	0 0	0	1 0	0 1	0
Volume Module:												
Base Vol:	285	733	0	0	1088	457	0	0	0	418	0	194
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:	285	733	0	0	1088	457	0	0	0	418	0	194
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:	300	772	0	0	1145	481	0	0	0	440	0	204
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	300	772	0	0	1145	481	0	0	0	440	0	204
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:	300	772	0	0	1145	481	0	0	0	440	0	204
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	0.00	0.00	1.41	0.59	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1800	3800	0	0	2676	1124	0	0	0	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.17	0.20	0.00	0.00	0.43	0.43	0.00	0.00	0.00	0.24	0.00	0.11
Crit Moves:	****				****					****		
Green/Cycle:	0.18	0.64	0.00	0.00	0.46	0.46	0.00	0.00	0.00	0.26	0.00	0.26
Volume/Cap:	0.93	0.32	0.00	0.00	0.93	0.93	0.00	0.00	0.00	0.93	0.00	0.41
Delay/Veh:	57.3	5.0	0.0	0.0	25.0	25.0	0.0	0.0	0.0	47.1	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:	57.3	5.0	0.0	0.0	25.0	25.0	0.0	0.0	0.0	47.1	0.0	18.8
LOS by Move:	E	A	A	A	C	C	A	A	A	D	A	B
HCM2kAvgQ:	10	3	0	0	20	20	0	0	0	13	0	3

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

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

Intersection #42 Ayala Dr. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.832
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	20.4
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Ayala Dr.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 2	0 1		1 0 2	0 0		0 1 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	814	353	690	813	0	205	0	200	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	814	353	690	813	0	205	0	200	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	857	372	726	856	0	216	0	211	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	857	372	726	856	0	216	0	211	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	857	372	726	856	0	216	0	211	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3800	1900	1800	3800	0	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.23	0.20	0.40	0.23	0.00	0.12	0.00	0.11	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.00	0.27	0.27	0.48	0.76	0.00	0.14	0.00	0.14	0.00	0.00	0.00
Volume/Cap:	0.00	0.83	0.72	0.83	0.30	0.00	0.83	0.00	0.77	0.00	0.00	0.00
Delay/Veh:	0.0	26.5	24.8	20.2	2.4	0.0	44.9	0.0	37.2	0.0	0.0	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:	0.0	26.5	24.8	20.2	2.4	0.0	44.9	0.0	37.2	0.0	0.0	0.0
LOS by Move:	A	C	C	C	A	A	D	A	D	A	A	A
HCM2kAvgQ:	0	10	8	15	3	0	7	0	6	0	0	0

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

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

Intersection #43 Riverside Ave. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.902
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	22.8
Optimal Cycle:	76	Level Of Service:	C

Street Name:	Riverside Ave.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	1 0	1! 0	1
Volume Module:												
Base Vol:	208	428	0	0	1302	296	0	0	0	656	0	562
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:	208	428	0	0	1302	296	0	0	0	656	0	562
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:	219	451	0	0	1371	312	0	0	0	691	0	592
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	219	451	0	0	1371	312	0	0	0	691	0	592
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:	219	451	0	0	1371	312	0	0	0	691	0	592
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	0.00	0.00	1.63	0.37	0.00	0.00	0.00	1.55	0.00	1.45
Final Sat.:	1800	3800	0	0	3096	704	0	0	0	2794	0	2751
Capacity Analysis Module:												
Vol/Sat:	0.12	0.12	0.00	0.00	0.44	0.44	0.00	0.00	0.00	0.25	0.00	0.22
Crit Moves:	****				****					****		
Green/Cycle:	0.13	0.63	0.00	0.00	0.49	0.49	0.00	0.00	0.00	0.27	0.00	0.27
Volume/Cap:	0.90	0.19	0.00	0.00	0.90	0.90	0.00	0.00	0.00	0.90	0.00	0.78
Delay/Veh:	58.4	4.8	0.0	0.0	20.4	20.4	0.0	0.0	0.0	29.2	0.0	22.7
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:	58.4	4.8	0.0	0.0	20.4	20.4	0.0	0.0	0.0	29.2	0.0	22.7
LOS by Move:	E	A	A	A	C	C	A	A	A	C	A	C
HCM2kAvgQ:	8	2	0	0	19	19	0	0	0	13	0	9

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

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

Intersection #44 Riverside Ave. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec):	120	Critical Vol./Cap.(X):	1.703
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	258.3
Optimal Cycle:	130	Level Of Service:	F

Street Name:	Riverside Ave.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 2	0 1		1 0 2	0 0		0 1 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	546	1148	1398	560	0	90	0	296	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	546	1148	1398	560	0	90	0	296	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	575	1208	1472	589	0	95	0	312	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	575	1208	1472	589	0	95	0	312	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	575	1208	1472	589	0	95	0	312	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3800	1900	1800	3800	0	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.15	0.64	0.82	0.16	0.00	0.05	0.00	0.16	0.00	0.00	0.00
Crit Moves:			****	****					****			
Green/Cycle:	0.00	0.37	0.37	0.48	0.85	0.00	0.10	0.00	0.10	0.00	0.00	0.00
Volume/Cap:	0.00	0.40	1.70	1.70	0.18	0.00	0.55	0.00	1.70	0.00	0.00	0.00
Delay/Veh:	0.0	27.9	359.8	352.4	1.5	0.0	55.3	0.0	392.7	0.0	0.0	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:	0.0	27.9	359.8	352.4	1.5	0.0	55.3	0.0	392.7	0.0	0.0	0.0
LOS by Move:	A	C	F	F	A	A	E	A	F	A	A	A
HCM2kAvgQ:	0	8	105	134	2	0	4	0	29	0	0	0

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

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

Intersection #45 Pepper Ave. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.638
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	15.8
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Pepper Ave.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	1 0	0 1	0
Volume Module:												
Base Vol:	256	95	0	0	122	83	0	0	0	629	0	95
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:	256	95	0	0	122	83	0	0	0	629	0	95
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:	269	100	0	0	128	87	0	0	0	662	0	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	269	100	0	0	128	87	0	0	0	662	0	100
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:	269	100	0	0	128	87	0	0	0	662	0	100
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	0.00	0.00	1.19	0.81	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1800	3800	0	0	2261	1539	0	0	0	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.15	0.03	0.00	0.00	0.06	0.06	0.00	0.00	0.00	0.37	0.00	0.05
Crit Moves:	****				****					****		
Green/Cycle:	0.23	0.33	0.00	0.00	0.10	0.10	0.00	0.00	0.00	0.57	0.00	0.57
Volume/Cap:	0.65	0.08	0.00	0.00	0.57	0.57	0.00	0.00	0.00	0.65	0.00	0.09
Delay/Veh:	24.4	13.8	0.0	0.0	27.8	27.8	0.0	0.0	0.0	10.3	0.0	5.9
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:	24.4	13.8	0.0	0.0	27.8	27.8	0.0	0.0	0.0	10.3	0.0	5.9
LOS by Move:	C	B	A	A	C	C	A	A	A	B	A	A
HCM2kAvgQ:	6	1	0	0	3	3	0	0	0	10	0	1

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

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

Intersection #46 Pepper Ave. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.541
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 12.1

Optimal Cycle: 60 Level Of Service: B

Street Name:	Pepper Ave.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 2	0 1		1 0 2	0 0		0 1 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	329	429	116	649	0	22	0	328	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	329	429	116	649	0	22	0	328	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	346	452	122	683	0	23	0	345	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	346	452	122	683	0	23	0	345	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	346	452	122	683	0	23	0	345	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3800	1900	1800	3800	0	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.09	0.24	0.07	0.18	0.00	0.01	0.00	0.18	0.00	0.00	0.00
Crit Moves:			****	****					****			
Green/Cycle:	0.00	0.44	0.44	0.13	0.56	0.00	0.34	0.00	0.34	0.00	0.00	0.00
Volume/Cap:	0.00	0.21	0.54	0.54	0.32	0.00	0.04	0.00	0.54	0.00	0.00	0.00
Delay/Veh:	0.0	10.4	13.1	27.3	7.0	0.0	13.4	0.0	17.1	0.0	0.0	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:	0.0	10.4	13.1	27.3	7.0	0.0	13.4	0.0	17.1	0.0	0.0	0.0
LOS by Move:	A	B	B	C	A	A	B	A	B	A	A	A
HCM2kAvgQ:	0	2	7	3	3	0	0	0	6	0	0	0

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

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

Intersection #47 State St. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec):	80	Critical Vol./Cap.(X):	1.031
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	35.6
Optimal Cycle:	130	Level Of Service:	D

Street Name:	State St.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 0			0 0 2 0 1			0 0 0 0 0			1 0 1! 0 1		
Volume Module:												
Base Vol:	622	1064	0	0	831	942	0	0	0	174	0	180
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:	622	1064	0	0	831	942	0	0	0	174	0	180
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:	655	1120	0	0	875	992	0	0	0	183	0	189
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	655	1120	0	0	875	992	0	0	0	183	0	189
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:	655	1120	0	0	875	992	0	0	0	183	0	189
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	0.00	0.00	2.00	1.00	0.00	0.00	0.00	1.51	0.00	1.49
Final Sat.:	1800	3800	0	0	3800	1900	0	0	0	2709	0	2840
Capacity Analysis Module:												
Vol/Sat:	0.36	0.29	0.00	0.00	0.23	0.52	0.00	0.00	0.00	0.07	0.00	0.07
Crit Moves:	****					****				****		
Green/Cycle:	0.35	0.85	0.00	0.00	0.50	0.50	0.00	0.00	0.00	0.08	0.00	0.08
Volume/Cap:	1.04	0.35	0.00	0.00	0.46	1.04	0.00	0.00	0.00	0.90	0.00	0.89
Delay/Veh:	73.3	1.3	0.0	0.0	13.1	60.6	0.0	0.0	0.0	59.0	0.0	56.9
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:	73.3	1.3	0.0	0.0	13.1	60.6	0.0	0.0	0.0	59.0	0.0	56.9
LOS by Move:	E	A	A	A	B	E	A	A	A	E	A	E
HCM2kAvgQ:	27	3	0	0	7	36	0	0	0	6	0	6

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

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

Intersection #48 State St. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec):	85	Critical Vol./Cap.(X):	0.861
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	36.6
Optimal Cycle:	78	Level Of Service:	D

Street Name:	State St.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 2	0 1		1 0 1!	0 1		0 1	0 0 1	
Volume Module:												
Base Vol:	328	1295	1	0	717	441	878	0	852	4	7	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:	328	1295	1	0	717	441	878	0	852	4	7	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	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	345	1363	1	0	755	464	924	0	897	4	7	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	345	1363	1	0	755	464	924	0	897	4	7	9
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:	345	1363	1	0	755	464	924	0	897	4	7	9
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	1.99	0.01	1.00	2.00	1.00	1.52	0.00	1.48	0.38	0.62	1.00
Final Sat.:	1800	3797	3	1800	3800	1900	2738	0	2810	677	1185	1900
Capacity Analysis Module:												
Vol/Sat:	0.19	0.36	0.36	0.00	0.20	0.24	0.34	0.00	0.32	0.01	0.01	0.00
Crit Moves:	****					****	****				****	
Green/Cycle:	0.21	0.39	0.39	0.00	0.26	0.26	0.36	0.00	0.36	0.07	0.07	0.07
Volume/Cap:	0.93	0.91	0.91	0.00	0.75	0.93	0.93	0.00	0.88	0.09	0.09	0.07
Delay/Veh:	61.8	33.2	33.2	0.0	32.0	53.8	34.1	0.0	29.7	37.2	37.2	37.1
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:	61.8	33.2	33.2	0.0	32.0	53.8	34.1	0.0	29.7	37.2	37.2	37.1
LOS by Move:	E	C	C	A	C	D	C	A	C	D	D	D
HCM2kAvgQ:	14	21	21	0	11	16	21	0	18	0	0	0

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

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

Intersection #49 State St. and Highland Ave.

Cycle (sec):	130	Critical Vol./Cap.(X):	1.208
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	133.9
Optimal Cycle:	130	Level Of Service:	F

Street Name:	State St.						Highland Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	2 0 2	0 1		1 0 2	0 1		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	128	596	296	1	765	8	3	9	470	1063	27	8
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:	128	596	296	1	765	8	3	9	470	1063	27	8
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:	135	627	312	1	805	8	3	9	495	1119	28	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	135	627	312	1	805	8	3	9	495	1119	28	8
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	627	312	1	805	8	3	9	495	1119	28	8
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.54	0.46
Final Sat.:	3400	3800	1900	1800	3800	1900	1800	1900	1900	1800	2931	869
Capacity Analysis Module:												
Vol/Sat:	0.04	0.17	0.16	0.00	0.21	0.00	0.00	0.00	0.26	0.62	0.01	0.01
Crit Moves:	****				****				****	****		
Green/Cycle:	0.05	0.17	0.17	0.05	0.17	0.17	0.36	0.21	0.21	0.51	0.36	0.36
Volume/Cap:	0.86	0.96	0.96	0.01	1.23	0.03	0.00	0.02	1.23	1.23	0.03	0.03
Delay/Veh:	96.4	80.1	92.1	59.0	169	44.7	26.7	40.5	172.7	143.5	26.9	26.9
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:	96.4	80.1	92.1	59.0	169	44.7	26.7	40.5	172.7	143.5	26.9	26.9
LOS by Move:	F	F	F	E	F	D	C	D	F	F	C	C
HCM2kAvgQ:	5	17	17	0	28	0	0	0	33	74	0	0

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

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

Intersection #50 California St. and Highland Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.512
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	9.1
Optimal Cycle:	60	Level Of Service:	A

Street Name:	California St.							Highland Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L - T - R			L - T - R			L - T - R			L - T - R			
Control:	Permitted			Permitted			Permitted			Permitted			
Rights:	Include			Include			Include			Include			
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1 1	0	1 0	1 1	0
Volume Module:													
Base Vol:	29	98	36	150	12	139	51	201	1	7	830	277
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:	29	98	36	150	12	139	51	201	1	7	830	277
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:	31	103	38	158	13	146	54	212	1	7	874	292
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	103	38	158	13	146	54	212	1	7	874	292
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:	31	103	38	158	13	146	54	212	1	7	874	292
Saturation Flow Module:													
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.19	0.59	0.22	0.51	0.04	0.45	1.00	1.99	0.01	1.00	1.50	0.50
Final Sat.:	335	1131	416	921	74	854	1800	3781	19	1800	2849	951
Capacity Analysis Module:													
Vol/Sat:	0.09	0.09	0.09	0.17	0.17	0.17	0.03	0.06	0.06	0.00	0.31	0.31
Crit Moves:					****						****	
Green/Cycle:	0.33	0.33	0.33	0.33	0.33	0.33	0.60	0.60	0.60	0.60	0.60	0.60
Volume/Cap:	0.27	0.27	0.27	0.51	0.51	0.51	0.05	0.09	0.09	0.01	0.51	0.51
Delay/Veh:	14.9	14.9	14.9	16.8	16.8	16.8	5.0	5.1	5.1	4.9	7.2	7.2
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:	14.9	14.9	14.9	16.8	16.8	16.8	5.0	5.1	5.1	4.9	7.2	7.2
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
HCM2kAvgQ:	2	2	2	5	5	5	0	1	1	0	7	7

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

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

Intersection #51 Medical Ctr. Dr. and Highland Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.401
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	6.2
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Medical Ctr. Dr.						Highland Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	102	53	158	13	20	16	12	370	32	187	995	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:	102	53	158	13	20	16	12	370	32	187	995	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:	107	56	166	14	21	17	13	389	34	197	1047	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	107	56	166	14	21	17	13	389	34	197	1047	43
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	56	166	14	21	17	13	389	34	197	1047	43
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.11	0.89	1.00	1.84	0.16	1.00	1.92	0.08
Final Sat.:	1800	1900	1900	1800	2111	1689	1800	3498	302	1800	3650	150
Capacity Analysis Module:												
Vol/Sat:	0.06	0.03	0.09	0.01	0.01	0.01	0.01	0.11	0.11	0.11	0.29	0.29
Crit Moves:			****								****	
Green/Cycle:	0.22	0.22	0.22	0.22	0.22	0.22	0.72	0.72	0.72	0.72	0.72	0.72
Volume/Cap:	0.27	0.13	0.40	0.03	0.05	0.05	0.01	0.16	0.16	0.15	0.40	0.40
Delay/Veh:	19.9	18.9	20.6	18.5	18.5	18.5	2.5	2.8	2.8	2.8	3.5	3.5
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:	19.9	18.9	20.6	18.5	18.5	18.5	2.5	2.8	2.8	2.8	3.5	3.5
LOS by Move:	B	B	C	B	B	B	A	A	A	A	A	A
HCM2kAvgQ:	2	1	3	0	0	0	0	1	1	1	4	4

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

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

Intersection #52 Mt. Vernon Ave. and Highland Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.545
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	14.7
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Mt. Vernon Ave.						Highland Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	100	98	152	64	218	289	94	401	69	137	957	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:	100	98	152	64	218	289	94	401	69	137	957	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:	105	103	160	67	229	304	99	422	73	144	1007	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	105	103	160	67	229	304	99	422	73	144	1007	38
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:	105	103	160	67	229	304	99	422	73	144	1007	38
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.71	0.29	1.00	1.93	0.07
Final Sat.:	1800	1900	1900	1800	1900	1900	1800	3242	558	1800	3662	138
Capacity Analysis Module:												
Vol/Sat:	0.06	0.05	0.08	0.04	0.12	0.16	0.05	0.13	0.13	0.08	0.28	0.28
Crit Moves:						****	****				****	
Green/Cycle:	0.29	0.29	0.29	0.29	0.29	0.29	0.10	0.34	0.34	0.26	0.51	0.51
Volume/Cap:	0.20	0.18	0.29	0.13	0.41	0.54	0.54	0.38	0.38	0.30	0.54	0.54
Delay/Veh:	16.1	15.9	16.5	15.6	17.2	18.4	29.1	15.1	15.1	18.1	10.5	10.5
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:	16.1	15.9	16.5	15.6	17.2	18.4	29.1	15.1	15.1	18.1	10.5	10.5
LOS by Move:	B	B	B	B	B	B	C	B	B	B	B	B
HCM2kAvgQ:	2	2	2	1	4	5	3	4	4	2	7	7

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

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

Intersection #53 Sierra Ave. and Highland Ave.

Cycle (sec):	65	Critical Vol./Cap.(X):	0.422
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	12.8
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Sierra Ave.						Highland Ave.					
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			Ovl			Ovl			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	2 0 2	0 1		2 0 2	0 1		2 0 2	0 1		2 0 2	0 1	
Volume Module:												
Base Vol:	411	1214	35	10	1090	297	91	13	123	3	8	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:	411	1214	35	10	1090	297	91	13	123	3	8	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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	433	1278	37	11	1147	313	96	14	129	3	8	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	433	1278	37	11	1147	313	96	14	129	3	8	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	433	1278	37	11	1147	313	96	14	129	3	8	2
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3400	3800	1900	3400	3800	1900	3400	3800	1900	3400	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.13	0.34	0.02	0.00	0.30	0.16	0.03	0.00	0.07	0.00	0.00	0.00
Crit Moves:		****		****			****				****	
Green/Cycle:	0.21	0.60	0.60	0.09	0.49	0.58	0.09	0.09	0.30	0.09	0.09	0.09
Volume/Cap:	0.62	0.56	0.03	0.03	0.62	0.28	0.31	0.04	0.23	0.01	0.02	0.01
Delay/Veh:	25.2	8.2	5.3	26.9	12.9	7.0	28.1	26.9	17.4	26.8	26.9	26.8
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:	25.2	8.2	5.3	26.9	12.9	7.0	28.1	26.9	17.4	26.8	26.9	26.8
LOS by Move:	C	A	A	C	B	A	C	C	B	C	C	C
HCM2kAvgQ:	5	8	0	0	9	3	1	0	2	0	0	0

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

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

Intersection #54 Alder Ave. and Highland Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.725
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	22.8
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Alder Ave.						Highland Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	0 1		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	80	623	33	186	522	154	37	233	58	114	351	200
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:	80	623	33	186	522	154	37	233	58	114	351	200
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	84	656	35	196	549	162	39	245	61	120	369	211
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	84	656	35	196	549	162	39	245	61	120	369	211
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	84	656	35	196	549	162	39	245	61	120	369	211
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.60	0.40	1.00	1.27	0.73
Final Sat.:	1800	1900	1900	1800	1900	1900	1800	3043	757	1800	2421	1379
Capacity Analysis Module:												
Vol/Sat:	0.05	0.35	0.02	0.11	0.29	0.09	0.02	0.08	0.08	0.07	0.15	0.15
Crit Moves:		****		****			****				****	
Green/Cycle:	0.15	0.44	0.44	0.14	0.43	0.43	0.10	0.15	0.15	0.15	0.19	0.19
Volume/Cap:	0.32	0.79	0.04	0.79	0.68	0.20	0.22	0.55	0.55	0.46	0.79	0.79
Delay/Veh:	23.6	19.8	9.7	40.8	16.2	10.9	25.4	25.0	25.0	24.7	28.9	28.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	23.6	19.8	9.7	40.8	16.2	10.9	25.4	25.0	25.0	24.7	28.9	28.9
LOS by Move:	C	B	A	D	B	B	C	C	C	C	C	C
HCM2kAvgQ:	2	13	0	6	9	2	1	4	4	3	8	8

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

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

Intersection #55 Ayala Dr. and Easton St.

Cycle (sec):	75	Critical Vol./Cap.(X):	0.916
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	34.6
Optimal Cycle:	95	Level Of Service:	C

Street Name:	Ayala Dr.						Easton St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 1			1 0 2 0 1			1 0 1 1 0			1 0 1 1 0		
Volume Module:												
Base Vol:	315	922	70	17	920	145	235	95	570	108	126	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:	315	922	70	17	920	145	235	95	570	108	126	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:	332	971	74	18	968	153	247	100	600	114	133	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	332	971	74	18	968	153	247	100	600	114	133	43
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:	332	971	74	18	968	153	247	100	600	114	133	43
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	2.00	1.00	1.00	1.00	1.00	1.00	1.51	0.49
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	1900	1900	1800	2867	933
Capacity Analysis Module:												
Vol/Sat:	0.18	0.26	0.04	0.01	0.25	0.08	0.14	0.05	0.32	0.06	0.05	0.05
Crit Moves:	****				****				****	****		
Green/Cycle:	0.20	0.36	0.36	0.11	0.27	0.27	0.27	0.34	0.34	0.08	0.15	0.15
Volume/Cap:	0.93	0.71	0.11	0.09	0.93	0.29	0.52	0.15	0.93	0.79	0.30	0.30
Delay/Veh:	59.4	22.4	16.0	30.0	40.3	21.8	24.4	17.2	41.5	58.6	28.4	28.4
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:	59.4	22.4	16.0	30.0	40.3	21.8	24.4	17.2	41.5	58.6	28.4	28.4
LOS by Move:	E	C	B	C	D	C	C	B	D	E	C	C
HCM2kAvgQ:	12	11	1	0	16	3	6	2	18	5	2	2

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

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

Intersection #56 Riverside Ave. and Easton St.

Cycle (sec):	65	Critical Vol./Cap.(X):	0.837
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	29.2
Optimal Cycle:	65	Level Of Service:	C

Street Name:	Riverside Ave.						Easton St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 2	0 1		2 0 2	0 1	
Volume Module:												
Base Vol:	75	1033	40	59	709	122	367	233	160	114	234	339
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:	75	1033	40	59	709	122	367	233	160	114	234	339
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:	79	1087	42	62	746	128	386	245	168	120	246	357
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	79	1087	42	62	746	128	386	245	168	120	246	357
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:	79	1087	42	62	746	128	386	245	168	120	246	357
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	1.93	0.07	1.00	1.71	0.29	1.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	1800	3658	142	1800	3242	558	1800	3800	1900	3400	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.04	0.30	0.30	0.03	0.23	0.23	0.21	0.06	0.09	0.04	0.06	0.19
Crit Moves:		****		****			****					****
Green/Cycle:	0.12	0.33	0.33	0.09	0.30	0.30	0.24	0.23	0.23	0.23	0.21	0.21
Volume/Cap:	0.36	0.89	0.89	0.37	0.76	0.76	0.89	0.29	0.39	0.16	0.31	0.89
Delay/Veh:	27.2	28.8	28.8	29.1	23.4	23.4	43.9	21.0	22.0	20.3	21.9	46.2
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:	27.2	28.8	28.8	29.1	23.4	23.4	43.9	21.0	22.0	20.3	21.9	46.2
LOS by Move:	C	C	C	C	C	C	D	C	C	C	C	D
HCM2kAvgQ:	2	15	15	2	10	10	12	2	3	1	2	11

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

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

Intersection #57 Easton St. and Highland Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.261
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	9.2
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Easton St.						Easton St. / Highland Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 1 0			1 0 2 0 0		
Volume Module:												
Base Vol:	198	0	39	0	0	0	0	197	138	17	461	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:	198	0	39	0	0	0	0	197	138	17	461	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:	208	0	41	0	0	0	0	207	145	18	485	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	208	0	41	0	0	0	0	207	145	18	485	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	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:	208	0	41	0	0	0	0	207	145	18	485	0
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	0.00	1.00	0.00	0.00	0.00	0.00	1.18	0.82	1.00	2.00	0.00
Final Sat.:	1800	0	1900	0	0	0	0	2235	1565	1800	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.09	0.09	0.01	0.13	0.00
Crit Moves:	****										****	
Green/Cycle:	0.44	0.00	0.44	0.00	0.00	0.00	0.00	0.49	0.49	0.49	0.49	0.00
Volume/Cap:	0.26	0.00	0.05	0.00	0.00	0.00	0.00	0.19	0.19	0.02	0.26	0.00
Delay/Veh:	10.7	0.0	9.5	0.0	0.0	0.0	0.0	8.7	8.7	7.9	9.0	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:	10.7	0.0	9.5	0.0	0.0	0.0	0.0	8.7	8.7	7.9	9.0	0.0
LOS by Move:	B	A	A	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	3	0	0	0	0	0	0	2	2	0	3	0

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #58 Sierra Ave. and Baseline Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.463
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	17.4
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Sierra Ave.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 1			1 0 2 0 1			1 0 1 1 0			1 0 1 0 1		
Volume Module:												
Base Vol:	55	652	53	113	751	35	61	391	63	60	123	93
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:	55	652	53	113	751	35	61	391	63	60	123	93
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:	58	686	56	119	791	37	64	412	66	63	129	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	58	686	56	119	791	37	64	412	66	63	129	98
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:	58	686	56	119	791	37	64	412	66	63	129	98
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	2.00	1.00	1.00	1.72	0.28	1.00	1.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3273	527	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.03	0.18	0.03	0.07	0.21	0.02	0.04	0.13	0.13	0.04	0.07	0.05
Crit Moves:	****				****			****		****		
Green/Cycle:	0.10	0.33	0.33	0.18	0.42	0.42	0.18	0.25	0.25	0.10	0.18	0.18
Volume/Cap:	0.32	0.54	0.09	0.36	0.50	0.05	0.20	0.50	0.50	0.35	0.39	0.29
Delay/Veh:	26.1	16.8	13.9	22.1	13.2	10.5	21.5	19.7	19.7	26.4	22.6	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:	26.1	16.8	13.9	22.1	13.2	10.5	21.5	19.7	19.7	26.4	22.6	22.0
LOS by Move:	C	B	B	C	B	B	C	B	B	C	C	C
HCM2kAvgQ:	1	6	1	2	6	0	1	4	4	2	3	2

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #59 Alder Ave. and Baseline Rd.

Cycle (sec):	70	Critical Vol./Cap.(X):	0.786
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	32.3
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Alder Ave.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0	1 0	0 1 0	1 0	1 0 1		1 0 0	1 0		1 0 0	1 0	
Volume Module:												
Base Vol:	156	492	17	142	382	110	67	451	140	6	125	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:	156	492	17	142	382	110	67	451	140	6	125	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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	164	518	18	149	402	116	71	475	147	6	132	47
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	164	518	18	149	402	116	71	475	147	6	132	47
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:	164	518	18	149	402	116	71	475	147	6	132	47
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	0.97	0.03	1.00	1.00	1.00	1.00	0.76	0.24	1.00	0.74	0.26
Final Sat.:	1800	1837	63	1800	1900	1900	1800	1450	450	1800	1397	503
Capacity Analysis Module:												
Vol/Sat:	0.09	0.28	0.28	0.08	0.21	0.06	0.04	0.33	0.33	0.00	0.09	0.09
Crit Moves:		****		****				****		****		
Green/Cycle:	0.13	0.33	0.33	0.10	0.29	0.29	0.22	0.38	0.38	0.09	0.24	0.24
Volume/Cap:	0.72	0.87	0.87	0.87	0.72	0.21	0.18	0.87	0.87	0.04	0.39	0.39
Delay/Veh:	39.8	34.4	34.4	65.0	26.6	18.7	22.3	30.9	30.9	29.5	22.7	22.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.8	34.4	34.4	65.0	26.6	18.7	22.3	30.9	30.9	29.5	22.7	22.7
LOS by Move:	D	C	C	E	C	B	C	C	C	C	C	C
HCM2kAvgQ:	5	14	14	6	9	2	1	16	16	0	4	4

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

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Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #60 Cedar Ave./Ayala Dr. and Baseline Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.517
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.5
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Cedar Ave./Ayala Dr.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		2 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	162	673	144	99	771	19	36	242	142	145	162	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:	162	673	144	99	771	19	36	242	142	145	162	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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	171	708	152	104	812	20	38	255	149	153	171	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	171	708	152	104	812	20	38	255	149	153	171	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	171	708	152	104	812	20	38	255	149	153	171	31
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	1.65	0.35	2.00	1.95	0.05	1.00	1.26	0.74	1.00	1.70	0.30
Final Sat.:	1800	3130	670	3400	3709	91	1800	2395	1405	1800	3223	577
Capacity Analysis Module:												
Vol/Sat:	0.09	0.23	0.23	0.03	0.22	0.22	0.02	0.11	0.11	0.08	0.05	0.05
Crit Moves:		****		****				****		****		
Green/Cycle:	0.16	0.42	0.42	0.10	0.35	0.35	0.18	0.20	0.20	0.16	0.18	0.18
Volume/Cap:	0.59	0.54	0.54	0.31	0.62	0.62	0.12	0.54	0.54	0.54	0.30	0.30
Delay/Veh:	26.4	13.6	13.6	25.6	16.9	16.9	21.0	22.6	22.6	25.6	21.8	21.8
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:	26.4	13.6	13.6	25.6	16.9	16.9	21.0	22.6	22.6	25.6	21.8	21.8
LOS by Move:	C	B	B	C	B	B	C	C	C	C	C	C
HCM2kAvgQ:	4	7	7	1	7	7	1	4	4	4	2	2

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #61 Cactus Ave. and Baseline Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.547
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.9
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Cactus Ave.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	0 1		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	69	210	73	72	436	165	85	468	57	80	261	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:	69	210	73	72	436	165	85	468	57	80	261	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:	73	221	77	76	459	174	89	493	60	84	275	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	73	221	77	76	459	174	89	493	60	84	275	40
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:	73	221	77	76	459	174	89	493	60	84	275	40
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.78	0.22	1.00	1.75	0.25
Final Sat.:	1800	1900	1900	1800	1900	1900	1800	3387	413	1800	3317	483
Capacity Analysis Module:												
Vol/Sat:	0.04	0.12	0.04	0.04	0.24	0.09	0.05	0.15	0.15	0.05	0.08	0.08
Crit Moves:	****				****			****		****		
Green/Cycle:	0.10	0.28	0.28	0.24	0.42	0.42	0.18	0.25	0.25	0.10	0.18	0.18
Volume/Cap:	0.40	0.42	0.15	0.18	0.58	0.22	0.28	0.58	0.58	0.47	0.47	0.47
Delay/Veh:	26.8	18.3	16.4	18.4	14.6	11.4	22.0	20.6	20.6	27.4	22.8	22.8
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:	26.8	18.3	16.4	18.4	14.6	11.4	22.0	20.6	20.6	27.4	22.8	22.8
LOS by Move:	C	B	B	B	B	B	C	C	C	C	C	C
HCM2kAvgQ:	2	4	1	1	7	2	2	5	5	2	3	3

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

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

Intersection #62 Riverside Ave. and Baseline Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.580
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	19.4
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Riverside Ave.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		2 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	144	516	50	82	772	136	148	327	57	89	376	60
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	144	516	50	82	772	136	148	327	57	89	376	60
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	152	543	53	86	813	143	156	344	60	94	396	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	152	543	53	86	813	143	156	344	60	94	396	63
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:	152	543	53	86	813	143	156	344	60	94	396	63
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.82	0.18	1.00	1.70	0.30	2.00	1.70	0.30	1.00	1.72	0.28
Final Sat.:	1800	3464	336	1800	3231	569	3400	3236	564	1800	3277	523
Capacity Analysis Module:												
Vol/Sat:	0.08	0.16	0.16	0.05	0.25	0.25	0.05	0.11	0.11	0.05	0.12	0.12
Crit Moves:	****				****		****				****	
Green/Cycle:	0.14	0.34	0.34	0.22	0.42	0.42	0.10	0.16	0.16	0.15	0.20	0.20
Volume/Cap:	0.60	0.46	0.46	0.22	0.60	0.60	0.46	0.68	0.68	0.35	0.60	0.60
Delay/Veh:	27.9	15.6	15.6	19.5	14.0	14.0	26.4	27.1	27.1	23.9	23.0	23.0
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:	27.9	15.6	15.6	19.5	14.0	14.0	26.4	27.1	27.1	23.9	23.0	23.0
LOS by Move:	C	B	B	B	B	B	C	C	C	C	C	C
HCM2kAvgQ:	4	5	5	2	8	8	2	5	5	2	5	5

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

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

Intersection #63 Pepper Ave. and Baseline. Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.479
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	8.3
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Pepper Ave.						Baseline. Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 1	1 0	1	1 0	1 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	117	477	17	159	683	183	106	145	124	25	173	98
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	117	477	17	159	683	183	106	145	124	25	173	98
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	123	502	18	167	719	193	112	153	131	26	182	103
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	123	502	18	167	719	193	112	153	131	26	182	103
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	123	502	18	167	719	193	112	153	131	26	182	103
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.41	1.59	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	740	3018	1900	1800	1900	1900	1800	3800	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.17	0.17	0.01	0.09	0.38	0.10	0.06	0.04	0.07	0.01	0.05	0.05
Crit Moves:					****				****			
Green/Cycle:	0.79	0.79	0.79	0.79	0.79	0.79	0.14	0.14	0.14	0.14	0.14	0.14
Volume/Cap:	0.21	0.21	0.01	0.12	0.48	0.13	0.43	0.28	0.48	0.10	0.33	0.38
Delay/Veh:	1.6	1.6	1.3	1.5	2.4	1.5	24.6	23.2	25.0	22.5	23.5	24.2
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:	1.6	1.6	1.3	1.5	2.4	1.5	24.6	23.2	25.0	22.5	23.5	24.2
LOS by Move:	A	A	A	A	A	A	C	C	C	C	C	C
HCM2kAvgQ:	2	2	0	1	5	1	3	2	3	1	2	2

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

Lytle Creek Ranch Project

Future 2030 With Project Condition
AM Peak Hour

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

Intersection #64 State St. and Baseline Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.340
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	9.6
Optimal Cycle:	60	Level Of Service:	A

Street Name:	State St.						Baseline Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	0 1		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	26	201	10	255	431	110	115	212	71	18	123	134
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	201	10	255	431	110	115	212	71	18	123	134
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:	27	212	11	268	454	116	121	223	75	19	129	141
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	27	212	11	268	454	116	121	223	75	19	129	141
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:	27	212	11	268	454	116	121	223	75	19	129	141
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.50	0.50	1.00	1.00	1.00
Final Sat.:	1800	1900	1900	1800	1900	1900	1800	2847	953	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.02	0.11	0.01	0.15	0.24	0.06	0.07	0.08	0.08	0.01	0.07	0.07
Crit Moves:					****			****				
Green/Cycle:	0.70	0.70	0.70	0.70	0.70	0.70	0.23	0.23	0.23	0.23	0.23	0.23
Volume/Cap:	0.02	0.16	0.01	0.21	0.34	0.09	0.29	0.34	0.34	0.05	0.30	0.32
Delay/Veh:	2.7	3.0	2.7	3.2	3.6	2.9	19.4	19.5	19.5	18.0	19.2	19.4
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:	2.7	3.0	2.7	3.2	3.6	2.9	19.4	19.5	19.5	18.0	19.2	19.4
LOS by Move:	A	A	A	A	A	A	B	B	B	B	B	B
HCM2kAvgQ:	0	1	0	2	3	1	2	3	3	0	2	2

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

Lytle Creek Ranch Project
Future 2030 With Project Condition
AM Peak Hour

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

****
Intersection #65 Sierra Ave. and Foothill Blvd.
****

Cycle (sec):	60	Critical Vol./Cap.(X):	0.552
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	20.1
Optimal Cycle:	60	Level Of Service:	C

****

Street Name:	Sierra Ave.						Foothill Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 2	0 1		1 0 2	0 1		1 0 2	0 1	
Volume Module:												
Base Vol:	82	412	87	201	673	110	187	637	82	115	579	133
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:	82	412	87	201	673	110	187	637	82	115	579	133
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:	86	434	92	212	708	116	197	671	86	121	609	140
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	86	434	92	212	708	116	197	671	86	121	609	140
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:	86	434	92	212	708	116	197	671	86	121	609	140
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	1.65	0.35	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3137	663	1800	3800	1900	1800	3800	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.05	0.14	0.14	0.12	0.19	0.06	0.11	0.18	0.05	0.07	0.16	0.07
Crit Moves:	****				****			****		****		
Green/Cycle:	0.10	0.23	0.23	0.20	0.33	0.33	0.18	0.31	0.31	0.12	0.26	0.26
Volume/Cap:	0.48	0.59	0.59	0.59	0.56	0.18	0.62	0.56	0.14	0.56	0.62	0.29
Delay/Veh:	27.5	21.5	21.5	24.5	17.0	14.4	26.6	17.7	14.9	28.2	20.9	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:	27.5	21.5	21.5	24.5	17.0	14.4	26.6	17.7	14.9	28.2	20.9	18.1
LOS by Move:	C	C	C	C	B	B	C	B	B	C	C	B
HCM2kAvgQ:	2	5	5	5	6	2	5	6	1	3	6	2

