

CITRUS HEIGHTS NORTH SPECIFIC PLAN

DRAFT ENVIRONMENTAL IMPACT REPORT

State Clearinghouse No. 2003111125

VOLUME I

Prepared for

**CITY OF FONTANA
COMMUNITY DEVELOPMENT DEPARTMENT**

Prepared by

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MARCH 2004

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CONTENTS—VOLUME I

<u>Section</u>	<u>Page</u>
SUMMARY	
S.1 Document Purpose	S-1
S.2 Project Objectives	S-1
S.3 Project Location and Description	S-1
S.4 Project Impacts and Mitigation Measures	S-2
 1—INTRODUCTION	
1.1 Document Purpose and Scope	1-1
1.2 Statutory Authority	1-1
1.3 Relationship to Other Documents	1-1
1.3.1 Documents Incorporated by Reference	1-1
1.3.2 Other Related Documents	1-2
 2—PROJECT DESCRIPTION	
2.1 Project Objectives	2-1
2.2 Project Location and Components	2-1
2.2.1 Project Location	2-1
2.2.2 Project Components	2-2
2.2.3 Site Development	2-9
2.3 Projects Considered for Cumulative Impacts	2-9
2.4 Discretionary Actions	2-10
 3—ENVIRONMENTAL IMPACT ANALYSIS	
3.1 Land Use and Planning	3-2
3.1.1 Environmental Setting	3-2
3.1.2 Environmental Impact Analysis	3-6
3.1.3 Cumulative Impacts	3-11
3.1.4 Mitigation Measures	3-11
3.1.5 Level of Significance After Mitigation	3-11
3.2 Aesthetics	3-12
3.2.1 Environmental Setting	3-12
3.2.2 Environmental Impact Analysis	3-13
3.2.3 Cumulative Impacts	3-17
3.2.4 Mitigation Measures	3-18
3.2.5 Level of Significance After Mitigation	3-18
3.3 Air Quality	3-19
3.3.1 Environmental Setting	3-19
3.3.2 Thresholds of Significance	3-27
3.3.3 Project Impacts	3-28

3.3.4	Cumulative Impacts	3-33
3.3.5	Mitigation Measures	3-34
3.3.6	Level of Significance After Mitigation	3-36
3.4	Biological Resources	3-37
3.4.1	Environmental Setting	3-37
3.4.2	Environmental Assessment	3-39
3.4.3	Cumulative Impacts	3-39
3.4.4	Mitigation Measures	3-40
3.4.5	Level of Significance After Mitigation	3-40
3.5	Cultural Resources	3-41
3.5.1	Environmental Setting	3-41
3.5.2	Environmental Impact Analysis	3-43
3.5.3	Cumulative Impacts	3-45
3.5.4	Mitigation Measures	3-45
3.5.5	Level of Significance After Mitigation	3-45
3.6	Geology and Soils	3-46
3.6.1	Environmental Setting	3-46
3.6.2	Environmental Impact Analysis	3-51
3.6.3	Cumulative Impacts	3-52
3.6.4	Mitigation Measures	3-53
3.6.5	Level of Significance After Mitigation	3-53
3.7	Hazards and Hazardous Materials	3-54
3.7.1	Environmental Setting	3-54
3.7.2	Environmental Impact Analysis	3-58
3.7.3	Cumulative Impacts	3-59
3.7.4	Mitigation Measures	3-59
3.7.5	Level of Significance After Mitigation	3-59
3.8	Hydrology and Water Quality	3-60
3.8.1	Environmental Setting	3-60
3.8.2	Environmental Impact Analysis	3-60
3.8.3	Cumulative Impacts	3-63
3.8.4	Mitigation Measures	3-63
3.8.5	Level of Significance After Mitigation	3-63
3.9	Noise	3-64
3.9.1	Environmental Setting	3-64
3.9.2	Thresholds of Significance	3-70
3.9.3	Environmental Impact Analysis	3-70
3.9.4	Cumulative Impacts	3-75
3.9.5	Mitigation Measures	3-76
3.9.6	Level of Significance After Mitigation	3-77
3.10	Population and Housing	3-78
3.10.1	Environmental Setting	3-79
3.10.2	Environmental Impact Analysis	3-80
3.10.3	Cumulative Impacts	3-81
3.11	Public Services	3-83
3.11.1	Environmental Setting	3-83
3.11.2	Environmental Impact Analysis	3-87
3.11.3	Cumulative Impacts	3-88
3.11.4	Mitigation Measures	3-89
3.11.5	Level of Significance After Mitigation	3-90

3.12	Recreation	3-91
3.12.1	Environmental Setting	3-91
3.12.2	Environmental Impact Analysis	3-92
3.12.3	Cumulative Impacts	3-93
3.12.4	Mitigation Measures	3-93
3.12.5	Level of Significance After Mitigation	3-94
3.13	Transportation and Traffic	3-95
3.13.1	Environmental Setting	3-95
3.13.2	Environmental Impact Analysis	3-103
3.13.3	Cumulative Impacts	3-146
3.13.4	Mitigation Measures	3-148
3.13.5	Level of Significance After Mitigation	3-152
3.14	Utilities and Service Systems	3-156
3.14.1	Environmental Setting	3-156
3.14.2	Environmental Impact Analysis	3-160
3.14.3	Cumulative Impacts	3-165
3.14.4	Mitigation Measures	3-165
3.14.5	Level of Significance After Mitigation	3-165

4—OTHER CEQA CONSIDERATIONS

4.1	Unavoidable Significant Environmental Effects	4-1
4.1.1	Air Quality—Short-Term Project Construction	4-1
4.1.2	Air Quality—Long-Term Project Operation	4-1
4.1.3	Air Quality—Cumulative	4-1
4.2	Irreversible Environmental Changes and Irretrievable Commitments	4-1

5—GROWTH-INDUCING IMPACTS

5.1	Direct Growth-Inducing Impacts	5-1
5.2	Indirect Growth-Inducing Impacts	5-1
5.3	Level of Impact	5-2

6—ALTERNATIVES ANALYSIS

6.1	CEQA Requirements	6-1
6.2	Rationale for Selecting Project Alternatives	6-2
6.3	Project Goal and Objectives	6-2
6.4	Alternatives Examined	6-3
6.4.1	No Project	6-3
6.4.2	Reduced-Project Alternative	6-7
6.4.3	Alternative Site Design)	6-9
6.5	Alternatives Eliminated from Further Consideration	6-9
6.6	Environmentally Superior Alternative	6-10