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

Lytle Creek Ranch Project
Future 2030 With Project Condition
AM Peak Hour

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

Intersection #66 Alder Ave. and Foothill Blvd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.425
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	15.0
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Alder Ave.						Foothill Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0	1 0	1 0	1 0	1 0	1 0	1 0 2	0 1	1 0	1 0 1	1 0	1 0
Volume Module: AM Peak Hour												
Base Vol:	64	299	9	84	316	236	197	678	75	8	451	52
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:	64	299	9	84	316	236	197	678	75	8	451	52
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	71	331	10	93	350	261	218	751	83	9	500	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	331	10	93	350	261	218	751	83	9	500	58
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:	71	331	10	93	350	261	218	751	83	9	500	58
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	0.97	0.03	1.00	1.14	0.86	1.00	2.00	1.00	1.00	1.79	0.21
Final Sat.:	1800	1844	56	1800	2175	1625	1800	3800	1900	1800	3407	393
Capacity Analysis Module:												
Vol/Sat:	0.04	0.18	0.18	0.05	0.16	0.16	0.12	0.20	0.04	0.00	0.15	0.15
Crit Moves:		****						****		****		
Green/Cycle:	0.38	0.38	0.38	0.38	0.38	0.38	0.23	0.42	0.42	0.10	0.28	0.28
Volume/Cap:	0.10	0.47	0.47	0.14	0.42	0.42	0.52	0.47	0.10	0.05	0.52	0.52
Delay/Veh:	12.0	14.5	14.5	12.2	13.9	13.9	21.1	12.8	10.6	24.5	18.4	18.4
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:	12.0	14.5	14.5	12.2	13.9	13.9	21.1	12.8	10.6	24.5	18.4	18.4
LOS by Move:	B	B	B	B	B	B	C	B	B	C	B	B
HCM2kAvgQ:	1	5	5	1	4	4	4	5	1	0	5	5

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

Lytle Creek Ranch Project
Future 2030 With Project Condition
AM Peak Hour

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

Intersection #67 Cedar Ave. and Foothill Blvd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.791
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	21.6
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Cedar Ave.						Foothill Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 2	0 1		1 0 2	0 1	
Volume Module:												
Base Vol:	159	967	107	114	1262	70	110	513	233	139	254	46
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:	159	967	107	114	1262	70	110	513	233	139	254	46
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:	167	1018	113	120	1328	74	116	540	245	146	267	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	167	1018	113	120	1328	74	116	540	245	146	267	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
FinalVolume:	167	1018	113	120	1328	74	116	540	245	146	267	48
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	1.80	0.20	1.00	1.89	0.11	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3421	379	1800	3600	200	1800	3800	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.09	0.30	0.30	0.07	0.37	0.37	0.06	0.14	0.13	0.08	0.07	0.03
Crit Moves:	****				****			****		****		
Green/Cycle:	0.12	0.44	0.44	0.15	0.47	0.47	0.14	0.18	0.18	0.10	0.14	0.14
Volume/Cap:	0.79	0.68	0.68	0.45	0.79	0.79	0.46	0.79	0.72	0.79	0.50	0.18
Delay/Veh:	43.8	14.7	14.7	24.6	16.0	16.0	24.9	29.8	30.4	46.5	24.5	23.0
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:	43.8	14.7	14.7	24.6	16.0	16.0	24.9	29.8	30.4	46.5	24.5	23.0
LOS by Move:	D	B	B	C	B	B	C	C	C	D	C	C
HCM2kAvgQ:	5	10	10	3	13	13	3	7	6	5	3	1

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

Lytle Creek Ranch Project
Future 2030 With Project Condition
AM Peak Hour

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

Intersection #68 Cactus Ave. and Foothill Blvd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.434
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	14.6
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Cactus Ave.						Foothill Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0	1 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	18	251	62	68	399	30	30	633	64	72	415	32
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	251	62	68	399	30	30	633	64	72	415	32
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:	19	264	65	72	420	32	32	666	67	76	437	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	264	65	72	420	32	32	666	67	76	437	34
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:	19	264	65	72	420	32	32	666	67	76	437	34
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	0.80	0.20	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	1524	376	1800	3800	1900	1800	3800	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.01	0.17	0.17	0.04	0.11	0.02	0.02	0.18	0.04	0.04	0.11	0.02
Crit Moves:		****						****		****		
Green/Cycle:	0.40	0.40	0.40	0.40	0.40	0.40	0.23	0.40	0.40	0.10	0.27	0.27
Volume/Cap:	0.03	0.44	0.44	0.10	0.28	0.04	0.08	0.44	0.09	0.42	0.43	0.07
Delay/Veh:	11.0	13.6	13.6	11.4	12.3	11.1	18.0	13.2	11.2	27.0	18.4	16.4
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:	11.0	13.6	13.6	11.4	12.3	11.1	18.0	13.2	11.2	27.0	18.4	16.4
LOS by Move:	B	B	B	B	B	B	B	B	B	C	B	B
HCM2kAvgQ:	0	5	5	1	3	0	1	5	1	2	4	0

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

Lytle Creek Ranch Project
Future 2030 With Project Condition
AM Peak Hour

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

Intersection #69 Riverside Ave. and Foothill Blvd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.565
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	19.5
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Riverside Ave.						Foothill Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 1			1 0 1 1 0			1 0 2 0 1			1 0 2 0 1		
Volume Module:												
Base Vol:	99	495	114	169	569	116	115	670	61	96	516	123
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	99	495	114	169	569	116	115	670	61	96	516	123
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:	104	521	120	178	599	122	121	705	64	101	543	129
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	104	521	120	178	599	122	121	705	64	101	543	129
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:	104	521	120	178	599	122	121	705	64	101	543	129
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	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	3156	644	1800	3800	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.06	0.14	0.06	0.10	0.19	0.19	0.07	0.19	0.03	0.06	0.14	0.07
Crit Moves:	****				****			****		****		
Green/Cycle:	0.10	0.25	0.25	0.18	0.34	0.34	0.18	0.33	0.33	0.10	0.25	0.25
Volume/Cap:	0.57	0.54	0.25	0.53	0.57	0.57	0.38	0.57	0.10	0.56	0.57	0.27
Delay/Veh:	29.7	20.0	18.1	23.8	16.9	16.9	22.6	17.2	14.1	29.7	20.4	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:	29.7	20.0	18.1	23.8	16.9	16.9	22.6	17.2	14.1	29.7	20.4	18.3
LOS by Move:	C	C	B	C	B	B	C	B	B	C	C	B
HCM2kAvgQ:	3	5	2	4	6	6	2	6	1	3	5	2

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

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

Intersection #70 Sierra Ave. and Arrow Blvd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.550
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.5
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Sierra Ave.						Arrow Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	50	481	128	67	838	19	37	456	99	96	292	40
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:	50	481	128	67	838	19	37	456	99	96	292	40
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:	53	506	135	71	882	20	39	480	104	101	307	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	53	506	135	71	882	20	39	480	104	101	307	42
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:	53	506	135	71	882	20	39	480	104	101	307	42
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.58	0.42	1.00	1.96	0.04	1.00	1.64	0.36	1.00	1.76	0.24
Final Sat.:	1800	3001	799	1800	3716	84	1800	3122	678	1800	3342	458
Capacity Analysis Module:												
Vol/Sat:	0.03	0.17	0.17	0.04	0.24	0.24	0.02	0.15	0.15	0.06	0.09	0.09
Crit Moves:	****				****			****		****		
Green/Cycle:	0.10	0.32	0.32	0.19	0.40	0.40	0.18	0.26	0.26	0.10	0.18	0.18
Volume/Cap:	0.29	0.53	0.53	0.21	0.59	0.59	0.12	0.59	0.59	0.56	0.51	0.51
Delay/Veh:	25.9	17.3	17.3	20.9	14.5	14.5	20.7	20.2	20.2	29.7	22.8	22.8
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:	25.9	17.3	17.3	20.9	14.5	14.5	20.7	20.2	20.2	29.7	22.8	22.8
LOS by Move:	C	B	B	C	B	B	C	C	C	C	C	C
HCM2kAvgQ:	1	5	5	1	7	7	1	6	6	3	4	4

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

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2000 HCM Operations Method (Base Volume Alternative)

Intersection #71 Alder Ave. and Arrow Blvd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.699
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	21.6
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Alder Ave.						Arrow Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	0 1		1 0 2	0 1	
Volume Module:												
Base Vol:	29	229	176	45	290	15	74	675	131	160	343	169
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:	29	229	176	45	290	15	74	675	131	160	343	169
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:	31	241	185	47	305	16	78	711	138	168	361	178
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	241	185	47	305	16	78	711	138	168	361	178
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:	31	241	185	47	305	16	78	711	138	168	361	178
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	1.13	0.87	1.00	1.90	0.10	1.00	1.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	2149	1651	1800	3613	187	1800	1900	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.02	0.11	0.11	0.03	0.08	0.08	0.04	0.37	0.07	0.09	0.10	0.09
Crit Moves:		****		****				****		****		
Green/Cycle:	0.12	0.15	0.15	0.10	0.12	0.12	0.31	0.49	0.49	0.12	0.31	0.31
Volume/Cap:	0.14	0.76	0.76	0.26	0.68	0.68	0.14	0.76	0.15	0.76	0.31	0.30
Delay/Veh:	23.7	30.3	30.3	25.7	29.2	29.2	15.1	15.8	8.3	39.2	16.0	16.1
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:	23.7	30.3	30.3	25.7	29.2	29.2	15.1	15.8	8.3	39.2	16.0	16.1
LOS by Move:	C	C	C	C	C	C	B	B	A	D	B	B
HCM2kAvgQ:	1	6	6	1	4	4	1	12	1	5	3	3

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

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2000 HCM Operations Method (Base Volume Alternative)

Intersection #72 Cedar Ave. and Rialto Ave.

Cycle (sec):	65	Critical Vol./Cap.(X):	0.828
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	31.4
Optimal Cycle:	63	Level Of Service:	C

Street Name:	Cedar Ave.						Rialto Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	133	870	139	313	1133	175	297	620	237	45	371	61
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:	133	870	139	313	1133	175	297	620	237	45	371	61
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:	140	916	146	329	1193	184	313	653	249	47	391	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	140	916	146	329	1193	184	313	653	249	47	391	64
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:	140	916	146	329	1193	184	313	653	249	47	391	64
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	1.72	0.28	1.00	1.73	0.27	1.00	1.45	0.55	1.00	1.72	0.28
Final Sat.:	1800	3277	523	1800	3292	508	1800	2749	1051	1800	3263	537
Capacity Analysis Module:												
Vol/Sat:	0.08	0.28	0.28	0.18	0.36	0.36	0.17	0.24	0.24	0.03	0.12	0.12
Crit Moves:		****		****				****		****		
Green/Cycle:	0.11	0.31	0.31	0.21	0.41	0.41	0.21	0.27	0.27	0.09	0.15	0.15
Volume/Cap:	0.74	0.89	0.89	0.89	0.88	0.88	0.82	0.89	0.89	0.29	0.82	0.82
Delay/Veh:	42.5	30.0	30.0	47.8	23.5	23.5	37.4	33.0	33.0	28.4	36.2	36.2
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:	42.5	30.0	30.0	47.8	23.5	23.5	37.4	33.0	33.0	28.4	36.2	36.2
LOS by Move:	D	C	C	D	C	C	D	C	C	C	D	D
HCM2kAvgQ:	5	14	14	11	16	16	9	13	13	1	7	7

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

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

Intersection #73 Cactus Ave. and Rialto Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.425
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	9.8
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Cactus Ave.						Rialto Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	54	283	105	92	404	85	68	766	178	113	341	69
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:	54	283	105	92	404	85	68	766	178	113	341	69
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:	57	298	111	97	425	89	72	806	187	119	359	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	298	111	97	425	89	72	806	187	119	359	73
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:	57	298	111	97	425	89	72	806	187	119	359	73
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	1.46	0.54	1.00	1.65	0.35	1.00	1.62	0.38	1.00	1.66	0.34
Final Sat.:	1800	2772	1028	1800	3139	661	1800	3083	717	1800	3160	640
Capacity Analysis Module:												
Vol/Sat:	0.03	0.11	0.11	0.05	0.14	0.14	0.04	0.26	0.26	0.07	0.11	0.11
Crit Moves:					****			****				
Green/Cycle:	0.32	0.32	0.32	0.32	0.32	0.32	0.61	0.61	0.61	0.61	0.61	0.61
Volume/Cap:	0.10	0.34	0.34	0.17	0.43	0.43	0.06	0.43	0.43	0.11	0.18	0.18
Delay/Veh:	14.5	15.8	15.8	14.9	16.4	16.4	4.7	6.2	6.2	4.8	5.1	5.1
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:	14.5	15.8	15.8	14.9	16.4	16.4	4.7	6.2	6.2	4.8	5.1	5.1
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
HCM2kAvgQ:	1	3	3	1	4	4	1	5	5	1	2	2

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

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

Intersection #74 Cedar Ave. and Merrill Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.896
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	22.1
Optimal Cycle:	74	Level Of Service:	C

Street Name:	Cedar Ave.						Merrill Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	159	1470	85	288	1816	169	216	471	118	147	328	138
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:	159	1470	85	288	1816	169	216	471	118	147	328	138
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:	167	1547	89	303	1912	178	227	496	124	155	345	145
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	167	1547	89	303	1912	178	227	496	124	155	345	145
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:	167	1547	89	303	1912	178	227	496	124	155	345	145
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	1.89	0.11	1.00	1.83	0.17	1.00	1.60	0.40	1.00	1.41	0.59
Final Sat.:	1800	3592	208	1800	3476	324	1800	3039	761	1800	2675	1125
Capacity Analysis Module:												
Vol/Sat:	0.09	0.43	0.43	0.17	0.55	0.55	0.13	0.16	0.16	0.09	0.13	0.13
Crit Moves:	****				****			****				
Green/Cycle:	0.10	0.52	0.52	0.20	0.61	0.61	0.18	0.18	0.18	0.18	0.18	0.18
Volume/Cap:	0.90	0.83	0.83	0.83	0.90	0.90	0.69	0.90	0.90	0.47	0.71	0.71
Delay/Veh:	64.6	15.6	15.6	38.3	14.9	14.9	29.2	38.2	38.2	23.0	26.4	26.4
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:	64.6	15.6	15.6	38.3	14.9	14.9	29.2	38.2	38.2	23.0	26.4	26.4
LOS by Move:	E	B	B	D	B	B	C	D	D	C	C	C
HCM2kAvgQ:	6	16	16	9	21	21	6	9	9	3	6	6

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

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2000 HCM Operations Method (Base Volume Alternative)

Intersection #75 Cactus Ave. and Merrill Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.316
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	13.7
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Cactus Ave.						Merrill Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	14	286	31	72	589	93	93	221	94	58	216	58
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	286	31	72	589	93	93	221	94	58	216	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:	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	301	33	76	620	98	98	233	99	61	227	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	15	301	33	76	620	98	98	233	99	61	227	61
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	301	33	76	620	98	98	233	99	61	227	61
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	1.80	0.20	1.00	1.73	0.27	1.00	1.40	0.60	1.00	1.58	0.42
Final Sat.:	1800	3428	372	1800	3282	518	1800	2666	1134	1800	2996	804
Capacity Analysis Module:												
Vol/Sat:	0.01	0.09	0.09	0.04	0.19	0.19	0.05	0.09	0.09	0.03	0.08	0.08
Crit Moves:	****				****			****				
Green/Cycle:	0.10	0.32	0.32	0.32	0.55	0.55	0.25	0.25	0.25	0.25	0.25	0.25
Volume/Cap:	0.08	0.27	0.27	0.13	0.35	0.35	0.22	0.35	0.35	0.13	0.30	0.30
Delay/Veh:	24.7	15.2	15.2	14.4	7.7	7.7	18.0	18.6	18.6	17.5	18.3	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:	24.7	15.2	15.2	14.4	7.7	7.7	18.0	18.6	18.6	17.5	18.3	18.3
LOS by Move:	C	B	B	B	A	A	B	B	B	B	B	B
HCM2kAvgQ:	0	2	2	1	4	4	2	3	3	1	2	2

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

Lytle Creek Ranch Project
Future 2030 With Project Condition
PM Peak Hour

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

Intersection #1 Devore Rd & I-215 NB On/Off-Ramps / Arrowhead Bl

Average Delay (sec/veh): 133.1 Worst Case Level Of Service: F[507.3]

Street Name:	Devore Rd						I-215 NB On/Off-Ramps / Arrowhead					
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	1! 0	0	0 0	1! 0	0
Volume Module:	AM Peak Hour											
Base Vol:	3	502	438	99	228	0	2	5	9	159	0	294
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	502	438	99	228	0	2	5	9	159	0	294
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:	3	528	461	104	240	0	2	5	9	167	0	309
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	3	528	461	104	240	0	2	5	9	167	0	309
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	240	xxxx	xxxxx	989	xxxx	xxxxx	1368	1444	240	1221	1214	759
Potent Cap.:	1339	xxxx	xxxxx	707	xxxx	xxxxx	125	133	804	158	183	410
Move Cap.:	1339	xxxx	xxxxx	707	xxxx	xxxxx	27	112	804	132	154	410
Volume/Cap:	0.00	xxxx	xxxx	0.15	xxxx	xxxx	0.08	0.05	0.01	1.26	0.00	0.76
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.5	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.7	xxxx	xxxxx	11.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	123	xxxxx	xxxx	236	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.5	xxxx	xxxxx	xxxxx	0.5	xxxxx	xxxxx	35.2	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	11.0	xxxx	xxxxx	xxxxx	38.9	xxxxx	xxxxx	507	xxxxx
Shared LOS:	*	*	*	B	*	*	*	E	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			38.9			507.3		
ApproachLOS:	*			*			E			F		

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

Lytle Creek Ranch Project
Future 2030 With Project Condition
PM Peak Hour

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

Intersection #2 I-215 SB On/Off-Ramps & Cajon Bl

Average Delay (sec/veh): 8.2 Worst Case Level Of Service: B[13.7]

Street Name:	I-215 SB On/Off-Ramps									Cajon Bl									
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	1	0	1	0	0	0	0	1	0	1
Volume Module:AM Peak Hour																				
Base Vol:	0	0	0		318	0		53		34	111		0		0	0		19		113
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		1.00
Initial Bse:	0	0	0		318	0		53		34	111		0		0	0		19		113
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		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		0.95
PHF Volume:	0	0	0		335	0		56		36	117		0		0	0		20		119
Reduct Vol:	0	0	0		0	0		0		0	0		0		0	0		0		0
FinalVolume:	0	0	0		335	0		56		36	117		0		0	0		20		119
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx		6.4	6.5		6.2		4.1	xxxx	xxxxx	xxxxx		xxxx	xxxxx				
FollowUpTim:	xxxxx	xxxx	xxxxx		3.5	4.0		3.3		2.2	xxxx	xxxxx	xxxxx		xxxx	xxxxx				
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx		208	208		20		139	xxxx	xxxxx		xxxx	xxxx	xxxxx				
Potent Cap.:	xxxx	xxxx	xxxxx		784	692		1064		1457	xxxx	xxxxx		xxxx	xxxx	xxxxx				
Move Cap.:	xxxx	xxxx	xxxxx		770	675		1064		1457	xxxx	xxxxx		xxxx	xxxx	xxxxx				
Volume/Cap:	xxxx	xxxx	xxxx		0.43	0.00		0.05		0.02	xxxx	xxxx		xxxx	xxxx	xxxx				
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx		xxxx	xxxx		xxxxx		0.1	xxxx	xxxxx		xxxx	xxxx	xxxxx				
Control Del:	xxxxx	xxxx	xxxxx		xxxxx	xxxx		xxxxx		7.5	xxxx	xxxxx		xxxxx	xxxx	xxxxx				
LOS by Move:	*	*	*		*	*		*		A	*	*		*	*	*				
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	801		xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx				
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	2.7		xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx				
Shrd ConDel:	xxxxx	xxxx	xxxxx		xxxxx	13.7		xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx				
Shared LOS:	*	*	*		*	B		*		*	*	*		*	*	*				
ApproachDel:	xxxxxx					13.7				xxxxxx					xxxxxx					
ApproachLOS:	*					B					*					*				

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

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

Intersection #3 Glen Helen Pkwy & Cajon Bl

Cycle (sec):	100	Critical Vol./Cap.(X):	1.181
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	71.4
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Glen Helen Pkwy						Cajon Bl					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 1	0 0	1	1 0	1 0	1	0 1	0 1	0	0 1	0 1	0
Volume Module:AM Peak Hour												
Base Vol:	58	368	415	125	236	43	181	150	100	224	10	398
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:	58	368	415	125	236	43	181	150	100	224	10	398
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:	61	387	437	132	248	45	191	158	105	236	11	419
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	61	387	437	132	248	45	191	158	105	236	11	419
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:	61	387	437	132	248	45	191	158	105	236	11	419
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:	0.14	0.86	1.00	1.00	1.00	1.00	0.84	0.70	0.46	0.71	0.29	1.00
Final Sat.:	52	328	413	298	315	329	287	251	170	260	107	411
Capacity Analysis Module:												
Vol/Sat:	1.18	1.18	1.06	0.44	0.79	0.14	0.66	0.63	0.62	0.91	0.10	1.02
Crit Moves:		****			****		****					****
Delay/Veh:	134.2	134	89.5	23.3	45.3	15.0	31.1	27.5	26.5	57.9	57.9	78.8
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:	134.2	134	89.5	23.3	45.3	15.0	31.1	27.5	26.5	57.9	57.9	78.8
LOS by Move:	F	F	F	C	E	C	D	D	D	F	F	F
ApproachDel:	112.1			35.3			28.8			69.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	112.1			35.3			28.8			69.6		
LOS by Appr:	F			E			D			F		
AllWayAvgQ:	12.9	12.9	9.0	0.7	2.7	0.2	1.7	1.4	1.4	4.6	7.7	7.7

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

Lytle Creek Ranch Project
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PM Peak Hour

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

Intersection #4 Palm Ave & I-215 NB On/Off-Ramps

Average Delay (sec/veh): 95.8 Worst Case Level Of Service: F[260.2]

Street Name:	Palm Ave						I-215 NB On/Off-Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1	1 0	0	0 0	2 0	1	0 0	0 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	79	886	0	0	405	294	0	0	0	207	4	754
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:	79	886	0	0	405	294	0	0	0	207	4	754
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:	83	933	0	0	426	309	0	0	0	218	4	794
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	83	933	0	0	426	309	0	0	0	218	4	794
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	736	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1312	1835	466
Potent Cap.:	879	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	153	77	548
Move Cap.:	879	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	141	69	548
Volume/Cap:	0.09	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	1.54	0.06	1.45
Level Of Service Module:												
2Way95thQ:	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	38.4
Control Del:	9.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	232.1
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	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	138	xxxx	xxxxx
SharedQueue:	0.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	15.8	xxxx	xxxxx
Shrd ConDel:	9.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	360.4	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	*	*	F	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			260.2		
ApproachLOS:	*			*			*			F		

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

Lytle Creek Ranch Project
Future 2030 With Project Condition
PM Peak Hour

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

Intersection #5 Palm Ave & I-215 SB On/Off-Ramps / Kendall Dr.

Cycle (sec):	100	Critical Vol./Cap.(X):	1.985
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	182.2
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Palm Ave						I-215 SB On/Off-Ramps / Kendall 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			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	1 0		0 1 0	0 1		0 1 0	0 1	
Volume Module:												
Base Vol:	129	284	164	382	102	132	378	332	93	33	9	309
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:	129	284	164	382	102	132	378	332	93	33	9	309
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:	136	299	173	402	107	139	398	349	98	35	9	325
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	136	299	173	402	107	139	398	349	98	35	9	325
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:	136	299	173	402	107	139	398	349	98	35	9	325
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	1.00	1.00	0.53	0.47	1.00	0.79	0.21	1.00
Final Sat.:	336	355	379	340	350	376	200	176	409	277	76	401
Capacity Analysis Module:												
Vol/Sat:	0.40	0.84	0.46	1.18	0.31	0.37	1.99	1.99	0.24	0.13	0.13	0.81
Crit Moves:		****		****				****				****
Delay/Veh:	20.2	48.1	19.6	139.5	17.1	17.3	474.2	474	13.9	14.1	14.1	39.6
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:	20.2	48.1	19.6	139.5	17.1	17.3	474.2	474	13.9	14.1	14.1	39.6
LOS by Move:	C	E	C	F	C	C	F	F	B	B	B	E
ApproachDel:		33.8			93.1			420.9			36.6	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		33.8			93.1			420.9			36.6	
LOS by Appr:		D			F			F			E	
AllWayAvgQ:	0.6	3.5	0.8	11.9	0.4	0.5	48.3	48.3	0.3	0.1	0.1	3.1

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 University Pkwy & I-215 NB On/Off-Ramps

Cycle (sec):	80	Critical Vol./Cap.(X):	0.984
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	36.1
Optimal Cycle:	130	Level Of Service:	D

Street Name:	University Pkwy							I-215 NB On/Off-Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Split Phase			Split Phase			
Rights:	Include			Include			Include			Include			
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6	
Lanes:	1 0	2 0	0	0 0	3 0	1	0 0	0 0	0	0 1	0 0	2	
Volume Module:													
Base Vol:	129	674	0	0	1789	410	0	0	0	633	7	1725	
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:	129	674	0	0	1789	410	0	0	0	633	7	1725	
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:	136	709	0	0	1883	432	0	0	0	666	7	1816	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	136	709	0	0	1883	432	0	0	0	666	7	1816	
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:	136	709	0	0	1883	432	0	0	0	666	7	1816	
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	0.95	
Lanes:	1.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	0.99	0.01	2.00	
Final Sat.:	1800	3800	0	0	5700	1900	0	0	0	1781	20	3600	
Capacity Analysis Module:													
Vol/Sat:	0.08	0.19	0.00	0.00	0.33	0.23	0.00	0.00	0.00	0.37	0.37	0.50	
Crit Moves:	****				****							****	
Green/Cycle:	0.08	0.29	0.00	0.00	0.34	0.34	0.00	0.00	0.00	0.51	0.51	0.51	
Volume/Cap:	0.98	0.63	0.00	0.00	0.98	0.68	0.00	0.00	0.00	0.73	0.73	0.98	
Delay/Veh:	108.4	25.7	0.0	0.0	43.2	25.7	0.0	0.0	0.0	18.2	18.2	36.4	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	108.4	25.7	0.0	0.0	43.2	25.7	0.0	0.0	0.0	18.2	18.2	36.4	
LOS by Move:	F	C	A	A	D	C	A	A	A	B	B	D	
HCM2kAvgQ:	7	8	0	0	22	10	0	0	0	15	15	31	

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

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

Intersection #7 University Pkwy & I-215 SB On/Off-Ramps

Cycle (sec):	115	Critical Vol./Cap.(X):	1.472
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	156.7
Optimal Cycle:	130	Level Of Service:	F

Street Name:	University Pkwy						I-215 SB On/Off-Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 1	1 0		1 0 2	0 0		0 1 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	606	908	1374	1096	0	150	1	45	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	606	908	1374	1096	0	150	1	45	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	638	956	1446	1154	0	158	1	47	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	638	956	1446	1154	0	158	1	47	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	638	956	1446	1154	0	158	1	47	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	2.00	0.00	0.99	0.01	1.00	0.00	0.00	0.00
Final Sat.:	0	1900	1900	1800	3800	0	1789	12	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.34	0.50	0.80	0.30	0.00	0.09	0.09	0.02	0.00	0.00	0.00
Crit Moves:			****	****				****				
Green/Cycle:	0.00	0.34	0.34	0.55	0.76	0.00	0.06	0.06	0.06	0.00	0.00	0.00
Volume/Cap:	0.00	0.98	1.47	1.47	0.40	0.00	1.47	1.47	0.42	0.00	0.00	0.00
Delay/Veh:	0.0	55.7	255.1	243.9	4.9	0.0	309.5	309	54.6	0.0	0.0	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:	0.0	55.7	255.1	243.9	4.9	0.0	309.5	309	54.6	0.0	0.0	0.0
LOS by Move:	A	E	F	F	A	A	F	F	D	A	A	A
HCM2kAvgQ:	0	28	72	113	7	0	14	14	2	0	0	0

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

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

Intersection #8 I-15 SB On/Off-Ramps & Glen Helen Pkwy

Average Delay (sec/veh): 6.0 Worst Case Level Of Service: B[12.6]

Street Name:	I-15 SB On/Off-Ramps									Glen Helen Pkwy												
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	1	0	0	1	0	0	0	1	1	0	1	0	2	0	0		
Volume Module:																						
Base Vol:	0	0	0			14	0		129		0		81		134	480		209		0		
Growth Adj:	1.00	1.00	1.00			1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00		
Initial Bse:	0	0	0			14	0		129		0		81		134	480		209		0		
User Adj:	1.00	1.00	1.00			1.00	1.00		1.00		1.00		1.00		1.00	1.00		1.00		1.00		
PHF Adj:	0.95	0.95	0.95			0.95	0.95		0.95		0.95		0.95		0.95	0.95		0.95		0.95		
PHF Volume:	0	0	0			15	0		136		0		85		141	505		220		0		
Reduct Vol:	0	0	0			0	0		0		0		0		0	0		0		0		
FinalVolume:	0	0	0			15	0		136		0		85		141	505		220		0		
Critical Gap Module:																						
Critical Gp:	xxxxx	xxxx	xxxxx			6.8	6.5		6.9		xxxxx	xxxx	xxxxx			4.1	xxxx	xxxxx				
FollowUpTim:	xxxxx	xxxx	xxxxx			3.5	4.0		3.3		xxxxx	xxxx	xxxxx			2.2	xxxx	xxxxx				
Capacity Module:																						
Cnflict Vol:	xxxx	xxxx	xxxxx			1273	1457		110		xxxx	xxxx	xxxxx			226	xxxx	xxxxx				
Potent Cap.:	xxxx	xxxx	xxxxx			162	131		929		xxxx	xxxx	xxxxx			1354	xxxx	xxxxx				
Move Cap.:	xxxx	xxxx	xxxxx			115	82		929		xxxx	xxxx	xxxxx			1354	xxxx	xxxxx				
Volume/Cap:	xxxx	xxxx	xxxx			0.13	0.00		0.15		xxxx	xxxx	xxxx			0.37	xxxx	xxxx				
Level Of Service Module:																						
2Way95thQ:	xxxx	xxxx	xxxxx			0.4	xxxx		xxxxx		xxxx	xxxx	xxxxx			1.8	xxxx	xxxxx				
Control Del:	xxxxx	xxxx	xxxxx			40.9	xxxx		xxxxx		xxxxx	xxxx	xxxxx			9.2	xxxx	xxxxx				
LOS by Move:	*	*	*			E	*		*		*	*	*			A	*	*				
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT		
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx		929		xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx				
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx		0.5		xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx				
Shrd ConDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx		9.5		xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx				
Shared LOS:	*	*	*			*	*		A		*	*	*			*	*	*				
ApproachDel:	xxxxxx					12.6					xxxxxx					xxxxxx						
ApproachLOS:	*					B					*					*						

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

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

Intersection #9 I-15 NB On/Off-Ramps & Glen Helen Pkwy

Average Delay (sec/veh): 7.7 Worst Case Level Of Service: B[13.6]

Street Name:	I-15 NB On/Off-Ramps						Glen Helen Pkwy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 1 0	0 1		0 0 0	0 0		1 0 2	0 0		0 0 1	1 0	
Volume Module:												
Base Vol:	185	0	616	0	0	0	50	45	0	0	506	69
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:	185	0	616	0	0	0	50	45	0	0	506	69
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:	195	0	648	0	0	0	53	47	0	0	533	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	195	0	648	0	0	0	53	47	0	0	533	73
Critical Gap Module:												
Critical Gp:	6.8	6.5	6.9	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	419	758	24	xxxx	xxxx	xxxxx	605	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	568	339	1054	xxxx	xxxx	xxxxx	983	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	544	321	1054	xxxx	xxxx	xxxxx	983	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.36	0.00	0.62	xxxx	xxxx	xxxx	0.05	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.6	xxxx	4.4	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	13.0	xxxx	13.7	xxxxx	xxxx	xxxxx	8.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	B	*	B	*	*	*	A	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	544	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	0.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	13.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	B	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	13.6			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	B			*			*			*		

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

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

Intersection #10 Glen Helen Pkwy & Lytle Creek Rd

Average Delay (sec/veh): 4358.0 Worst Case Level Of Service: F[26031.9]

Street Name:	Glen Helen Pkwy									Lytle Creek Rd									
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	1	0	0	0	1	0	1	0	0	0	0	0	1	0	1
Volume Module:																				
Base Vol:	0	0	0			564	0			136	106	1402			0	0	1351			623
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			564	0			136	106	1402			0	0	1351			623
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			594	0			143	112	1476			0	0	1422			656
Reduct Vol:	0	0	0			0	0			0	0	0			0	0	0			0
FinalVolume:	0	0	0			594	0			143	112	1476			0	0	1422			656
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			3121	xxxx			1422	2078	xxxx	xxxxx		xxxx	xxxx	xxxxx			
Potent Cap.:	xxxx	xxxx	xxxxx			13	xxxx			169	271	xxxx	xxxxx		xxxx	xxxx	xxxxx			
Move Cap.:	xxxx	xxxx	xxxxx			8	xxxx			169	271	xxxx	xxxxx		xxxx	xxxx	xxxxx			
Volume/Cap:	xxxx	xxxx	xxxx			70.83	xxxx			0.85	0.41	xxxx	xxxx		xxxx	xxxx	xxxx			
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx			76.1	xxxx			5.9	1.9	xxxx	xxxxx		xxxx	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx			32288	xxxx			88.9	27.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
LOS by Move:	*	*	*			F	*			F	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			1.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shrd ConDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			27.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shared LOS:	*	*	*			*	*	*			D	*	*		*	*	*			
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					xxxxxx				
ApproachLOS:	*					F					*					*				

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

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

Intersection #11 Lytle Creek Rd & Sierra Ave

Average Delay (sec/veh): 1284.5 Worst Case Level Of Service: F[16853.3]

Street Name:	Lytle Creek Rd						Sierra Ave / Lytle Creek Rd					
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	1! 0	0	0 0	0 0	0	0 0	0 1	0	0 1	0 0	0
Volume Module:												
Base Vol:	87	0	236	0	0	0	0	1924	24	5	1962	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:	87	0	236	0	0	0	0	1924	24	5	1962	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:	92	0	248	0	0	0	0	2025	25	5	2065	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	92	0	248	0	0	0	0	2025	25	5	2065	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	4114	4114	2038	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	2051	xxxx	xxxxx
Potent Cap.:	3	2	72	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	278	xxxx	xxxxx
Move Cap.:	3	2	72	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	278	xxxx	xxxxx
Volume/Cap:	33.26	0.00	3.45	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.02	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	18.2	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	C	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	9	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	44.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	18.2	xxxx	xxxxx
Shared LOS:	*	F	*	*	*	*	*	*	*	C	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	F			*			*			*		

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

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

Intersection #12 I-15 SB On/Off-Ramps & Sierra Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	4.502
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	826.8
Optimal Cycle:	0	Level Of Service:	F

Street Name:	I-15 SB On/Off-Ramps						Sierra Ave					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	0 0	0	0 1	0 0	1	0 0	0 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	0	0	0	398	5	378	0	1400	723	786	1595	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	398	5	378	0	1400	723	786	1595	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	419	5	398	0	1474	761	827	1679	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	419	5	398	0	1474	761	827	1679	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	419	5	398	0	1474	761	827	1679	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:	0.00	0.00	0.00	0.99	0.01	1.00	0.00	0.66	0.34	1.00	2.00	0.00
Final Sat.:	0	0	0	386	5	448	0	327	169	443	945	0
Capacity Analysis Module:												
Vol/Sat:	xxxx	xxxx	xxxx	1.09	1.09	0.89	xxxx	4.50	4.50	1.87	1.78	xxxx
Crit Moves:				****				****		****		
Delay/Veh:	0.0	0.0	0.0	101.0	101	47.8	0.0	1593	1593	417.3	377	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:	0.0	0.0	0.0	101.0	101	47.8	0.0	1593	1593	417.3	377	0.0
LOS by Move:	*	*	*	F	F	E	*	F	F	F	F	*
ApproachDel:	xxxxxx			75.2			1593.2			390.0		
Delay Adj:	xxxxx			1.00			1.00			1.00		
ApprAdjDel:	xxxxxx			75.2			1593.2			390.0		
LOS by Appr:	*			F			F			F		
AllWayAvgQ:	0.0	0.0	0.0	9.7	9.7	4.6	218	218	218.3	50.1	48.1	0.0

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

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

Intersection #13 I-15 NB On/Off-Ramps & Sierra Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	3.357
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	770.7
Optimal Cycle:	0	Level Of Service:	F

Street Name:	I-15 NB On/Off-Ramps									Sierra Ave								
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	1! 0	0	0 0	0 0	0	1 0	1 0	0	0 0	1 1	0
Volume Module:												
Base Vol:	1052	0	896	0	0	0	511	1299	0	0	1322	774
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:	1052	0	896	0	0	0	511	1299	0	0	1322	774
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:	1107	0	943	0	0	0	538	1367	0	0	1392	815
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1107	0	943	0	0	0	538	1367	0	0	1392	815
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:	1107	0	943	0	0	0	538	1367	0	0	1392	815
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:	1.08	0.01	0.91	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.26	0.74
Final Sat.:	841	-417	383	0	0	0	385	407	0	0	520	319
Capacity Analysis Module:												
Vol/Sat:	1.32	0.00	2.46	xxxx	xxxx	xxxx	1.40	3.36	xxxx	xxxx	2.67	2.55
Crit Moves:			****					****			****	
Delay/Veh:	718.4	681	681.5	0.0	0.0	0.0	218.4	1085	0.0	0.0	779	722.0
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:	718.4	681	681.5	0.0	0.0	0.0	218.4	1085	0.0	0.0	779	722.0
LOS by Move:	F	F	F	*	*	*	F	F	*	*	F	F
ApproachDel:	719.9			xxxxxx			840.2			758.1		
Delay Adj:	1.00			xxxxx			1.00			1.00		
ApprAdjDel:	719.9			xxxxxx			840.2			758.1		
LOS by Appr:	F			*			F			F		
AllWayAvgQ:	77.6	77.6	77.6	0.0	0.0	0.0	22.1	121	0.0	0.0	88.5	85.4

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

Lytle Creek Ranch Project
Future 2030 With Project Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #14 I-15 SB On/Off Ramps and Duncan Canyon Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.766
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	20.6
Optimal Cycle:	60	Level Of Service:	C

Street Name:	I-15 SB On/Off Ramps						Duncan Canyon Rd.					
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			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 1 0 0			0 0 1 0 1		
Volume Module:												
Base Vol:	0	0	0	38	0	335	285	230	0	0	609	59
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	38	0	335	285	230	0	0	609	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:	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	40	0	353	300	242	0	0	641	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	40	0	353	300	242	0	0	641	62
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	40	0	353	300	242	0	0	641	62
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Final Sat.:	0	0	0	1800	0	1900	1800	1900	0	0	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.02	0.00	0.19	0.17	0.13	0.00	0.00	0.34	0.03
Crit Moves:						****	****				****	
Green/Cycle:	0.00	0.00	0.00	0.17	0.00	0.24	0.22	0.66	0.00	0.00	0.44	0.44
Volume/Cap:	0.00	0.00	0.00	0.13	0.00	0.77	0.77	0.19	0.00	0.00	0.77	0.07
Delay/Veh:	0.0	0.0	0.0	21.3	0.0	28.7	30.8	4.1	0.0	0.0	18.5	9.8
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:	0.0	0.0	0.0	21.3	0.0	28.7	30.8	4.1	0.0	0.0	18.5	9.8
LOS by Move:	A	A	A	C	A	C	C	A	A	A	B	A
HCM2kAvgQ:	0	0	0	1	0	8	8	2	0	0	12	1

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #15 Lytle Creek Rd. and Duncan Canyon Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.494
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	13.0
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Lytle Creek Rd.						Duncan Canyon Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0 1 0			0 1 0 0 1			1 0 0 1 0			0 1 0 0 1		
Volume Module:												
Base Vol:	33	0	0	35	33	532	174	71	3	0	87	17
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:	33	0	0	35	33	532	174	71	3	0	87	17
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:	35	0	0	37	35	560	183	75	3	0	92	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	0	0	37	35	560	183	75	3	0	92	18
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:	35	0	0	37	35	560	183	75	3	0	92	18
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	0.53	0.47	1.00	1.00	0.96	0.04	0.00	1.00	1.00
Final Sat.:	1800	1900	0	951	896	1900	1800	1823	77	0	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.02	0.00	0.00	0.04	0.04	0.29	0.10	0.04	0.04	0.00	0.05	0.01
Crit Moves:						****	****				****	
Green/Cycle:	0.59	0.00	0.00	0.59	0.59	0.59	0.21	0.15	0.15	0.00	0.10	0.10
Volume/Cap:	0.03	0.00	0.00	0.07	0.07	0.50	0.50	0.27	0.27	0.00	0.48	0.09
Delay/Veh:	5.0	0.0	0.0	5.2	5.2	7.3	22.1	23.0	23.0	0.0	27.5	24.7
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:	5.0	0.0	0.0	5.2	5.2	7.3	22.1	23.0	23.0	0.0	27.5	24.7
LOS by Move:	A	A	A	A	A	A	C	C	C	A	C	C
HCM2kAvgQ:	0	0	0	1	1	6	4	2	2	0	2	0

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

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

Intersection #16 I-15 SB On/Off Ramps and Summit Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.817
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	19.7
Optimal Cycle:	60	Level Of Service:	B

Street Name:	I-15 SB On/Off Ramps						Summit Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 2 0 0			0 0 2 0 1		
Volume Module:												
Base Vol:	0	0	0	444	0	295	222	722	0	0	1247	456
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	444	0	295	222	722	0	0	1247	456
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	467	0	311	234	760	0	0	1313	480
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	467	0	311	234	760	0	0	1313	480
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	467	0	311	234	760	0	0	1313	480
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1800	0	1900	1800	3800	0	0	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.26	0.00	0.16	0.13	0.20	0.00	0.00	0.35	0.25
Crit Moves:				****			****				****	
Green/Cycle:	0.00	0.00	0.00	0.32	0.00	0.32	0.16	0.39	0.00	0.00	0.42	0.42
Volume/Cap:	0.00	0.00	0.00	0.82	0.00	0.51	0.82	0.52	0.00	0.00	0.82	0.60
Delay/Veh:	0.0	0.0	0.0	27.8	0.0	17.4	40.9	14.4	0.0	0.0	18.6	14.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	27.8	0.0	17.4	40.9	14.4	0.0	0.0	18.6	14.6
LOS by Move:	A	A	A	C	A	B	D	B	A	A	B	B
HCM2kAvgQ:	0	0	0	11	0	5	7	6	0	0	13	8

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #17 I-15 NB On/Off Ramps and Summit Ave.

Cycle (sec):	100	Critical Vol./Cap.(X):	1.319
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	129.9
Optimal Cycle:	130	Level Of Service:	F

Street Name:	I-15 NB On/Off Ramps						Summit Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 2 0 0			0 0 2 0 1		
Volume Module:												
Base Vol:	0	0	0	1265	0	492	290	842	0	0	1193	496
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	1265	0	492	290	842	0	0	1193	496
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	1332	0	518	305	886	0	0	1256	522
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1332	0	518	305	886	0	0	1256	522
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	1332	0	518	305	886	0	0	1256	522
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1800	0	1900	1800	3800	0	0	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.74	0.00	0.27	0.17	0.23	0.00	0.00	0.33	0.27
Crit Moves:				****			****				****	
Green/Cycle:	0.00	0.00	0.00	0.56	0.00	0.56	0.13	0.30	0.00	0.00	0.25	0.25
Volume/Cap:	0.00	0.00	0.00	1.32	0.00	0.49	1.32	0.77	0.00	0.00	1.32	1.10
Delay/Veh:	0.0	0.0	0.0	172.5	0.0	13.6	214.2	35.1	0.0	0.0	188	107.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	172.5	0.0	13.6	214.2	35.1	0.0	0.0	188	107.6
LOS by Move:	A	A	A	F	A	B	F	D	A	A	F	F
HCM2kAvgQ:	0	0	0	85	0	10	22	14	0	0	40	26

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

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

Intersection #18 Sierra Ave & Riverside Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	4.067
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	906.9
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Sierra Ave						Riverside Ave					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	1 0	1	1 0	1 0	0	0 0	0 0	0	1 0	0 0	1
Volume Module:												
Base Vol:	0	550	103	1715	485	0	0	0	0	125	0	1538
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	550	103	1715	485	0	0	0	0	125	0	1538
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	579	108	1805	511	0	0	0	0	132	0	1619
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	579	108	1805	511	0	0	0	0	132	0	1619
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	579	108	1805	511	0	0	0	0	132	0	1619
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	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	450	490	444	473	0	0	0	0	433	0	506
Capacity Analysis Module:												
Vol/Sat:	xxxx	1.29	0.22	4.07	1.08	xxxx	xxxx	xxxx	xxxx	0.30	xxxx	3.20
Crit Moves:		****		****								****
Delay/Veh:	0.0	169	12.0	1402	91.5	0.0	0.0	0.0	0.0	14.5	0.0	1009
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	169	12.0	1402	91.5	0.0	0.0	0.0	0.0	14.5	0.0	1009
LOS by Move:	*	F	B	F	F	*	*	*	*	B	*	F
ApproachDel:	144.3			1112.8			xxxxxx			933.9		
Delay Adj:	1.00			1.00			xxxxx			1.00		
ApprAdjDel:	144.3			1112.8			xxxxxx			933.9		
LOS by Appr:	F			F			*			F		
AllWayAvgQ:	0.0	19.8	0.3	171	10.7	0.0	0.0	0.0	0.0	0.4	0.0	140.5

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

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

Intersection #19 Live Oak Ave & Riverside Ave

Cycle (sec):	65	Critical Vol./Cap.(X):	0.929
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	35.3
Optimal Cycle:	93	Level Of Service:	D

Street Name:	Live Oak Ave						Riverside Ave					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0	1 0		1 0 0	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	258	10	234	147	10	233	251	1172	271	222	1154	155
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:	258	10	234	147	10	233	251	1172	271	222	1154	155
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:	272	11	246	155	11	245	264	1234	285	234	1215	163
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	272	11	246	155	11	245	264	1234	285	234	1215	163
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:	272	11	246	155	11	245	264	1234	285	234	1215	163
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	0.04	0.96	1.00	0.04	0.96	1.00	1.62	0.38	1.00	1.76	0.24
Final Sat.:	1800	78	1822	1800	78	1822	1800	3086	714	1800	3350	450
Capacity Analysis Module:												
Vol/Sat:	0.15	0.14	0.14	0.09	0.13	0.13	0.15	0.40	0.40	0.13	0.36	0.36
Crit Moves:	****				****			****		****		
Green/Cycle:	0.16	0.18	0.18	0.12	0.14	0.14	0.16	0.43	0.43	0.14	0.41	0.41
Volume/Cap:	0.93	0.74	0.74	0.69	0.93	0.93	0.89	0.93	0.93	0.93	0.89	0.89
Delay/Veh:	61.4	33.4	33.4	36.0	63.3	63.3	53.8	27.4	27.4	65.7	25.1	25.1
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:	61.4	33.4	33.4	36.0	63.3	63.3	53.8	27.4	27.4	65.7	25.1	25.1
LOS by Move:	E	C	C	D	E	E	D	C	C	E	C	C
HCM2kAvgQ:	10	7	7	5	9	9	9	20	20	9	17	17

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

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

Intersection #20 Alder Ave. and Riverside Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.804
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	19.8
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Alder Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0	1 0	1 0	1 0 0	1 0	1 0	1 0 1	1 0	1 0	1 0 1	1 0	1 0
Volume Module:												
Base Vol:	158	252	142	147	191	223	241	1181	133	90	1119	155
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:	158	252	142	147	191	223	241	1181	133	90	1119	155
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:	166	265	149	155	201	235	254	1243	140	95	1178	163
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	166	265	149	155	201	235	254	1243	140	95	1178	163
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:	166	265	149	155	201	235	254	1243	140	95	1178	163
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	0.64	0.36	1.00	0.46	0.54	1.00	1.80	0.20	1.00	1.76	0.24
Final Sat.:	1800	1215	685	1800	877	1023	1800	3415	385	1800	3338	462
Capacity Analysis Module:												
Vol/Sat:	0.09	0.22	0.22	0.09	0.23	0.23	0.14	0.36	0.36	0.05	0.35	0.35
Crit Moves:					****		****				****	
Green/Cycle:	0.29	0.29	0.29	0.29	0.29	0.29	0.18	0.48	0.48	0.13	0.44	0.44
Volume/Cap:	0.32	0.76	0.76	0.30	0.80	0.80	0.80	0.75	0.75	0.40	0.80	0.80
Delay/Veh:	17.2	26.0	26.0	17.1	28.4	28.4	37.6	14.5	14.5	24.9	17.5	17.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	17.2	26.0	26.0	17.1	28.4	28.4	37.6	14.5	14.5	24.9	17.5	17.5
LOS by Move:	B	C	C	B	C	C	D	B	B	C	B	B
HCM2kAvgQ:	3	9	9	3	10	10	7	12	12	2	13	13

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

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

Intersection #21 Locust Ave. and Riverside Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.766
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	17.7
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Locust Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0	1 0		1 0 0	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	92	43	57	155	97	235	293	1118	52	90	1048	157
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:	92	43	57	155	97	235	293	1118	52	90	1048	157
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:	97	45	60	163	102	247	308	1177	55	95	1103	165
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	97	45	60	163	102	247	308	1177	55	95	1103	165
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:	97	45	60	163	102	247	308	1177	55	95	1103	165
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	0.43	0.57	1.00	0.29	0.71	1.00	1.91	0.09	1.00	1.74	0.26
Final Sat.:	1800	817	1083	1800	555	1345	1800	3631	169	1800	3305	495
Capacity Analysis Module:												
Vol/Sat:	0.05	0.06	0.06	0.09	0.18	0.18	0.17	0.32	0.32	0.05	0.33	0.33
Crit Moves:					****		****				****	
Green/Cycle:	0.24	0.24	0.24	0.24	0.24	0.24	0.22	0.50	0.50	0.16	0.44	0.44
Volume/Cap:	0.22	0.23	0.23	0.38	0.77	0.77	0.77	0.64	0.64	0.34	0.77	0.77
Delay/Veh:	18.6	18.6	18.6	19.6	28.8	28.8	30.3	11.7	11.7	23.3	16.5	16.5
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:	18.6	18.6	18.6	19.6	28.8	28.8	30.3	11.7	11.7	23.3	16.5	16.5
LOS by Move:	B	B	B	B	C	C	C	B	B	C	B	B
HCM2kAvgQ:	2	2	2	3	8	8	8	9	9	2	12	12

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

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

Intersection #22 Linden Ave. and Riverside Ave.

Cycle (sec):	130	Critical Vol./Cap.(X):	1.663
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	270.7
Optimal Cycle:	130	Level Of Service:	F

Street Name:	Linden Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	1! 0	0	1 1	0 0	1	1 0	1 1	0	0 0	1! 0	0
Volume Module:												
Base Vol:	38	28	30	594	30	89	125	1208	87	71	1284	384
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:	38	28	30	594	30	89	125	1208	87	71	1284	384
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:	40	29	32	625	32	94	132	1272	92	75	1352	404
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	29	32	625	32	94	132	1272	92	75	1352	404
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:	40	29	32	625	32	94	132	1272	92	75	1352	404
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.41	0.28	0.31	1.91	0.09	1.00	1.00	1.87	0.13	0.04	0.74	0.22
Final Sat.:	736	542	581	3436	174	1900	1800	3545	255	77	1400	419
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.05	0.18	0.18	0.05	0.07	0.36	0.36	0.97	0.97	0.97
Crit Moves:			****		****			****		****		
Green/Cycle:	0.05	0.05	0.05	0.11	0.11	0.11	0.06	0.21	0.21	0.57	0.73	0.73
Volume/Cap:	1.18	1.18	1.18	1.69	1.69	0.46	1.32	1.69	1.69	1.69	1.32	1.32
Delay/Veh:	214.7	215	214.7	378.6	379	56.0	261.2	366	366.2	341.5	169	168.6
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:	214.7	215	214.7	378.6	379	56.0	261.2	366	366.2	341.5	169	168.6
LOS by Move:	F	F	F	F	F	E	F	F	F	F	F	F
HCM2kAvgQ:	8	8	8	32	32	4	12	62	62	162	126	126

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

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

Intersection #23 Ayala Dr. and Riverside Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.779
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	17.6
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Ayala Dr.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0 0 2			0 0 0 0 0			0 0 1 1 0			1 0 2 0 0		
Volume Module:												
Base Vol:	420	0	364	0	0	0	0	1085	288	129	1225	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:	420	0	364	0	0	0	0	1085	288	129	1225	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:	442	0	383	0	0	0	0	1142	303	136	1289	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	442	0	383	0	0	0	0	1142	303	136	1289	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	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:	442	0	383	0	0	0	0	1142	303	136	1289	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	0.00	2.00	0.00	0.00	0.00	0.00	1.58	0.42	1.00	2.00	0.00
Final Sat.:	1800	0	3600	0	0	0	0	3003	797	1800	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.25	0.00	0.11	0.00	0.00	0.00	0.00	0.38	0.38	0.08	0.34	0.00
Crit Moves:	****							****		****		
Green/Cycle:	0.31	0.00	0.31	0.00	0.00	0.00	0.00	0.49	0.49	0.10	0.45	0.00
Volume/Cap:	0.78	0.00	0.34	0.00	0.00	0.00	0.00	0.78	0.78	0.75	0.75	0.00
Delay/Veh:	25.7	0.0	16.0	0.0	0.0	0.0	0.0	15.0	15.0	42.8	15.5	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:	25.7	0.0	16.0	0.0	0.0	0.0	0.0	15.0	15.0	42.8	15.5	0.0
LOS by Move:	C	A	B	A	A	A	A	B	B	D	B	A
HCM2kAvgQ:	10	0	3	0	0	0	0	13	13	5	12	0

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

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

Intersection #24 Knollwood Ave. and Riverside Ave.

Cycle (sec):	70	Critical Vol./Cap.(X):	0.440
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	6.5
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Knollwood Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			1 0 0 0 1			1 0 2 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	0	0	0	9	0	87	43	1432	0	0	1217	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:	0	0	0	9	0	87	43	1432	0	0	1217	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:	0	0	0	9	0	92	45	1507	0	0	1281	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	9	0	92	45	1507	0	0	1281	43
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	9	0	92	45	1507	0	0	1281	43
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.93	0.07
Final Sat.:	0	0	0	1800	0	1900	1800	3800	0	0	3676	124
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.01	0.00	0.05	0.03	0.40	0.00	0.00	0.35	0.35
Crit Moves:				****				****		****		
Green/Cycle:	0.00	0.00	0.00	0.09	0.00	0.09	0.16	0.74	0.00	0.00	0.66	0.66
Volume/Cap:	0.00	0.00	0.00	0.06	0.00	0.54	0.15	0.54	0.00	0.00	0.53	0.53
Delay/Veh:	0.0	0.0	0.0	29.3	0.0	33.8	25.4	4.2	0.0	0.0	6.4	6.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	29.3	0.0	33.8	25.4	4.2	0.0	0.0	6.4	6.4
LOS by Move:	A	A	A	C	A	C	C	A	A	A	A	A
HCM2kAvgQ:	0	0	0	0	0	3	1	7	0	0	8	8

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #25 Country Club Dr. and Riverside Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.757
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.8
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Country Club Dr.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 1	0 0	1	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	158	239	18	139	206	184	237	978	113	8	1015	132
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:	158	239	18	139	206	184	237	978	113	8	1015	132
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:	166	252	19	146	217	194	249	1029	119	8	1068	139
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	166	252	19	146	217	194	249	1029	119	8	1068	139
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:	166	252	19	146	217	194	249	1029	119	8	1068	139
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.41	0.59	1.00	1.00	0.53	0.47	1.00	1.79	0.21	1.00	1.77	0.23
Final Sat.:	740	1119	1900	1800	1004	896	1800	3406	394	1800	3363	437
Capacity Analysis Module:												
Vol/Sat:	0.22	0.22	0.01	0.08	0.22	0.22	0.14	0.30	0.30	0.00	0.32	0.32
Crit Moves:		****					****				****	
Green/Cycle:	0.30	0.30	0.30	0.30	0.30	0.30	0.18	0.45	0.45	0.15	0.42	0.42
Volume/Cap:	0.76	0.76	0.03	0.27	0.73	0.73	0.76	0.67	0.67	0.03	0.76	0.76
Delay/Veh:	25.1	25.1	15.0	16.4	23.6	23.6	32.9	13.9	13.9	21.8	16.9	16.9
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:	25.1	25.1	15.0	16.4	23.6	23.6	32.9	13.9	13.9	21.8	16.9	16.9
LOS by Move:	C	C	B	B	C	C	C	B	B	C	B	B
HCM2kAvgQ:	9	9	0	2	9	9	7	9	9	0	11	11

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

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Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #26 Riverside Ave. and Dwy.(Shopping Ctr.)

Cycle (sec): 65 Critical Vol./Cap.(X): 0.622
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 8.5
Optimal Cycle: 60 Level Of Service: A

Street Name:	Riverside Ave.						Dwy.(Shopping Ctr.)					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 0			0 0 1 1 0			1 0 0 0 1			0 0 0 0 0		
Volume Module:												
Base Vol:	87	1847	0	0	1588	10	91	0	116	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	87	1847	0	0	1588	10	91	0	116	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	92	1944	0	0	1672	11	96	0	122	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	92	1944	0	0	1672	11	96	0	122	0	0	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	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	1944	0	0	1672	11	96	0	122	0	0	0
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	0.00	0.00	1.99	0.01	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1800	3800	0	0	3776	24	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.51	0.00	0.00	0.44	0.44	0.05	0.00	0.06	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.14	0.72	0.00	0.00	0.67	0.67	0.09	0.00	0.09	0.00	0.00	0.00
Volume/Cap:	0.36	0.71	0.00	0.00	0.66	0.66	0.58	0.00	0.70	0.00	0.00	0.00
Delay/Veh:	26.2	6.0	0.0	0.0	6.8	6.8	33.2	0.0	40.2	0.0	0.0	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:	26.2	6.0	0.0	0.0	6.8	6.8	33.2	0.0	40.2	0.0	0.0	0.0
LOS by Move:	C	A	A	A	A	A	C	A	D	A	A	A
HCM2kAvgQ:	2	12	0	0	11	11	3	0	4	0	0	0

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

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

Intersection #27 Sierra Ave. and Casa Grande Dr.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.812
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	17.4
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Sierra Ave.						Casa Grande Dr.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 1	0 1		1 0 1	0 0		0 0 0	0 0		1 0 0	0 1	
Volume Module:												
Base Vol:	0	910	163	152	622	0	0	0	0	169	0	298
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	910	163	152	622	0	0	0	0	169	0	298
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	958	172	160	655	0	0	0	0	178	0	314
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	958	172	160	655	0	0	0	0	178	0	314
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	958	172	160	655	0	0	0	0	178	0	314
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	1900	1900	1800	1900	0	0	0	0	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.50	0.09	0.09	0.34	0.00	0.00	0.00	0.00	0.10	0.00	0.17
Crit Moves:		****		****								****
Green/Cycle:	0.00	0.62	0.62	0.11	0.57	0.00	0.00	0.00	0.00	0.20	0.00	0.20
Volume/Cap:	0.00	0.81	0.15	0.81	0.61	0.00	0.00	0.00	0.00	0.49	0.00	0.81
Delay/Veh:	0.0	13.1	4.8	48.1	9.6	0.0	0.0	0.0	0.0	22.2	0.0	35.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	13.1	4.8	48.1	9.6	0.0	0.0	0.0	0.0	22.2	0.0	35.1
LOS by Move:	A	B	A	D	A	A	A	A	A	C	A	D
HCM2kAvgQ:	0	16	1	6	9	0	0	0	0	4	0	8

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

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Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #28 Alder Ave. and Casa Grande Dr.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.642
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	23.0
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Alder Ave.						Casa Grande Dr.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	1 0		1 0 1	0 1		1 0 1	0 1	
Volume Module:												
Base Vol:	352	465	172	24	290	100	97	21	230	269	28	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:	352	465	172	24	290	100	97	21	230	269	28	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:	371	489	181	25	305	105	102	22	242	283	29	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	371	489	181	25	305	105	102	22	242	283	29	49
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:	371	489	181	25	305	105	102	22	242	283	29	49
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.49	0.51	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	1900	1900	1800	2826	974	1800	1900	1900	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.21	0.26	0.10	0.01	0.11	0.11	0.06	0.01	0.13	0.16	0.02	0.03
Crit Moves:		****		****					****	****		
Green/Cycle:	0.30	0.36	0.36	0.10	0.16	0.16	0.20	0.18	0.18	0.22	0.20	0.20
Volume/Cap:	0.68	0.71	0.26	0.14	0.68	0.68	0.28	0.06	0.71	0.71	0.08	0.13
Delay/Veh:	21.6	19.7	13.6	25.0	26.8	26.8	20.7	20.5	29.8	27.3	19.5	19.8
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:	21.6	19.7	13.6	25.0	26.8	26.8	20.7	20.5	29.8	27.3	19.5	19.8
LOS by Move:	C	B	B	C	C	C	C	C	C	C	B	B
HCM2kAvgQ:	8	9	2	1	5	5	2	0	6	7	0	1

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #29 Locust Ave. and Casa Grande Dr.

Average Delay (sec/veh): 4.7 Worst Case Level Of Service: B[11.6]

Street Name:	Locust Ave.								Casa Grande Dr.							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	0 1	0 0	0		0 0	0 1	0		1 0	0 0	1		0 0	0 0	0	
Volume Module:																
Base Vol:	174	168	0	0	153	103	34	0	161	0	0	0				
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Initial Bse:	174	168	0	0	153	103	34	0	161	0	0	0				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95				
PHF Volume:	183	177	0	0	161	108	36	0	169	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
FinalVolume:	183	177	0	0	161	108	36	0	169	0	0	0				
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx				
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx				
Capacity Module:																
Cnflict Vol:	269	xxxx	xxxxx	xxxx	xxxx	xxxxx	758	xxxx	215	xxxx	xxxx	xxxxx				
Potent Cap.:	1306	xxxx	xxxxx	xxxx	xxxx	xxxxx	378	xxxx	830	xxxx	xxxx	xxxxx				
Move Cap.:	1306	xxxx	xxxxx	xxxx	xxxx	xxxxx	332	xxxx	830	xxxx	xxxx	xxxxx				
Volume/Cap:	0.14	xxxx	xxxx	xxxx	xxxx	xxxx	0.11	xxxx	0.20	xxxx	xxxx	xxxx				
Level Of Service Module:																
2Way95thQ:	0.5	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.4	xxxx	0.8	xxxx	xxxx	xxxxx				
Control Del:	8.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	17.1	xxxx	10.4	xxxxx	xxxx	xxxxx				
LOS by Move:	A	*	*	*	*	*	C	*	B	*	*	*				
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:	0.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shrd ConDel:	8.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	*				
ApproachDel:	xxxxxx			xxxxxx			11.6			xxxxxx						
ApproachLOS:	*			*			B			*						

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

Lytle Creek Ranch Project
Future 2030 With Project Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #30 Sierra Ave. and Summit Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.731
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.2
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Sierra Ave.						Summit Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 0		0 0 2	1 0		1 0 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	332	917	0	0	612	141	179	0	270	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	332	917	0	0	612	141	179	0	270	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	349	965	0	0	644	148	188	0	284	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	349	965	0	0	644	148	188	0	284	0	0	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	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:	349	965	0	0	644	148	188	0	284	0	0	0
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	2.44	0.56	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1800	1900	0	0	4633	1067	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.19	0.51	0.00	0.00	0.14	0.14	0.10	0.00	0.15	0.00	0.00	0.00
Crit Moves:		****		****					****			
Green/Cycle:	0.42	0.62	0.00	0.00	0.30	0.30	0.18	0.00	0.18	0.00	0.00	0.00
Volume/Cap:	0.46	0.82	0.00	0.00	0.46	0.46	0.58	0.00	0.82	0.00	0.00	0.00
Delay/Veh:	13.0	13.7	0.0	0.0	17.3	17.3	24.9	0.0	38.2	0.0	0.0	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:	13.0	13.7	0.0	0.0	17.3	17.3	24.9	0.0	38.2	0.0	0.0	0.0
LOS by Move:	B	B	A	A	B	B	C	A	D	A	A	A
HCM2kAvgQ:	5	16	0	0	4	4	4	0	8	0	0	0

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

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Lytle Creek Ranch Project
Future 2030 With Project Condition
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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #31 Locust Ave. and Bohnert Ave.

Average Delay (sec/veh): 2.9 Worst Case Level Of Service: C[21.1]

Street Name:	Locust Ave.						Bohnert Ave.					
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	1 0	0 1	0	0 0	1! 0	0
Volume Module:												
Base Vol:	5	359	52	44	381	4	1	0	3	62	0	48
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:	5	359	52	44	381	4	1	0	3	62	0	48
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:	5	378	55	46	401	4	1	0	3	65	0	51
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	5	378	55	46	401	4	1	0	3	65	0	51
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	405	xxxx	xxxxx	433	xxxx	xxxxx	937	939	403	913	914	405
Potent Cap.:	1164	xxxx	xxxxx	1138	xxxx	xxxxx	247	266	652	256	275	650
Move Cap.:	1164	xxxx	xxxxx	1138	xxxx	xxxxx	220	254	652	246	263	650
Volume/Cap:	0.00	xxxx	xxxx	0.04	xxxx	xxxx	0.00	0.00	0.00	0.27	0.00	0.08
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	8.1	xxxx	xxxxx	8.3	xxxx	xxxxx	21.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	C	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	652	xxxx	338	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.0	xxxxx	1.5	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	10.6	xxxxx	21.1	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	B	*	C	*
ApproachDel:	xxxxxx			xxxxxx			13.3			21.1		
ApproachLOS:	*			*			B			C		

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

Lytle Creek Ranch Project
Future 2030 With Project Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #32 Ayala Dr. and Bohnert Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.579
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	8.8
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Ayala Dr.						Bohnert Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		0 1 0	0 1		0 1 0	0 1	
Volume Module:												
Base Vol:	114	1224	395	13	528	48	12	45	15	73	40	8
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:	114	1224	395	13	528	48	12	45	15	73	40	8
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:	120	1288	416	14	556	51	13	47	16	77	42	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	120	1288	416	14	556	51	13	47	16	77	42	8
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:	120	1288	416	14	556	51	13	47	16	77	42	8
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	1.51	0.49	1.00	1.83	0.17	0.22	0.78	1.00	0.66	0.34	1.00
Final Sat.:	1800	2873	927	1800	3483	317	395	1483	1900	1185	649	1900
Capacity Analysis Module:												
Vol/Sat:	0.07	0.45	0.45	0.01	0.16	0.16	0.03	0.03	0.01	0.06	0.06	0.00
Crit Moves:		****		****							****	
Green/Cycle:	0.31	0.70	0.70	0.10	0.49	0.49	0.10	0.10	0.10	0.10	0.10	0.10
Volume/Cap:	0.22	0.64	0.64	0.08	0.32	0.32	0.32	0.32	0.08	0.64	0.64	0.04
Delay/Veh:	15.6	5.5	5.5	24.7	9.3	9.3	26.0	26.0	24.6	33.3	33.3	24.4
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:	15.6	5.5	5.5	24.7	9.3	9.3	26.0	26.0	24.6	33.3	33.3	24.4
LOS by Move:	B	A	A	C	A	A	C	C	C	C	C	C
HCM2kAvgQ:	2	9	9	0	4	4	1	1	0	3	3	0

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

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

Intersection #33 Sierra Ave. and Sierra Lakes Pkwy/Casmalia St.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.801
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	23.6
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Sierra Ave.						Sierra Lakes Pkwy/Casmalia St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	2 0 3 0 1			2 0 3 0 1			2 0 2 0 1			2 0 2 0 1		
Volume Module:												
Base Vol:	712	1043	207	173	620	166	184	505	520	230	306	130
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:	712	1043	207	173	620	166	184	505	520	230	306	130
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:	749	1098	218	182	653	175	194	532	547	242	322	137
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	749	1098	218	182	653	175	194	532	547	242	322	137
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:	749	1098	218	182	653	175	194	532	547	242	322	137
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3400	5700	1900	3400	5700	1900	3400	3800	1900	3400	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.22	0.19	0.11	0.05	0.11	0.09	0.06	0.14	0.29	0.07	0.08	0.07
Crit Moves:	****				****				****	****		
Green/Cycle:	0.27	0.27	0.27	0.14	0.14	0.14	0.23	0.35	0.35	0.10	0.23	0.23
Volume/Cap:	0.81	0.71	0.42	0.38	0.81	0.65	0.25	0.39	0.81	0.71	0.37	0.32
Delay/Veh:	26.0	21.3	18.6	23.9	31.3	30.0	19.2	14.7	25.0	33.1	19.8	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:	26.0	21.3	18.6	23.9	31.3	30.0	19.2	14.7	25.0	33.1	19.8	19.7
LOS by Move:	C	C	B	C	C	C	B	B	C	C	B	B
HCM2kAvgQ:	10	8	4	2	6	4	2	4	12	4	3	2

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

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

Intersection #34 Alder Ave. and Casmalia St.

Cycle (sec):	85	Critical Vol./Cap.(X):	0.955
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	52.7
Optimal Cycle:	128	Level Of Service:	D

Street Name:	Alder Ave.						Casmalia St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 0	1 0		1 0 1	0 1	
Volume Module:												
Base Vol:	219	823	278	73	753	29	54	437	92	384	179	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:	219	823	278	73	753	29	54	437	92	384	179	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:	231	866	293	77	793	31	57	460	97	404	188	60
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	231	866	293	77	793	31	57	460	97	404	188	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
FinalVolume:	231	866	293	77	793	31	57	460	97	404	188	60
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	1.50	0.50	1.00	1.93	0.07	1.00	0.83	0.17	1.00	1.00	1.00
Final Sat.:	1800	2841	959	1800	3659	141	1800	1570	330	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.13	0.30	0.30	0.04	0.22	0.22	0.03	0.29	0.29	0.22	0.10	0.03
Crit Moves:		****		****				****		****		
Green/Cycle:	0.14	0.31	0.31	0.07	0.24	0.24	0.22	0.30	0.30	0.23	0.31	0.31
Volume/Cap:	0.91	0.98	0.98	0.60	0.91	0.91	0.14	0.98	0.98	0.98	0.32	0.10
Delay/Veh:	68.7	51.7	51.7	46.4	44.0	44.0	27.0	63.5	63.5	72.9	23.0	21.2
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:	68.7	51.7	51.7	46.4	44.0	44.0	27.0	63.5	63.5	72.9	23.0	21.2
LOS by Move:	E	D	D	D	D	D	C	E	E	E	C	C
HCM2kAvgQ:	10	22	22	3	14	14	1	21	21	17	4	1

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

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

Intersection #35 Locust Ave. and Casmalia St.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.472
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.3
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Locust Ave.						Casmalia St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 0	1 0		1 0 0	1 0	
Volume Module:												
Base Vol:	0	29	1	100	181	235	173	495	2	6	268	93
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	29	1	100	181	235	173	495	2	6	268	93
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	31	1	105	191	247	182	521	2	6	282	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	31	1	105	191	247	182	521	2	6	282	98
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	31	1	105	191	247	182	521	2	6	282	98
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	1.93	0.07	1.00	1.00	1.00	1.00	0.99	0.01	1.00	0.74	0.26
Final Sat.:	1800	3673	127	1800	1900	1900	1800	1892	8	1800	1411	489
Capacity Analysis Module:												
Vol/Sat:	0.00	0.01	0.01	0.06	0.10	0.13	0.10	0.28	0.28	0.00	0.20	0.20
Crit Moves:	****					****		****		****		
Green/Cycle:	0.00	0.16	0.16	0.16	0.21	0.21	0.19	0.45	0.45	0.10	0.37	0.37
Volume/Cap:	0.00	0.05	0.05	0.37	0.47	0.61	0.54	0.61	0.61	0.04	0.54	0.54
Delay/Veh:	0.0	21.5	21.5	23.5	21.0	22.8	24.0	13.7	13.7	24.5	15.9	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:	0.0	21.5	21.5	23.5	21.0	22.8	24.0	13.7	13.7	24.5	15.9	15.9
LOS by Move:	A	C	C	C	C	C	C	B	B	C	B	B
HCM2kAvgQ:	0	0	0	2	4	5	4	8	8	0	6	6

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

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

Intersection #36 Ayala Dr. and Casmalia St.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.609
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	17.5
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Ayala Dr.						Casmalia St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	0 1		1 0 1	0 1	
Volume Module:												
Base Vol:	343	552	110	5	578	12	118	162	333	114	21	13
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:	343	552	110	5	578	12	118	162	333	114	21	13
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:	361	581	116	5	608	13	124	171	351	120	22	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	361	581	116	5	608	13	124	171	351	120	22	14
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:	361	581	116	5	608	13	124	171	351	120	22	14
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.67	0.33	1.00	1.96	0.04	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	3169	631	1800	3723	77	1800	1900	1900	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.20	0.18	0.18	0.00	0.16	0.16	0.07	0.09	0.18	0.07	0.01	0.01
Crit Moves:	****				****				****			
Green/Cycle:	0.33	0.39	0.39	0.21	0.27	0.27	0.30	0.30	0.30	0.30	0.30	0.30
Volume/Cap:	0.61	0.47	0.47	0.01	0.61	0.61	0.23	0.30	0.61	0.22	0.04	0.02
Delay/Veh:	18.7	14.1	14.1	18.8	20.3	20.3	15.9	16.3	19.8	15.8	14.8	14.7
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:	18.7	14.1	14.1	18.8	20.3	20.3	15.9	16.3	19.8	15.8	14.8	14.7
LOS by Move:	B	B	B	B	C	C	B	B	B	B	B	B
HCM2kAvgQ:	7	5	5	0	6	6	2	3	6	2	0	0

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

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

Intersection #37 Sierra Ave. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.287
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	7.4
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Sierra Ave.						SR-210 Fwy. WB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Ignore			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 3	0 2		0 0 2	0 2		0 0 0	0 0		1 0 1!	0 1	
Volume Module:												
Base Vol:	0	988	595	0	560	250	0	0	0	224	0	213
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	988	595	0	560	250	0	0	0	224	0	213
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	1040	0	0	589	0	0	0	0	236	0	224
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1040	0	0	589	0	0	0	0	236	0	224
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1040	0	0	589	0	0	0	0	236	0	224
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	3.00	2.00	0.00	2.00	2.00	0.00	0.00	0.00	1.53	0.00	1.47
Final Sat.:	0	5700	3600	0	3800	3600	0	0	0	2747	0	2800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.18	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.09	0.00	0.08
Crit Moves:		****								****		
Green/Cycle:	0.00	0.63	0.00	0.00	0.63	0.00	0.00	0.00	0.00	0.30	0.00	0.30
Volume/Cap:	0.00	0.29	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.29	0.00	0.27
Delay/Veh:	0.0	4.9	0.0	0.0	4.8	0.0	0.0	0.0	0.0	16.2	0.0	16.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	4.9	0.0	0.0	4.8	0.0	0.0	0.0	0.0	16.2	0.0	16.1
LOS by Move:	A	A	A	A	A	A	A	A	A	B	A	B
HCM2kAvgQ:	0	3	0	0	2	0	0	0	0	2	0	2

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

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

Intersection #38 Sierra Ave. and SR-210 Fwy. EB Off Ramp/Highland Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.667
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	12.3
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Sierra Ave.						SR-210 Fwy. EB Off Ramp/Highland					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Ignore			Ignore			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 2	0 1		0 0 2	0 1		1 0 1!	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	856	271	0	645	0	697	0	1114	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	856	271	0	645	0	697	0	1114	0	0	0
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	901	0	0	679	0	734	0	1173	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	901	0	0	679	0	734	0	1173	0	0	0
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	901	0	0	679	0	734	0	1173	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	1.00	0.00	2.00	1.00	1.40	0.00	1.60	0.00	0.00	0.00
Final Sat.:	0	3800	1900	0	3800	1900	2516	0	3044	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.24	0.00	0.00	0.18	0.00	0.29	0.00	0.39	0.00	0.00	0.00
Crit Moves:		****							****			
Green/Cycle:	0.00	0.36	0.00	0.00	0.36	0.00	0.58	0.00	0.58	0.00	0.00	0.00
Volume/Cap:	0.00	0.67	0.00	0.00	0.50	0.00	0.50	0.00	0.67	0.00	0.00	0.00
Delay/Veh:	0.0	17.6	0.0	0.0	15.5	0.0	7.7	0.0	9.3	0.0	0.0	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:	0.0	17.6	0.0	0.0	15.5	0.0	7.7	0.0	9.3	0.0	0.0	0.0
LOS by Move:	A	B	A	A	B	A	A	A	A	A	A	A
HCM2kAvgQ:	0	8	0	0	5	0	7	0	10	0	0	0