7—ORGANIZATIONS AND PERSONS CONTACTED

8—REPORT PREPARATION

FIGURES

<u>Number</u>		<u>Page</u>
2-1	Regional Vicinity Map	2-4
2-2	Project Vicinity Map	2-5
2-3	Project Vicinity Aerial Photograph	2-6
2-4	Project Land Use Plan	2-7
3-1	Normalized Maximum Short-Term Historical Air Pollutant Concentration	3-23
3-2a	Site Photographs A and B	3-42
3-2b	Site Photograph C	3-43
3-3	Regional Geologic Map	3-47
3-4	Regional Groundwater Contour Map	3-48
3-5	Study Area Intersections	3-97
3-6a	Existing (2003) Intersection Geometric Configurations	3-99
3-6b	Existing (2003) Intersection Geometric Configurations	3-100
3-7	Existing Roadway Network	3-101
3-8a	Existing (2003) Traffic Volumes	3-104
3-8b	Existing (2003) Traffic Volumes	3-105
3-9	Study Area Determination (Project Trips)	3-108
3-10a	Project Trip Generation—Residential (1 of 2)	3-113
3-10b	Project Trip Generation—Residential (2 of 2)	3-114
3-11a	Project Trip Generation—Commercial (1 of 2)	3-115
3-11b	Project Trip Generation—Commercial (2 or 2)	3-116
3-12a	Project Trip Assignments—Residential (1 of 2)	3-117
3-12b	Project Trip Assignments—Residential (2 of 2)	3-118
3-13a	Project Trip Assignments—Commercial (1 of 2)	3-119
3-13b	Project Trip Assignments—Commercial (2 of 2)	3-120
3-14	Net Changes from Pass-by Trips	3-121
3-15a	Total Project Traffic Volumes (1 of 2)	3-123
3-15b	Total Project Traffic Volumes (2 of 2)	3-124
3-16a	Future Intersection Geometric Configurations (1 of 2)	3-125
3-16b	Future Intersection Geometric Configurations (2 of 2)	3-126
3-17a	Year 2007 Traffic Volumes—Without Project (1 of 2)	3-127
3-17b	Year 2007 Traffic Volumes—Without-Project (2 of 2)	3-128
3-18a	Year 2007 Traffic Volumes—With Project (1 of 2)	3-131
3-18b	Year 2007 Traffic Volumes—With-Project (2 of 2)	3-132
3-19a	Year 2025 Traffic Volumes—Without Project (1 of 2)	3-136
3-19b	Year 2025 Traffic Volumes—Without Project (2 of 2)	3-137
3-20a	Year 2025 Traffic Volumes—With Project (1 of 2)	3-141
3-20b	Year 2025 Traffic Volumes—With Project (2 of 2)	3-142
3-21a	Year 2025 Intersection Geometric Configurations After Mitigation (1 of 2)	3-150
3-21b	Year 2025 Intersection Geometric Configurations After Mitigation (2 of 2)	3-151

TABLES

<u>Number</u>		<u>Page</u>
S-1	Summary of Impacts and Mitigation Measures	S-3
2-1	Proposed Land Uses	2-3
3-1	Existing Air Quality Data for Project Area	3-1
3-2	Ambient Air Quality Standards for Criteria Pollutants	3-25
3-3	Allowable Change in Ambient Air Pollutant Concentrations	3-27
3-4	SCAQMD Thresholds for Construction and Operation Emissions	3-28
3-5	Project Construction Activities and Phasing	3-29
3-6	Maximum Daily Construction Emissions	3-30
3-7	Daily Project Operation Emissions	3-31
3-8	Estimated Future Carbon Monoxide Concentrations at Intersections with LOS E or F*	3-32
3-9	Maximum Daily Cumulative Emissions—Year 2010	3-34
3-10	Sound Levels and Human Response	3-65
3-11	Measured Noise Levels in Project Area	3-67
3-12	Existing CNEL Contour Distances in Project Area	3-68
3-13	Land Use Compatibility for Community Noise Sources	3-69
3-14	City of Fontana Interior and Exterior Noise Standards	3-70
3-15	Noise Levels at Construction Sites	3-71
3-16	Project Construction Noise Levels at Nearest Receptors	3-72
3-17	Estimated Change in Noise Levels Due to Project (Opening Year)	3-74
3-18	Estimated Change in Noise Levels Due to Ambient Growth (2025)	3-75
3-19	Estimated Change in Noise Levels Due to Project (2025)	3-76
3-20	Current Population and Population Growth Rates (San Bernardino County)	3-79
3-21	Projected Population Growth (San Bernardino County)	3-79
3-22	Related Projects (Residential Specific Plans and Community Plans in Fontana)	3-82
3-23	Public Schools Serving the Project Site	3-84
3-24	Students Generated by the Project	3-87
3-25	Level of Service (LOS) Definitions	3-102
3-26	Intersection Level of Service Criteria	3-103
3-27	Existing (2003) Intersection Levels of Service	3-106
3-28	Existing (2003) Freeway Mainline Analysis	3-107
3-29	Two-Way Project Trip Volumes on Freeway Segments in Project Vicinity	3-109
3-30	Project Trip Generation	3-112
3-31	Year 2007 Intersection Levels of Service—Without Project	3-129
3-32	Year 2007 Freeway Mainline Analysis—Without Project	3-130
3-33	Year 2007 Intersection Levels of Service—With Project	3-133
3-34	Year 2007 Freeway Mainline Analysis—With Project	3-135
3-35	Year 2025 Intersection Levels of Service—Without Project	3-138
3-36	Year 2025 Freeway Mainline Analysis—Without Project	3-139
3-37	Year 2025 Intersection Levels of Service—With Project	3-140
3-38	Year 2025 Freeway Mainline Analysis—With Project	3-144
3-39	Year 2025 Intersection Fair-Share Percentages	3-146
3-40	Year 2025 Freeway Mainline Fair-Share Percentages	3-147
3-41	Year 2007 Intersection Levels of Service—With Project and With Improvements	3-153
3-42	Year 2025 Intersection Levels of Service—With Project and With Improvements	3-154
3-43	Year 2025 Freeway Mainline Analysis—With Project and With Improvements	3-155

CONTENTS—VOLUME II

APPENDICES:

A—Air Quality

B—Biological Resources

C—Cultural Resources

D—Geology and Soils

E—Hazards and Hazardous Materials

G—Initial Study

CONTENTS—VOLUME III

APPENDIX:

F—Transportation and Traffic

SUMMARY

S.1 DOCUMENT PURPOSE

The City of Fontana Community Development Department, as the Lead Agency for the Citrus Heights North Specific Plan project, has prepared this Environmental Impact Report (EIR) pursuant to the provisions of the California Environmental Quality Act (CEQA) of 1970, and the *Guidelines for Implementation of the California Environmental Quality Act (State CEQA Guidelines)*, as amended. This EIR complies with the requirements of CEQA and the *State CEQA Guidelines*, codified in the California Code of Regulations (CCR), Title 14, Chapter 3, §15000 *et seq.*, for the purpose of analyzing the direct, indirect, and cumulative environmental effects of the proposed project.

S.2 PROJECT OBJECTIVES

The objectives of the proposed project are:

- To provide a high-end residential community with a complementary mix of housing types that will contribute to the range of existing housing choices in north Fontana;
- To provide a convenient “walking-distance” neighborhood commercial center with retail businesses;
- To create a unique and distinctive residential community identity and character through control of project design elements such as architecture, landscaping, walls, signage, private streets, pocket parks, and access-controlled (gated) entries;
- To implement a plan that is sensitive to the surrounding environment and aesthetically pleasing; and
- To provide infrastructure systems to support the project and contribute to Fontana’s roadway and circulation system improvements, including the installation of streetscape landscaping along the project’s frontage.

S.3 PROJECT LOCATION AND DESCRIPTION

Main Elements. The main elements of the proposed Citrus Heights North Specific Plan project are:

- 802 single-family homes and 425 multi-family dwelling units;
- A 9-acre neighborhood retail center;
- Recreational amenities including small parks, a trail system, and a community sports center;
- Infrastructure improvements to the water, wastewater, and drainage systems;
- Improvements to adjacent roadways; and
- Improvements to the City’s circulation system, including a northern extension of Knox Avenue.

The location of the proposed project site is a vacant 211.9-acre property in the northwestern portion of the City of Fontana, north of Summit Avenue between Lytle Creek Road and Citrus Avenue. The northwestern corner of the site is southeast of the I-15 freeway, and the southern boundary of the site is

approximately 1 mile north of the SR-210 freeway. The surface streets bounding the site are Citrus Avenue on the east, Summit Avenue on the south, and Lytle Creek Road on the west. The western two-thirds of the site is bounded on the north by the right-of-way for Three Mile Road, while the eastern one-third of the site extends about $\frac{1}{4}$ mile further north. The site is traversed by two utility easements (neither of which is part of the project).

See **Figure 2-1** (Regional Vicinity Map), **Figure 2-2** (Project Vicinity Map), and **Figure 2-3** (Project Vicinity Aerial Photograph), and **Figure 2-4** (Project Land Use Plan) in Section 2 (Project Description).

Land Uses. The residential land uses are single-family and multifamily dwelling units, located on 177.0 acres of the project site. The single-family lots range in size from 4,200 square feet to 10,000 square feet. The neighborhood commercial land use is located on 9 acres on the northwest corner of Summit Avenue and Citrus Avenue. There are three private recreation areas and a larger 11.3-acre park near the southwestern corner of the project site that also functions as an interim detention basin. Adjacent to the detention basin/park is a 3.6-acre community sports center. The residential acreage includes, in addition to private residential lots, internal streets and common areas such as expanded entries and pocket parks (which are in addition to the designated parks). The gross acreages of the PAs include future areas for public right-of-way improvements to Summit Avenue, Citrus Avenue, and Lytle Creek Road.

S.4 PROJECT IMPACTS AND MITIGATION MEASURES

Initial Study “No-Impact” Conclusions. The *Initial Study* (IS) (**Appendix A**) was issued in November 2003. For two of the 16 major environmental impact categories analyzed (Agricultural Resources and Mineral Resources) and for many other impact subcategories, the IS concluded that the proposed project would have no impact. Therefore, this EIR does not analyze these impact categories and subcategories. Since the issuance of the IS, the City of Fontana has issued its updated *General Plan*.¹ Therefore, land use and planning issues are re-evaluated in this EIR.

EIR Impact Conclusions. As detailed in Section 3 (Environmental Impact Analysis), this EIR determines that there would be no anticipated significant effects for six categories (Land Use and Planning, Aesthetics, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, and Population and Housing), but that there would be potentially significant effects for the remaining eight environmental impact categories (Air Quality, Biological Resources, Cultural Resources, Noise, Public Services, Recreation, Transportation and Traffic, and Utilities and Service Systems). Of the identified potentially significant impacts, the only impacts that are not mitigable to a less-than-significant level are those on air quality.

Mitigation Measures. **Table S-1** (Summary of Impacts and Mitigation Measures) summarizes the potential environmental impacts of the project, as detailed in Section 3, and the mitigation measures that would ensure that all project impacts except those on air quality would be reduced to or maintained below the level of significance.

Other Impact Considerations. Unavoidable significant effects, irreversible environmental changes, and irretrievable commitment of resources are discussed in Section 4 (Other CEQA Considerations). Project impacts that might induce growth are analyzed in Section 5 (Growth-Inducing Impacts), and several alternatives to the proposed project are evaluated in Section 6 (Alternatives Analysis).

¹ The City of Fontana adopted all elements except one (Housing) of its updated *General Plan* on October 21, 2003, but the document was not made available to the public until December 2003, after issuance of the *Draft IS*.

Table S-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES
Citrus Heights North Specific Plan, Fontana

Potential Environmental Impact	Mitigation Measure(s)	Level of Significance After Mitigation
Air Quality	<p>AQ-1 During construction, the construction manager shall ensure that oxidation catalysts are in use on all diesel construction equipment.</p> <p>AQ-2 During construction, the construction manager shall ensure that aqueous diesel fuel is used for construction equipment.</p> <p>AQ-3 During construction, the construction manager shall ensure that equipment engines are maintained in proper tune and ensure that all construction equipment are properly serviced and maintained in good operating condition.</p> <p>AQ-4 During construction, the construction manager shall ensure that the continuous idling of any construction equipment is restricted to 10 minutes.</p> <p>AQ-5 During construction, the construction manager shall ensure that catalytic converters are used on all gasoline equipment (except for small 2-cylinder generator engines).</p> <p>AQ-6 During construction, the construction manager shall cease construction during periods of high ambient O₃ concentrations (i.e., Stage-2 smog alerts) near the construction area.</p> <p>AQ-7 During construction, the construction manager shall schedule all material deliveries to the construction site outside of peak traffic hours, and minimize other truck trips during peak traffic hours, or as approved by local jurisdictions.</p> <p>AQ-8 During construction, the construction manager shall utilize as much as possible precoated and/or natural-colored building materials; water-based or low-VOC coatings; and coating transfer or spray equipment that has high transfer efficiency, such as the high-volume, low-pressure (HVL) spray method; or manual application of coatings (such as using a paint brush, hand roller, trowel, spatula, dauber, rag, or sponge).</p>	<p>Less than Significant in Construction Phases 1, 2, and 4; Potentially Significant in Phase 3</p>

Table S-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES
 Citrus Heights North Specific Plan, Fontana

Potential Environmental Impact	Mitigation Measure(s)	Level of Significance After Mitigation
Operation of the proposed project and vehicular traffic generated by the proposed project could generate NO _x and ROGs that would exceed SCAQMD thresholds.	AQ-9 During project design, the applicant shall incorporate structural-related emission-reducing technologies, such as insulation beyond Title 24 Standards of the Uniform Building Code (UBC) and efficient electrical equipment such as lower wattage lighting. AQ-10 As requested by the City or County, the applicant shall incorporate trip-reduction measures into the project design, including bicycle racks, pedestrian amenities, street lighting, and public transportation facilities.	Significant
Project operation in conjunction with related projects would generate cumulative impacts on air quality.	(There are no mitigation measures for cumulative impacts on air quality.)	Significant
Biological Resources	BR-1 Comply with the mitigation measures required by the Multiple Species Habitat Conservation Plan in northern Fontana when it is approved and implemented.	Less than Significant
There is no current habitat conservation plan that applies to the project. However, the Multiple Species Habitat Conservation Plan (MSHCP), when implemented, might identify potentially significant project impacts.		
Cultural Resources	CR-1 The project applicant shall arrange for a qualified archaeologist to attend a pre-grade meeting to inform the construction managers about procedures to protect any cultural resources or human remains that are uncovered during grading and construction. CR-2 For any cultural materials that are observed during ground disturbance, all construction activity at the location shall be immediately suspended and the area shall be clearly staked and flagged. The materials shall be evaluated for potential significance in accordance with the State CEQA Guidelines by a qualified archaeologist. If determined not to be significant, construction shall be allowed to resume. If determined to be significant, a treatment plan shall be prepared and implemented as determined appropriate by the qualified archaeologist and the San Bernardino County Museum.	Less than Significant