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

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

Intersection #39 Alder Ave. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec):	65	Critical Vol./Cap.(X):	1.014
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	34.0
Optimal Cycle:	130	Level Of Service:	C

Street Name:	Alder Ave.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2	0 0		0 0 1	1 0		0 0 0	0 0		1 0 0	1 0	
Volume Module:												
Base Vol:	309	1171	0	0	466	749	0	0	0	556	0	170
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:	309	1171	0	0	466	749	0	0	0	556	0	170
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:	325	1233	0	0	491	788	0	0	0	585	0	179
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	325	1233	0	0	491	788	0	0	0	585	0	179
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:	325	1233	0	0	491	788	0	0	0	585	0	179
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	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1800	3800	0	0	1900	1900	0	0	0	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.18	0.32	0.00	0.00	0.26	0.41	0.00	0.00	0.00	0.33	0.00	0.09
Crit Moves:	****					****				****		
Green/Cycle:	0.18	0.59	0.00	0.00	0.41	0.41	0.00	0.00	0.00	0.32	0.00	0.32
Volume/Cap:	1.01	0.55	0.00	0.00	0.63	1.01	0.00	0.00	0.00	1.01	0.00	0.29
Delay/Veh:	80.7	8.5	0.0	0.0	16.0	48.2	0.0	0.0	0.0	63.2	0.0	16.8
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:	80.7	8.5	0.0	0.0	16.0	48.2	0.0	0.0	0.0	63.2	0.0	16.8
LOS by Move:	F	A	A	A	B	D	A	A	A	E	A	B
HCM2kAvgQ:	13	8	0	0	9	25	0	0	0	21	0	3

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

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

Intersection #40 Alder Ave. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.822
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	19.3
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Alder Ave.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 1	1 0		1 0 2	0 0		0 1 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	989	146	217	803	0	511	0	158	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	989	146	217	803	0	511	0	158	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	1041	154	228	845	0	538	0	166	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1041	154	228	845	0	538	0	166	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1041	154	228	845	0	538	0	166	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.74	0.26	1.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3311	489	1800	3800	0	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.31	0.31	0.13	0.22	0.00	0.30	0.00	0.09	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.00	0.38	0.38	0.15	0.54	0.00	0.36	0.00	0.36	0.00	0.00	0.00
Volume/Cap:	0.00	0.82	0.82	0.82	0.41	0.00	0.82	0.00	0.24	0.00	0.00	0.00
Delay/Veh:	0.0	20.6	20.6	42.2	8.4	0.0	25.6	0.0	13.5	0.0	0.0	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:	0.0	20.6	20.6	42.2	8.4	0.0	25.6	0.0	13.5	0.0	0.0	0.0
LOS by Move:	A	C	C	D	A	A	C	A	B	A	A	A
HCM2kAvgQ:	0	13	13	7	5	0	12	0	2	0	0	0

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

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

Intersection #41 Ayala Dr. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.873
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	22.8
Optimal Cycle:	67	Level Of Service:	C

Street Name:	Ayala Dr.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 0			0 0 1 1 0			0 0 0 0 0			1 0 0 1 0		
Volume Module:												
Base Vol:	197	1334	0	0	616	407	0	0	0	544	0	699
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:	197	1334	0	0	616	407	0	0	0	544	0	699
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:	207	1404	0	0	648	428	0	0	0	573	0	736
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	207	1404	0	0	648	428	0	0	0	573	0	736
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:	207	1404	0	0	648	428	0	0	0	573	0	736
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	0.00	0.00	1.20	0.80	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1800	3800	0	0	2288	1512	0	0	0	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.12	0.37	0.00	0.00	0.28	0.28	0.00	0.00	0.00	0.32	0.00	0.39
Crit Moves:	****				****							****
Green/Cycle:	0.13	0.46	0.00	0.00	0.32	0.32	0.00	0.00	0.00	0.44	0.00	0.44
Volume/Cap:	0.87	0.81	0.00	0.00	0.87	0.87	0.00	0.00	0.00	0.72	0.00	0.87
Delay/Veh:	53.5	17.0	0.0	0.0	26.2	26.2	0.0	0.0	0.0	16.8	0.0	25.1
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:	53.5	17.0	0.0	0.0	26.2	26.2	0.0	0.0	0.0	16.8	0.0	25.1
LOS by Move:	D	B	A	A	C	C	A	A	A	B	A	C
HCM2kAvgQ:	7	14	0	0	13	13	0	0	0	11	0	16

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

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

Intersection #42 Ayala Dr. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.940
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	30.0
Optimal Cycle:	94	Level Of Service:	C

Street Name:	Ayala Dr.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 2	0 1		1 0 2	0 0		0 1 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	1102	507	410	751	0	427	0	544	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1102	507	410	751	0	427	0	544	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	1160	534	432	791	0	449	0	573	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1160	534	432	791	0	449	0	573	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1160	534	432	791	0	449	0	573	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3800	1900	1800	3800	0	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.31	0.28	0.24	0.21	0.00	0.25	0.00	0.30	0.00	0.00	0.00
Crit Moves:		****		****					****			
Green/Cycle:	0.00	0.32	0.32	0.25	0.58	0.00	0.32	0.00	0.32	0.00	0.00	0.00
Volume/Cap:	0.00	0.94	0.87	0.94	0.36	0.00	0.78	0.00	0.94	0.00	0.00	0.00
Delay/Veh:	0.0	33.5	31.3	49.5	6.8	0.0	25.2	0.0	42.6	0.0	0.0	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:	0.0	33.5	31.3	49.5	6.8	0.0	25.2	0.0	42.6	0.0	0.0	0.0
LOS by Move:	A	C	C	D	A	A	C	A	D	A	A	A
HCM2kAvgQ:	0	16	13	13	4	0	10	0	16	0	0	0

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #43 Riverside Ave. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec):	110	Critical Vol./Cap.(X):	1.057
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	56.4
Optimal Cycle:	130	Level Of Service:	E

Street Name:	Riverside Ave.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	0 0	0	1 0	1! 0	1
Volume Module:												
Base Vol:	93	575	0	0	1308	395	0	0	0	887	0	1359
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:	93	575	0	0	1308	395	0	0	0	887	0	1359
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:	98	605	0	0	1377	416	0	0	0	934	0	1431
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	98	605	0	0	1377	416	0	0	0	934	0	1431
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:	98	605	0	0	1377	416	0	0	0	934	0	1431
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	0.00	0.00	1.54	0.46	0.00	0.00	0.00	1.41	0.00	1.59
Final Sat.:	1800	3800	0	0	2919	881	0	0	0	2534	0	3025
Capacity Analysis Module:												
Vol/Sat:	0.05	0.16	0.00	0.00	0.47	0.47	0.00	0.00	0.00	0.37	0.00	0.47
Crit Moves:	****				****							****
Green/Cycle:	0.05	0.50	0.00	0.00	0.44	0.44	0.00	0.00	0.00	0.45	0.00	0.45
Volume/Cap:	1.00	0.32	0.00	0.00	1.06	1.06	0.00	0.00	0.00	0.83	0.00	1.06
Delay/Veh:	141.8	16.5	0.0	0.0	70.4	70.4	0.0	0.0	0.0	28.8	0.0	67.9
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:	141.8	16.5	0.0	0.0	70.4	70.4	0.0	0.0	0.0	28.8	0.0	67.9
LOS by Move:	F	B	A	A	E	E	A	A	A	C	A	E
HCM2kAvgQ:	7	6	0	0	42	42	0	0	0	23	0	42

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

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

Intersection #44 Riverside Ave. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec): 110 Critical Vol./Cap.(X): 1.606
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 201.7
Optimal Cycle: 130 Level Of Service: F

Street Name:	Riverside Ave.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	2 0	1	1 0	2 0	0	0 1	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	0	565	922	1211	984	0	103	0	541	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	565	922	1211	984	0	103	0	541	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	595	971	1275	1036	0	108	0	569	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	595	971	1275	1036	0	108	0	569	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	595	971	1275	1036	0	108	0	569	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3800	1900	1800	3800	0	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.16	0.51	0.71	0.27	0.00	0.06	0.00	0.30	0.00	0.00	0.00
Crit Moves:			****	****					****			
Green/Cycle:	0.00	0.32	0.32	0.44	0.76	0.00	0.19	0.00	0.19	0.00	0.00	0.00
Volume/Cap:	0.00	0.49	1.61	1.61	0.36	0.00	0.32	0.00	1.61	0.00	0.00	0.00
Delay/Veh:	0.0	30.6	318.0	309.5	4.5	0.0	39.3	0.0	330.4	0.0	0.0	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:	0.0	30.6	318.0	309.5	4.5	0.0	39.3	0.0	330.4	0.0	0.0	0.0
LOS by Move:	A	C	F	F	A	A	D	A	F	A	A	A
HCM2kAvgQ:	0	8	78	107	6	0	3	0	47	0	0	0

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

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

Intersection #45 Pepper Ave. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.794
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	20.2
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Pepper Ave.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 0			0 0 1 1 0			0 0 0 0 0			1 0 0 1 0		
Volume Module:												
Base Vol:	373	469	0	0	127	162	0	0	0	728	0	395
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:	373	469	0	0	127	162	0	0	0	728	0	395
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:	393	494	0	0	134	171	0	0	0	766	0	416
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	393	494	0	0	134	171	0	0	0	766	0	416
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:	393	494	0	0	134	171	0	0	0	766	0	416
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	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1800	3800	0	0	1900	1900	0	0	0	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.22	0.13	0.00	0.00	0.07	0.09	0.00	0.00	0.00	0.43	0.00	0.22
Crit Moves:	****				****					****		
Green/Cycle:	0.27	0.37	0.00	0.00	0.10	0.10	0.00	0.00	0.00	0.53	0.00	0.53
Volume/Cap:	0.80	0.35	0.00	0.00	0.70	0.90	0.00	0.00	0.00	0.80	0.00	0.41
Delay/Veh:	29.8	13.8	0.0	0.0	31.3	51.9	0.0	0.0	0.0	16.7	0.0	8.8
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:	29.8	13.8	0.0	0.0	31.3	51.9	0.0	0.0	0.0	16.7	0.0	8.8
LOS by Move:	C	B	A	A	C	D	A	A	A	B	A	A
HCM2kAvgQ:	10	4	0	0	4	6	0	0	0	15	0	5

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

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

Intersection #46 Pepper Ave. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.680
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	16.1
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Pepper Ave.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 2	0 1		1 0 2	0 0		0 1 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	738	431	180	680	0	103	0	484	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	738	431	180	680	0	103	0	484	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	777	454	189	716	0	108	0	509	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	777	454	189	716	0	108	0	509	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	777	454	189	716	0	108	0	509	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3800	1900	1800	3800	0	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.20	0.24	0.11	0.19	0.00	0.06	0.00	0.27	0.00	0.00	0.00
Crit Moves:			****	****					****			
Green/Cycle:	0.00	0.35	0.35	0.15	0.51	0.00	0.39	0.00	0.39	0.00	0.00	0.00
Volume/Cap:	0.00	0.58	0.68	0.68	0.37	0.00	0.15	0.00	0.68	0.00	0.00	0.00
Delay/Veh:	0.0	16.5	19.5	30.6	9.1	0.0	11.8	0.0	17.6	0.0	0.0	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:	0.0	16.5	19.5	30.6	9.1	0.0	11.8	0.0	17.6	0.0	0.0	0.0
LOS by Move:	A	B	B	C	A	A	B	A	B	A	A	A
HCM2kAvgQ:	0	7	8	5	4	0	1	0	9	0	0	0

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

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

Intersection #47 State St. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec):	115	Critical Vol./Cap.(X):	1.667
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	229.0
Optimal Cycle:	130	Level Of Service:	F

Street Name:	State St.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2	0 0		0 0 2	0 1		0 0 0	0 0		1 0 1!	0 1	
Volume Module:												
Base Vol:	959	683	0	0	682	1556	0	0	0	453	0	215
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:	959	683	0	0	682	1556	0	0	0	453	0	215
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:	1009	719	0	0	718	1638	0	0	0	477	0	226
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1009	719	0	0	718	1638	0	0	0	477	0	226
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:	1009	719	0	0	718	1638	0	0	0	477	0	226
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	0.00	0.00	2.00	1.00	0.00	0.00	0.00	1.69	0.00	1.31
Final Sat.:	1800	3800	0	0	3800	1900	0	0	0	3042	0	2489
Capacity Analysis Module:												
Vol/Sat:	0.56	0.19	0.00	0.00	0.19	0.86	0.00	0.00	0.00	0.16	0.00	0.09
Crit Moves:	****					****				****		
Green/Cycle:	0.34	0.85	0.00	0.00	0.52	0.52	0.00	0.00	0.00	0.09	0.00	0.09
Volume/Cap:	1.67	0.22	0.00	0.00	0.37	1.67	0.00	0.00	0.00	1.67	0.00	0.97
Delay/Veh:	345.4	1.6	0.0	0.0	16.6	332.2	0.0	0.0	0.0	362.4	0.0	77.2
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:	345.4	1.6	0.0	0.0	16.6	332.2	0.0	0.0	0.0	362.4	0.0	77.2
LOS by Move:	F	A	A	A	B	F	A	A	A	F	A	E
HCM2kAvgQ:	90	2	0	0	7	137	0	0	0	27	0	10

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #48 State St. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec):	105	Critical Vol./Cap.(X):	1.184
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	88.7
Optimal Cycle:	130	Level Of Service:	F

Street Name:	State St.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 2	0 1		1 0 1!	0 1		0 1	0 0 1	
Volume Module:												
Base Vol:	357	1278	141	123	833	367	707	106	1080	49	64	87
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:	357	1278	141	123	833	367	707	106	1080	49	64	87
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:	376	1345	148	129	877	386	744	112	1137	52	67	92
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	376	1345	148	129	877	386	744	112	1137	52	67	92
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:	376	1345	148	129	877	386	744	112	1137	52	67	92
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	1.80	0.20	1.00	2.00	1.00	1.37	0.10	1.53	0.45	0.55	1.00
Final Sat.:	1800	3422	378	1800	3800	1900	2459	198	2907	805	1051	1900
Capacity Analysis Module:												
Vol/Sat:	0.21	0.39	0.39	0.07	0.23	0.20	0.30	0.56	0.39	0.06	0.06	0.05
Crit Moves:		****		****				****		****		
Green/Cycle:	0.19	0.33	0.33	0.06	0.21	0.21	0.48	0.48	0.48	0.06	0.06	0.06
Volume/Cap:	1.12	1.19	1.19	1.19	1.12	0.99	0.64	1.19	0.82	1.12	1.12	0.84
Delay/Veh:	129.4	128	128.0	194.7	113	84.2	21.2	118	26.1	173.5	174	91.0
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:	129.4	128	128.0	194.7	113	84.2	21.2	118	26.1	173.5	174	91.0
LOS by Move:	F	F	F	F	F	F	C	F	C	F	F	F
HCM2kAvgQ:	22	41	41	10	24	18	14	58	23	8	8	5

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

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

Intersection #49 State St. and Highland Ave.

Cycle (sec):	130	Critical Vol./Cap.(X):	1.484
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	234.1
Optimal Cycle:	130	Level Of Service:	F

Street Name:	State St.						Highland Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	2 0 2	0 1		1 0 2	0 1		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	19	590	277	11	792	18	85	158	646	1384	66	158
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	590	277	11	792	18	85	158	646	1384	66	158
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	621	292	12	834	19	89	166	680	1457	69	166
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	621	292	12	834	19	89	166	680	1457	69	166
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:	20	621	292	12	834	19	89	166	680	1457	69	166
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	3400	3800	1900	1800	3800	1900	1800	1900	1900	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.01	0.16	0.15	0.01	0.22	0.01	0.05	0.09	0.36	0.81	0.04	0.09
Crit Moves:	****				****				****	****		
Green/Cycle:	0.05	0.14	0.14	0.05	0.14	0.14	0.27	0.23	0.23	0.52	0.48	0.48
Volume/Cap:	0.13	1.16	1.09	0.14	1.55	0.07	0.18	0.38	1.55	1.55	0.08	0.18
Delay/Veh:	59.9	146	135.9	60.3	314	48.5	36.4	42.3	308.3	285.7	18.3	19.4
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:	59.9	146	135.9	60.3	314	48.5	36.4	42.3	308.3	285.7	18.3	19.4
LOS by Move:	E	F	F	E	F	D	D	D	F	F	B	B
HCM2kAvgQ:	1	21	18	1	36	1	3	6	57	127	1	4

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

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

Intersection #50 California St. and Highland Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.931
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	21.3
Optimal Cycle:	89	Level Of Service:	C

Street Name:	California St.						Highland Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	124	266	325	163	81	75	40	433	21	145	1405	289
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:	124	266	325	163	81	75	40	433	21	145	1405	289
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:	131	280	342	172	85	79	42	456	22	153	1479	304
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	131	280	342	172	85	79	42	456	22	153	1479	304
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:	131	280	342	172	85	79	42	456	22	153	1479	304
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.18	0.37	0.45	0.52	0.25	0.23	1.00	1.91	0.09	1.00	1.66	0.34
Final Sat.:	326	700	855	944	469	434	1800	3624	176	1800	3152	648
Capacity Analysis Module:												
Vol/Sat:	0.40	0.40	0.40	0.18	0.18	0.18	0.02	0.13	0.13	0.08	0.47	0.47
Crit Moves:		****									****	
Green/Cycle:	0.43	0.43	0.43	0.43	0.43	0.43	0.50	0.50	0.50	0.50	0.50	0.50
Volume/Cap:	0.93	0.93	0.93	0.42	0.42	0.42	0.05	0.25	0.25	0.17	0.93	0.93
Delay/Veh:	33.5	33.5	33.5	12.3	12.3	12.3	7.6	8.5	8.5	8.2	22.7	22.7
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:	33.5	33.5	33.5	12.3	12.3	12.3	7.6	8.5	8.5	8.2	22.7	22.7
LOS by Move:	C	C	C	B	B	B	A	A	A	A	C	C
HCM2kAvgQ:	19	19	19	5	5	5	0	3	3	2	21	21

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

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

Intersection #51 Medical Ctr. Dr. and Highland Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.560
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	7.8
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Medical Ctr. Dr.						Highland Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	232	15	250	16	47	77	7	802	87	141	1394	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:	232	15	250	16	47	77	7	802	87	141	1394	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:	244	16	263	17	49	81	7	844	92	148	1467	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	244	16	263	17	49	81	7	844	92	148	1467	4
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	244	16	263	17	49	81	7	844	92	148	1467	4
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.80	0.20	1.00	1.99	0.01
Final Sat.:	1800	1900	1900	1800	1900	1900	1800	3428	372	1800	3789	11
Capacity Analysis Module:												
Vol/Sat:	0.14	0.01	0.14	0.01	0.03	0.04	0.00	0.25	0.25	0.08	0.39	0.39
Crit Moves:	****										****	
Green/Cycle:	0.24	0.24	0.24	0.24	0.24	0.24	0.69	0.69	0.69	0.69	0.69	0.69
Volume/Cap:	0.56	0.03	0.57	0.04	0.11	0.18	0.01	0.36	0.36	0.12	0.56	0.56
Delay/Veh:	21.6	17.4	21.6	17.4	17.7	18.1	2.9	3.9	3.9	3.2	4.9	4.9
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	17.4	21.6	17.4	17.7	18.1	2.9	3.9	3.9	3.2	4.9	4.9
LOS by Move:	C	B	C	B	B	B	A	A	A	A	A	A
HCM2kAvgQ:	5	0	5	0	1	1	0	4	4	1	7	7

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

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

Intersection #52 Mt. Vernon Ave. and Highland Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.748
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.3
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Mt. Vernon Ave.						Highland Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	153	220	216	57	123	222	327	686	127	173	1140	155
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:	153	220	216	57	123	222	327	686	127	173	1140	155
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:	161	232	227	60	129	234	344	722	134	182	1200	163
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	161	232	227	60	129	234	344	722	134	182	1200	163
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:	161	232	227	60	129	234	344	722	134	182	1200	163
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	1.01	0.99	1.00	1.00	1.00	1.00	1.69	0.31	1.00	1.76	0.24
Final Sat.:	1800	1917	1883	1800	1900	1900	1800	3206	594	1800	3345	455
Capacity Analysis Module:												
Vol/Sat:	0.09	0.12	0.12	0.03	0.07	0.12	0.19	0.23	0.23	0.10	0.36	0.36
Crit Moves:						****	****				****	
Green/Cycle:	0.16	0.16	0.16	0.16	0.16	0.16	0.26	0.51	0.51	0.23	0.48	0.48
Volume/Cap:	0.54	0.73	0.73	0.20	0.41	0.75	0.75	0.44	0.44	0.44	0.75	0.75
Delay/Veh:	25.1	28.3	28.3	22.0	22.8	30.2	27.2	9.6	9.6	20.7	14.4	14.4
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:	25.1	28.3	28.3	22.0	22.8	30.2	27.2	9.6	9.6	20.7	14.4	14.4
LOS by Move:	C	C	C	C	C	C	C	A	A	C	B	B
HCM2kAvgQ:	4	6	6	1	3	6	8	5	5	4	12	12

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

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

Intersection #53 Sierra Ave. and Highland Ave.

Cycle (sec):	105	Critical Vol./Cap.(X):	0.543
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.4
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Sierra Ave.						Highland Ave.					
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			Ovl			Ovl			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	2 0	2 0	1	2 0	2 0	1	2 0	2 0	1	2 0	2 0	1
Volume Module:												
Base Vol:	102	1261	32	16	1590	132	18	4	17	63	36	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:	102	1261	32	16	1590	132	18	4	17	63	36	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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	107	1327	34	17	1674	139	19	4	18	66	38	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	107	1327	34	17	1674	139	19	4	18	66	38	45
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	1327	34	17	1674	139	19	4	18	66	38	45
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3400	3800	1900	3400	3800	1900	3400	3800	1900	3400	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.03	0.35	0.02	0.00	0.44	0.07	0.01	0.00	0.01	0.02	0.01	0.02
Crit Moves:	****				****		****					****
Green/Cycle:	0.06	0.70	0.70	0.11	0.75	0.81	0.06	0.06	0.11	0.06	0.06	0.06
Volume/Cap:	0.55	0.50	0.03	0.04	0.59	0.09	0.10	0.02	0.08	0.34	0.17	0.42
Delay/Veh:	51.6	7.6	5.0	41.5	6.1	2.1	47.2	46.8	41.7	48.7	47.5	50.4
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:	51.6	7.6	5.0	41.5	6.1	2.1	47.2	46.8	41.7	48.7	47.5	50.4
LOS by Move:	D	A	A	D	A	A	D	D	D	D	D	D
HCM2kAvgQ:	3	10	0	0	12	1	0	0	1	2	1	2

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

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

Intersection #54 Alder Ave. and Highland Ave.

Cycle (sec):	85	Critical Vol./Cap.(X):	0.961
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	42.6
Optimal Cycle:	130	Level Of Service:	D

Street Name:	Alder Ave.						Highland Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	0 1		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	24	783	32	121	702	165	90	887	207	108	211	255
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:	24	783	32	121	702	165	90	887	207	108	211	255
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:	25	824	34	127	739	174	95	934	218	114	222	268
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	25	824	34	127	739	174	95	934	218	114	222	268
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:	25	824	34	127	739	174	95	934	218	114	222	268
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.62	0.38	1.00	1.00	1.00
Final Sat.:	1800	1900	1900	1800	1900	1900	1800	3081	719	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.01	0.43	0.02	0.07	0.39	0.09	0.05	0.30	0.30	0.06	0.12	0.14
Crit Moves:		****		****				****		****		
Green/Cycle:	0.08	0.45	0.45	0.07	0.44	0.44	0.13	0.31	0.31	0.07	0.26	0.26
Volume/Cap:	0.18	0.97	0.04	0.97	0.88	0.21	0.41	0.97	0.97	0.89	0.46	0.55
Delay/Veh:	37.1	45.8	13.2	107.2	32.3	14.7	35.3	47.3	47.3	88.3	26.9	28.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	37.1	45.8	13.2	107.2	32.3	14.7	35.3	47.3	47.3	88.3	26.9	28.1
LOS by Move:	D	D	B	F	C	B	D	D	D	F	C	C
HCM2kAvgQ:	1	27	0	7	21	3	3	21	21	6	5	7

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

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

Intersection #55 Ayala Dr. and Easton St.

Cycle (sec):	95	Critical Vol./Cap.(X):	1.256
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	100.2
Optimal Cycle:	130	Level Of Service:	F

Street Name:	Ayala Dr.						Easton St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 1			1 0 2 0 1			1 0 1 1 0			1 0 1 1 0		
Volume Module:												
Base Vol:	340	1008	74	42	1190	202	439	310	955	159	185	65
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:	340	1008	74	42	1190	202	439	310	955	159	185	65
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:	358	1061	78	44	1253	213	462	326	1005	167	195	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	358	1061	78	44	1253	213	462	326	1005	167	195	68
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:	358	1061	78	44	1253	213	462	326	1005	167	195	68
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	2.00	1.00	1.00	1.00	1.00	1.00	1.48	0.52
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	1900	1900	1800	2812	988
Capacity Analysis Module:												
Vol/Sat:	0.20	0.28	0.04	0.02	0.33	0.11	0.26	0.17	0.53	0.09	0.07	0.07
Crit Moves:	****				****				****	****		
Green/Cycle:	0.16	0.34	0.34	0.08	0.26	0.26	0.39	0.42	0.42	0.07	0.11	0.11
Volume/Cap:	1.26	0.81	0.12	0.32	1.26	0.43	0.66	0.41	1.26	1.26	0.66	0.66
Delay/Veh:	180.7	32.5	21.5	42.7	159	29.7	26.1	19.3	150.6	206.4	44.9	44.9
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:	180.7	32.5	21.5	42.7	159	29.7	26.1	19.3	150.6	206.4	44.9	44.9
LOS by Move:	F	C	C	D	F	C	C	B	F	F	D	D
HCM2kAvgQ:	23	16	2	2	36	5	12	7	56	12	5	5

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

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

Intersection #56 Riverside Ave. and Easton St.

Cycle (sec):	75	Critical Vol./Cap.(X):	0.962
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	38.6
Optimal Cycle:	123	Level Of Service:	D

Street Name:	Riverside Ave.						Easton St.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 2	0 1		2 0 2	0 1	
Volume Module:												
Base Vol:	147	1007	233	375	992	226	110	738	110	169	405	420
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:	147	1007	233	375	992	226	110	738	110	169	405	420
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:	155	1060	245	395	1044	238	116	777	116	178	426	442
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	155	1060	245	395	1044	238	116	777	116	178	426	442
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:	155	1060	245	395	1044	238	116	777	116	178	426	442
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	1.62	0.38	1.00	1.63	0.37	1.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	1800	3086	714	1800	3095	705	1800	3800	1900	3400	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.09	0.34	0.34	0.22	0.34	0.34	0.06	0.20	0.06	0.05	0.11	0.23
Crit Moves:		****		****			****					****
Green/Cycle:	0.12	0.35	0.35	0.22	0.46	0.46	0.08	0.23	0.23	0.09	0.24	0.24
Volume/Cap:	0.74	0.98	0.98	0.98	0.74	0.74	0.80	0.89	0.27	0.59	0.47	0.98
Delay/Veh:	44.7	43.5	43.5	67.8	18.3	18.3	60.9	39.8	24.1	35.7	24.9	64.9
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:	44.7	43.5	43.5	67.8	18.3	18.3	60.9	39.8	24.1	35.7	24.9	64.9
LOS by Move:	D	D	D	E	B	B	E	D	C	D	C	E
HCM2kAvgQ:	5	22	22	15	13	13	5	13	2	3	5	16

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

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

Intersection #57 Easton St. and Highland Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.625
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.3
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Easton St.						Easton St. / Highland Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 1 0			1 0 2 0 0		
Volume Module:												
Base Vol:	404	0	64	0	0	0	0	886	367	48	545	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:	404	0	64	0	0	0	0	886	367	48	545	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:	425	0	67	0	0	0	0	933	386	51	574	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	425	0	67	0	0	0	0	933	386	51	574	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	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:	425	0	67	0	0	0	0	933	386	51	574	0
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	0.00	1.00	0.00	0.00	0.00	0.00	1.41	0.59	1.00	2.00	0.00
Final Sat.:	1800	0	1900	0	0	0	0	2687	1113	1800	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.24	0.00	0.04	0.00	0.00	0.00	0.00	0.35	0.35	0.03	0.15	0.00
Crit Moves:	****							****				
Green/Cycle:	0.38	0.00	0.38	0.00	0.00	0.00	0.00	0.56	0.56	0.56	0.56	0.00
Volume/Cap:	0.63	0.00	0.09	0.00	0.00	0.00	0.00	0.63	0.63	0.05	0.27	0.00
Delay/Veh:	17.0	0.0	12.1	0.0	0.0	0.0	0.0	9.7	9.7	6.1	7.1	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:	17.0	0.0	12.1	0.0	0.0	0.0	0.0	9.7	9.7	6.1	7.1	0.0
LOS by Move:	B	A	B	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	8	0	1	0	0	0	0	9	9	0	3	0

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

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

Intersection #58 Sierra Ave. and Baseline Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.797
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	24.5
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Sierra Ave.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 1			1 0 2 0 1			1 0 1 1 0			1 0 1 0 1		
Volume Module:												
Base Vol:	129	814	88	232	923	61	128	450	85	128	460	148
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:	129	814	88	232	923	61	128	450	85	128	460	148
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	136	857	93	244	972	64	135	474	89	135	484	156
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	136	857	93	244	972	64	135	474	89	135	484	156
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	136	857	93	244	972	64	135	474	89	135	484	156
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	2.00	1.00	1.00	1.68	0.32	1.00	1.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3196	604	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.08	0.23	0.05	0.14	0.26	0.03	0.07	0.15	0.15	0.07	0.25	0.08
Crit Moves:		****		****			****				****	
Green/Cycle:	0.13	0.28	0.28	0.17	0.32	0.32	0.10	0.25	0.25	0.17	0.32	0.32
Volume/Cap:	0.60	0.80	0.17	0.80	0.79	0.10	0.75	0.59	0.59	0.45	0.80	0.26
Delay/Veh:	29.1	24.5	16.5	38.3	22.0	14.3	42.1	20.9	20.9	23.5	26.5	15.5
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:	29.1	24.5	16.5	38.3	22.0	14.3	42.1	20.9	20.9	23.5	26.5	15.5
LOS by Move:	C	C	B	D	C	B	D	C	C	C	C	B
HCM2kAvgQ:	4	10	1	7	11	1	4	6	6	3	11	2

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

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

Intersection #59 Alder Ave. and Baseline Rd.

Cycle (sec):	100	Critical Vol./Cap.(X):	1.106
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	80.5
Optimal Cycle:	130	Level Of Service:	F

Street Name:	Alder Ave.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0	1 0	0 1 0	1 0	1 0	1	1 0 0	1 0	0 1 0	1 0	0 1 0	1
Volume Module:												
Base Vol:	173	560	37	198	839	108	136	431	175	53	571	100
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:	173	560	37	198	839	108	136	431	175	53	571	100
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:	182	589	39	208	883	114	143	454	184	56	601	105
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	182	589	39	208	883	114	143	454	184	56	601	105
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:	182	589	39	208	883	114	143	454	184	56	601	105
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	0.94	0.06	1.00	1.00	1.00	1.00	0.71	0.29	1.00	0.85	0.15
Final Sat.:	1800	1782	118	1800	1900	1900	1800	1351	549	1800	1617	283
Capacity Analysis Module:												
Vol/Sat:	0.10	0.33	0.33	0.12	0.46	0.06	0.08	0.34	0.34	0.03	0.37	0.37
Crit Moves:	****				****		****				****	
Green/Cycle:	0.09	0.38	0.38	0.13	0.42	0.42	0.07	0.35	0.35	0.06	0.34	0.34
Volume/Cap:	1.11	0.87	0.87	0.87	1.11	0.14	1.11	0.97	0.97	0.50	1.11	1.11
Delay/Veh:	146.7	40.1	40.1	70.2	93.8	17.9	156.7	59.7	59.7	48.9	101	101.3
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:	146.7	40.1	40.1	70.2	93.8	17.9	156.7	59.7	59.7	48.9	101	101.3
LOS by Move:	F	D	D	E	F	B	F	E	E	D	F	F
HCM2kAvgQ:	12	21	21	10	42	2	10	25	25	2	34	34

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #60 Cedar Ave./Ayala Dr. and Baseline Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.891
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	28.8
Optimal Cycle:	76	Level Of Service:	C

Street Name:	Cedar Ave./Ayala Dr.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		2 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	299	684	158	311	982	58	121	592	221	144	522	79
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:	299	684	158	311	982	58	121	592	221	144	522	79
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	315	720	166	327	1034	61	127	623	233	152	549	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	315	720	166	327	1034	61	127	623	233	152	549	83
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:	315	720	166	327	1034	61	127	623	233	152	549	83
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	1.62	0.38	2.00	1.89	0.11	1.00	1.46	0.54	1.00	1.74	0.26
Final Sat.:	1800	3087	713	3400	3588	212	1800	2767	1033	1800	3300	500
Capacity Analysis Module:												
Vol/Sat:	0.17	0.23	0.23	0.10	0.29	0.29	0.07	0.23	0.23	0.08	0.17	0.17
Crit Moves:	****				****			****		****		
Green/Cycle:	0.19	0.36	0.36	0.15	0.32	0.32	0.13	0.25	0.25	0.10	0.22	0.22
Volume/Cap:	0.90	0.65	0.65	0.62	0.90	0.90	0.54	0.90	0.90	0.84	0.76	0.76
Delay/Veh:	48.1	17.1	17.1	26.0	28.5	28.5	26.8	32.9	32.9	55.0	26.0	26.0
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:	48.1	17.1	17.1	26.0	28.5	28.5	26.8	32.9	32.9	55.0	26.0	26.0
LOS by Move:	D	B	B	C	C	C	C	C	C	D	C	C
HCM2kAvgQ:	10	8	8	4	14	14	3	12	12	6	8	8

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #61 Cactus Ave. and Baseline Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.690
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	20.9
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Cactus Ave.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	0 1		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	104	413	41	86	281	182	87	881	64	98	568	46
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:	104	413	41	86	281	182	87	881	64	98	568	46
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:	109	435	43	91	296	192	92	927	67	103	598	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	109	435	43	91	296	192	92	927	67	103	598	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
FinalVolume:	109	435	43	91	296	192	92	927	67	103	598	48
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.86	0.14	1.00	1.85	0.15
Final Sat.:	1800	1900	1900	1800	1900	1900	1800	3543	257	1800	3515	285
Capacity Analysis Module:												
Vol/Sat:	0.06	0.23	0.02	0.05	0.16	0.10	0.05	0.26	0.26	0.06	0.17	0.17
Crit Moves:		****		****				****		****		
Green/Cycle:	0.16	0.31	0.31	0.10	0.25	0.25	0.17	0.36	0.36	0.10	0.29	0.29
Volume/Cap:	0.38	0.74	0.07	0.50	0.62	0.40	0.30	0.74	0.74	0.57	0.59	0.59
Delay/Veh:	23.3	23.3	14.6	27.8	22.5	19.3	22.4	19.0	19.0	30.2	19.3	19.3
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:	23.3	23.3	14.6	27.8	22.5	19.3	22.4	19.0	19.0	30.2	19.3	19.3
LOS by Move:	C	C	B	C	C	B	C	B	B	C	B	B
HCM2kAvgQ:	2	9	1	2	6	3	2	10	10	3	6	6

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

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Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #62 Riverside Ave. and Baseline Rd.

Cycle (sec): 60 Critical Vol./Cap.(X): 0.866
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 28.9
Optimal Cycle: 69 Level Of Service: C

Street Name:	Riverside Ave.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		2 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	270	810	97	148	758	68	449	684	66	267	520	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	270	810	97	148	758	68	449	684	66	267	520	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	284	853	102	156	798	72	473	720	69	281	547	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	284	853	102	156	798	72	473	720	69	281	547	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:	284	853	102	156	798	72	473	720	69	281	547	17
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.79	0.21	1.00	1.84	0.16	2.00	1.82	0.18	1.00	1.94	0.06
Final Sat.:	1800	3394	406	1800	3487	313	3400	3466	334	1800	3687	113
Capacity Analysis Module:												
Vol/Sat:	0.16	0.25	0.25	0.09	0.23	0.23	0.14	0.21	0.21	0.16	0.15	0.15
Crit Moves:	****				****			****		****		
Green/Cycle:	0.18	0.32	0.32	0.13	0.26	0.26	0.20	0.24	0.24	0.18	0.22	0.22
Volume/Cap:	0.87	0.79	0.79	0.68	0.87	0.87	0.68	0.87	0.87	0.87	0.68	0.68
Delay/Veh:	44.6	22.1	22.1	33.1	29.1	29.1	25.0	30.6	30.6	44.8	24.0	24.0
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:	44.6	22.1	22.1	33.1	29.1	29.1	25.0	30.6	30.6	44.8	24.0	24.0
LOS by Move:	D	C	C	C	C	C	C	C	C	D	C	C
HCM2kAvgQ:	9	10	10	4	11	11	6	10	10	9	6	6

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

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #63 Pepper Ave. and Baseline. Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.482
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.7
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Pepper Ave.						Baseline. Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 1	1 0	1	1 0	1 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	124	620	103	247	498	236	220	627	118	62	368	307
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:	124	620	103	247	498	236	220	627	118	62	368	307
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:	131	653	108	260	524	248	232	660	124	65	387	323
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	131	653	108	260	524	248	232	660	124	65	387	323
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:	131	653	108	260	524	248	232	660	124	65	387	323
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.35	1.65	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	628	3138	1900	1800	1900	1900	1800	3800	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.21	0.21	0.06	0.14	0.28	0.13	0.13	0.17	0.07	0.04	0.10	0.17
Crit Moves:					****			****				
Green/Cycle:	0.57	0.57	0.57	0.57	0.57	0.57	0.36	0.36	0.36	0.36	0.36	0.36
Volume/Cap:	0.36	0.36	0.10	0.25	0.48	0.23	0.36	0.48	0.18	0.10	0.28	0.47
Delay/Veh:	7.0	7.0	5.8	6.5	7.9	6.4	14.4	15.1	13.3	12.8	13.8	15.3
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:	7.0	7.0	5.8	6.5	7.9	6.4	14.4	15.1	13.3	12.8	13.8	15.3
LOS by Move:	A	A	A	A	A	A	B	B	B	B	B	B
HCM2kAvgQ:	4	4	1	3	6	2	4	5	2	1	3	5

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

Lytle Creek Ranch Project
Future 2030 With Project Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #64 State St. and Baseline Rd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.493
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.8
Optimal Cycle:	60	Level Of Service:	B

Street Name:	State St.						Baseline Rd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	0 1		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	101	441	91	258	310	216	192	699	81	44	388	277
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:	101	441	91	258	310	216	192	699	81	44	388	277
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	464	96	272	326	227	202	736	85	46	408	292
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	106	464	96	272	326	227	202	736	85	46	408	292
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:	106	464	96	272	326	227	202	736	85	46	408	292
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.79	0.21	1.00	1.17	0.83
Final Sat.:	1800	1900	1900	1800	1900	1900	1800	3405	395	1800	2217	1583
Capacity Analysis Module:												
Vol/Sat:	0.06	0.24	0.05	0.15	0.17	0.12	0.11	0.22	0.22	0.03	0.18	0.18
Crit Moves:		****						****				
Green/Cycle:	0.50	0.50	0.50	0.50	0.50	0.50	0.44	0.44	0.44	0.44	0.44	0.44
Volume/Cap:	0.12	0.49	0.10	0.30	0.35	0.24	0.26	0.49	0.49	0.06	0.42	0.42
Delay/Veh:	8.2	10.5	8.1	9.2	9.4	8.8	10.8	12.3	12.3	9.8	11.8	11.8
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:	8.2	10.5	8.1	9.2	9.4	8.8	10.8	12.3	12.3	9.8	11.8	11.8
LOS by Move:	A	B	A	A	A	A	B	B	B	A	B	B
HCM2kAvgQ:	1	6	1	3	4	2	3	6	6	1	5	5

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

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Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #65 Sierra Ave. and Foothill Blvd.