Table S-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES
Citrus Heights North Specific Plan, Fontana

Potential Environmental Impact	Mitigation Measure(s)	Level of Significance After Mitigation
Noise	<p>Construction-related activities, primarily site preparation and building construction, would result in significant short-term noise impacts.</p> <p>N-1 Construction activities shall comply with §18-63 (9) of the Fontana Municipal Code, which states that construction noise is limited to weekdays, between 7:00 A.M. and 6:00 P.M.</p> <p>N-2 All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers.</p> <p>N-3 Stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.</p> <p>N-4 Stockpiling and vehicle-staging areas shall be located as far as practical from noise-sensitive receptors during construction activities.</p> <p>N-5 When necessary, use temporary sound barriers to reduce the impact of construction noise.</p>	Less than Significant
Public Services	<p>The proposed project would require extending public services into an area currently not requiring significant levels of services by the City (as it is vacant) and providing additional public services that would be needed by the project's residents, employees, commercial patrons, and property owners.</p> <p>PS-1 The developer will pay all City of Fontana development impact fees to the City before issuance of a building permit to pay the developer's share of the increased cost of services such as fire and police protection, other emergency services, public schools, and public libraries.</p>	Less than Significant
Recreation	<p>The increased number of residents would create increased demand on the City's existing parks and recreation staff, services, and facilities.</p> <p>PS-1 The developer will pay the City of Fontana Park Fee to the City before issuance of a building permit to pay the project's share of the City's increased costs related to parks and recreation facilities.</p>	Less than Significant

Table S-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES
Citrus Heights North Specific Plan, Fontana

<i>Potential Environmental Impact</i>	<i>Mitigation Measure(s)</i>	<i>Level of Significance After Mitigation</i>
Transportation and Traffic		
Under year 2007 with-project conditions, six study intersections would not meet the minimum LOS standards of the City of Fontana and would require modifications to intersection lane configurations in accordance with CMP requirements.	TT-1 Cherry Avenue and Sierra Lakes Parkway: Add a second southbound through lane. TT-2 Cherry Avenue and South Highland Avenue; install a traffic signal. TT-3 Knox Avenue and Summit Avenue: Install a traffic signal. TT-4 Citrus Avenue and Baseline Road: Add a second eastbound through lane; add a second westbound through lane. TT-5 Sierra Avenue and Casa Grande Drive: Install a traffic signal. TT-6 Sierra Avenue and Summit Avenue: Install a traffic signal.	Less than Significant
Under year 2025 with-project conditions, eight intersections would not meet the minimum LOS standards of the City of Fontana and would require modifications to intersection lane configurations in accordance with CMP requirements.	TT-7 Cherry Avenue and Sierra Lakes Parkway: Add a second northbound through lane; add a second southbound through lane; install a traffic signal. TT-8 Cherry Avenue and South Highland Avenue: Add a second northbound through lane; add a second southbound through lane; install a traffic signal. TT-9 Knox Avenue and Summit Avenue; install a traffic signal. TT-10 Citrus Avenue and Baseline Road: Add a second westbound through lane; add second and third eastbound through lanes; convert the dedicated northbound right-turn lane to a shared through/right-turn lane. TT-11 Sierra Avenue and Casa Grande Drive: add a second northbound through lane; add a second southbound through lane; install a traffic signal. TT-12 Sierra Avenue and Summit Avenue: Add a second northbound through lane; add a second southbound through lane; install a traffic signal. TT-13 Sierra Avenue and Sierra Lakes parkway: install a traffic signal. TT-14 PA 9110 Access and Summit Avenue: add a dedicated northbound left-turn lane.	Less than Significant

Table S-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES
Citrus Heights North Specific Plan, Fontana

<i>Potential Environmental Impact</i>	<i>Mitigation Measure(s)</i>	<i>Level of Significance After Mitigation</i>	
		<i>Less than Significant</i>	<i>Less than Significant</i>
Under year 2025 with-project conditions, seven freeway segments would not meet the CMP's LOS E standard., and lane additions would be required to improve freeway operations in accord with CMP requirements.	<p>TT-15 I-15, between Foothill Boulevard and Baseline Road: Add three northbound mixed-flow lanes; add one northbound high-occupancy-vehicle (HOV) lane; add two southbound mixed-flow lanes; add one southbound HOV lane.</p> <p>TT-16 I-15, between Baseline Road and SR-210: add two northbound mixed-flow lanes; add one northbound HOV lane; add two southbound mixed-flow lanes; add one southbound HOV lane.</p> <p>TT-17 I-15, between SR-210 and Summit Avenue: add three northbound mixed-flow lanes; add one northbound HOV lane; add four southbound mixed-flow lanes; add one southbound HOV lane.</p> <p>TT-18 SR-210, between Day Creek Boulevard and I-15: add two eastbound mixed-flow lanes; add two westbound mixed-flow lanes.</p> <p>TT-19 SR-210, between Citrus Avenue and Alder Avenue: add one eastbound mixed-flow lane; add one westbound mixed-flow lane.</p> <p>TT-20 SR-210, between Alder Avenue and Riverside Avenue: Add one eastbound mixed-flow lane.</p> <p>TT-21 SR-210, between Riverside Avenue and Pepper Avenue: Add one eastbound mixed-flow lane; add one westbound mixed-flow lane.</p>		
Utilities and Service Systems	<p>US-1 The project proponent will pay Storm Drainage Fees according to the City of Fontana's Comprehensive Fee Schedule.</p> <p>Additional stormwater drainage facilities are expected to be required due to the increase of impermeable surface area.</p>	<i>Less than Significant</i>	<i>Less than Significant</i>

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1—INTRODUCTION

1.1 DOCUMENT PURPOSE AND SCOPE

The City of Fontana Community Development Department, in its capacity as the Lead Agency for the Citrus Heights North Specific Plan project, has determined the need for an Environmental Impact Report (EIR) to be prepared pursuant to the provisions of the California Environmental Quality Act (CEQA) of 1970, and the *Guidelines for Implementation of the California Environmental Quality Act (State CEQA Guidelines)*, as amended. The purpose of an EIR is to provide decision-makers, other public agencies, private groups, and/or individuals with an objective assessment of whether significant environmental impacts may result from implementing the proposed project, and how any potential impacts may be mitigated. Additional information that explains this EIR document is provided below.

1.2 STATUTORY AUTHORITY

This EIR has been prepared in accordance with the requirements of CEQA and the *State CEQA Guidelines*, codified in the California Code of Regulations (CCR), Title 14, Chapter 3, §15000 *et seq.*, for the purpose of analyzing the direct, indirect, and cumulative environmental effects associated with the proposed project.

The Citrus Heights North Specific Plan is a “project” as it meets the definitions provided in Section 21065 of CEQA and Section 15378 of the *State CEQA Guidelines*. The Citrus Heights North Specific Plan is a “project” because it is an activity that may cause either a direct physical change in the environment, or a reasonably foreseeable indirect change in the environment.

The City of Fontana Community Development Department will serve as the “Lead Agency.” Lead Agency, as defined in Section 15368 of the *State CEQA Guidelines*, means the public agency that has the principal responsibility for carrying out or approving a project. The Lead Agency is also responsible for preparing the environmental documents on the project pursuant to the full disclosure requirements of CEQA. CEQA requires the preparation of an EIR for a discretionary action that may have the potential to result in significant environmental impacts.

1.3 RELATIONSHIP TO OTHER DOCUMENTS

1.3.1 Documents Incorporated by Reference

Pursuant to *State CEQA Guidelines* §15150, this EIR incorporates by reference all or portions of other technical documents that are a matter of public record. These documents either relate to the proposed project or provide additional information concerning the environmental setting in which the project is proposed. Where all or a portion of another document is incorporated by reference, the incorporated language shall be considered to be set forth in full as part of the text of this EIR.

The most relevant documents incorporated by reference are the following:

- *Citrus Heights North Specific Plan, Draft*, March 2, 2004, prepared by T & B Planning;
- *City of Fontana General Plan*, adopted October 21, 2004;¹
- *City of Fontana Development Code*, adopted February 19, 2004, Ordinance #1440; and
- *City of Fontana Zoning Map*, adopted April 15, 2004.

1.3.2 Other Related Documents

The information contained in this EIR is based, in part, on the following technical studies and/or planning documents that include the project site or provide information addressing the general project area:

- Blasland, Bouck & Lee, Inc., *Master Report, North Fontana Project, Fontana, California (Phase I Environmental Assessments)*, September 14, 2001;
- Blasland, Bouck & Lee, Inc.; *Environmental Site Assessment Update, 215 Acres of Vacant Land, North Fontana Project, Fontana, California*; June 2003; (including Environmental Data Resources search of available environmental records, April 24, 2003);
- Blasland, Bouck & Lee, Inc.; “Pesticide Sampling, Four Parcels, North Fontana Project, Fontana, California,” letter report to Lewis Operating Corp.; June 19, 2003;
- LSA Associates, Inc.; *Traffic Impact Analysis, Citrus Heights North*; prepared for Lewis Operating Corporation; July 22, 2003;
- Michael Brandman Associates; *Biological Constraints Analysis of APN 0226-092 in the City of Fontana, California*; technical memorandum to Lewis Operating Corp. dated December 6, 2001;
- Michael Brandman Associates; *Habitat Assessment for the California Gnatcatcher on the Citrus Heights and Citrus Heights North Properties*; letter to Lewis Operating Corporation dated September 22, 2003;
- Michael Brandman Associates; *Negative Results for the Biological Surveys for the San Bernardino Kangaroo Rat on the Citrus Heights and Citrus Heights North Properties*; letter to Lewis Operating Corporation dated November 25, 2003;
- Perry, Richard M., *An Intensive Cultural Resources Survey of 210 Acres for the Proposed Citrus Heights North Specific Plan in the City of Fontana, San Bernardino County, California*, prepared for Paul Secord, UltraSystems Environmental, Inc., February 29, 2004;
- RMA Group, Geotechnical Consultants; *Major Geotechnical and Geologic Constraints, Fontana, North of Summit from I-15 to Fontana City Line, Fontana, CA*; October 3, 2001; and
- RMA Group, Geotechnical Consultants; “Geotechnical Field Reconnaissance of Thirteen Parcels North of Summit Between I-15 and Sierra Avenue, Fontana, CA,” technical memorandum to Lewis Operating Corp., November 5, 2001;

The above documents are available for public review during normal business hours at the City of Fontana Community Development Department, 8353 Sierra Avenue, Fontana, CA 92335, and the Fontana Library, 16860 Valencia Street, Fontana.

¹ As of publication of this document, Chapter 6 of the *General Plan* (Housing Element) had not yet been adopted; the City’s initial draft (August 2004) had been reviewed by the State of California, and the City had submitted its revised draft (on January 30, 2004) for final approval by the State.

2—PROJECT DESCRIPTION

This section describes the proposed development of the *Citrus Heights North Specific Plan* planning area in general terms, based on information provided in the *Citrus Heights North Specific Plan*.¹

2.1 PROJECT OBJECTIVES

The objectives of the proposed project are:

- To provide a high-end residential community with a complementary mix of housing types that will contribute to the range of existing housing choices in north Fontana;
- To provide a convenient “walking-distance” neighborhood commercial center with retail businesses;
- To create a unique and distinctive residential community identity and character through control of project design elements such as architecture, landscaping, walls, signage, private streets, pocket parks, and access-controlled (gated) entries;
- To implement a plan that is sensitive to the surrounding environment and aesthetically pleasing; and
- To provide infrastructure systems to support the project and contribute to Fontana’s roadway and circulation system improvements, including the installation of streetscape landscaping along the project’s frontage.

2.2 PROJECT LOCATION AND DESCRIPTION

The Citrus Heights North Specific Plan project proposes to construct the following elements on a 212-acre vacant site in the northwestern portion of the City of Fontana, north of Summit Avenue between Lytle Creek Road and Citrus Avenue:

- 802 single-family homes and 425 multi-family dwelling units;
- A 9-acre neighborhood retail center;
- Recreational amenities including small parks, a trail system, and a community sports center;
- Infrastructure improvements to the water, wastewater, and drainage systems;
- Improvements to adjacent roadways; and
- Improvements to the City’s circulation system, including a northern extension of Knox Avenue.

¹ *Citrus Heights North Specific Plan, a Master Planned Community of North Fontana*, prepared for the City of Fontana by T&B Planning Consultants, Inc., February 2004.

2.2.1 Project Location

The location of the proposed Citrus Heights North Specific Plan project site is a vacant 211.9-acre property in the northwestern portion of the City of Fontana, near the foot of the San Gabriel Mountains in southwestern San Bernardino County, California. The project site is approximately 52 miles east of the City of Los Angeles, 18 miles northwest of the City of Riverside, and 12 miles west of the City of San Bernardino. The northwestern corner of the site is southeast of the I-15 freeway, and the southern boundary of the site is approximately 1 mile north of the SR-210 freeway. See **Figure 2-1** (Regional Vicinity Map).

The surface streets bounding the site are Citrus Avenue on the east, Summit Avenue on the south, and Lytle Creek Road on the west. The western two-thirds of the site is bounded on the north by the right-of-way for Three Mile Road, while the eastern one-third of the site extends about $\frac{1}{4}$ mile further north. The site is traversed by two utility easements, neither of which is part of the project:²

- A northeast-southwest corridor (approximately 450 feet wide) with power transmission towers, used by Southern California Edison (SCE), Southern California Gas (SCG), and the Metropolitan Water District (MWD); and
- An east-west corridor (approximately 300 feet wide) used by MWD.

See **Figure 2-2** (Project Vicinity Map) and **Figure 2-3** (Project Vicinity Aerial Photograph).