Cycle (sec): 65 Critical Vol./Cap.(X): 0.969
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 37.9
Optimal Cycle: 115 Level Of Service: D

Street Name:	Sierra Ave.						Foothill Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 2	0 1		1 0 2	0 1		1 0 2	0 1	
Volume Module:												
Base Vol:	233	821	241	305	739	176	169	993	163	175	870	235
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:	233	821	241	305	739	176	169	993	163	175	870	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:	245	864	254	321	778	185	178	1045	172	184	916	247
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	245	864	254	321	778	185	178	1045	172	184	916	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:	245	864	254	321	778	185	178	1045	172	184	916	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	1.55	0.45	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	2938	862	1800	3800	1900	1800	3800	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.14	0.29	0.29	0.18	0.20	0.10	0.10	0.28	0.09	0.10	0.24	0.13
Crit Moves:		****		****				****		****		
Green/Cycle:	0.19	0.30	0.30	0.18	0.29	0.29	0.11	0.28	0.28	0.11	0.28	0.28
Volume/Cap:	0.70	0.97	0.97	0.97	0.70	0.33	0.87	0.97	0.32	0.97	0.87	0.47
Delay/Veh:	30.5	41.8	41.8	67.4	22.4	18.4	59.6	43.3	18.7	85.1	30.6	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:	30.5	41.8	41.8	67.4	22.4	18.4	59.6	43.3	18.7	85.1	30.6	20.2
LOS by Move:	C	D	D	E	C	B	E	D	B	F	C	C
HCM2kAvgQ:	6	17	17	12	8	3	7	16	3	8	12	5

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

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

Intersection #66 Alder Ave. and Foothill Blvd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.803
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	19.2
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Alder Ave.						Foothill Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	0 1	0	1 0	1 1	0	1 0	2 0	1	1 0	1 1	0
Volume Module:AM Peak Hour												
Base Vol:	116	417	54	113	456	253	197	1054	88	14	1024	98
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	417	54	113	456	253	197	1054	88	14	1024	98
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	129	462	60	125	505	280	218	1168	98	16	1135	109
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	129	462	60	125	505	280	218	1168	98	16	1135	109
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:	129	462	60	125	505	280	218	1168	98	16	1135	109
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	0.89	0.11	1.00	1.29	0.71	1.00	2.00	1.00	1.00	1.83	0.17
Final Sat.:	1800	1682	218	1800	2444	1356	1800	3800	1900	1800	3468	332
Capacity Analysis Module:												
Vol/Sat:	0.07	0.27	0.27	0.07	0.21	0.21	0.12	0.31	0.05	0.01	0.33	0.33
Crit Moves:		****					****				****	
Green/Cycle:	0.34	0.34	0.34	0.34	0.34	0.34	0.15	0.42	0.42	0.14	0.41	0.41
Volume/Cap:	0.21	0.80	0.80	0.20	0.60	0.60	0.80	0.73	0.12	0.06	0.80	0.80
Delay/Veh:	14.2	25.1	25.1	14.1	17.2	17.2	40.4	16.3	10.7	22.6	18.8	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:	14.2	25.1	25.1	14.1	17.2	17.2	40.4	16.3	10.7	22.6	18.8	18.8
LOS by Move:	B	C	C	B	B	B	D	B	B	C	B	B
HCM2kAvgQ:	2	11	11	2	7	7	7	11	1	0	13	13

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

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

Intersection #67 Cedar Ave. and Foothill Blvd.

Cycle (sec):	65	Critical Vol./Cap.(X):	0.959
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	39.2
Optimal Cycle:	108	Level Of Service:	D

Street Name:	Cedar Ave.						Foothill Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 2	0 1		1 0 2	0 1	
Volume Module:												
Base Vol:	310	1159	119	154	1101	103	236	629	263	260	606	113
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:	310	1159	119	154	1101	103	236	629	263	260	606	113
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:	326	1220	125	162	1159	108	248	662	277	274	638	119
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	326	1220	125	162	1159	108	248	662	277	274	638	119
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:	326	1220	125	162	1159	108	248	662	277	274	638	119
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	1.81	0.19	1.00	1.83	0.17	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3446	354	1800	3475	325	1800	3800	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.18	0.35	0.35	0.09	0.33	0.33	0.14	0.17	0.15	0.15	0.17	0.06
Crit Moves:	****				****			****		****		
Green/Cycle:	0.19	0.43	0.43	0.11	0.35	0.35	0.15	0.18	0.18	0.16	0.19	0.19
Volume/Cap:	0.96	0.83	0.83	0.81	0.96	0.96	0.90	0.96	0.80	0.96	0.90	0.34
Delay/Veh:	64.0	20.4	20.4	49.8	36.7	36.7	56.5	50.9	38.1	69.2	40.2	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:	64.0	20.4	20.4	49.8	36.7	36.7	56.5	50.9	38.1	69.2	40.2	23.5
LOS by Move:	E	C	C	D	D	D	E	D	D	E	D	C
HCM2kAvgQ:	12	15	15	6	19	19	9	12	8	10	10	2

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

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

Intersection #68 Cactus Ave. and Foothill Blvd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.782
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	20.7
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Cactus Ave.						Foothill Blvd.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0	1 0	1	1 0 2	0 1		1 0 2	0 1		1 0 2	0 1	
Volume Module:												
Base Vol:	76	581	170	52	368	65	65	846	36	92	831	82
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:	76	581	170	52	368	65	65	846	36	92	831	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:	80	612	179	55	387	68	68	891	38	97	875	86
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	612	179	55	387	68	68	891	38	97	875	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
FinalVolume:	80	612	179	55	387	68	68	891	38	97	875	86
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	0.77	0.23	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	1470	430	1800	3800	1900	1800	3800	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.04	0.42	0.42	0.03	0.10	0.04	0.04	0.23	0.02	0.05	0.23	0.05
Crit Moves:		****						****		****		
Green/Cycle:	0.51	0.51	0.51	0.51	0.51	0.51	0.12	0.29	0.29	0.10	0.27	0.27
Volume/Cap:	0.09	0.81	0.81	0.06	0.20	0.07	0.32	0.81	0.07	0.54	0.85	0.17
Delay/Veh:	7.5	17.6	17.6	7.4	8.0	7.4	25.2	24.6	15.6	28.9	27.6	16.9
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:	7.5	17.6	17.6	7.4	8.0	7.4	25.2	24.6	15.6	28.9	27.6	16.9
LOS by Move:	A	B	B	A	A	A	C	C	B	C	C	B
HCM2kAvgQ:	1	15	15	1	2	1	2	10	1	3	11	1

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

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

Intersection #69 Riverside Ave. and Foothill Blvd.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.860
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	28.3
Optimal Cycle:	68	Level Of Service:	C

Street Name:	Riverside Ave.						Foothill Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2	0 1		1 0 1	1 0		1 0 2	0 1		1 0 2	0 1	
Volume Module:												
Base Vol:	299	620	218	303	666	124	207	970	134	142	706	154
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:	299	620	218	303	666	124	207	970	134	142	706	154
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:	315	653	229	319	701	131	218	1021	141	149	743	162
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	315	653	229	319	701	131	218	1021	141	149	743	162
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:	315	653	229	319	701	131	218	1021	141	149	743	162
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	1.69	0.31	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	3204	596	1800	3800	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.17	0.17	0.12	0.18	0.22	0.22	0.12	0.27	0.07	0.08	0.20	0.09
Crit Moves:	****				****			****		****		
Green/Cycle:	0.20	0.22	0.22	0.23	0.25	0.25	0.16	0.31	0.31	0.10	0.25	0.25
Volume/Cap:	0.86	0.77	0.54	0.77	0.86	0.86	0.77	0.86	0.24	0.83	0.77	0.34
Delay/Veh:	41.9	26.0	21.9	29.8	29.6	29.6	36.4	26.3	15.6	53.0	24.6	18.7
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:	41.9	26.0	21.9	29.8	29.6	29.6	36.4	26.3	15.6	53.0	24.6	18.7
LOS by Move:	D	C	C	C	C	C	D	C	B	D	C	B
HCM2kAvgQ:	9	8	4	8	11	11	6	12	2	5	9	3

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

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

Intersection #70 Sierra Ave. and Arrow Blvd.

Cycle (sec):	70	Critical Vol./Cap.(X):	0.914
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	34.5
Optimal Cycle:	90	Level Of Service:	C

Street Name:	Sierra Ave.						Arrow Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	332	1176	143	219	804	49	50	852	50	113	653	83
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:	332	1176	143	219	804	49	50	852	50	113	653	83
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:	349	1238	151	231	846	52	53	897	53	119	687	87
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	349	1238	151	231	846	52	53	897	53	119	687	87
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:	349	1238	151	231	846	52	53	897	53	119	687	87
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	1.78	0.22	1.00	1.89	0.11	1.00	1.89	0.11	1.00	1.77	0.23
Final Sat.:	1800	3388	412	1800	3582	218	1800	3589	211	1800	3371	429
Capacity Analysis Module:												
Vol/Sat:	0.19	0.37	0.37	0.13	0.24	0.24	0.03	0.25	0.25	0.07	0.20	0.20
Crit Moves:		****		****				****		****		
Green/Cycle:	0.24	0.39	0.39	0.14	0.29	0.29	0.10	0.27	0.27	0.09	0.25	0.25
Volume/Cap:	0.81	0.93	0.93	0.93	0.81	0.81	0.28	0.93	0.93	0.77	0.82	0.82
Delay/Veh:	36.1	30.8	30.8	68.1	27.6	27.6	29.7	39.1	39.1	52.2	30.3	30.3
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:	36.1	30.8	30.8	68.1	27.6	27.6	29.7	39.1	39.1	52.2	30.3	30.3
LOS by Move:	D	C	C	E	C	C	C	D	D	D	C	C
HCM2kAvgQ:	10	19	19	9	11	11	1	15	15	5	10	10

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

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

Intersection #71 Alder Ave. and Arrow Blvd.

Cycle (sec):	65	Critical Vol./Cap.(X):	0.924
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	33.3
Optimal Cycle:	91	Level Of Service:	C

Street Name:	Alder Ave.						Arrow Blvd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	0 1		1 0 2	0 1	
Volume Module:												
Base Vol:	137	368	177	145	420	46	61	870	100	158	766	79
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:	137	368	177	145	420	46	61	870	100	158	766	79
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	144	387	186	153	442	48	64	916	105	166	806	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	144	387	186	153	442	48	64	916	105	166	806	83
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	144	387	186	153	442	48	64	916	105	166	806	83
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	1.35	0.65	1.00	1.80	0.20	1.00	1.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	2566	1234	1800	3425	375	1800	1900	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.08	0.15	0.15	0.08	0.13	0.13	0.04	0.48	0.06	0.09	0.21	0.04
Crit Moves:		****		****				****		****		
Green/Cycle:	0.11	0.16	0.16	0.09	0.15	0.15	0.19	0.52	0.52	0.10	0.43	0.43
Volume/Cap:	0.75	0.92	0.92	0.92	0.87	0.87	0.19	0.92	0.11	0.92	0.49	0.10
Delay/Veh:	43.5	46.5	46.5	76.0	40.3	40.3	22.5	28.3	7.9	74.9	13.5	11.0
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:	43.5	46.5	46.5	76.0	40.3	40.3	22.5	28.3	7.9	74.9	13.5	11.0
LOS by Move:	D	D	D	E	D	D	C	C	A	E	B	B
HCM2kAvgQ:	5	10	10	7	8	8	1	22	1	7	6	1

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

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Lytle Creek Ranch Project
Future 2030 With Project Condition
PM Peak Hour

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

Intersection #72 Cedar Ave. and Rialto Ave.

Cycle (sec):	95	Critical Vol./Cap.(X):	1.042
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	61.3
Optimal Cycle:	130	Level Of Service:	E

Street Name:	Cedar Ave.						Rialto Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	287	1144	111	160	1181	280	197	863	228	102	713	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:	287	1144	111	160	1181	280	197	863	228	102	713	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	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:	302	1204	117	168	1243	295	207	908	240	107	751	262
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	302	1204	117	168	1243	295	207	908	240	107	751	262
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:	302	1204	117	168	1243	295	207	908	240	107	751	262
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	1.82	0.18	1.00	1.62	0.38	1.00	1.58	0.42	1.00	1.48	0.52
Final Sat.:	1800	3464	336	1800	3072	728	1800	3006	794	1800	2816	984
Capacity Analysis Module:												
Vol/Sat:	0.17	0.35	0.35	0.09	0.40	0.40	0.12	0.30	0.30	0.06	0.27	0.27
Crit Moves:	****				****		****				****	
Green/Cycle:	0.16	0.43	0.43	0.12	0.39	0.39	0.11	0.30	0.30	0.06	0.26	0.26
Volume/Cap:	1.04	0.80	0.80	0.80	1.04	1.04	1.04	1.00	1.00	0.94	1.04	1.04
Delay/Veh:	104.1	26.4	26.4	60.5	64.2	64.2	117.5	58.9	58.9	110.3	75.7	75.7
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:	104.1	26.4	26.4	60.5	64.2	64.2	117.5	58.9	58.9	110.3	75.7	75.7
LOS by Move:	F	C	C	E	E	E	F	E	E	F	E	E
HCM2kAvgQ:	16	19	19	7	32	32	12	24	24	6	23	23

Note: Queue reported is the number of cars per lane.

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Lytle Creek Ranch Project
Future 2030 With Project Condition
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #73 Cactus Ave. and Rialto Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.501
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.4
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Cactus Ave.						Rialto Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	150	572	134	80	296	147	181	818	165	67	745	101
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:	150	572	134	80	296	147	181	818	165	67	745	101
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:	158	602	141	84	312	155	191	861	174	71	784	106
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	158	602	141	84	312	155	191	861	174	71	784	106
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:	158	602	141	84	312	155	191	861	174	71	784	106
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	1.62	0.38	1.00	1.34	0.66	1.00	1.66	0.34	1.00	1.76	0.24
Final Sat.:	1800	3079	721	1800	2539	1261	1800	3162	638	1800	3346	454
Capacity Analysis Module:												
Vol/Sat:	0.09	0.20	0.20	0.05	0.12	0.12	0.11	0.27	0.27	0.04	0.23	0.23
Crit Moves:		****						****				
Green/Cycle:	0.39	0.39	0.39	0.39	0.39	0.39	0.54	0.54	0.54	0.54	0.54	0.54
Volume/Cap:	0.22	0.50	0.50	0.12	0.31	0.31	0.19	0.50	0.50	0.07	0.43	0.43
Delay/Veh:	12.4	14.1	14.1	11.8	12.8	12.8	7.1	8.8	8.8	6.5	8.3	8.3
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:	12.4	14.1	14.1	11.8	12.8	12.8	7.1	8.8	8.8	6.5	8.3	8.3
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
HCM2kAvgQ:	2	6	6	1	3	3	2	6	6	1	5	5

Note: Queue reported is the number of cars per lane.

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Lytle Creek Ranch Project
Future 2030 With Project Condition
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #74 Cedar Ave. and Merrill Ave.

Cycle (sec): 85 Critical Vol./Cap.(X): 1.088
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 57.1
Optimal Cycle: 130 Level Of Service: E

Street Name:	Cedar Ave.						Merrill Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	191	1960	203	207	1752	184	232	890	161	141	573	184
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:	191	1960	203	207	1752	184	232	890	161	141	573	184
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:	201	2063	214	218	1844	194	244	937	169	148	603	194
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	201	2063	214	218	1844	194	244	937	169	148	603	194
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:	201	2063	214	218	1844	194	244	937	169	148	603	194
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	1.81	0.19	1.00	1.81	0.19	1.00	1.69	0.31	1.00	1.51	0.49
Final Sat.:	1800	3443	357	1800	3439	361	1800	3218	582	1800	2876	924
Capacity Analysis Module:												
Vol/Sat:	0.11	0.60	0.60	0.12	0.54	0.54	0.14	0.29	0.29	0.08	0.21	0.21
Crit Moves:		****		****				****				
Green/Cycle:	0.11	0.55	0.55	0.11	0.55	0.55	0.27	0.27	0.27	0.27	0.27	0.27
Volume/Cap:	0.98	1.09	1.09	1.09	0.98	0.98	0.51	1.09	1.09	0.31	0.78	0.78
Delay/Veh:	94.1	67.5	67.5	126.9	33.8	33.8	27.3	86.5	86.5	25.2	32.9	32.9
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:	94.1	67.5	67.5	126.9	33.8	33.8	27.3	86.5	86.5	25.2	32.9	32.9
LOS by Move:	F	E	E	F	C	C	C	F	F	C	C	C
HCM2kAvgQ:	10	46	46	12	33	33	6	25	25	3	12	12

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project Condition
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #75 Cactus Ave. and Merrill Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.436
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	14.3
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Cactus Ave.						Merrill Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 1	1 0		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	41	635	58	35	437	60	97	567	84	63	368	78
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:	41	635	58	35	437	60	97	567	84	63	368	78
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:	43	668	61	37	460	63	102	597	88	66	387	82
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	668	61	37	460	63	102	597	88	66	387	82
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:	43	668	61	37	460	63	102	597	88	66	387	82
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	1.83	0.17	1.00	1.76	0.24	1.00	1.74	0.26	1.00	1.65	0.35
Final Sat.:	1800	3482	318	1800	3341	459	1800	3310	490	1800	3135	665
Capacity Analysis Module:												
Vol/Sat:	0.02	0.19	0.19	0.02	0.14	0.14	0.06	0.18	0.18	0.04	0.12	0.12
Crit Moves:		****		****				****				
Green/Cycle:	0.22	0.41	0.41	0.10	0.30	0.30	0.39	0.39	0.39	0.39	0.39	0.39
Volume/Cap:	0.11	0.47	0.47	0.20	0.46	0.46	0.15	0.47	0.47	0.10	0.32	0.32
Delay/Veh:	19.0	13.0	13.0	25.4	17.5	17.5	12.0	14.0	14.0	11.7	13.0	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:	19.0	13.0	13.0	25.4	17.5	17.5	12.0	14.0	14.0	11.7	13.0	13.0
LOS by Move:	B	B	B	C	B	B	B	B	B	B	B	B
HCM2kAvgQ:	1	5	5	1	4	4	1	5	5	1	3	3

Note: Queue reported is the number of cars per lane.

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Future (2030) With Project Plus Mitigation Traffic Condition

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Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Devore Rd & I-215 NB On/Off-Ramps / Arrowhead Bl

Cycle (sec):	60	Critical Vol./Cap.(X):	0.425
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	8.3
Optimal Cycle:	19	Level Of Service:	A

Street Name:	Devore Rd						I-215 NB On/Off-Ramps / Arrowhead					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0	1 0		0 1 0	0 0		0 0 1!	0 0		0 0 1!	0 0	
Volume Module:AM Peak Hour												
Base Vol:	0	90	142	173	302	0	0	0	0	111	0	115
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	90	142	173	302	0	0	0	0	111	0	115
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	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	95	149	182	318	0	0	0	0	117	0	121
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	95	149	182	318	0	0	0	0	117	0	121
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	95	149	182	318	0	0	0	0	117	0	121
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.39	0.61	0.38	0.62	0.00	0.00	1.00	0.00	0.50	0.00	0.50
Final Sat.:	0	737	1163	678	1184	0	0	1900	0	908	0	941
Capacity Analysis Module:												
Vol/Sat:	0.00	0.13	0.13	0.27	0.27	0.00	0.00	0.00	0.00	0.13	0.00	0.13
Crit Moves:					****					****		
Green/Cycle:	0.00	0.63	0.63	0.63	0.63	0.00	0.00	0.00	0.00	0.30	0.00	0.30
Volume/Cap:	0.00	0.20	0.20	0.43	0.43	0.00	0.00	0.00	0.00	0.43	0.00	0.43
Delay/Veh:	0.0	4.8	4.8	5.8	5.8	0.0	0.0	0.0	0.0	17.3	0.0	17.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	4.8	4.8	5.8	5.8	0.0	0.0	0.0	0.0	17.3	0.0	17.3
LOS by Move:	A	A	A	A	A	A	A	A	A	B	A	B
HCM2kAvgQ:	0	2	2	5	5	0	0	0	0	4	0	4

Note: Queue reported is the number of cars per lane.

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Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Glen Helen Pkwy & Cajon Bl

Cycle (sec):	60	Critical Vol./Cap.(X):	0.414
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	9.9
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Glen Helen Pkwy						Cajon Bl					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 1	0 0	1	1 0	1 0	1	0 1	0 1	0	0 1	0 1	0
Volume Module:AM Peak Hour												
Base Vol:	20	100	446	222	162	20	66	414	20	140	0	60
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	20	100	446	222	162	20	66	414	20	140	0	60
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	21	105	469	234	171	21	69	436	21	147	0	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	105	469	234	171	21	69	436	21	147	0	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	21	105	469	234	171	21	69	436	21	147	0	63
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.17	0.83	1.00	1.00	1.00	1.00	0.28	1.64	0.08	1.00	0.00	1.00
Final Sat.:	314	1569	1900	1800	1900	1900	498	3123	151	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.07	0.07	0.25	0.13	0.09	0.01	0.14	0.14	0.14	0.08	0.00	0.03
Crit Moves:			****					****				
Green/Cycle:	0.60	0.60	0.60	0.60	0.60	0.60	0.34	0.34	0.34	0.34	0.00	0.34
Volume/Cap:	0.11	0.11	0.41	0.22	0.15	0.02	0.41	0.41	0.41	0.24	0.00	0.10
Delay/Veh:	5.3	5.3	6.7	5.7	5.4	4.9	15.6	15.6	15.6	14.5	0.0	13.7
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:	5.3	5.3	6.7	5.7	5.4	4.9	15.6	15.6	15.6	14.5	0.0	13.7
LOS by Move:	A	A	A	A	A	A	B	B	B	B	A	B
HCM2kAvgQ:	1	1	5	2	1	0	4	4	4	2	0	1

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Palm Ave & I-215 NB On/Off-Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.468
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	11.2
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Palm Ave						I-215 NB On/Off-Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 1	1 0	0	0 0	2 0	1	0 0	0 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	14	688	0	0	759	65	0	0	0	387	1	360
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	688	0	0	759	65	0	0	0	387	1	360
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	724	0	0	799	68	0	0	0	407	1	379
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	15	724	0	0	799	68	0	0	0	407	1	379
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	724	0	0	799	68	0	0	0	407	1	379
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.04	1.96	0.00	0.00	2.00	1.00	0.00	0.00	0.00	0.99	0.01	1.00
Final Sat.:	76	3720	0	0	3800	1900	0	0	0	1796	5	1900
Capacity Analysis Module:												
Vol/Sat:	0.19	0.19	0.00	0.00	0.21	0.04	0.00	0.00	0.00	0.23	0.23	0.20
Crit Moves:					****						****	
Green/Cycle:	0.45	0.45	0.00	0.00	0.45	0.45	0.00	0.00	0.00	0.48	0.48	0.48
Volume/Cap:	0.43	0.43	0.00	0.00	0.47	0.08	0.00	0.00	0.00	0.47	0.47	0.41
Delay/Veh:	11.5	11.5	0.0	0.0	11.7	9.5	0.0	0.0	0.0	10.7	10.7	10.3
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:	11.5	11.5	0.0	0.0	11.7	9.5	0.0	0.0	0.0	10.7	10.7	10.3
LOS by Move:	B	B	A	A	B	A	A	A	A	B	B	B
HCM2kAvgQ:	5	5	0	0	6	1	0	0	0	6	6	5

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 Palm Ave & I-215 SB On/Off-Ramps / Kendall Dr.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.806
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	22.1
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Palm Ave						I-215 SB On/Off-Ramps / Kendall 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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	1 0		0 1 0	0 1		0 1 0	0 1	
Volume Module:												
Base Vol:	87	68	56	655	238	267	187	353	113	112	0	473
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:	87	68	56	655	238	267	187	353	113	112	0	473
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:	92	72	59	689	251	281	197	372	119	118	0	498
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	92	72	59	689	251	281	197	372	119	118	0	498
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	72	59	689	251	281	197	372	119	118	0	498
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	0.36	0.64	1.00	1.00	0.00	1.00
Final Sat.:	1800	1900	1900	1800	1900	1900	646	1219	1900	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.05	0.04	0.03	0.38	0.13	0.15	0.30	0.30	0.06	0.07	0.00	0.26
Crit Moves:		****		****				****				
Green/Cycle:	0.22	0.10	0.10	0.45	0.33	0.33	0.35	0.35	0.35	0.35	0.00	0.35
Volume/Cap:	0.23	0.38	0.31	0.86	0.41	0.45	0.86	0.86	0.18	0.18	0.00	0.74
Delay/Veh:	19.5	26.5	26.0	24.3	15.9	16.3	29.0	29.0	13.5	13.5	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:	19.5	26.5	26.0	24.3	15.9	16.3	29.0	29.0	13.5	13.5	0.0	21.3
LOS by Move:	B	C	C	C	B	B	C	C	B	B	A	C
HCM2kAvgQ:	2	2	1	16	4	5	13	13	2	2	0	10

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 University Pkwy & I-215 SB On/Off-Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.731
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	17.3
Optimal Cycle:	60	Level Of Service:	B

Street Name:	University Pkwy						I-215 SB On/Off-Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 1	1 1		1 1 1	0 0		0 1 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	431	403	1116	861	0	218	0	117	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	431	403	1116	861	0	218	0	117	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	454	424	1175	906	0	229	0	123	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	454	424	1175	906	0	229	0	123	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	454	424	1175	906	0	229	0	123	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.55	1.45	1.73	1.27	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	2946	2754	3120	2407	0	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.15	0.15	0.38	0.38	0.00	0.13	0.00	0.06	0.00	0.00	0.00
Crit Moves:			****		****		****					
Green/Cycle:	0.00	0.21	0.21	0.51	0.51	0.00	0.17	0.00	0.17	0.00	0.00	0.00
Volume/Cap:	0.00	0.73	0.73	0.73	0.73	0.00	0.73	0.00	0.37	0.00	0.00	0.00
Delay/Veh:	0.0	24.4	24.4	12.3	12.3	0.0	31.9	0.0	22.6	0.0	0.0	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:	0.0	24.4	24.4	12.3	12.3	0.0	31.9	0.0	22.6	0.0	0.0	0.0
LOS by Move:	A	C	C	B	B	A	C	A	C	A	A	A
HCM2kAvgQ:	0	7	7	12	12	0	6	0	2	0	0	0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 Glen Helen Pkwy & Lytle Creek Rd

Cycle (sec):	60	Critical Vol./Cap.(X):	0.676
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	15.4
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Glen Helen Pkwy						Lytle Creek Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			2 0 0 0 1			1 0 2 0 0			0 0 2 0 1		
Volume Module:												
Base Vol:	0	0	0	627	0	50	63	1496	0	0	262	285
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	627	0	50	63	1496	0	0	262	285
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	660	0	53	66	1575	0	0	276	300
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	660	0	53	66	1575	0	0	276	300
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	660	0	53	66	1575	0	0	276	300
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:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3400	0	1900	1800	3800	0	0	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.19	0.00	0.03	0.04	0.41	0.00	0.00	0.07	0.16
Crit Moves:				****				****		****		
Green/Cycle:	0.00	0.00	0.00	0.26	0.00	0.26	0.25	0.54	0.00	0.00	0.39	0.39
Volume/Cap:	0.00	0.00	0.00	0.76	0.00	0.11	0.15	0.76	0.00	0.00	0.18	0.40
Delay/Veh:	0.0	0.0	0.0	24.6	0.0	17.2	17.7	12.3	0.0	0.0	11.9	13.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	24.6	0.0	17.2	17.7	12.3	0.0	0.0	11.9	13.4
LOS by Move:	A	A	A	C	A	B	B	B	A	A	B	B
HCM2kAvgQ:	0	0	0	8	0	1	1	13	0	0	2	4

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #11 Lytle Creek Rd & Sierra Ave

Cycle (sec):	130	Critical Vol./Cap.(X):	0.611
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	1.8
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Lytle Creek Rd						Sierra Ave / Lytle Creek Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	1! 0	0	0 0	0 0	0	0 0	1 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	14	0	16	0	0	0	0	2072	6	2	562	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:	14	0	16	0	0	0	0	2072	6	2	562	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:	15	0	17	0	0	0	0	2181	6	2	592	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	15	0	17	0	0	0	0	2181	6	2	592	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	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	0	17	0	0	0	0	2181	6	2	592	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.48	0.00	0.52	0.00	0.00	0.00	0.00	1.99	0.01	1.00	2.00	0.00
Final Sat.:	864	0	988	0	0	0	0	3789	11	1800	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.58	0.58	0.00	0.16	0.00
Crit Moves:	****							****				
Green/Cycle:	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.92	0.92	0.92	0.92	0.00
Volume/Cap:	0.37	0.00	0.37	0.00	0.00	0.00	0.00	0.62	0.62	0.00	0.17	0.00
Delay/Veh:	62.9	0.0	62.9	0.0	0.0	0.0	0.0	1.3	1.3	0.4	0.5	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:	62.9	0.0	62.9	0.0	0.0	0.0	0.0	1.3	1.3	0.4	0.5	0.0
LOS by Move:	E	A	E	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	2	0	2	0	0	0	0	9	9	0	1	0

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 I-15 SB On/Off-Ramps & Sierra Ave

Cycle (sec):	75	Critical Vol./Cap.(X):	1.016
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	41.6
Optimal Cycle:	130	Level Of Service:	D

Street Name:	I-15 SB On/Off-Ramps						Sierra Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			1 0 1! 0 1			0 0 1 1 1			2 0 2 0 0		
Volume Module:												
Base Vol:	0	0	0	486	23	250	0	884	1436	910	377	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	486	23	250	0	884	1436	910	377	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	512	24	263	0	931	1512	958	397	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	512	24	263	0	931	1512	958	397	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	512	24	263	0	931	1512	958	397	0
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:	0.00	0.00	0.00	1.63	0.06	1.31	0.00	1.14	1.86	2.00	2.00	0.00
Final Sat.:	0	0	0	2941	108	2487	0	2172	3528	3400	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.17	0.22	0.11	0.00	0.43	0.43	0.28	0.10	0.00
Crit Moves:					****			****		****		
Green/Cycle:	0.00	0.00	0.00	0.22	0.22	0.22	0.00	0.42	0.42	0.28	0.70	0.00
Volume/Cap:	0.00	0.00	0.00	0.79	1.02	0.48	0.00	1.02	1.02	1.02	0.15	0.00
Delay/Veh:	0.0	0.0	0.0	31.8	65.2	25.7	0.0	44.0	44.0	60.3	3.8	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:	0.0	0.0	0.0	31.8	65.2	25.7	0.0	44.0	44.0	60.3	3.8	0.0
LOS by Move:	A	A	A	C	E	C	A	D	D	E	A	A
HCM2kAvgQ:	0	0	0	9	17	5	0	28	28	20	2	0

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #13 I-15 NB On/Off-Ramps & Sierra Ave

Cycle (sec):	60	Critical Vol./Cap.(X):	0.516
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	7.1
Optimal Cycle:	60	Level Of Service:	A

Street Name:	I-15 NB On/Off-Ramps						Sierra Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Ignore			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 1 0	0 1		0 0 0	0 0		1 0 2	0 0		0 0 2	0 1	
Volume Module:												
Base Vol:	161	2	432	0	0	0	181	1189	0	0	1122	481
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:	161	2	432	0	0	0	181	1189	0	0	1122	481
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	169	2	0	0	0	0	191	1252	0	0	1181	506
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	169	2	0	0	0	0	191	1252	0	0	1181	506
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	169	2	0	0	0	0	191	1252	0	0	1181	506
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:	1.98	0.02	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	3558	44	1900	0	0	0	1800	3800	0	0	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.00	0.00	0.00	0.00	0.11	0.33	0.00	0.00	0.31	0.27
Crit Moves:	****						****				****	
Green/Cycle:	0.10	0.10	0.00	0.00	0.00	0.00	0.20	0.80	0.00	0.00	0.60	0.60
Volume/Cap:	0.48	0.48	0.00	0.00	0.00	0.00	0.52	0.41	0.00	0.00	0.52	0.45
Delay/Veh:	26.5	26.5	0.0	0.0	0.0	0.0	22.6	1.9	0.0	0.0	7.3	6.9
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:	26.5	26.5	0.0	0.0	0.0	0.0	22.6	1.9	0.0	0.0	7.3	6.9
LOS by Move:	C	C	A	A	A	A	C	A	A	A	A	A
HCM2kAvgQ:	2	2	0	0	0	0	4	4	0	0	7	5

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #16 I-15 SB On/Off Ramps and Summit Ave.

Cycle (sec):	70	Critical Vol./Cap.(X):	0.983
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	37.0
Optimal Cycle:	130	Level Of Service:	D

Street Name:	I-15 SB On/Off Ramps						Summit Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			1 0 0 0 1			2 0 2 0 0			0 0 2 0 1		
Volume Module:												
Base Vol:	0	0	0	288	0	275	669	607	0	0	567	944
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	288	0	275	669	607	0	0	567	944
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	303	0	289	704	639	0	0	597	994
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	303	0	289	704	639	0	0	597	994
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	303	0	289	704	639	0	0	597	994
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	2.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1800	0	1900	3400	3800	0	0	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.17	0.00	0.15	0.21	0.17	0.00	0.00	0.16	0.52
Crit Moves:				****			****					****
Green/Cycle:	0.00	0.00	0.00	0.17	0.00	0.17	0.21	0.49	0.00	0.00	0.53	0.53
Volume/Cap:	0.00	0.00	0.00	0.98	0.00	0.89	0.98	0.34	0.00	0.00	0.30	0.98
Delay/Veh:	0.0	0.0	0.0	75.3	0.0	52.8	56.7	11.0	0.0	0.0	9.2	40.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	75.3	0.0	52.8	56.7	11.0	0.0	0.0	9.2	40.1
LOS by Move:	A	A	A	E	A	D	E	B	A	A	A	D
HCM2kAvgQ:	0	0	0	12	0	10	14	4	0	0	4	29

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #17 I-15 NB On/Off Ramps and Summit Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.682
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	14.6
Optimal Cycle:	60	Level Of Service:	B

Street Name:	I-15 NB On/Off Ramps						Summit Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			2 0 0 0 1			1 0 2 0 0			0 0 2 0 1		
Volume Module:												
Base Vol:	0	0	0	481	0	195	171	721	0	0	1316	302
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	481	0	195	171	721	0	0	1316	302
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	506	0	205	180	759	0	0	1385	318
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	506	0	205	180	759	0	0	1385	318
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	506	0	205	180	759	0	0	1385	318
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:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3400	0	1900	1800	3800	0	0	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.15	0.00	0.11	0.10	0.20	0.00	0.00	0.36	0.17
Crit Moves:				****			****				****	
Green/Cycle:	0.00	0.00	0.00	0.22	0.00	0.22	0.15	0.45	0.00	0.00	0.53	0.53
Volume/Cap:	0.00	0.00	0.00	0.68	0.00	0.49	0.68	0.44	0.00	0.00	0.68	0.31
Delay/Veh:	0.0	0.0	0.0	24.1	0.0	21.5	31.4	11.3	0.0	0.0	11.2	8.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	24.1	0.0	21.5	31.4	11.3	0.0	0.0	11.2	8.0
LOS by Move:	A	A	A	C	A	C	C	B	A	A	B	A
HCM2kAvgQ:	0	0	0	6	0	4	5	5	0	0	10	3

Note: Queue reported is the number of cars per lane.

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Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #18 Sierra Ave & Riverside Ave

Cycle (sec):	60	Critical Vol./Cap.(X):	0.659
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	11.9
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Sierra Ave						Riverside Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Ignore		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 1	0 1		2 0 2	0 0		0 0 0	0 0		1 0 0	0 1	
Volume Module:												
Base Vol:	0	332	67	1200	462	0	0	0	0	65	0	1283
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	332	67	1200	462	0	0	0	0	65	0	1283
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00
PHF Volume:	0	349	71	1263	486	0	0	0	0	68	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	349	71	1263	486	0	0	0	0	68	0	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:	0	349	71	1263	486	0	0	0	0	68	0	0
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:	0.00	1.00	1.00	2.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	1900	1900	3400	3800	0	0	0	0	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.18	0.04	0.37	0.13	0.00	0.00	0.00	0.00	0.04	0.00	0.00
Crit Moves:		****		****						****		
Green/Cycle:	0.00	0.26	0.26	0.54	0.80	0.00	0.00	0.00	0.00	0.10	0.00	0.00
Volume/Cap:	0.00	0.69	0.14	0.69	0.16	0.00	0.00	0.00	0.00	0.38	0.00	0.00
Delay/Veh:	0.0	24.0	17.0	11.5	1.4	0.0	0.0	0.0	0.0	26.6	0.0	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:	0.0	24.0	17.0	11.5	1.4	0.0	0.0	0.0	0.0	26.6	0.0	0.0
LOS by Move:	A	C	B	B	A	A	A	A	A	C	A	A
HCM2kAvgQ:	0	7	1	11	1	0	0	0	0	2	0	0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #22 Linden Ave. and Riverside Ave.