2.2.2 Project Components

The project site is comprised of 211.9 acres of vacant land in the North Fontana Redevelopment Project area, which is being proposed for development with residential and commercial uses. **Figure 2-4** (Project Land Use Plan) displays the proposed layout of the Citrus Heights North Specific Plan planning areas. The project land use plan contains 12 planning areas (PAs), with the proposed land uses allocated as shown in **Table 2-1** (Proposed Land Uses). The residential land uses consist of single-family and multi-family dwelling units, and are located on 177.0 acres of the project site. The single-family lots range in size from 4,200 square feet to 10,000 square feet. The neighborhood commercial land use is located on 9 acres on the northwest corner of Summit Avenue and Citrus Avenue. There are three private recreation areas located within the residential PAs, and there is a larger 11.3-acre park located near the southwest corner of the project site that also functions as a detention basin. Adjacent to the detention basin/park is a 3.6-acre community sports center.

The residential acreage includes, in addition to private residential lots, internal streets and common areas such as expanded entries and pocket parks (which are in addition to the designated parks). The gross acreages of the PAs include future areas for public right-of-way improvements to Summit Avenue, Citrus Avenue, and Lytle Creek Road.

² The two easements are shown on **Figure 2-4** (Land Use Plan).

Table 2-1
PROPOSED LAND USES

Land Use	Planning Area	Acres	Dwelling Units	Density
Residential:				
<u>Single-Family Residential:</u>				
10,000-s.f. Lots	5	8.5	27	3.2
6,300-s.f. Lots	4A	28.8	131	4.5
5,200-s.f. Lots	1	30.1	168	5.6
	2A	16.4	88	5.4
	10	12.3	64	5.2
<i>5,200-s.f. Lots Subtotals</i>		58.8	320	5.4
4,200-s.f. Lots	3	26.8	167	6.2
	7	24.6	157	6.4
<i>4,200-s.f. Lots Subtotals</i>		51.4	324	6.3
<i>Single-Family Residential Subtotals</i>		147.5	802	5.4
<u>High-Density Residential:</u>				
	8	11.1	157	14.1
	9A	8.7	117	13.4
	11A	9.7	151	15.6
<i>High-Density Residential Subtotals</i>		29.5	425	14.4
Residential Subtotals		177.0	1,227	
Nonresidential:				
<u>Recreation and Open Space:</u>				
Community Sports Center	6	3.6		
Private Recreation	2B	0.7		
	9B	3.1		
	11B	0.5		
Detention Basin and Park	4B	2.2		
	6	11.3		
<i>Recreation/Open Space Subtotals</i>		21.4		
Res./Rec./Open Space Subtotals		198.4	1,227	6.2
<u>Other Nonresidential:</u>				
Neighborhood Commercial	12	9.0		
Knox Avenue	---	4.5		
<i>Other Nonresidential Subtotal</i>		13.5		
PROJECT TOTALS		211.9	1,227	6.2
Residential acreage includes private residential lots, internal streets, and common areas (e.g., expanded entries and pocket parks).				

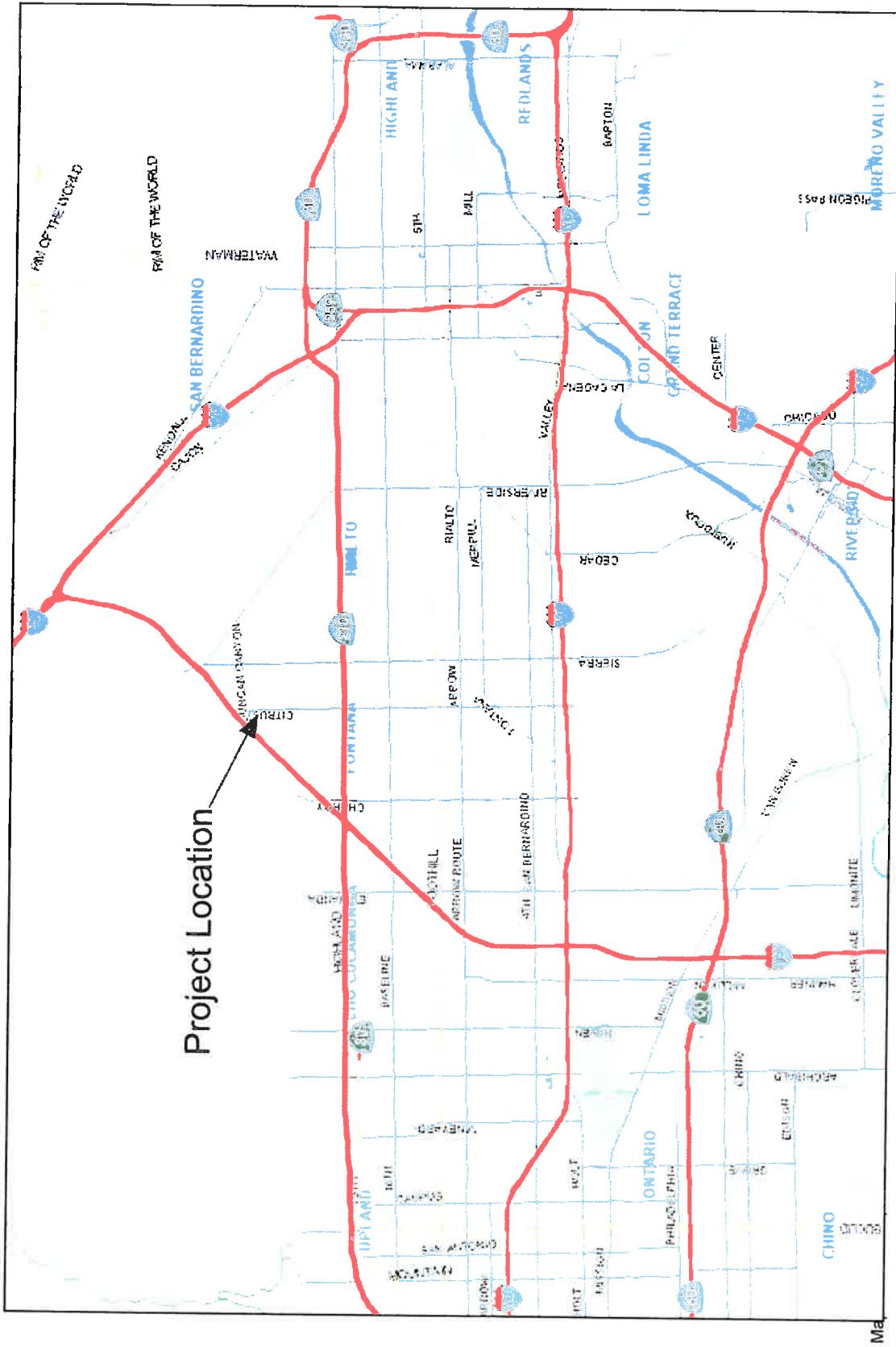


Figure 2-1
REGIONAL VICINITY MAP

March 2004
Page 2-4

City of Fontana Community Development Department
Citrus Heights North Specific Plan DEIR /5122