Cycle (sec):	65	Critical Vol./Cap.(X):	0.592
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	12.7
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Linden Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	1! 0	0	1 1	0 0	1	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	21	14	7	178	28	29	66	1355	86	62	927	156
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	14	7	178	28	29	66	1355	86	62	927	156
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	15	7	187	29	31	69	1426	91	65	976	164
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	15	7	187	29	31	69	1426	91	65	976	164
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	22	15	7	187	29	31	69	1426	91	65	976	164
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.52	0.32	0.16	1.74	0.26	1.00	1.00	1.88	0.12	1.00	1.71	0.29
Final Sat.:	924	616	308	3133	493	1900	1800	3573	227	1800	3253	547
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.06	0.06	0.02	0.04	0.40	0.40	0.04	0.30	0.30
Crit Moves:	****				****			****		****		
Green/Cycle:	0.09	0.09	0.09	0.09	0.09	0.09	0.16	0.60	0.60	0.09	0.53	0.53
Volume/Cap:	0.26	0.26	0.26	0.65	0.65	0.17	0.24	0.67	0.67	0.39	0.57	0.57
Delay/Veh:	28.2	28.2	28.2	32.9	32.9	27.7	24.1	9.4	9.4	29.3	10.7	10.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.2	28.2	28.2	32.9	32.9	27.7	24.1	9.4	9.4	29.3	10.7	10.7
LOS by Move:	C	C	C	C	C	C	C	A	A	C	B	B
HCM2kAvgQ:	1	1	1	4	4	1	1	11	11	2	8	8

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #43 Riverside Ave. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.811
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 18.3
Optimal Cycle: 60 Level Of Service: B

Street Name:	Riverside Ave.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2	0 0		0 0 2	0 1		0 0 0	0 0		1 0 1!	0 1	
Volume Module:												
Base Vol:	208	428	0	0	1302	296	0	0	0	656	0	562
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:	208	428	0	0	1302	296	0	0	0	656	0	562
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:	219	451	0	0	1371	312	0	0	0	691	0	592
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	219	451	0	0	1371	312	0	0	0	691	0	592
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:	219	451	0	0	1371	312	0	0	0	691	0	592
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	0.00	0.00	2.00	1.00	0.00	0.00	0.00	1.55	0.00	1.45
Final Sat.:	1800	3800	0	0	3800	1900	0	0	0	2794	0	2751
Capacity Analysis Module:												
Vol/Sat:	0.12	0.12	0.00	0.00	0.36	0.16	0.00	0.00	0.00	0.25	0.00	0.22
Crit Moves:	****				****					****		
Green/Cycle:	0.15	0.60	0.00	0.00	0.44	0.44	0.00	0.00	0.00	0.30	0.00	0.30
Volume/Cap:	0.81	0.20	0.00	0.00	0.81	0.37	0.00	0.00	0.00	0.81	0.00	0.71
Delay/Veh:	41.3	5.6	0.0	0.0	17.5	11.3	0.0	0.0	0.0	22.5	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:	41.3	5.6	0.0	0.0	17.5	11.3	0.0	0.0	0.0	22.5	0.0	19.7
LOS by Move:	D	A	A	A	B	B	A	A	A	C	A	B
HCM2kAvgQ:	7	2	0	0	14	4	0	0	0	11	0	8

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #44 Riverside Ave. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec): 70 Critical Vol./Cap.(X): 1.020

Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 42.3
Optimal Cycle: 130 Level Of Service: D

Street Name:	Riverside Ave.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 2	0 2		2 0 2	0 0		0 1 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	546	1148	1398	560	0	90	0	296	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	546	1148	1398	560	0	90	0	296	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	575	1208	1472	589	0	95	0	312	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	575	1208	1472	589	0	95	0	312	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	575	1208	1472	589	0	95	0	312	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.95	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	2.00	2.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3800	3600	3400	3800	0	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.15	0.34	0.43	0.16	0.00	0.05	0.00	0.16	0.00	0.00	0.00
Crit Moves:			****	****					****			
Green/Cycle:	0.00	0.33	0.33	0.42	0.75	0.00	0.16	0.00	0.16	0.00	0.00	0.00
Volume/Cap:	0.00	0.46	1.02	1.02	0.21	0.00	0.33	0.00	1.02	0.00	0.00	0.00
Delay/Veh:	0.0	18.8	54.7	49.0	2.6	0.0	26.7	0.0	86.0	0.0	0.0	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:	0.0	18.8	54.7	49.0	2.6	0.0	26.7	0.0	86.0	0.0	0.0	0.0
LOS by Move:	A	B	D	D	A	A	C	A	F	A	A	A
HCM2kAvgQ:	0	5	22	27	2	0	2	0	13	0	0	0

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #47 State St. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.653
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	11.8
Optimal Cycle:	60	Level Of Service:	B

Street Name:	State St.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	2 0	2 0	0	0 0	1 1	1	0 0	0 0	0	1 0	1! 0	1
Volume Module:												
Base Vol:	622	1064	0	0	831	942	0	0	0	174	0	180
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:	622	1064	0	0	831	942	0	0	0	174	0	180
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:	655	1120	0	0	875	992	0	0	0	183	0	189
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	655	1120	0	0	875	992	0	0	0	183	0	189
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:	655	1120	0	0	875	992	0	0	0	183	0	189
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	1.41	1.59	0.00	0.00	0.00	1.51	0.00	1.49
Final Sat.:	3400	3800	0	0	2672	3028	0	0	0	2709	0	2840
Capacity Analysis Module:												
Vol/Sat:	0.19	0.29	0.00	0.00	0.33	0.33	0.00	0.00	0.00	0.07	0.00	0.07
Crit Moves:	****				****					****		
Green/Cycle:	0.29	0.80	0.00	0.00	0.50	0.50	0.00	0.00	0.00	0.10	0.00	0.10
Volume/Cap:	0.65	0.37	0.00	0.00	0.65	0.65	0.00	0.00	0.00	0.65	0.00	0.64
Delay/Veh:	20.0	1.8	0.0	0.0	11.6	11.6	0.0	0.0	0.0	28.6	0.0	28.3
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:	20.0	1.8	0.0	0.0	11.6	11.6	0.0	0.0	0.0	28.6	0.0	28.3
LOS by Move:	C	A	A	A	B	B	A	A	A	C	A	C
HCM2kAvgQ:	7	3	0	0	9	9	0	0	0	4	0	4

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #48 State St. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec):	70	Critical Vol./Cap.(X):	0.702
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	22.5
Optimal Cycle:	60	Level Of Service:	C

Street Name:	State St.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Ovl			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	1 1 0		1 0	2 0 1		1 1	0 0 2		0 1	0 0 1	
Volume Module:												
Base Vol:	328	1295	1	0	717	441	878	0	852	4	7	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:	328	1295	1	0	717	441	878	0	852	4	7	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	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	345	1363	1	0	755	464	924	0	897	4	7	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	345	1363	1	0	755	464	924	0	897	4	7	9
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:	345	1363	1	0	755	464	924	0	897	4	7	9
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	0.95	0.95	1.00	1.00
Lanes:	1.00	1.99	0.01	1.00	2.00	1.00	2.00	0.00	2.00	0.38	0.62	1.00
Final Sat.:	1800	3797	3	1800	3800	1900	3600	0	3600	677	1185	1900
Capacity Analysis Module:												
Vol/Sat:	0.19	0.36	0.36	0.00	0.20	0.24	0.26	0.00	0.25	0.01	0.01	0.00
Crit Moves:		****		****			****				****	
Green/Cycle:	0.25	0.42	0.42	0.00	0.26	0.55	0.30	0.00	0.54	0.09	0.09	0.09
Volume/Cap:	0.78	0.86	0.86	0.00	0.78	0.44	0.86	0.00	0.46	0.07	0.07	0.06
Delay/Veh:	33.0	23.7	23.7	0.0	28.2	9.5	30.5	0.0	9.8	29.6	29.6	29.6
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:	33.0	23.7	23.7	0.0	28.2	9.5	30.5	0.0	9.8	29.6	29.6	29.6
LOS by Move:	C	C	C	A	C	A	C	A	A	C	C	C
HCM2kAvgQ:	9	17	17	0	10	6	13	0	6	0	0	0

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #49 State St. and Highland Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.820
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	26.8
Optimal Cycle:	60	Level Of Service:	C

Street Name:	State St.						Highland Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	2 0	2 0	1	1 0	2 0	1	1 0	1 1	1	2 0	1 1	0
Volume Module:												
Base Vol:	128	596	296	1	765	8	3	9	470	1063	27	8
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:	128	596	296	1	765	8	3	9	470	1063	27	8
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:	135	627	312	1	805	8	3	9	495	1119	28	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	135	627	312	1	805	8	3	9	495	1119	28	8
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	627	312	1	805	8	3	9	495	1119	28	8
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	2.00	2.00	1.54	0.46
Final Sat.:	3400	3800	1900	1800	3800	1900	1800	1900	3800	3400	2931	869
Capacity Analysis Module:												
Vol/Sat:	0.04	0.17	0.16	0.00	0.21	0.00	0.00	0.00	0.13	0.33	0.01	0.01
Crit Moves:	****				****				****	****		
Green/Cycle:	0.10	0.21	0.59	0.13	0.24	0.24	0.26	0.15	0.15	0.38	0.26	0.26
Volume/Cap:	0.40	0.78	0.28	0.00	0.88	0.02	0.01	0.03	0.88	0.88	0.04	0.04
Delay/Veh:	26.1	27.0	6.2	22.8	31.3	17.3	16.4	21.9	39.1	24.5	16.5	16.5
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:	26.1	27.0	6.2	22.8	31.3	17.3	16.4	21.9	39.1	24.5	16.5	16.5
LOS by Move:	C	C	A	C	C	B	B	C	D	C	B	B
HCM2kAvgQ:	2	8	3	0	11	0	0	0	8	15	0	0

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #55 Ayala Dr. and Easton St.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.719
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	20.3
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Ayala Dr.						Easton St.					
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			Ovl			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 1			1 0 2 0 1			1 0 2 0 1			1 0 1 1 0		
Volume Module:												
Base Vol:	315	922	70	17	920	145	235	95	570	108	126	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:	315	922	70	17	920	145	235	95	570	108	126	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:	332	971	74	18	968	153	247	100	600	114	133	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	332	971	74	18	968	153	247	100	600	114	133	43
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:	332	971	74	18	968	153	247	100	600	114	133	43
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	2.00	1.00	1.00	2.00	1.00	1.00	1.51	0.49
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3800	1900	1800	2867	933
Capacity Analysis Module:												
Vol/Sat:	0.18	0.26	0.04	0.01	0.25	0.08	0.14	0.03	0.32	0.06	0.05	0.05
Crit Moves:	****				****		****				****	
Green/Cycle:	0.24	0.42	0.42	0.16	0.34	0.34	0.18	0.16	0.41	0.12	0.10	0.10
Volume/Cap:	0.75	0.61	0.09	0.06	0.75	0.24	0.75	0.16	0.78	0.52	0.46	0.46
Delay/Veh:	28.1	14.3	10.6	21.2	20.1	14.4	32.6	21.8	20.6	26.8	26.4	26.4
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:	28.1	14.3	10.6	21.2	20.1	14.4	32.6	21.8	20.6	26.8	26.4	26.4
LOS by Move:	C	B	B	C	C	B	C	C	C	C	C	C
HCM2kAvgQ:	8	8	1	0	10	2	7	1	12	3	2	2

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #59 Alder Ave. and Baseline Rd.

Cycle (sec):	70	Critical Vol./Cap.(X):	0.786
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	31.1
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Alder Ave.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 0	1 0	1 0	1 0	1 0	1 0	1 0	1 0	1 0	1 0	1 0	1 0
Volume Module:												
Base Vol:	156	492	17	142	382	110	67	451	140	6	125	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:	156	492	17	142	382	110	67	451	140	6	125	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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	164	518	18	149	402	116	71	475	147	6	132	47
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	164	518	18	149	402	116	71	475	147	6	132	47
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:	164	518	18	149	402	116	71	475	147	6	132	47
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	0.97	0.03	1.00	1.55	0.45	1.00	0.76	0.24	1.00	0.74	0.26
Final Sat.:	1800	1837	63	1800	2950	850	1800	1450	450	1800	1397	503
Capacity Analysis Module:												
Vol/Sat:	0.09	0.28	0.28	0.08	0.14	0.14	0.04	0.33	0.33	0.00	0.09	0.09
Crit Moves:		****		****				****		****		
Green/Cycle:	0.17	0.33	0.33	0.10	0.25	0.25	0.22	0.38	0.38	0.09	0.24	0.24
Volume/Cap:	0.54	0.87	0.87	0.87	0.54	0.54	0.18	0.87	0.87	0.04	0.39	0.39
Delay/Veh:	28.5	34.4	34.4	65.0	23.3	23.3	22.3	30.9	30.9	29.5	22.7	22.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.5	34.4	34.4	65.0	23.3	23.3	22.3	30.9	30.9	29.5	22.7	22.7
LOS by Move:	C	C	C	E	C	C	C	C	C	C	C	C
HCM2kAvgQ:	4	14	14	6	5	5	1	16	16	0	4	4

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #72 Cedar Ave. and Rialto Ave.

Cycle (sec):	65	Critical Vol./Cap.(X):	0.828
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	29.8
Optimal Cycle:	63	Level Of Service:	C

Street Name:	Cedar Ave.						Rialto Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 2	0 1		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	133	870	139	313	1133	175	297	620	237	45	371	61
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:	133	870	139	313	1133	175	297	620	237	45	371	61
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:	140	916	146	329	1193	184	313	653	249	47	391	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	140	916	146	329	1193	184	313	653	249	47	391	64
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:	140	916	146	329	1193	184	313	653	249	47	391	64
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	1.72	0.28	1.00	2.00	1.00	1.00	1.45	0.55	1.00	1.72	0.28
Final Sat.:	1800	3277	523	1800	3800	1900	1800	2749	1051	1800	3263	537
Capacity Analysis Module:												
Vol/Sat:	0.08	0.28	0.28	0.18	0.31	0.10	0.17	0.24	0.24	0.03	0.12	0.12
Crit Moves:		****		****				****		****		
Green/Cycle:	0.12	0.31	0.31	0.21	0.40	0.40	0.21	0.27	0.27	0.09	0.15	0.15
Volume/Cap:	0.66	0.89	0.89	0.89	0.78	0.24	0.82	0.89	0.89	0.29	0.82	0.82
Delay/Veh:	34.9	30.0	30.0	47.8	19.7	13.1	37.4	33.0	33.0	28.4	36.2	36.2
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:	34.9	30.0	30.0	47.8	19.7	13.1	37.4	33.0	33.0	28.4	36.2	36.2
LOS by Move:	C	C	C	D	B	B	D	C	C	C	D	D
HCM2kAvgQ:	4	14	14	11	13	3	9	13	13	1	7	7

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #74 Cedar Ave. and Merrill Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.896
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	21.6
Optimal Cycle:	74	Level Of Service:	C

Street Name:	Cedar Ave.						Merrill Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 1			1 0 1 1 0			1 0 1 1 0			1 0 1 1 0		
Volume Module:												
Base Vol:	159	1470	85	288	1816	169	216	471	118	147	328	138
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:	159	1470	85	288	1816	169	216	471	118	147	328	138
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:	167	1547	89	303	1912	178	227	496	124	155	345	145
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	167	1547	89	303	1912	178	227	496	124	155	345	145
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:	167	1547	89	303	1912	178	227	496	124	155	345	145
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	1.83	0.17	1.00	1.60	0.40	1.00	1.41	0.59
Final Sat.:	1800	3800	1900	1800	3476	324	1800	3039	761	1800	2675	1125
Capacity Analysis Module:												
Vol/Sat:	0.09	0.41	0.05	0.17	0.55	0.55	0.13	0.16	0.16	0.09	0.13	0.13
Crit Moves:	****				****			****				
Green/Cycle:	0.10	0.51	0.51	0.21	0.61	0.61	0.18	0.18	0.18	0.18	0.18	0.18
Volume/Cap:	0.90	0.80	0.09	0.80	0.90	0.90	0.69	0.90	0.90	0.47	0.71	0.71
Delay/Veh:	64.6	14.8	7.7	34.2	14.9	14.9	29.2	38.2	38.2	23.0	26.4	26.4
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:	64.6	14.8	7.7	34.2	14.9	14.9	29.2	38.2	38.2	23.0	26.4	26.4
LOS by Move:	E	B	A	C	B	B	C	D	D	C	C	C
HCM2kAvgQ:	6	14	1	8	21	21	6	9	9	3	6	6

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Devore Rd & I-215 NB On/Off-Ramps / Arrowhead Bl

Cycle (sec):	60	Critical Vol./Cap.(X):	0.834
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	16.4
Optimal Cycle:	52	Level Of Service:	B

Street Name:	Devore Rd						I-215 NB On/Off-Ramps / Arrowhead					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	1! 0	0	0 1	0 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:AM Peak Hour												
Base Vol:	3	502	438	99	228	0	2	5	9	159	0	294
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	502	438	99	228	0	2	5	9	159	0	294
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:	3	528	461	104	240	0	2	5	9	167	0	309
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	528	461	104	240	0	2	5	9	167	0	309
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	528	461	104	240	0	2	5	9	167	0	309
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.01	0.53	0.46	0.31	0.69	0.00	0.13	0.31	0.56	0.36	0.00	0.64
Final Sat.:	6	1011	882	566	1303	0	236	590	1061	654	0	1210
Capacity Analysis Module:												
Vol/Sat:	0.52	0.52	0.52	0.18	0.18	0.00	0.01	0.01	0.01	0.26	0.00	0.26
Crit Moves:		****								****		
Green/Cycle:	0.63	0.63	0.63	0.63	0.63	0.00	0.31	0.31	0.31	0.31	0.00	0.31
Volume/Cap:	0.83	0.83	0.83	0.29	0.29	0.00	0.03	0.03	0.03	0.83	0.00	0.83
Delay/Veh:	14.0	14.0	14.0	5.3	5.3	0.0	14.6	14.6	14.6	29.6	0.0	29.6
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:	14.0	14.0	14.0	5.3	5.3	0.0	14.6	14.6	14.6	29.6	0.0	29.6
LOS by Move:	B	B	B	A	A	A	B	B	B	C	A	C
HCM2kAvgQ:	17	17	17	3	3	0	0	0	0	11	0	11

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Glen Helen Pkwy & Cajon Bl

Cycle (sec):	60	Critical Vol./Cap.(X):	0.491
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.6
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Glen Helen Pkwy						Cajon Bl					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 1	0 0	1	1 0	1 0	1	0 1	0 1	0	0 1	0 1	0
Volume Module:AM Peak Hour												
Base Vol:	58	368	415	125	236	43	181	150	100	224	10	398
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:	58	368	415	125	236	43	181	150	100	224	10	398
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:	61	387	437	132	248	45	191	158	105	236	11	419
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	61	387	437	132	248	45	191	158	105	236	11	419
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:	61	387	437	132	248	45	191	158	105	236	11	419
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.14	0.86	1.00	1.00	1.00	1.00	0.87	0.68	0.45	0.96	0.04	1.00
Final Sat.:	257	1629	1900	1800	1900	1900	1559	1292	862	1727	77	1900
Capacity Analysis Module:												
Vol/Sat:	0.24	0.24	0.23	0.07	0.13	0.02	0.12	0.12	0.12	0.14	0.14	0.22
Crit Moves:		****										****
Green/Cycle:	0.48	0.48	0.48	0.48	0.48	0.48	0.45	0.45	0.45	0.45	0.45	0.45
Volume/Cap:	0.49	0.49	0.47	0.15	0.27	0.05	0.27	0.27	0.27	0.30	0.30	0.49
Delay/Veh:	10.9	10.9	10.7	8.7	9.3	8.2	10.5	10.5	10.5	10.6	10.6	12.0
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:	10.9	10.9	10.7	8.7	9.3	8.2	10.5	10.5	10.5	10.6	10.6	12.0
LOS by Move:	B	B	B	A	A	A	B	B	B	B	B	B
HCM2kAvgQ:	6	6	6	1	3	0	3	3	3	3	3	6

Note: Queue reported is the number of cars per lane.

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Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Palm Ave & I-215 NB On/Off-Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.735
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	14.7
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Palm Ave						I-215 NB On/Off-Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 1	1 0	0	0 0	2 0	1	0 0	0 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	79	886	0	0	405	294	0	0	0	207	4	754
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:	79	886	0	0	405	294	0	0	0	207	4	754
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:	83	933	0	0	426	309	0	0	0	218	4	794
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	83	933	0	0	426	309	0	0	0	218	4	794
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:	83	933	0	0	426	309	0	0	0	218	4	794
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.17	1.83	0.00	0.00	2.00	1.00	0.00	0.00	0.00	0.98	0.02	1.00
Final Sat.:	310	3473	0	0	3800	1900	0	0	0	1768	34	1900
Capacity Analysis Module:												
Vol/Sat:	0.27	0.27	0.00	0.00	0.11	0.16	0.00	0.00	0.00	0.12	0.12	0.42
Crit Moves:		****										****
Green/Cycle:	0.37	0.37	0.00	0.00	0.37	0.37	0.00	0.00	0.00	0.57	0.57	0.57
Volume/Cap:	0.74	0.74	0.00	0.00	0.31	0.45	0.00	0.00	0.00	0.22	0.22	0.74
Delay/Veh:	18.6	18.6	0.0	0.0	13.7	14.9	0.0	0.0	0.0	6.5	6.5	12.3
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:	18.6	18.6	0.0	0.0	13.7	14.9	0.0	0.0	0.0	6.5	6.5	12.3
LOS by Move:	B	B	A	A	B	B	A	A	A	A	A	B
HCM2kAvgQ:	10	10	0	0	3	5	0	0	0	2	2	12

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 Palm Ave & I-215 SB On/Off-Ramps / Kendall Dr.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.873
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	25.6
Optimal Cycle:	67	Level Of Service:	C

Street Name:	Palm Ave						I-215 SB On/Off-Ramps / Kendall 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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	0 1		1 0 1	1 0		0 1 0	0 1		0 1 0	0 1	
Volume Module:												
Base Vol:	129	284	164	382	102	132	378	332	93	33	9	309
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:	129	284	164	382	102	132	378	332	93	33	9	309
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:	136	299	173	402	107	139	398	349	98	35	9	325
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	136	299	173	402	107	139	398	349	98	35	9	325
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:	136	299	173	402	107	139	398	349	98	35	9	325
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	0.55	0.45	1.00	0.79	0.21	1.00
Final Sat.:	1800	1900	1900	1800	1900	1900	982	863	1900	1430	390	1900
Capacity Analysis Module:												
Vol/Sat:	0.08	0.16	0.09	0.22	0.06	0.07	0.40	0.40	0.05	0.02	0.02	0.17
Crit Moves:		****		****				****				
Green/Cycle:	0.22	0.18	0.18	0.26	0.22	0.22	0.46	0.46	0.46	0.46	0.46	0.46
Volume/Cap:	0.35	0.87	0.50	0.87	0.26	0.34	0.87	0.87	0.11	0.05	0.05	0.37
Delay/Veh:	20.4	45.0	23.4	38.0	19.6	20.1	24.3	24.3	9.1	8.9	8.9	10.7
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:	20.4	45.0	23.4	38.0	19.6	20.1	24.3	24.3	9.1	8.9	8.9	10.7
LOS by Move:	C	D	C	D	B	C	C	C	A	A	A	B
HCM2kAvgQ:	3	9	4	11	2	2	17	17	1	0	0	4

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 University Pkwy & I-215 SB On/Off-Ramps

Cycle (sec):	60	Critical Vol./Cap.(X):	0.931
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	26.2
Optimal Cycle:	89	Level Of Service:	C

Street Name:	University Pkwy						I-215 SB On/Off-Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 1	1 1		1 1 1	0 0		0 1 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	606	908	1374	1096	0	150	1	45	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	606	908	1374	1096	0	150	1	45	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	638	956	1446	1154	0	158	1	47	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	638	956	1446	1154	0	158	1	47	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	638	956	1446	1154	0	158	1	47	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.20	1.80	1.71	1.29	0.00	0.99	0.01	1.00	0.00	0.00	0.00
Final Sat.:	0	2282	3418	3076	2453	0	1789	12	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.28	0.28	0.47	0.47	0.00	0.09	0.09	0.02	0.00	0.00	0.00
Crit Moves:			****		****			****				
Green/Cycle:	0.00	0.30	0.30	0.50	0.50	0.00	0.10	0.10	0.10	0.00	0.00	0.00
Volume/Cap:	0.00	0.94	0.94	0.94	0.94	0.00	0.88	0.88	0.25	0.00	0.00	0.00
Delay/Veh:	0.0	30.9	30.9	21.1	21.1	0.0	62.9	62.9	25.6	0.0	0.0	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:	0.0	30.9	30.9	21.1	21.1	0.0	62.9	62.9	25.6	0.0	0.0	0.0
LOS by Move:	A	C	C	C	C	A	E	E	C	A	A	A
HCM2kAvgQ:	0	15	15	21	21	0	6	6	1	0	0	0

Note: Queue reported is the number of cars per lane.

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Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 Glen Helen Pkwy & Lytle Creek Rd

Cycle (sec):	60	Critical Vol./Cap.(X):	0.626
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	14.0
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Glen Helen Pkwy						Lytle Creek Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			2 0 0 0 1			1 0 2 0 0			0 0 2 0 1		
Volume Module:												
Base Vol:	0	0	0	564	0	136	106	1402	0	0	1351	623
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	564	0	136	106	1402	0	0	1351	623
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	594	0	143	112	1476	0	0	1422	656
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	594	0	143	112	1476	0	0	1422	656
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	594	0	143	112	1476	0	0	1422	656
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:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3400	0	1900	1800	3800	0	0	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.17	0.00	0.08	0.06	0.39	0.00	0.00	0.37	0.35
Crit Moves:				****				****		****		
Green/Cycle:	0.00	0.00	0.00	0.25	0.00	0.25	0.14	0.55	0.00	0.00	0.51	0.51
Volume/Cap:	0.00	0.00	0.00	0.70	0.00	0.30	0.45	0.70	0.00	0.00	0.73	0.67
Delay/Veh:	0.0	0.0	0.0	23.3	0.0	18.7	25.1	11.0	0.0	0.0	12.7	12.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	23.3	0.0	18.7	25.1	11.0	0.0	0.0	12.7	12.6
LOS by Move:	A	A	A	C	A	B	C	B	A	A	B	B
HCM2kAvgQ:	0	0	0	7	0	2	3	11	0	0	12	10

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #11 Lytle Creek Rd & Sierra Ave

Cycle (sec):	60	Critical Vol./Cap.(X):	0.777
Loss Time (sec):	4 (Y+R=4.0 sec)	Average Delay (sec/veh):	9.1
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Lytle Creek Rd						Sierra Ave / Lytle Creek Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	1! 0	0	0 0	0 0	0	0 0	1 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	87	0	236	0	0	0	0	1924	24	5	1962	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:	87	0	236	0	0	0	0	1924	24	5	1962	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:	92	0	248	0	0	0	0	2025	25	5	2065	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	92	0	248	0	0	0	0	2025	25	5	2065	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	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	0	248	0	0	0	0	2025	25	5	2065	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.28	0.00	0.72	0.00	0.00	0.00	0.00	1.98	0.02	1.00	2.00	0.00
Final Sat.:	504	0	1368	0	0	0	0	3753	47	1800	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.18	0.00	0.18	0.00	0.00	0.00	0.00	0.54	0.54	0.00	0.54	0.00
Crit Moves:			****								****	
Green/Cycle:	0.23	0.00	0.23	0.00	0.00	0.00	0.00	0.70	0.70	0.70	0.70	0.00
Volume/Cap:	0.78	0.00	0.78	0.00	0.00	0.00	0.00	0.77	0.77	0.00	0.78	0.00
Delay/Veh:	30.1	0.0	30.1	0.0	0.0	0.0	0.0	7.3	7.3	2.7	7.4	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:	30.1	0.0	30.1	0.0	0.0	0.0	0.0	7.3	7.3	2.7	7.4	0.0
LOS by Move:	C	A	C	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	8	0	8	0	0	0	0	14	14	0	15	0

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 I-15 SB On/Off-Ramps & Sierra Ave

Cycle (sec):	60	Critical Vol./Cap.(X):	0.955
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	22.5
Optimal Cycle:	102	Level Of Service:	C

Street Name:	I-15 SB On/Off-Ramps						Sierra Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			1 0 1! 0 1			0 0 1 1 1			2 0 2 0 0		
Volume Module:												
Base Vol:	0	0	0	398	5	378	0	1400	723	786	1595	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	398	5	378	0	1400	723	786	1595	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	419	5	398	0	1474	761	827	1679	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	419	5	398	0	1474	761	827	1679	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	419	5	398	0	1474	761	827	1679	0
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:	0.00	0.00	0.00	1.52	0.01	1.47	0.00	1.98	1.02	2.00	2.00	0.00
Final Sat.:	0	0	0	2736	24	2789	0	3759	1941	3400	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.15	0.22	0.14	0.00	0.39	0.39	0.24	0.44	0.00
Crit Moves:					****			****		****		
Green/Cycle:	0.00	0.00	0.00	0.23	0.23	0.23	0.00	0.41	0.41	0.25	0.67	0.00
Volume/Cap:	0.00	0.00	0.00	0.65	0.95	0.61	0.00	0.95	0.95	0.95	0.66	0.00
Delay/Veh:	0.0	0.0	0.0	22.0	43.1	21.3	0.0	27.2	27.2	42.3	6.7	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:	0.0	0.0	0.0	22.0	43.1	21.3	0.0	27.2	27.2	42.3	6.7	0.0
LOS by Move:	A	A	A	C	D	C	A	C	C	D	A	A
HCM2kAvgQ:	0	0	0	6	13	5	0	20	20	14	10	0

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #13 I-15 NB On/Off-Ramps & Sierra Ave

Cycle (sec):	80	Critical Vol./Cap.(X):	1.052
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	51.3
Optimal Cycle:	130	Level Of Service:	D

Street Name:	I-15 NB On/Off-Ramps						Sierra Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Permitted		
Rights:	Ignore			Include			Include			Ignore		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 1	0 0	1	0 0	0 0	0	1 0	2 0	0	0 0	2 0	1
Volume Module:												
Base Vol:	1052	0	896	0	0	0	511	1299	0	0	1322	774
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:	1052	0	896	0	0	0	511	1299	0	0	1322	774
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00
PHF Volume:	1107	0	0	0	0	0	538	1367	0	0	1392	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1107	0	0	0	0	0	538	1367	0	0	1392	0
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	1107	0	0	0	0	0	538	1367	0	0	1392	0
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:	2.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	3600	0	1900	0	0	0	1800	3800	0	0	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.31	0.00	0.00	0.00	0.00	0.00	0.30	0.36	0.00	0.00	0.37	0.00
Crit Moves:	****						****				****	
Green/Cycle:	0.29	0.00	0.00	0.00	0.00	0.00	0.28	0.63	0.00	0.00	0.35	0.00
Volume/Cap:	1.05	0.00	0.00	0.00	0.00	0.00	1.05	0.57	0.00	0.00	1.05	0.00
Delay/Veh:	70.6	0.0	0.0	0.0	0.0	0.0	82.6	8.8	0.0	0.0	65.5	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:	70.6	0.0	0.0	0.0	0.0	0.0	82.6	8.8	0.0	0.0	65.5	0.0
LOS by Move:	E	A	A	A	A	A	F	A	A	A	E	A
HCM2kAvgQ:	24	0	0	0	0	0	23	10	0	0	27	0

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #16 I-15 SB On/Off Ramps and Summit Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.749
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	17.1
Optimal Cycle:	60	Level Of Service:	B

Street Name:	I-15 SB On/Off Ramps						Summit Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			1 0 0 0 1			2 0 2 0 0			0 0 2 0 1		
Volume Module:												
Base Vol:	0	0	0	444	0	295	222	722	0	0	1247	456
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	444	0	295	222	722	0	0	1247	456
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	467	0	311	234	760	0	0	1313	480
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	467	0	311	234	760	0	0	1313	480
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	467	0	311	234	760	0	0	1313	480
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	2.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1800	0	1900	3400	3800	0	0	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.26	0.00	0.16	0.07	0.20	0.00	0.00	0.35	0.25
Crit Moves:				****			****				****	
Green/Cycle:	0.00	0.00	0.00	0.34	0.00	0.34	0.10	0.37	0.00	0.00	0.46	0.46
Volume/Cap:	0.00	0.00	0.00	0.76	0.00	0.48	0.69	0.54	0.00	0.00	0.76	0.55
Delay/Veh:	0.0	0.0	0.0	22.8	0.0	16.0	31.9	15.3	0.0	0.0	15.5	12.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	22.8	0.0	16.0	31.9	15.3	0.0	0.0	15.5	12.6
LOS by Move:	A	A	A	C	A	B	C	B	A	A	B	B
HCM2kAvgQ:	0	0	0	10	0	5	4	6	0	0	12	7

Note: Queue reported is the number of cars per lane.

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Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #17 I-15 NB On/Off Ramps and Summit Ave.

Cycle (sec):	65	Critical Vol./Cap.(X):	0.982
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	34.9
Optimal Cycle:	130	Level Of Service:	C

Street Name:	I-15 NB On/Off Ramps						Summit Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 0 0 0			2 0 0 0 1			1 0 2 0 0			0 0 2 0 1		
Volume Module:												
Base Vol:	0	0	0	1265	0	492	290	842	0	0	1193	496
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	1265	0	492	290	842	0	0	1193	496
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	1332	0	518	305	886	0	0	1256	522
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1332	0	518	305	886	0	0	1256	522
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	1332	0	518	305	886	0	0	1256	522
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:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3400	0	1900	1800	3800	0	0	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.39	0.00	0.27	0.17	0.23	0.00	0.00	0.33	0.27
Crit Moves:				****			****				****	
Green/Cycle:	0.00	0.00	0.00	0.40	0.00	0.40	0.17	0.36	0.00	0.00	0.34	0.34
Volume/Cap:	0.00	0.00	0.00	0.98	0.00	0.68	0.98	0.64	0.00	0.00	0.98	0.82
Delay/Veh:	0.0	0.0	0.0	39.6	0.0	18.7	72.9	18.1	0.0	0.0	42.3	27.8
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:	0.0	0.0	0.0	39.6	0.0	18.7	72.9	18.1	0.0	0.0	42.3	27.8
LOS by Move:	A	A	A	D	A	B	E	B	A	A	D	C
HCM2kAvgQ:	0	0	0	22	0	10	12	8	0	0	19	12

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #18 Sierra Ave & Riverside Ave

Cycle (sec): 80 Critical Vol./Cap.(X): 0.982
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 36.7
Optimal Cycle: 130 Level Of Service: D

Street Name:	Sierra Ave						Riverside Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Ignore		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 1	0 1		2 0 2	0 0		0 0 0	0 0		1 0 0	0 1	
Volume Module:												
Base Vol:	0	550	103	1715	485	0	0	0	0	125	0	1538
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	550	103	1715	485	0	0	0	0	125	0	1538
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00
PHF Volume:	0	579	108	1805	511	0	0	0	0	132	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	579	108	1805	511	0	0	0	0	132	0	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:	0	579	108	1805	511	0	0	0	0	132	0	0
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:	0.00	1.00	1.00	2.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	1900	1900	3400	3800	0	0	0	0	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.30	0.06	0.53	0.13	0.00	0.00	0.00	0.00	0.07	0.00	0.00
Crit Moves:		****		****						****		
Green/Cycle:	0.00	0.31	0.31	0.54	0.85	0.00	0.00	0.00	0.00	0.08	0.00	0.00
Volume/Cap:	0.00	0.98	0.18	0.98	0.16	0.00	0.00	0.00	0.00	0.97	0.00	0.00
Delay/Veh:	0.0	60.1	20.4	35.1	1.1	0.0	0.0	0.0	0.0	106.3	0.0	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:	0.0	60.1	20.4	35.1	1.1	0.0	0.0	0.0	0.0	106.3	0.0	0.0
LOS by Move:	A	E	C	D	A	A	A	A	A	F	A	A
HCM2kAvgQ:	0	21	2	32	1	0	0	0	0	7	0	0

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #22 Linden Ave. and Riverside Ave.

Cycle (sec):	75	Critical Vol./Cap.(X):	0.864
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	25.1
Optimal Cycle:	75	Level Of Service:	C

Street Name:	Linden Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	1! 0	0	1 1	0 0	1	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	38	28	30	594	30	89	125	1208	87	71	1284	384
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:	38	28	30	594	30	89	125	1208	87	71	1284	384
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:	40	29	32	625	32	94	132	1272	92	75	1352	404
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	29	32	625	32	94	132	1272	92	75	1352	404
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:	40	29	32	625	32	94	132	1272	92	75	1352	404
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.41	0.28	0.31	1.91	0.09	1.00	1.00	1.87	0.13	1.00	1.54	0.46
Final Sat.:	736	542	581	3436	174	1900	1800	3545	255	1800	2925	875
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.05	0.18	0.18	0.05	0.07	0.36	0.36	0.04	0.46	0.46
Crit Moves:	****				****		****				****	
Green/Cycle:	0.08	0.08	0.08	0.21	0.21	0.21	0.08	0.50	0.50	0.11	0.52	0.52
Volume/Cap:	0.68	0.68	0.68	0.88	0.88	0.24	0.88	0.72	0.72	0.38	0.88	0.88
Delay/Veh:	45.6	45.6	45.6	40.8	40.8	25.2	75.2	16.2	16.2	32.1	20.8	20.8
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:	45.6	45.6	45.6	40.8	40.8	25.2	75.2	16.2	16.2	32.1	20.8	20.8
LOS by Move:	D	D	D	D	D	C	E	B	B	C	C	C
HCM2kAvgQ:	4	4	4	11	11	2	6	14	14	2	22	22

Note: Queue reported is the number of cars per lane.