❖ 2—PROJECT DESCRIPTION ❖

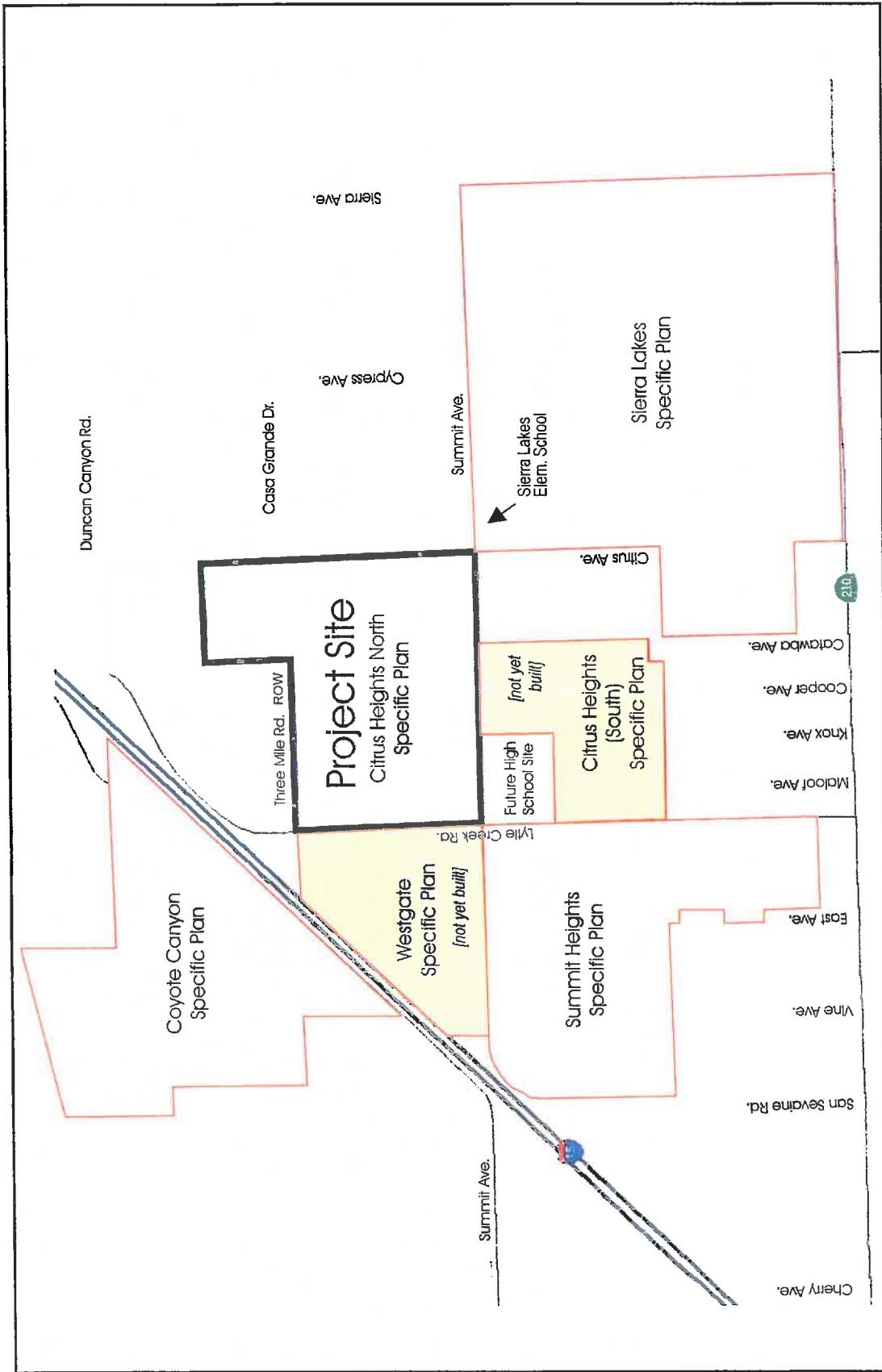
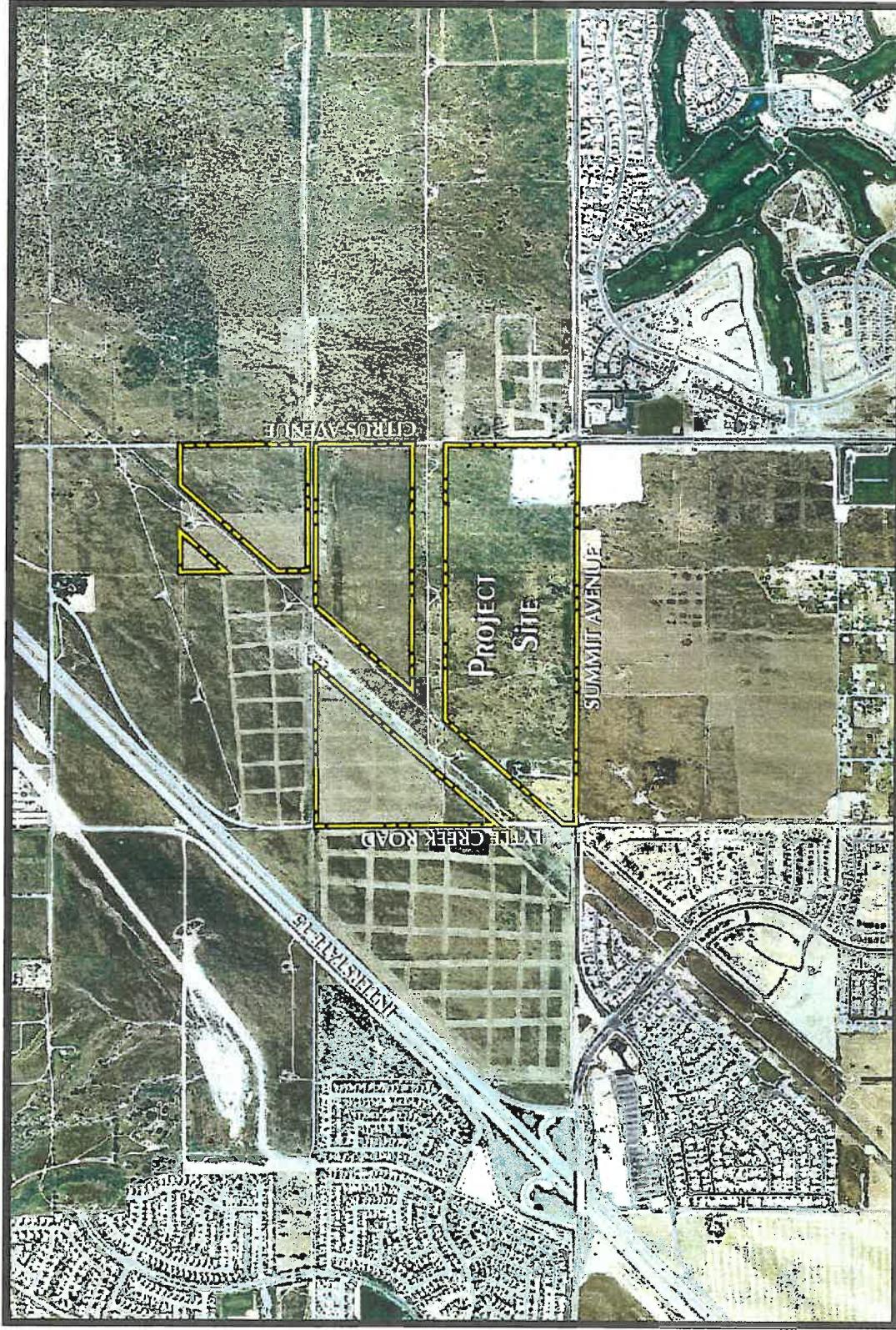