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Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #43 Riverside Ave. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec): 85 Critical Vol./Cap.(X): 0.957
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 31.2
Optimal Cycle: 130 Level Of Service: C

Street Name:	Riverside Ave.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2	0 0		0 0 2	0 1		0 0 0	0 0		1 0 1!	0 1	
Volume Module:												
Base Vol:	93	575	0	0	1308	395	0	0	0	887	0	1359
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:	93	575	0	0	1308	395	0	0	0	887	0	1359
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:	98	605	0	0	1377	416	0	0	0	934	0	1431
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	98	605	0	0	1377	416	0	0	0	934	0	1431
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:	98	605	0	0	1377	416	0	0	0	934	0	1431
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	0.00	0.00	2.00	1.00	0.00	0.00	0.00	1.41	0.00	1.59
Final Sat.:	1800	3800	0	0	3800	1900	0	0	0	2534	0	3025
Capacity Analysis Module:												
Vol/Sat:	0.05	0.16	0.00	0.00	0.36	0.22	0.00	0.00	0.00	0.37	0.00	0.47
Crit Moves:	****				****							****
Green/Cycle:	0.07	0.44	0.00	0.00	0.37	0.37	0.00	0.00	0.00	0.49	0.00	0.49
Volume/Cap:	0.77	0.36	0.00	0.00	0.97	0.59	0.00	0.00	0.00	0.76	0.00	0.97
Delay/Veh:	63.4	15.8	0.0	0.0	43.9	22.7	0.0	0.0	0.0	18.9	0.0	33.8
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:	63.4	15.8	0.0	0.0	43.9	22.7	0.0	0.0	0.0	18.9	0.0	33.8
LOS by Move:	E	B	A	A	D	C	A	A	A	B	A	C
HCM2kAvgQ:	5	5	0	0	24	9	0	0	0	16	0	30

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #44 Riverside Ave. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec): 70 Critical Vol./Cap.(X): 1.033

Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 43.6
Optimal Cycle: 130 Level Of Service: D

Street Name:	Riverside Ave.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0 2	0 2		2 0 2	0 0		0 1 0	0 1		0 0 0	0 0	
Volume Module:												
Base Vol:	0	565	922	1211	984	0	103	0	541	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	565	922	1211	984	0	103	0	541	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	595	971	1275	1036	0	108	0	569	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	595	971	1275	1036	0	108	0	569	0	0	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	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	595	971	1275	1036	0	108	0	569	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.95	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	2.00	2.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3800	3600	3400	3800	0	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.16	0.27	0.37	0.27	0.00	0.06	0.00	0.30	0.00	0.00	0.00
Crit Moves:			****	****					****			
Green/Cycle:	0.00	0.26	0.26	0.36	0.62	0.00	0.29	0.00	0.29	0.00	0.00	0.00
Volume/Cap:	0.00	0.60	1.03	1.03	0.44	0.00	0.21	0.00	1.03	0.00	0.00	0.00
Delay/Veh:	0.0	23.7	64.0	56.7	6.9	0.0	19.0	0.0	71.9	0.0	0.0	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:	0.0	23.7	64.0	56.7	6.9	0.0	19.0	0.0	71.9	0.0	0.0	0.0
LOS by Move:	A	C	E	E	A	A	B	A	E	A	A	A
HCM2kAvgQ:	0	6	19	25	6	0	2	0	21	0	0	0

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #47 State St. and SR-210 Fwy. WB On/Off Ramps

Cycle (sec):	65	Critical Vol./Cap.(X):	0.975
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	29.7
Optimal Cycle:	125	Level Of Service:	C

Street Name:	State St.						SR-210 Fwy. WB On/Off Ramps					
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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	2 0	2 0	0	0 0	1 1	1	0 0	0 0	0	1 0	1! 0	1
Volume Module:												
Base Vol:	959	683	0	0	682	1556	0	0	0	453	0	215
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:	959	683	0	0	682	1556	0	0	0	453	0	215
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:	1009	719	0	0	718	1638	0	0	0	477	0	226
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1009	719	0	0	718	1638	0	0	0	477	0	226
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:	1009	719	0	0	718	1638	0	0	0	477	0	226
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	1.00	2.00	0.00	0.00	0.00	1.69	0.00	1.31
Final Sat.:	3400	3800	0	0	1900	3800	0	0	0	3042	0	2489
Capacity Analysis Module:												
Vol/Sat:	0.30	0.19	0.00	0.00	0.38	0.43	0.00	0.00	0.00	0.16	0.00	0.09
Crit Moves:	****					****				****		
Green/Cycle:	0.30	0.75	0.00	0.00	0.44	0.44	0.00	0.00	0.00	0.16	0.00	0.16
Volume/Cap:	0.97	0.25	0.00	0.00	0.85	0.97	0.00	0.00	0.00	0.97	0.00	0.57
Delay/Veh:	44.3	2.6	0.0	0.0	19.1	30.7	0.0	0.0	0.0	54.3	0.0	25.8
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:	44.3	2.6	0.0	0.0	19.1	30.7	0.0	0.0	0.0	54.3	0.0	25.8
LOS by Move:	D	A	A	A	B	C	A	A	A	D	A	C
HCM2kAvgQ:	18	2	0	0	16	23	0	0	0	11	0	4

Note: Queue reported is the number of cars per lane.

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Lytle Creek Ranch Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #48 State St. and SR-210 Fwy. EB On/Off Ramps

Cycle (sec):	65	Critical Vol./Cap.(X):	0.873
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	25.2
Optimal Cycle:	73	Level Of Service:	C

Street Name:	State St.						SR-210 Fwy. EB On/Off Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ovl			Ovl			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 2	0 1		1 1 0	0 2		0 1 0	0 1	
Volume Module:												
Base Vol:	357	1278	141	123	833	367	707	106	1080	49	64	87
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:	357	1278	141	123	833	367	707	106	1080	49	64	87
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:	376	1345	148	129	877	386	744	112	1137	52	67	92
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	376	1345	148	129	877	386	744	112	1137	52	67	92
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:	376	1345	148	129	877	386	744	112	1137	52	67	92
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	0.95	0.95	1.00	1.00
Lanes:	1.00	1.80	0.20	1.00	2.00	1.00	1.75	0.25	2.00	0.45	0.55	1.00
Final Sat.:	1800	3422	378	1800	3800	1900	3152	473	3600	805	1051	1900
Capacity Analysis Module:												
Vol/Sat:	0.21	0.39	0.39	0.07	0.23	0.20	0.24	0.24	0.32	0.06	0.06	0.05
Crit Moves:		****		****			****			****		
Green/Cycle:	0.25	0.43	0.43	0.09	0.28	0.54	0.26	0.26	0.51	0.09	0.09	0.09
Volume/Cap:	0.84	0.91	0.91	0.78	0.84	0.38	0.91	0.91	0.62	0.69	0.69	0.52
Delay/Veh:	36.1	25.1	25.1	49.5	28.2	9.0	35.8	35.8	12.1	40.3	40.3	31.0
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:	36.1	25.1	25.1	49.5	28.2	9.0	35.8	35.8	12.1	40.3	40.3	31.0
LOS by Move:	D	C	C	D	C	A	D	D	B	D	D	C
HCM2kAvgQ:	11	19	19	5	11	5	13	13	9	4	4	3

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #49 State St. and Highland Ave.

Cycle (sec):	95	Critical Vol./Cap.(X):	0.909
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	44.3
Optimal Cycle:	103	Level Of Service:	D

Street Name:	State St.						Highland Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	2 0 2	0 1		1 0 2	0 1		1 0 1	1 1		2 0 1	1 0	

Volume Module:												
Base Vol:	19	590	277	11	792	18	85	158	646	1384	66	158
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	590	277	11	792	18	85	158	646	1384	66	158
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	621	292	12	834	19	89	166	680	1457	69	166
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	621	292	12	834	19	89	166	680	1457	69	166
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:	20	621	292	12	834	19	89	166	680	1457	69	166
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00
Final Sat.:	3400	3800	1900	1800	3800	1900	1800	1900	3800	3400	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.01	0.16	0.15	0.01	0.22	0.01	0.05	0.09	0.18	0.43	0.04	0.09
Crit Moves:	****				****				****	****		
Green/Cycle:	0.06	0.21	0.65	0.08	0.23	0.23	0.26	0.18	0.18	0.44	0.36	0.36
Volume/Cap:	0.09	0.78	0.24	0.08	0.97	0.04	0.19	0.47	0.97	0.97	0.10	0.24
Delay/Veh:	42.1	40.7	6.9	40.6	59.9	28.8	27.4	34.8	61.7	42.4	20.0	21.2
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:	42.1	40.7	6.9	40.6	59.9	28.8	27.4	34.8	61.7	42.4	20.0	21.2
LOS by Move:	D	D	A	D	E	C	C	C	E	D	B	C
HCM2kAvgQ:	0	11	3	0	17	0	2	5	15	30	1	3

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #55 Ayala Dr. and Easton St.

Cycle (sec):	80	Critical Vol./Cap.(X):	1.057
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	52.7
Optimal Cycle:	130	Level Of Service:	D

Street Name:	Ayala Dr.						Easton St.					
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			Ovl			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 1			1 0 2 0 1			1 0 2 0 1			1 0 1 1 0		
Volume Module:												
Base Vol:	340	1008	74	42	1190	202	439	310	955	159	185	65
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:	340	1008	74	42	1190	202	439	310	955	159	185	65
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:	358	1061	78	44	1253	213	462	326	1005	167	195	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	358	1061	78	44	1253	213	462	326	1005	167	195	68
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:	358	1061	78	44	1253	213	462	326	1005	167	195	68
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	2.00	1.00	1.00	2.00	1.00	1.00	1.48	0.52
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3800	1900	1800	2812	988
Capacity Analysis Module:												
Vol/Sat:	0.20	0.28	0.04	0.02	0.33	0.11	0.26	0.09	0.53	0.09	0.07	0.07
Crit Moves:	****				****				****	****		
Green/Cycle:	0.19	0.39	0.39	0.11	0.31	0.31	0.31	0.31	0.50	0.09	0.09	0.09
Volume/Cap:	1.06	0.71	0.10	0.23	1.06	0.36	0.83	0.27	1.06	1.06	0.77	0.77
Delay/Veh:	97.3	22.0	15.4	33.4	70.3	21.7	35.7	20.8	65.6	124.1	45.4	45.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	97.3	22.0	15.4	33.4	70.3	21.7	35.7	20.8	65.6	124.1	45.4	45.4
LOS by Move:	F	C	B	C	E	C	D	C	E	F	D	D
HCM2kAvgQ:	17	12	1	1	25	4	14	3	37	9	5	5

Note: Queue reported is the number of cars per lane.

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Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #59 Alder Ave. and Baseline Rd.

Cycle (sec):	80	Critical Vol./Cap.(X):	0.998
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	51.2
Optimal Cycle:	130	Level Of Service:	D

Street Name:	Alder Ave.						Baseline Rd.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	0 1	0	1 0	1 0	1 0	1 0	0 1	0	1 0	0 1	0
Volume Module:												
Base Vol:	173	560	37	198	839	108	136	431	175	53	571	100
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:	173	560	37	198	839	108	136	431	175	53	571	100
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:	182	589	39	208	883	114	143	454	184	56	601	105
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	182	589	39	208	883	114	143	454	184	56	601	105
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:	182	589	39	208	883	114	143	454	184	56	601	105
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	0.94	0.06	1.00	1.77	0.23	1.00	0.71	0.29	1.00	0.85	0.15
Final Sat.:	1800	1782	118	1800	3367	433	1800	1351	549	1800	1617	283
Capacity Analysis Module:												
Vol/Sat:	0.10	0.33	0.33	0.12	0.26	0.26	0.08	0.34	0.34	0.03	0.37	0.37
Crit Moves:		****		****			****				****	
Green/Cycle:	0.12	0.33	0.33	0.12	0.32	0.32	0.08	0.37	0.37	0.08	0.37	0.37
Volume/Cap:	0.81	1.00	1.00	1.00	0.81	0.81	1.00	0.91	0.91	0.38	1.00	1.00
Delay/Veh:	53.8	61.9	61.9	96.9	29.1	29.1	111.2	39.6	39.6	36.3	58.2	58.2
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:	53.8	61.9	61.9	96.9	29.1	29.1	111.2	39.6	39.6	36.3	58.2	58.2
LOS by Move:	D	E	E	F	C	C	F	D	D	D	E	E
HCM2kAvgQ:	7	23	23	10	14	14	8	19	19	2	25	25

Note: Queue reported is the number of cars per lane.

Traffix 7.8.0115 (c) 2007 Dowling Assoc. Licensed to CRAIN & ASSOC., L.A.

Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #72 Cedar Ave. and Rialto Ave.

Cycle (sec):	80	Critical Vol./Cap.(X):	0.974
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	45.0
Optimal Cycle:	130	Level Of Service:	D

Street Name:	Cedar Ave.						Rialto Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 1	1 0		1 0 2	0 1		1 0 1	1 0		1 0 1	1 0	
Volume Module:												
Base Vol:	287	1144	111	160	1181	280	197	863	228	102	713	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:	287	1144	111	160	1181	280	197	863	228	102	713	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	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:	302	1204	117	168	1243	295	207	908	240	107	751	262
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	302	1204	117	168	1243	295	207	908	240	107	751	262
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:	302	1204	117	168	1243	295	207	908	240	107	751	262
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	1.82	0.18	1.00	2.00	1.00	1.00	1.58	0.42	1.00	1.48	0.52
Final Sat.:	1800	3464	336	1800	3800	1900	1800	3006	794	1800	2816	984
Capacity Analysis Module:												
Vol/Sat:	0.17	0.35	0.35	0.09	0.33	0.16	0.12	0.30	0.30	0.06	0.27	0.27
Crit Moves:	****				****		****				****	
Green/Cycle:	0.17	0.40	0.40	0.11	0.34	0.34	0.12	0.31	0.31	0.08	0.27	0.27
Volume/Cap:	0.97	0.87	0.87	0.87	0.97	0.46	0.97	0.96	0.96	0.77	0.97	0.97
Delay/Veh:	76.8	27.7	27.7	66.6	45.4	21.4	89.2	44.8	44.8	58.1	50.5	50.5
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:	76.8	27.7	27.7	66.6	45.4	21.4	89.2	44.8	44.8	58.1	50.5	50.5
LOS by Move:	E	C	C	E	D	C	F	D	D	E	D	D
HCM2kAvgQ:	13	18	18	7	21	6	10	20	20	5	18	18

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #74 Cedar Ave. and Merrill Ave.

Cycle (sec):	80	Critical Vol./Cap.(X):	1.033
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	47.2
Optimal Cycle:	130	Level Of Service:	D

Street Name:	Cedar Ave.						Merrill Ave.					
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:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0 2 0 1			1 0 1 1 0			1 0 1 1 0			1 0 1 1 0		
Volume Module:												
Base Vol:	191	1960	203	207	1752	184	232	890	161	141	573	184
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:	191	1960	203	207	1752	184	232	890	161	141	573	184
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:	201	2063	214	218	1844	194	244	937	169	148	603	194
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	201	2063	214	218	1844	194	244	937	169	148	603	194
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:	201	2063	214	218	1844	194	244	937	169	148	603	194
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	1.81	0.19	1.00	1.69	0.31	1.00	1.51	0.49
Final Sat.:	1800	3800	1900	1800	3439	361	1800	3218	582	1800	2876	924
Capacity Analysis Module:												
Vol/Sat:	0.11	0.54	0.11	0.12	0.54	0.54	0.14	0.29	0.29	0.08	0.21	0.21
Crit Moves:		****		****				****				
Green/Cycle:	0.11	0.53	0.53	0.12	0.53	0.53	0.28	0.28	0.28	0.28	0.28	0.28
Volume/Cap:	1.01	1.03	0.21	1.03	1.01	1.01	0.48	1.03	1.03	0.29	0.74	0.74
Delay/Veh:	101.3	48.0	10.2	106.0	40.6	40.6	24.6	64.9	64.9	22.8	29.0	29.0
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:	101.3	48.0	10.2	106.0	40.6	40.6	24.6	64.9	64.9	22.8	29.0	29.0
LOS by Move:	F	D	B	F	D	D	C	E	E	C	C	C
HCM2kAvgQ:	10	36	3	11	34	34	6	22	22	3	11	11

Note: Queue reported is the number of cars per lane.

APPENDIX G

LYTLE CREEK RANCH SPECIFIC PLAN

PROJECT TRIP GENERATION COMPARISON

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Crain & Associates
February 26, 2008

Lytle Creek Ranch Specific Plan
Project Trip Generation Comparison

This document compares the project trip generation for the draft Lytle Creek Ranch Specific Plan which was analyzed in the main body of the traffic study with the currently proposed revised draft Specific Plan in which some land use revisions were made. Based on the trip generation comparison, this document also addresses the potential for changes to the traffic impacts of the Specific Plan which could result from the land use revisions.

A detailed traffic impact analysis for the draft Lytle Creek Ranch Specific Plan was conducted in the main body of the traffic study. The draft Specific Plan project consists of 8,407 residential dwelling units (including 3,409 single-family detached units and 4,998 attached units), 849,420 square feet of retail development, 2 elementary schools with an enrollment totaling 1,950 students, 131 acres of park use, and a 198-acre golf course. However, the draft Specific Plan that is currently proposed consists of land uses that have been slightly revised compared to the draft Specific Plan that was analyzed in the main body of the traffic study. These revisions include a net change from single-family detached homes to multi-family attached units of 558 residential dwelling units, a net decrease of approximately 15 acres of park use and a net increase of approximately 9 acres of golf course use. Some of the land uses have also been relocated within and between the four Neighborhoods of the Specific Plan. However, the total number of residential dwelling units, the total size of the retail development and the total number of students for the schools will remain the same. Table 1 below summarizes the land use revisions of the Specific Plan.

Table 1
Comparison of Lytle Creek Ranch Specific Plan
With and Without Land Use Revisions

Land Use	Unit	Currently Proposed Specific Plan (with Land Use Revisions)	Specific Plan (from August 2007 Traffic Study)	Net Change
Single-Family Detached Homes	du	2,851	3,409	-558
Multi-Family Attached Homes	du	5,556	4,998	558
Retail Development	sq. ft.	849,420	849,420	0
Elementary School	student	1,950	1,950	0
Park	acre	116	131	-15
Golf Course	acre	207	198	9

In order to determine if the land use revisions would result in a significant change in traffic impact conclusions, the trip generations for the Specific Plan studied in the main body of the traffic study and with the subsequent land use revisions were compared. The traffic study's trip generation assumptions were based on the East Area (computer) Transportation Model as prescribed by the San Bernardino Associated Governments (SanBAG). The trip generation assumptions from the model are based upon modified trip generation rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual. Using the ITE base trip rates from Attachment 1, the trip generation for the Specific Plan that was analyzed in the main body of the traffic study was determined. The generation values were calculated for the daily, AM peak hour and PM peak hour periods and are shown in Attachment 2. It is important to note that the trip estimates shown in Attachment 2 are about 20 percent (AM plus PM peak hours) higher than the number of trips the model assigned to the network. The difference in trips is due to the model taking into account internal trip linkages and other adjustments, whereas the trip generation estimates based on ITE base rates do not account for these trip discounts. Similarly, the trip generation values for the Specific Plan with the land use revisions were also determined using the ITE rates, as shown in Attachment 3.

A comparison of the total Specific Plan trip generation is contained in Attachments 2 and 3. As this comparison shows, the Specific Plan with the land use revisions is expected to generate fewer total vehicle trips (approximately 2,060 fewer daily trips including 173 fewer trips during the AM peak Hour and 271 fewer trips during the PM peak hour) compared to the Specific Plan proposal prior to the land use revisions as it was analyzed in the main body of the traffic study. The trip generation values for each of the Neighborhoods are also expected to be less with the exception of Neighborhood 2. In addition, the traffic shifts resulting from the Specific Plan land use revisions are nominal since the overall project generation is approximately 3 percent less during the AM and PM peak hour periods. However, in order to determine if the net increase in trip generation values in Neighborhood 2 would change traffic impact conclusions, an analysis assuming the net trip generation increase in Neighborhood 2 was conducted at those study intersections which are located nearest Neighborhood 2. These intersections are located along Riverside Avenue and are at Linden Avenue, Ayala Drive, Knollwood Avenue and Country Club Drive. As shown in Table 2, the Specific Plan land use revisions are not anticipated to change traffic impact conclusions at the four study intersections nearest Neighborhood 2. [The significant Specific Plan traffic impact at the intersection of Riverside Avenue and Linden Avenue is expected to occur with or without the land use revisions. In addition, the implementation of the mitigation measure for this intersection that was recommended in the main body of the traffic study is still anticipated to reduce the traffic impact to a less than significant level for the revised Specific Plan.] Thus, it can be concluded that the Specific Plan land use revisions are not expected to alter project traffic impact conclusions at any study locations.

Table 2
Intersection Level of Service Summary
Future (2030) Traffic Conditions
With Lytle Creek Ranch Specific Plan Land Use Revisions

		Peak	Without Project (2030)			With Project (2030)				With Project + Mitigation (2030)		
No.	Intersection	Hour	V/C	Delay	LOS	V/C	Delay	LOS		V/C	Delay	LOS
22	RIVERSIDE AVE & LINDEN AVE	AM	[1]	40.4	E	1.218	108.1	F	*	0.605	13.5	B
		PM	[1]	32.1	D	1.686	280.7	F	*	0.881	26.1	C
23	RIVERSIDE AVE & AYALA DR	AM	0.585	16.0	B	0.835	18.2	B				
		PM	0.388	13.5	B	0.789	17.9	B				
24	RIVERSIDE AVE & KNOLLWOOD AVE	AM	0.305	7.2	A	0.424	8.8	A				
		PM	0.270	5.3	A	0.443	6.5	A				
25	RIVERSIDE AVE & COUNTRY CLUB DR	AM	0.426	12.3	B	0.711	18.3	B				
		PM	0.296	10.8	B	0.787	19.5	B				

* Denotes a significant project traffic impact, prior to mitigation.

[1] Volume to capacity ratio not provided for two-way, STOP sign-controlled intersections.

Attachment 1

ITE Trip Generation Rates

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ITE Trip Generation Rates

			AM Peak Hour			PM Peak Hour		
Land Use/Description	**Units**	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Single-Family Detached Homes	du	9.57	25%	75%	0.75	63%	37%	1.01
Multi-Family Attached Homes	du	5.86	17%	83%	0.44	67%	33%	0.52
Retail Development (Rates)	1000 sq. ft.	42.94	61%	39%	1.03	48%	52%	3.75
Elementary School	st	1.29	55%	45%	0.42	45%	55%	0.28
Park	acre	2.28	80%	20%	0.01	41%	59%	0.06
Golf Course	acre	5.04	74%	26%	0.21	34%	66%	0.30

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Attachment 2

Trip Generation for Draft Specific Plan

From Main Body of the Traffic Study

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Trip Generation for Draft Specific Plan from Main Body of the Traffic Study

				AM Peak Hour			PM Peak Hour			AM + PM
Land Use/Description	**Size**	**Units**	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**Total**
Neighborhood I										
Single-Family Detached Homes	970	du	9,283	182	546	728	617	363	980	
Attached Residential Homes	336	du	1,969	25	123	148	117	58	175	
Retail Development (Rates)	0	sq. ft.	0	0	0	0	0	0	0	
Elementary School	0	st	0	0	0	0	0	0	0	
Park	50	acre	114	1	0	1	1	2	3	
Golf Course	0	acre	0	0	0	0	0	0	0	
Total			**11,366**	**208**	**669**	**877**	**735**	**423**	**1,158**	**2,035**
Neighborhood II										
Single-Family Detached Homes	1,271	du	12,163	238	715	953	809	475	1,284	
Attached Residential Homes	1,037	du	6,077	78	378	456	361	178	539	
Retail Development (Rates)	163,350	sq. ft.	7,014	102	66	168	294	319	613	
Elementary School	0	st	0	0	0	0	0	0	0	
Park	13	acre	30	0	0	0	0	1	1	
Golf Course	198	acre	998	31	11	42	20	39	59	
Total			**26,282**	**449**	**1,170**	**1,619**	**1,484**	**1,012**	**2,496**	**4,115**
Neighborhood III										
Single-Family Detached Homes	1,168	du	11,178	219	657	876	743	437	1,180	
Attached Residential Homes	2,383	du	13,964	178	871	1,049	830	409	1,239	
Retail Development (Rates)	555,390	sq. ft.	23,848	349	223	572	1,000	1,083	2,083	
Elementary School	1,950	st	2,516	450	369	819	246	300	546	
Park	53	acre	121	1	0	1	1	2	3	
Golf Course	0	acre	0	0	0	0	0	0	0	
Total			**51,627**	**1,197**	**2,120**	**3,317**	**2,820**	**2,231**	**5,051**	**8,368**

Trip Generation for Draft Specific Plan from Main Body of the Traffic Study (Continued)

Land Use/Description	Size	Units	Daily	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	AM + PM Total
Neighborhood IV										
Single-Family Detached Homes	0	du	0	0	0	0	0	0	0	
Attached Residential Homes	1,242	du	7,278	93	453	546	433	213	646	
Retail Development (Rates)	130,680	sq. ft.	5,611	82	53	135	235	255	490	
Elementary School	0	st	0	0	0	0	0	0	0	
Park	15	acre	34	0	0	0	0	1	1	
Golf Course	0	acre	0	0	0	0	0	0	0	
Total			**12,923**	**175**	**506**	**681**	**668**	**469**	**1,137**	**1,818**
Total (Neighborhoods I - IV)										
Single-Family Detached Homes	3,409	du	32,624	639	1,918	2,557	2,169	1,274	3,443	
Attached Residential Homes	4,998	du	29,288	374	1,825	2,199	1,741	858	2,599	
Retail Development (Rates)	849,420	sq. ft.	36,474	534	341	875	1,529	1,656	3,185	
Elementary School	1,950	st	2,516	450	369	819	246	300	546	
Park	131	acre	299	1	0	1	3	5	8	
Golf Course	198	acre	998	31	11	42	20	39	59	
Total			**102,199**	**2,029**	**4,464**	**6,493**	**5,708**	**4,132**	**9,840**	**16,333**
Total Assigned Trips - Model			**79,332**	**2,090**	**2,990**	**5,080**	**4,303**	**3,669**	**7,972**	**13,052**
Percent of ITE			78%			78%			81%	80%

Attachment 3

Trip Generation for

February 2008 Draft Specific Plan

With Land Use Revisions

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Trip Generation for February 2008 Draft Specific Plan With Land Use Revisions

Land Use/Description	Size	Units	Daily	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	AM + PM Total
Neighborhood I										
Single-Family Detached Homes	476	du	4,555	89	268	357	303	178	481	
Attached Residential Homes	802	du	4,700	60	293	353	279	138	417	
Retail Development (Rates)	0	sq. ft.	0	0	0	0	0	0	0	
Elementary School	0	st	0	0	0	0	0	0	0	
Park	11	acre	25	0	0	0	0	1	1	
Golf Course	0	acre	0	0	0	0	0	0	0	
Total			**9,280**	**149**	**561**	**710**	**582**	**317**	**899**	**1,609**
Neighborhood II										
Single-Family Detached Homes	1,305	du	12,489	245	734	979	830	488	1,318	
Attached Residential Homes	1,626	du	9,528	122	593	715	567	279	846	
Retail Development (Rates)	102,452	sq. ft.	4,399	65	41	106	184	200	384	
Elementary School	0	st	0	0	0	0	0	0	0	
Park	19	acre	43	0	0	0	0	1	1	
Golf Course	207	acre	1,043	32	11	43	21	41	62	
Total			**27,502**	**464**	**1,379**	**1,843**	**1,602**	**1,009**	**2,611**	**4,454**
Neighborhood III										
Single-Family Detached Homes	1,070	du	10,240	201	602	803	681	400	1,081	
Attached Residential Homes	2,259	du	13,238	169	825	994	787	388	1,175	
Retail Development (Rates)	566,279	sq. ft.	24,316	356	227	583	1,020	1,104	2,124	
Elementary School	1,950	st	2,516	450	369	819	246	300	546	
Park	71	acre	161	1	0	1	2	2	4	
Golf Course	0	acre	0	0	0	0	0	0	0	
Total			**50,471**	**1,177**	**2,023**	**3,200**	**2,736**	**2,194**	**4,930**	**8,130**

Trip Generation for February 2008 Draft Specific Plan With Land Use Revisions (Continued)

Land Use/Description	Size	Units	Daily	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	AM + PM Total
Neighborhood IV										
Single-Family Detached Homes	0	du	0	0	0	0	0	0	0	
Attached Residential Homes	869	du	5,092	65	317	382	303	149	452	
Retail Development (Rates)	180,689	sq. ft.	7,759	113	73	186	325	353	678	
Elementary School	0	st	0	0	0	0	0	0	0	
Park	15	acre	34	0	0	0	0	1	1	
Golf Course	0	acre	0	0	0	0	0	0	0	
Total			**12,885**	**178**	**390**	**568**	**628**	**503**	**1,131**	**1,699**
Total (Neighborhoods I - IV)										
Single-Family Detached Homes	2,851	du	27,284	535	1,603	2,138	1,814	1,066	2,880	
Attached Residential Homes	5,556	du	32,558	416	2,029	2,445	1,936	953	2,889	
Retail Development (Rates)	849,420	sq. ft.	36,474	534	341	875	1,529	1,656	3,185	
Elementary School	1,950	st	2,516	450	369	819	246	300	546	
Park	116	acre	264	1	0	1	3	4	7	
Golf Course	207	acre	1,043	32	11	43	21	41	62	
Total			**100,139**	**1,968**	**4,353**	**6,321**	**5,549**	**4,020**	**9,569**	**15,890**
Total (Specific Plan w/o Land Use Revisions)			**102,199**	**2,029**	**4,464**	**6,493**	**5,708**	**4,132**	**9,840**	**16,333**
Percent Change			-2%			-3%			-3%	-3%

Specific Plan Trip Generation Comparison (With Minus Without Land Use Revisions)

	Daily	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
Neighborhood I	(2,086)	(59)	(108)	(167)	(153)	(106)	(259)
Neighborhood II	1,220	15	209	224	118	(3)	115
Neighborhood III	(1,156)	(20)	(97)	(117)	(84)	(37)	(121)
Neighborhood IV	(38)	3	(116)	(113)	(40)	34	(6)
Total	(2,060)	(61)	(112)	(173)	(159)	(112)	(271)

Attachment 4

Traffix Worksheets for

February 2008 Revised Draft Specific Plan

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Lytle Creek Ranch Project
Future 2030 With Project Condition
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #22 Linden Ave. and Riverside Ave.

Cycle (sec):	130	Critical Vol./Cap.(X):	1.218
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	108.1
Optimal Cycle:	130	Level Of Service:	F

Street Name:	Linden Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	1! 0	0	1 1	0 0	1	1 0	1 1	0	0 0	1! 0	0
Volume Module:												
Base Vol:	21	14	7	210	33	34	68	1357	86	62	944	161
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	14	7	210	33	34	68	1357	86	62	944	161
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	15	7	221	35	36	72	1428	91	65	994	169
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	15	7	221	35	36	72	1428	91	65	994	169
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	22	15	7	221	35	36	72	1428	91	65	994	169
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.52	0.32	0.16	1.74	0.26	1.00	1.00	1.88	0.12	0.05	0.81	0.14
Final Sat.:	924	616	308	3134	492	1900	1800	3574	226	101	1532	261
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.07	0.07	0.02	0.04	0.40	0.40	0.65	0.65	0.65
Crit Moves:	****				****			****		****		
Green/Cycle:	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.32	0.32	0.52	0.78	0.78
Volume/Cap:	0.52	0.52	0.52	1.25	1.25	0.33	0.72	1.25	1.25	1.25	0.83	0.83
Delay/Veh:	66.1	66.1	66.1	209.2	209	60.9	82.2	165	165.4	154.0	13.0	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:	66.1	66.1	66.1	209.2	209	60.9	82.2	165	165.4	154.0	13.0	13.0
LOS by Move:	E	E	E	F	F	E	F	F	F	F	B	B
HCM2kAvgQ:	3	3	3	11	11	2	4	51	51	80	32	32

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

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Intersection #22 Linden Ave. and Riverside Ave.

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Cycle (sec):	65	Critical Vol./Cap.(X):	0.605
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	13.5
Optimal Cycle:	60	Level Of Service:	B

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Street Name:	Linden Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	1! 0	0	1 1	0 0	1	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	21	14	7	210	33	34	68	1357	86	62	944	161
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	14	7	210	33	34	68	1357	86	62	944	161
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	15	7	221	35	36	72	1428	91	65	994	169
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	15	7	221	35	36	72	1428	91	65	994	169
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	22	15	7	221	35	36	72	1428	91	65	994	169
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.52	0.32	0.16	1.74	0.26	1.00	1.00	1.88	0.12	1.00	1.71	0.29
Final Sat.:	924	616	308	3134	492	1900	1800	3574	226	1800	3246	554
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.07	0.07	0.02	0.04	0.40	0.40	0.04	0.31	0.31
Crit Moves:	****				****			****		****		
Green/Cycle:	0.09	0.09	0.09	0.10	0.10	0.10	0.16	0.59	0.59	0.09	0.52	0.52
Volume/Cap:	0.26	0.26	0.26	0.68	0.68	0.18	0.25	0.68	0.68	0.39	0.59	0.59
Delay/Veh:	28.2	28.2	28.2	33.0	33.0	27.0	24.5	10.0	10.0	29.3	11.1	11.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.2	28.2	28.2	33.0	33.0	27.0	24.5	10.0	10.0	29.3	11.1	11.1
LOS by Move:	C	C	C	C	C	C	C	B	B	C	B	B
HCM2kAvgQ:	1	1	1	4	4	1	2	11	11	2	9	9

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Note: Queue reported is the number of cars per lane.

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Lytle Creek Ranch Project
Future 2030 With Project Condition
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #22 Linden Ave. and Riverside Ave.

Cycle (sec):	130	Critical Vol./Cap.(X):	1.686
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	280.7
Optimal Cycle:	130	Level Of Service:	F

Street Name:	Linden Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	1! 0	0	1 1	0 0	1	1 0	1 1	0	0 0	1! 0	0
Volume Module:												
Base Vol:	38	30	30	594	30	89	135	1219	87	71	1284	415
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:	38	30	30	594	30	89	135	1219	87	71	1284	415
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:	40	32	32	625	32	94	142	1283	92	75	1352	437
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	32	32	625	32	94	142	1283	92	75	1352	437
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:	40	32	32	625	32	94	142	1283	92	75	1352	437
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.40	0.30	0.30	1.91	0.09	1.00	1.00	1.87	0.13	0.04	0.73	0.23
Final Sat.:	721	569	569	3436	174	1900	1800	3547	253	76	1375	444
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.06	0.18	0.18	0.05	0.08	0.36	0.36	0.98	0.98	0.98
Crit Moves:	****				****			****		****		
Green/Cycle:	0.05	0.05	0.05	0.11	0.11	0.11	0.06	0.21	0.21	0.57	0.73	0.73
Volume/Cap:	1.20	1.20	1.20	1.71	1.71	0.46	1.35	1.71	1.71	1.71	1.35	1.35
Delay/Veh:	223.1	223	223.1	388.9	389	56.3	269.2	376	376.4	351.5	181	180.5
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:	223.1	223	223.1	388.9	389	56.3	269.2	376	376.4	351.5	181	180.5
LOS by Move:	F	F	F	F	F	E	F	F	F	F	F	F
HCM2kAvgQ:	9	9	9	33	33	4	13	63	63	167	132	132

Note: Queue reported is the number of cars per lane.

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PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #22 Linden Ave. and Riverside Ave.

Cycle (sec):	75	Critical Vol./Cap.(X):	0.881
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	26.1
Optimal Cycle:	81	Level Of Service:	C

Street Name:	Linden Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	1! 0	0	1 1	0 0	1	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	38	30	30	594	30	89	135	1219	87	71	1284	415
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:	38	30	30	594	30	89	135	1219	87	71	1284	415
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:	40	32	32	625	32	94	142	1283	92	75	1352	437
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	32	32	625	32	94	142	1283	92	75	1352	437
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:	40	32	32	625	32	94	142	1283	92	75	1352	437
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.40	0.30	0.30	1.91	0.09	1.00	1.00	1.87	0.13	1.00	1.51	0.49
Final Sat.:	721	569	569	3436	174	1900	1800	3547	253	1800	2872	928
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.06	0.18	0.18	0.05	0.08	0.36	0.36	0.04	0.47	0.47
Crit Moves:	****				****		****				****	
Green/Cycle:	0.08	0.08	0.08	0.20	0.20	0.20	0.09	0.50	0.50	0.11	0.52	0.52
Volume/Cap:	0.69	0.69	0.69	0.90	0.90	0.24	0.90	0.72	0.72	0.38	0.90	0.90
Delay/Veh:	46.8	46.8	46.8	43.3	43.3	25.4	77.5	16.1	16.1	32.1	22.1	22.1
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:	46.8	46.8	46.8	43.3	43.3	25.4	77.5	16.1	16.1	32.1	22.1	22.1
LOS by Move:	D	D	D	D	D	C	E	B	B	C	C	C
HCM2kAvgQ:	4	4	4	12	12	2	7	14	14	2	23	23

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project Condition
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #23 Ayala Dr. and Riverside Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.835
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.2
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Ayala Dr.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	0 0	2	0 0	0 0	0	0 0	1 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	172	0	278	0	0	0	0	1100	453	378	980	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:	172	0	278	0	0	0	0	1100	453	378	980	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:	181	0	293	0	0	0	0	1158	477	398	1032	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	181	0	293	0	0	0	0	1158	477	398	1032	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	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:	181	0	293	0	0	0	0	1158	477	398	1032	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	0.00	2.00	0.00	0.00	0.00	0.00	1.42	0.58	1.00	2.00	0.00
Final Sat.:	1800	0	3600	0	0	0	0	2692	1108	1800	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.10	0.00	0.08	0.00	0.00	0.00	0.00	0.43	0.43	0.22	0.27	0.00
Crit Moves:	****							****		****		
Green/Cycle:	0.12	0.00	0.12	0.00	0.00	0.00	0.00	0.51	0.51	0.26	0.57	0.00
Volume/Cap:	0.84	0.00	0.68	0.00	0.00	0.00	0.00	0.84	0.84	0.84	0.48	0.00
Delay/Veh:	49.4	0.0	29.5	0.0	0.0	0.0	0.0	15.7	15.7	33.0	7.8	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:	49.4	0.0	29.5	0.0	0.0	0.0	0.0	15.7	15.7	33.0	7.8	0.0
LOS by Move:	D	A	C	A	A	A	A	B	B	C	A	A
HCM2kAvgQ:	6	0	4	0	0	0	0	16	16	10	6	0

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project Condition
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

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Intersection #23 Ayala Dr. and Riverside Ave.

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Cycle (sec):	60	Critical Vol./Cap.(X):	0.789
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	17.9
Optimal Cycle:	60	Level Of Service:	B

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Street Name:	Ayala Dr.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	0 0	2	0 0	0 0	0	0 0	1 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	429	0	366	0	0	0	0	1096	288	129	1247	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:	429	0	366	0	0	0	0	1096	288	129	1247	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:	452	0	385	0	0	0	0	1154	303	136	1313	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	452	0	385	0	0	0	0	1154	303	136	1313	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	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:	452	0	385	0	0	0	0	1154	303	136	1313	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	0.00	2.00	0.00	0.00	0.00	0.00	1.58	0.42	1.00	2.00	0.00
Final Sat.:	1800	0	3600	0	0	0	0	3009	791	1800	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.25	0.00	0.11	0.00	0.00	0.00	0.00	0.38	0.38	0.08	0.35	0.00
Crit Moves:	****							****		****		
Green/Cycle:	0.32	0.00	0.32	0.00	0.00	0.00	0.00	0.48	0.48	0.10	0.45	0.00
Volume/Cap:	0.79	0.00	0.34	0.00	0.00	0.00	0.00	0.79	0.79	0.75	0.76	0.00
Delay/Veh:	26.2	0.0	15.9	0.0	0.0	0.0	0.0	15.4	15.4	42.8	15.8	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:	26.2	0.0	15.9	0.0	0.0	0.0	0.0	15.4	15.4	42.8	15.8	0.0
LOS by Move:	C	A	B	A	A	A	A	B	B	D	B	A
HCM2kAvgQ:	10	0	3	0	0	0	0	14	14	5	12	0

****

Note: Queue reported is the number of cars per lane.

****

Lytle Creek Ranch Project
Future 2030 With Project Condition
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #24 Knollwood Ave. and Riverside Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.424
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	8.8
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Knollwood Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	0 0	0	1 0	0 0	1	1 0	2 0	0	0 0	1 1	0
Volume Module:												
Base Vol:	0	0	0	9	0	165	17	1358	0	0	1177	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	9	0	165	17	1358	0	0	1177	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	9	0	174	18	1429	0	0	1239	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	9	0	174	18	1429	0	0	1239	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:	0	0	0	9	0	174	18	1429	0	0	1239	17
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.97	0.03
Final Sat.:	0	0	0	1800	0	1900	1800	3800	0	0	3749	51
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.01	0.00	0.09	0.01	0.38	0.00	0.00	0.33	0.33
Crit Moves:				****				****		****		
Green/Cycle:	0.00	0.00	0.00	0.16	0.00	0.16	0.17	0.64	0.00	0.00	0.57	0.57
Volume/Cap:	0.00	0.00	0.00	0.03	0.00	0.58	0.06	0.58	0.00	0.00	0.58	0.58
Delay/Veh:	0.0	0.0	0.0	21.5	0.0	26.5	20.8	6.5	0.0	0.0	8.6	8.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	21.5	0.0	26.5	20.8	6.5	0.0	0.0	8.6	8.6
LOS by Move:	A	A	A	C	A	C	C	A	A	A	A	A
HCM2kAvgQ:	0	0	0	0	0	4	0	8	0	0	8	8

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project Condition
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #24 Knollwood Ave. and Riverside Ave.

Cycle (sec):	70	Critical Vol./Cap.(X):	0.443
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	6.5
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Knollwood Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	0 0	0	1 0	0 0	1	1 0	2 0	0	0 0	1 1	0
Volume Module:												
Base Vol:	0	0	0	9	0	87	44	1444	0	0	1239	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:	0	0	0	9	0	87	44	1444	0	0	1239	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:	0	0	0	9	0	92	46	1520	0	0	1304	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	9	0	92	46	1520	0	0	1304	43
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	9	0	92	46	1520	0	0	1304	43
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.94	0.06
Final Sat.:	0	0	0	1800	0	1900	1800	3800	0	0	3678	122
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.01	0.00	0.05	0.03	0.40	0.00	0.00	0.35	0.35
Crit Moves:				****				****		****		
Green/Cycle:	0.00	0.00	0.00	0.09	0.00	0.09	0.16	0.74	0.00	0.00	0.66	0.66
Volume/Cap:	0.00	0.00	0.00	0.06	0.00	0.54	0.16	0.54	0.00	0.00	0.53	0.53
Delay/Veh:	0.0	0.0	0.0	29.3	0.0	34.0	25.6	4.2	0.0	0.0	6.3	6.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	29.3	0.0	34.0	25.6	4.2	0.0	0.0	6.3	6.3
LOS by Move:	A	A	A	C	A	C	C	A	A	A	A	A
HCM2kAvgQ:	0	0	0	0	0	3	1	8	0	0	8	8

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project Condition
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #25 Country Club Dr. and Riverside Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.711
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.3
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Country Club Dr.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 1	0 0	1	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	126	117	10	209	280	239	174	1099	165	4	864	61
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:	126	117	10	209	280	239	174	1099	165	4	864	61
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:	133	123	11	220	295	252	183	1157	174	4	909	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	133	123	11	220	295	252	183	1157	174	4	909	64
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:	133	123	11	220	295	252	183	1157	174	4	909	64
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.53	0.47	1.00	1.00	0.54	0.46	1.00	1.74	0.26	1.00	1.87	0.13
Final Sat.:	958	889	1900	1800	1025	875	1800	3304	496	1800	3549	251
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.01	0.12	0.29	0.29	0.10	0.35	0.35	0.00	0.26	0.26
Crit Moves:					****			****		****		
Green/Cycle:	0.36	0.36	0.36	0.36	0.36	0.36	0.15	0.44	0.44	0.10	0.39	0.39
Volume/Cap:	0.38	0.38	0.02	0.34	0.80	0.80	0.66	0.80	0.80	0.02	0.66	0.66
Delay/Veh:	14.6	14.6	12.3	14.3	23.7	23.7	29.9	17.3	17.3	24.4	16.4	16.4
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:	14.6	14.6	12.3	14.3	23.7	23.7	29.9	17.3	17.3	24.4	16.4	16.4
LOS by Move:	B	B	B	B	C	C	C	B	B	C	B	B
HCM2kAvgQ:	4	4	0	3	11	11	5	13	13	0	9	9

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project Condition
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #25 Country Club Dr. and Riverside Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.787
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	19.5
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Country Club Dr.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 1	0 0	1	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	161	257	18	139	206	184	249	978	113	8	1034	142
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:	161	257	18	139	206	184	249	978	113	8	1034	142
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	169	271	19	146	217	194	262	1029	119	8	1088	149
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	169	271	19	146	217	194	262	1029	119	8	1088	149
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	169	271	19	146	217	194	262	1029	119	8	1088	149
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.40	0.60	1.00	1.00	0.53	0.47	1.00	1.79	0.21	1.00	1.76	0.24
Final Sat.:	716	1144	1900	1800	1004	896	1800	3406	394	1800	3341	459
Capacity Analysis Module:												
Vol/Sat:	0.24	0.24	0.01	0.08	0.22	0.22	0.15	0.30	0.30	0.00	0.33	0.33
Crit Moves:		****					****				****	
Green/Cycle:	0.30	0.30	0.30	0.30	0.30	0.30	0.19	0.45	0.45	0.15	0.41	0.41
Volume/Cap:	0.79	0.79	0.03	0.27	0.72	0.72	0.79	0.67	0.67	0.03	0.79	0.79
Delay/Veh:	26.5	26.5	14.8	16.2	23.1	23.1	35.0	14.0	14.0	21.9	18.0	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:	26.5	26.5	14.8	16.2	23.1	23.1	35.0	14.0	14.0	21.9	18.0	18.0
LOS by Move:	C	C	B	B	C	C	D	B	B	C	B	B
HCM2kAvgQ:	10	10	0	2	8	8	7	9	9	0	12	12

Note: Queue reported is the number of cars per lane.

Appendix II-A-G

Crain & Associates
Lytle Creek Ranch Specific Plan
Project Trip Generation Comparison
February 26, 2008

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Crain & Associates
February 26, 2008

Lytle Creek Ranch Specific Plan
Project Trip Generation Comparison

This document compares the project trip generation for the draft Lytle Creek Ranch Specific Plan which was analyzed in the August 2007 traffic study with the currently proposed revised draft Specific Plan in which some land use revisions were made. Based on the trip generation comparison, this document also addresses the potential for changes to the traffic impacts of the Specific Plan which could result from the land use revisions.

A detailed traffic impact analysis for the proposed Lytle Creek Ranch Specific Plan was conducted in August 2007. The draft Specific Plan project described in that study consisted of 8,407 residential dwelling units (including 3,409 single-family detached units and 4,998 attached units), 849,420 square feet of retail development, 2 elementary schools with an enrollment totaling 1,950 students, 131 acres of park use, and a 198-acre golf course. However, the draft Specific Plan that is currently proposed consists of land uses that have been slightly revised compared to the draft Specific Plan that was analyzed in the August 2007 traffic study. These revisions include a net change from single-family detached homes to multi-family attached units of 558 residential dwelling units, a net decrease of approximately 15 acres of park use and a net increase of approximately 9 acres of golf course use. Some of the land uses have also been relocated within and between the four Neighborhoods of the Specific Plan. However, the total number of residential dwelling units, the total size of the retail development and the total number of students for the schools will remain the same. Table 1 below summarizes the land use revisions of the Specific Plan.

Table 1
Comparison of Lytle Creek Ranch Specific Plan
With and Without Land Use Revisions

Land Use	Unit	Currently Proposed Specific Plan (with Land Use Revisions)	Specific Plan (from August 2007 Traffic Study)	Net Change
Single-Family Detached Homes	du	2,851	3,409	-558
Multi-Family Attached Homes	du	5,556	4,998	558
Retail Development	sq. ft.	849,420	849,420	0
Elementary School	student	1,950	1,950	0
Park	acre	116	131	-15
Golf Course	acre	207	198	9

In order to determine if the land use revisions would result in a significant change in traffic impact conclusions, the trip generations for the Specific Plan studied in August 2007 and with the subsequent land use revisions were compared. The traffic study's trip generation assumptions were based on the East Area (computer) Transportation Model as prescribed by the San Bernardino Associated Governments (SanBAG). The trip generation assumptions from the model are based upon modified trip generation rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual. Using the ITE base trip rates from Attachment 1, the trip generation for the Specific Plan that was analyzed in the August 2007 traffic study was determined. The generation values were calculated for the daily, AM peak hour and PM peak hour periods and are shown in Attachment 2. It is important to note that the trip estimates shown in Attachment 2 are about 20 percent (AM plus PM peak hours) higher than the number of trips the model assigned to the network. The difference in trips is due to the model taking into account internal trip linkages and other adjustments, whereas the trip generation estimates based on ITE base rates do not account for these trip discounts. Similarly, the trip generation values for the Specific Plan with the land use revisions were also determined using the ITE rates, as shown in Attachment 3.

A comparison of the total Specific Plan trip generation is contained in Attachments 2 and 3. As this comparison shows, the Specific Plan with the land use revisions is expected to generate fewer total vehicle trips (approximately 2,060 fewer daily trips including 173 fewer trips during the AM peak Hour and 271 fewer trips during the PM peak hour) compared to the Specific Plan proposal prior to the land use revisions as it was analyzed in the August 2007 traffic study. The trip generation values for each of the Neighborhoods are also expected to be less with the exception of Neighborhood 2. In addition, the traffic shifts resulting from the Specific Plan land use revisions are nominal since the overall project generation is approximately 3 percent less during the AM and PM peak hour periods. However, in order to determine if the net increase in trip generation values in Neighborhood 2 would change traffic impact conclusions, an analysis assuming the net trip generation increase in Neighborhood 2 was conducted at those study intersections which are located nearest Neighborhood 2. These intersections are located along Riverside Avenue and are at Linden Avenue, Ayala Drive, Knollwood Avenue and Country Club Drive. As shown in Table 2, the Specific Plan land use revisions are not anticipated to change traffic impact conclusions at the four study intersections nearest Neighborhood 2. [The significant Specific Plan traffic impact at the intersection of Riverside Avenue and Linden Avenue is expected to occur with or without the land use revisions. In addition, the implementation of the mitigation measure for this intersection that was recommended in the August 2007 traffic study is still anticipated to reduce the traffic impact to a less than significant level for the revised Specific Plan.] Thus, it can be concluded that the Specific Plan land use revisions are not expected to alter project traffic impact conclusions at any study locations.

Table 2
Intersection Level of Service Summary
Future (2030) Traffic Conditions
With Lytle Creek Ranch Specific Plan Land Use Revisions

		Peak	Without Project (2030)			With Project (2030)				With Project + Mitigation (2030)		
No.	Intersection	Hour	V/C	Delay	LOS	V/C	Delay	LOS		V/C	Delay	LOS
22	RIVERSIDE AVE & LINDEN AVE	AM	[1]	40.4	E	1.218	108.1	F	*	0.605	13.5	B
		PM	[1]	32.1	D	1.686	280.7	F	*	0.881	26.1	C
23	RIVERSIDE AVE & AYALA DR	AM	0.585	16.0	B	0.835	18.2	B				
		PM	0.388	13.5	B	0.789	17.9	B				
24	RIVERSIDE AVE & KNOLLWOOD AVE	AM	0.305	7.2	A	0.424	8.8	A				
		PM	0.270	5.3	A	0.443	6.5	A				
25	RIVERSIDE AVE & COUNTRY CLUB DR	AM	0.426	12.3	B	0.711	18.3	B				
		PM	0.296	10.8	B	0.787	19.5	B				

* Denotes a significant project traffic impact, prior to mitigation.

[1] Volume to capacity ratio not provided for two-way, STOP sign-controlled intersections.

Attachment 1

ITE Trip Generation Rates

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ITE Trip Generation Rates

			AM Peak Hour			PM Peak Hour		
Land Use/Description	**Units**	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Single-Family Detached Homes	du	9.57	25%	75%	0.75	63%	37%	1.01
Multi-Family Attached Homes	du	5.86	17%	83%	0.44	67%	33%	0.52
Retail Development (Rates)	1000 sq. ft.	42.94	61%	39%	1.03	48%	52%	3.75
Elementary School	st	1.29	55%	45%	0.42	45%	55%	0.28
Park	acre	2.28	80%	20%	0.01	41%	59%	0.06
Golf Course	acre	5.04	74%	26%	0.21	34%	66%	0.30

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Attachment 2

Trip Generation for

August 2007 Draft Specific Plan

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Trip Generation for August 2007 Draft Specific Plan

Land Use/Description	Size	Units	Daily	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	AM + PM Total
Neighborhood I										
Single-Family Detached Homes	970	du	9,283	182	546	728	617	363	980	
Attached Residential Homes	336	du	1,969	25	123	148	117	58	175	
Retail Development (Rates)	0	sq. ft.	0	0	0	0	0	0	0	
Elementary School	0	st	0	0	0	0	0	0	0	
Park	50	acre	114	1	0	1	1	2	3	
Golf Course	0	acre	0	0	0	0	0	0	0	
Total			**11,366**	**208**	**669**	**877**	**735**	**423**	**1,158**	**2,035**
Neighborhood II										
Single-Family Detached Homes	1,271	du	12,163	238	715	953	809	475	1,284	
Attached Residential Homes	1,037	du	6,077	78	378	456	361	178	539	
Retail Development (Rates)	163,350	sq. ft.	7,014	102	66	168	294	319	613	
Elementary School	0	st	0	0	0	0	0	0	0	
Park	13	acre	30	0	0	0	0	1	1	
Golf Course	198	acre	998	31	11	42	20	39	59	
Total			**26,282**	**449**	**1,170**	**1,619**	**1,484**	**1,012**	**2,496**	**4,115**
Neighborhood III										
Single-Family Detached Homes	1,168	du	11,178	219	657	876	743	437	1,180	
Attached Residential Homes	2,383	du	13,964	178	871	1,049	830	409	1,239	
Retail Development (Rates)	555,390	sq. ft.	23,848	349	223	572	1,000	1,083	2,083	
Elementary School	1,950	st	2,516	450	369	819	246	300	546	
Park	53	acre	121	1	0	1	1	2	3	
Golf Course	0	acre	0	0	0	0	0	0	0	
Total			**51,627**	**1,197**	**2,120**	**3,317**	**2,820**	**2,231**	**5,051**	**8,368**

Trip Generation for August 2007 Draft Specific Plan (Continued)

Land Use/Description	Size	Units	Daily	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	AM + PM Total
Neighborhood IV										
Single-Family Detached Homes	0	du	0	0	0	0	0	0	0	
Attached Residential Homes	1,242	du	7,278	93	453	546	433	213	646	
Retail Development (Rates)	130,680	sq. ft.	5,611	82	53	135	235	255	490	
Elementary School	0	st	0	0	0	0	0	0	0	
Park	15	acre	34	0	0	0	0	1	1	
Golf Course	0	acre	0	0	0	0	0	0	0	
Total			**12,923**	**175**	**506**	**681**	**668**	**469**	**1,137**	**1,818**
Total (Neighborhoods I - IV)										
Single-Family Detached Homes	3,409	du	32,624	639	1,918	2,557	2,169	1,274	3,443	
Attached Residential Homes	4,998	du	29,288	374	1,825	2,199	1,741	858	2,599	
Retail Development (Rates)	849,420	sq. ft.	36,474	534	341	875	1,529	1,656	3,185	
Elementary School	1,950	st	2,516	450	369	819	246	300	546	
Park	131	acre	299	1	0	1	3	5	8	
Golf Course	198	acre	998	31	11	42	20	39	59	
Total			**102,199**	**2,029**	**4,464**	**6,493**	**5,708**	**4,132**	**9,840**	**16,333**
Total Assigned Trips - Model			**79,332**	**2,090**	**2,990**	**5,080**	**4,303**	**3,669**	**7,972**	**13,052**
Percent of ITE			78%			78%			81%	80%

Attachment 3

Trip Generation for

February 2008 Draft Specific Plan

With Land Use Revisions

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Trip Generation for February 2008 Draft Specific Plan With Land Use Revisions

				AM Peak Hour			PM Peak Hour			AM + PM
Land Use/Description	**Size**	**Units**	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**Total**
Neighborhood I										
Single-Family Detached Homes	476	du	4,555	89	268	357	303	178	481	
Attached Residential Homes	802	du	4,700	60	293	353	279	138	417	
Retail Development (Rates)	0	sq. ft.	0	0	0	0	0	0	0	
Elementary School	0	st	0	0	0	0	0	0	0	
Park	11	acre	25	0	0	0	0	1	1	
Golf Course	0	acre	0	0	0	0	0	0	0	
Total			**9,280**	**149**	**561**	**710**	**582**	**317**	**899**	**1,609**
Neighborhood II										
Single-Family Detached Homes	1,305	du	12,489	245	734	979	830	488	1,318	
Attached Residential Homes	1,626	du	9,528	122	593	715	567	279	846	
Retail Development (Rates)	102,452	sq. ft.	4,399	65	41	106	184	200	384	
Elementary School	0	st	0	0	0	0	0	0	0	
Park	19	acre	43	0	0	0	0	1	1	
Golf Course	207	acre	1,043	32	11	43	21	41	62	
Total			**27,502**	**464**	**1,379**	**1,843**	**1,602**	**1,009**	**2,611**	**4,454**
Neighborhood III										
Single-Family Detached Homes	1,070	du	10,240	201	602	803	681	400	1,081	
Attached Residential Homes	2,259	du	13,238	169	825	994	787	388	1,175	
Retail Development (Rates)	566,279	sq. ft.	24,316	356	227	583	1,020	1,104	2,124	
Elementary School	1,950	st	2,516	450	369	819	246	300	546	
Park	71	acre	161	1	0	1	2	2	4	
Golf Course	0	acre	0	0	0	0	0	0	0	
Total			**50,471**	**1,177**	**2,023**	**3,200**	**2,736**	**2,194**	**4,930**	**8,130**

Trip Generation for February 2008 Draft Specific Plan With Land Use Revisions (Continued)

Land Use/Description	Size	Units	Daily	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	AM + PM Total
Neighborhood IV										
Single-Family Detached Homes	0	du	0	0	0	0	0	0	0	
Attached Residential Homes	869	du	5,092	65	317	382	303	149	452	
Retail Development (Rates)	180,689	sq. ft.	7,759	113	73	186	325	353	678	
Elementary School	0	st	0	0	0	0	0	0	0	
Park	15	acre	34	0	0	0	0	1	1	
Golf Course	0	acre	0	0	0	0	0	0	0	
Total			**12,885**	**178**	**390**	**568**	**628**	**503**	**1,131**	**1,699**
Total (Neighborhoods I - IV)										
Single-Family Detached Homes	2,851	du	27,284	535	1,603	2,138	1,814	1,066	2,880	
Attached Residential Homes	5,556	du	32,558	416	2,029	2,445	1,936	953	2,889	
Retail Development (Rates)	849,420	sq. ft.	36,474	534	341	875	1,529	1,656	3,185	
Elementary School	1,950	st	2,516	450	369	819	246	300	546	
Park	116	acre	264	1	0	1	3	4	7	
Golf Course	207	acre	1,043	32	11	43	21	41	62	
Total			**100,139**	**1,968**	**4,353**	**6,321**	**5,549**	**4,020**	**9,569**	**15,890**
Total (Specific Plan w/o Land Use Revisions)			**102,199**	**2,029**	**4,464**	**6,493**	**5,708**	**4,132**	**9,840**	**16,333**
Percent Change			-2%			-3%			-3%	-3%

Specific Plan Trip Generation Comparison (With Minus Without Land Use Revisions)

	Daily	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
Neighborhood I	(2,086)	(59)	(108)	(167)	(153)	(106)	(259)
Neighborhood II	1,220	15	209	224	118	(3)	115
Neighborhood III	(1,156)	(20)	(97)	(117)	(84)	(37)	(121)
Neighborhood IV	(38)	3	(116)	(113)	(40)	34	(6)
Total	(2,060)	(61)	(112)	(173)	(159)	(112)	(271)

Attachment 4

Traffix Worksheets for

February 2008 Draft Specific Plan

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Lytle Creek Ranch Project
Future 2030 With Project Condition
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #22 Linden Ave. and Riverside Ave.

Cycle (sec):	130	Critical Vol./Cap.(X):	1.218
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	108.1
Optimal Cycle:	130	Level Of Service:	F

Street Name:	Linden Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	1! 0	0	1 1	0 0	1	1 0	1 1	0	0 0	1! 0	0
Volume Module:												
Base Vol:	21	14	7	210	33	34	68	1357	86	62	944	161
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	14	7	210	33	34	68	1357	86	62	944	161
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	15	7	221	35	36	72	1428	91	65	994	169
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	15	7	221	35	36	72	1428	91	65	994	169
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	22	15	7	221	35	36	72	1428	91	65	994	169
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.52	0.32	0.16	1.74	0.26	1.00	1.00	1.88	0.12	0.05	0.81	0.14
Final Sat.:	924	616	308	3134	492	1900	1800	3574	226	101	1532	261
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.07	0.07	0.02	0.04	0.40	0.40	0.65	0.65	0.65
Crit Moves:	****				****			****		****		
Green/Cycle:	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.32	0.32	0.52	0.78	0.78
Volume/Cap:	0.52	0.52	0.52	1.25	1.25	0.33	0.72	1.25	1.25	1.25	0.83	0.83
Delay/Veh:	66.1	66.1	66.1	209.2	209	60.9	82.2	165	165.4	154.0	13.0	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:	66.1	66.1	66.1	209.2	209	60.9	82.2	165	165.4	154.0	13.0	13.0
LOS by Move:	E	E	E	F	F	E	F	F	F	F	B	B
HCM2kAvgQ:	3	3	3	11	11	2	4	51	51	80	32	32

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

****

Intersection #22 Linden Ave. and Riverside Ave.

****

Cycle (sec):	65	Critical Vol./Cap.(X):	0.605
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	13.5
Optimal Cycle:	60	Level Of Service:	B

****

Street Name:	Linden Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	1! 0	0	1 1	0 0	1	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	21	14	7	210	33	34	68	1357	86	62	944	161
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	14	7	210	33	34	68	1357	86	62	944	161
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	15	7	221	35	36	72	1428	91	65	994	169
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	15	7	221	35	36	72	1428	91	65	994	169
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	22	15	7	221	35	36	72	1428	91	65	994	169
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.52	0.32	0.16	1.74	0.26	1.00	1.00	1.88	0.12	1.00	1.71	0.29
Final Sat.:	924	616	308	3134	492	1900	1800	3574	226	1800	3246	554
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.07	0.07	0.02	0.04	0.40	0.40	0.04	0.31	0.31
Crit Moves:	****				****			****		****		
Green/Cycle:	0.09	0.09	0.09	0.10	0.10	0.10	0.16	0.59	0.59	0.09	0.52	0.52
Volume/Cap:	0.26	0.26	0.26	0.68	0.68	0.18	0.25	0.68	0.68	0.39	0.59	0.59
Delay/Veh:	28.2	28.2	28.2	33.0	33.0	27.0	24.5	10.0	10.0	29.3	11.1	11.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.2	28.2	28.2	33.0	33.0	27.0	24.5	10.0	10.0	29.3	11.1	11.1
LOS by Move:	C	C	C	C	C	C	C	B	B	C	B	B
HCM2kAvgQ:	1	1	1	4	4	1	2	11	11	2	9	9

****

Note: Queue reported is the number of cars per lane.

****

Lytle Creek Ranch Project
Future 2030 With Project Condition
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #22 Linden Ave. and Riverside Ave.

Cycle (sec):	130	Critical Vol./Cap.(X):	1.686
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	280.7
Optimal Cycle:	130	Level Of Service:	F

Street Name:	Linden Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	1! 0	0	1 1	0 0	1	1 0	1 1	0	0 0	1! 0	0
Volume Module:												
Base Vol:	38	30	30	594	30	89	135	1219	87	71	1284	415
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:	38	30	30	594	30	89	135	1219	87	71	1284	415
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:	40	32	32	625	32	94	142	1283	92	75	1352	437
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	32	32	625	32	94	142	1283	92	75	1352	437
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:	40	32	32	625	32	94	142	1283	92	75	1352	437
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.40	0.30	0.30	1.91	0.09	1.00	1.00	1.87	0.13	0.04	0.73	0.23
Final Sat.:	721	569	569	3436	174	1900	1800	3547	253	76	1375	444
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.06	0.18	0.18	0.05	0.08	0.36	0.36	0.98	0.98	0.98
Crit Moves:	****				****			****		****		
Green/Cycle:	0.05	0.05	0.05	0.11	0.11	0.11	0.06	0.21	0.21	0.57	0.73	0.73
Volume/Cap:	1.20	1.20	1.20	1.71	1.71	0.46	1.35	1.71	1.71	1.71	1.35	1.35
Delay/Veh:	223.1	223	223.1	388.9	389	56.3	269.2	376	376.4	351.5	181	180.5
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:	223.1	223	223.1	388.9	389	56.3	269.2	376	376.4	351.5	181	180.5
LOS by Move:	F	F	F	F	F	E	F	F	F	F	F	F
HCM2kAvgQ:	9	9	9	33	33	4	13	63	63	167	132	132

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project+Mitigation Condition
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #22 Linden Ave. and Riverside Ave.

Cycle (sec):	75	Critical Vol./Cap.(X):	0.881
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	26.1
Optimal Cycle:	81	Level Of Service:	C

Street Name:	Linden Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	1! 0	0	1 1	0 0	1	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	38	30	30	594	30	89	135	1219	87	71	1284	415
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:	38	30	30	594	30	89	135	1219	87	71	1284	415
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:	40	32	32	625	32	94	142	1283	92	75	1352	437
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	32	32	625	32	94	142	1283	92	75	1352	437
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:	40	32	32	625	32	94	142	1283	92	75	1352	437
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.40	0.30	0.30	1.91	0.09	1.00	1.00	1.87	0.13	1.00	1.51	0.49
Final Sat.:	721	569	569	3436	174	1900	1800	3547	253	1800	2872	928
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.06	0.18	0.18	0.05	0.08	0.36	0.36	0.04	0.47	0.47
Crit Moves:	****				****		****				****	
Green/Cycle:	0.08	0.08	0.08	0.20	0.20	0.20	0.09	0.50	0.50	0.11	0.52	0.52
Volume/Cap:	0.69	0.69	0.69	0.90	0.90	0.24	0.90	0.72	0.72	0.38	0.90	0.90
Delay/Veh:	46.8	46.8	46.8	43.3	43.3	25.4	77.5	16.1	16.1	32.1	22.1	22.1
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:	46.8	46.8	46.8	43.3	43.3	25.4	77.5	16.1	16.1	32.1	22.1	22.1
LOS by Move:	D	D	D	D	D	C	E	B	B	C	C	C
HCM2kAvgQ:	4	4	4	12	12	2	7	14	14	2	23	23

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project Condition
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #23 Ayala Dr. and Riverside Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.835
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.2
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Ayala Dr.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	0 0	2	0 0	0 0	0	0 0	1 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	172	0	278	0	0	0	0	1100	453	378	980	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:	172	0	278	0	0	0	0	1100	453	378	980	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:	181	0	293	0	0	0	0	1158	477	398	1032	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	181	0	293	0	0	0	0	1158	477	398	1032	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	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:	181	0	293	0	0	0	0	1158	477	398	1032	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	0.00	2.00	0.00	0.00	0.00	0.00	1.42	0.58	1.00	2.00	0.00
Final Sat.:	1800	0	3600	0	0	0	0	2692	1108	1800	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.10	0.00	0.08	0.00	0.00	0.00	0.00	0.43	0.43	0.22	0.27	0.00
Crit Moves:	****							****		****		
Green/Cycle:	0.12	0.00	0.12	0.00	0.00	0.00	0.00	0.51	0.51	0.26	0.57	0.00
Volume/Cap:	0.84	0.00	0.68	0.00	0.00	0.00	0.00	0.84	0.84	0.84	0.48	0.00
Delay/Veh:	49.4	0.0	29.5	0.0	0.0	0.0	0.0	15.7	15.7	33.0	7.8	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:	49.4	0.0	29.5	0.0	0.0	0.0	0.0	15.7	15.7	33.0	7.8	0.0
LOS by Move:	D	A	C	A	A	A	A	B	B	C	A	A
HCM2kAvgQ:	6	0	4	0	0	0	0	16	16	10	6	0

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project Condition
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

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Intersection #23 Ayala Dr. and Riverside Ave.

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Cycle (sec):	60	Critical Vol./Cap.(X):	0.789
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	17.9
Optimal Cycle:	60	Level Of Service:	B

****

Street Name:	Ayala Dr.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	1 0	0 0	2	0 0	0 0	0	0 0	1 1	0	1 0	2 0	0
Volume Module:												
Base Vol:	429	0	366	0	0	0	0	1096	288	129	1247	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:	429	0	366	0	0	0	0	1096	288	129	1247	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:	452	0	385	0	0	0	0	1154	303	136	1313	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	452	0	385	0	0	0	0	1154	303	136	1313	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	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:	452	0	385	0	0	0	0	1154	303	136	1313	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	0.00	2.00	0.00	0.00	0.00	0.00	1.58	0.42	1.00	2.00	0.00
Final Sat.:	1800	0	3600	0	0	0	0	3009	791	1800	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.25	0.00	0.11	0.00	0.00	0.00	0.00	0.38	0.38	0.08	0.35	0.00
Crit Moves:	****							****		****		
Green/Cycle:	0.32	0.00	0.32	0.00	0.00	0.00	0.00	0.48	0.48	0.10	0.45	0.00
Volume/Cap:	0.79	0.00	0.34	0.00	0.00	0.00	0.00	0.79	0.79	0.75	0.76	0.00
Delay/Veh:	26.2	0.0	15.9	0.0	0.0	0.0	0.0	15.4	15.4	42.8	15.8	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:	26.2	0.0	15.9	0.0	0.0	0.0	0.0	15.4	15.4	42.8	15.8	0.0
LOS by Move:	C	A	B	A	A	A	A	B	B	D	B	A
HCM2kAvgQ:	10	0	3	0	0	0	0	14	14	5	12	0

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Note: Queue reported is the number of cars per lane.

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Lytle Creek Ranch Project
Future 2030 With Project Condition
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #24 Knollwood Ave. and Riverside Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.424
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	8.8
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Knollwood Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	0 0	0	1 0	0 0	1	1 0	2 0	0	0 0	1 1	0
Volume Module:												
Base Vol:	0	0	0	9	0	165	17	1358	0	0	1177	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	9	0	165	17	1358	0	0	1177	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	9	0	174	18	1429	0	0	1239	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	9	0	174	18	1429	0	0	1239	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:	0	0	0	9	0	174	18	1429	0	0	1239	17
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.97	0.03
Final Sat.:	0	0	0	1800	0	1900	1800	3800	0	0	3749	51
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.01	0.00	0.09	0.01	0.38	0.00	0.00	0.33	0.33
Crit Moves:				****				****		****		
Green/Cycle:	0.00	0.00	0.00	0.16	0.00	0.16	0.17	0.64	0.00	0.00	0.57	0.57
Volume/Cap:	0.00	0.00	0.00	0.03	0.00	0.58	0.06	0.58	0.00	0.00	0.58	0.58
Delay/Veh:	0.0	0.0	0.0	21.5	0.0	26.5	20.8	6.5	0.0	0.0	8.6	8.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	21.5	0.0	26.5	20.8	6.5	0.0	0.0	8.6	8.6
LOS by Move:	A	A	A	C	A	C	C	A	A	A	A	A
HCM2kAvgQ:	0	0	0	0	0	4	0	8	0	0	8	8

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project Condition
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #24 Knollwood Ave. and Riverside Ave.

Cycle (sec):	70	Critical Vol./Cap.(X):	0.443
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	6.5
Optimal Cycle:	60	Level Of Service:	A

Street Name:	Knollwood Ave.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 0	0 0	0	1 0	0 0	1	1 0	2 0	0	0 0	1 1	0
Volume Module:												
Base Vol:	0	0	0	9	0	87	44	1444	0	0	1239	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:	0	0	0	9	0	87	44	1444	0	0	1239	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:	0	0	0	9	0	92	46	1520	0	0	1304	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	9	0	92	46	1520	0	0	1304	43
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	9	0	92	46	1520	0	0	1304	43
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.94	0.06
Final Sat.:	0	0	0	1800	0	1900	1800	3800	0	0	3678	122
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.01	0.00	0.05	0.03	0.40	0.00	0.00	0.35	0.35
Crit Moves:				****				****		****		
Green/Cycle:	0.00	0.00	0.00	0.09	0.00	0.09	0.16	0.74	0.00	0.00	0.66	0.66
Volume/Cap:	0.00	0.00	0.00	0.06	0.00	0.54	0.16	0.54	0.00	0.00	0.53	0.53
Delay/Veh:	0.0	0.0	0.0	29.3	0.0	34.0	25.6	4.2	0.0	0.0	6.3	6.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	29.3	0.0	34.0	25.6	4.2	0.0	0.0	6.3	6.3
LOS by Move:	A	A	A	C	A	C	C	A	A	A	A	A
HCM2kAvgQ:	0	0	0	0	0	3	1	8	0	0	8	8

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project Condition
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #25 Country Club Dr. and Riverside Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.711
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.3
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Country Club Dr.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 1	0 0	1	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	126	117	10	209	280	239	174	1099	165	4	864	61
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:	126	117	10	209	280	239	174	1099	165	4	864	61
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:	133	123	11	220	295	252	183	1157	174	4	909	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	133	123	11	220	295	252	183	1157	174	4	909	64
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:	133	123	11	220	295	252	183	1157	174	4	909	64
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.53	0.47	1.00	1.00	0.54	0.46	1.00	1.74	0.26	1.00	1.87	0.13
Final Sat.:	958	889	1900	1800	1025	875	1800	3304	496	1800	3549	251
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.01	0.12	0.29	0.29	0.10	0.35	0.35	0.00	0.26	0.26
Crit Moves:					****			****		****		
Green/Cycle:	0.36	0.36	0.36	0.36	0.36	0.36	0.15	0.44	0.44	0.10	0.39	0.39
Volume/Cap:	0.38	0.38	0.02	0.34	0.80	0.80	0.66	0.80	0.80	0.02	0.66	0.66
Delay/Veh:	14.6	14.6	12.3	14.3	23.7	23.7	29.9	17.3	17.3	24.4	16.4	16.4
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:	14.6	14.6	12.3	14.3	23.7	23.7	29.9	17.3	17.3	24.4	16.4	16.4
LOS by Move:	B	B	B	B	C	C	C	B	B	C	B	B
HCM2kAvgQ:	4	4	0	3	11	11	5	13	13	0	9	9

Note: Queue reported is the number of cars per lane.

Lytle Creek Ranch Project
Future 2030 With Project Condition
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #25 Country Club Dr. and Riverside Ave.

Cycle (sec):	60	Critical Vol./Cap.(X):	0.787
Loss Time (sec):	6 (Y+R=4.0 sec)	Average Delay (sec/veh):	19.5
Optimal Cycle:	60	Level Of Service:	B

Street Name:	Country Club Dr.						Riverside Ave.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	6	6	6	6	6	6	6	6	6	6	6	6
Lanes:	0 1	0 0	1	1 0	0 1	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	161	257	18	139	206	184	249	978	113	8	1034	142
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:	161	257	18	139	206	184	249	978	113	8	1034	142
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	169	271	19	146	217	194	262	1029	119	8	1088	149
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	169	271	19	146	217	194	262	1029	119	8	1088	149
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	169	271	19	146	217	194	262	1029	119	8	1088	149
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.40	0.60	1.00	1.00	0.53	0.47	1.00	1.79	0.21	1.00	1.76	0.24
Final Sat.:	716	1144	1900	1800	1004	896	1800	3406	394	1800	3341	459
Capacity Analysis Module:												
Vol/Sat:	0.24	0.24	0.01	0.08	0.22	0.22	0.15	0.30	0.30	0.00	0.33	0.33
Crit Moves:		****					****				****	
Green/Cycle:	0.30	0.30	0.30	0.30	0.30	0.30	0.19	0.45	0.45	0.15	0.41	0.41
Volume/Cap:	0.79	0.79	0.03	0.27	0.72	0.72	0.79	0.67	0.67	0.03	0.79	0.79
Delay/Veh:	26.5	26.5	14.8	16.2	23.1	23.1	35.0	14.0	14.0	21.9	18.0	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:	26.5	26.5	14.8	16.2	23.1	23.1	35.0	14.0	14.0	21.9	18.0	18.0
LOS by Move:	C	C	B	B	C	C	D	B	B	C	B	B
HCM2kAvgQ:	10	10	0	2	8	8	7	9	9	0	12	12

Note: Queue reported is the number of cars per lane.

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