Figure 2-2
PROJECT VICINITY MAP





Source: Ledge Aerial; Date taken: May 2001

Figure 2-3
PROJECT VICINITY AERIAL PHOTOGRAPH

◆ 2—PROJECT DESCRIPTION ◆

Land Use	Size
Single-Family Residential	147.5 acres (802 units)
High-Density Residential	29.5 acres (425 units)
Subtotal, Residential:	177.0 acres (1,227 DUs)
Community Sports Center, Detention Basins, and Parks	21.4 acres
Subtotal, Residential and Open Space:	198.4 acres (6.2 DUs/acre)
Neighborhood Commercial	9.0 acres
Knox Avenue	4.5 acres
Subtotal, Commercial and Knox Avenue:	13.5 acres
PROJECT TOTAL:	211.9 acres

DU = dwelling unit. Residential acreage includes private lots, internal streets, and common areas (e.g., expanded entries and pocket parks).

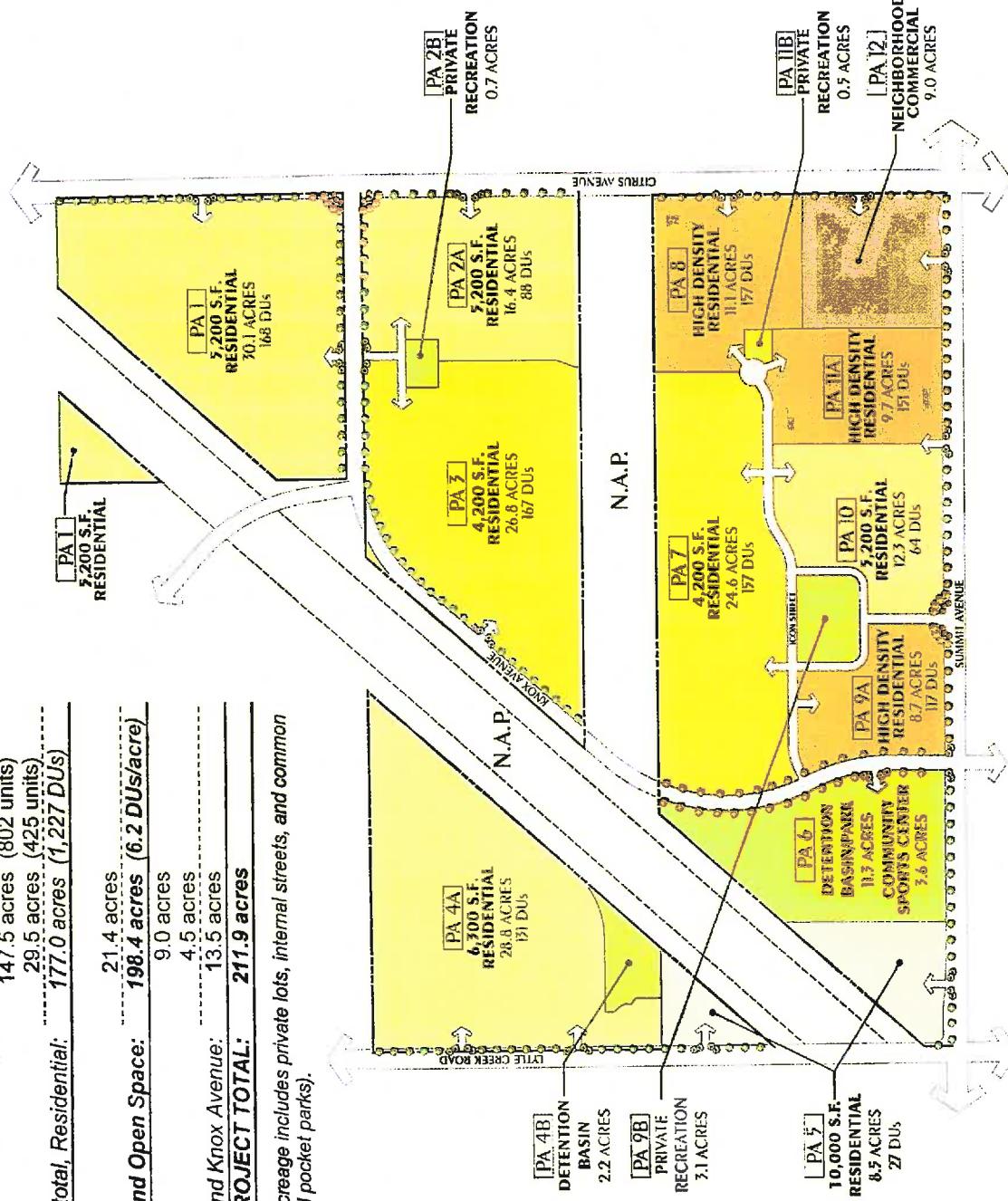


Figure 2-4 PROJECT I LAND USE PLAN

2.2.2.1 Project Design Elements

To create a cohesive and comprehensive community, the design guidelines and development standards of the Citrus Heights North Specific Plan establish the specific land uses and residential densities, the traffic circulation pattern, the public utility infrastructure improvements, and complementary architectural and landscaping themes. Entries to the project residential areas would be access-controlled by gates. The three small parks would be private (gated) recreation areas for Citrus Heights North residents only, with amenities such as swimming pools, ball courts, tot lots, picnic tables, and on-site parking. As part of this project, improvements would be made to the surrounding roadways and traffic circulation system, including widening, landscaping, and installing street lighting and sidewalks along the project's frontages on Lytle Creek Road, Sierra Avenue, and Curtis Avenue.

The community sports center would be an athletic and recreational complex that provides facilities for highly diversified recreational and community opportunities, including organized youth and amateur sports for residents of northern Fontana and the public at large. This facility would be adjacent to the large detention basin that would provide open-space parkland with amenities such as an athletic center, picnic areas, and ball fields. It is envisioned to serve as an active community gathering area for the surrounding communities, and would complement other nearby recreational facilities, such as the Ralph M. Lewis Park, the Pat Marujo Park, and the Sierra Lakes Golf and Country Club.

The neighborhood commercial center would serve project residents with a variety of convenient walking-distance stores and restaurants, and would add another shopping destination to other north Fontana residents as well.

Grading for the project would be tailored to the existing site topography, and balanced on-site; no earthen materials would be imported or exported. The project includes the infrastructure improvements required for water distribution, sewer services, and drainage, as well as utility facilities to supply electricity, natural gas, water, wastewater collection, solid waste collection, and telephone and cable lines. In addition, the project site is located adjacent to an existing elementary school (Sierra Lakes Elementary School), and the site of a planned high school.

2.2.2.2 Site Access

Primary Access

Primary vehicular access to and through the project site would be provided by Knox Avenue, which would be extended northward from Summit Avenue (between PA 6 and PA 9) through the site, and curve eastward to end at Citrus Avenue (between PA 1 and PA 2), on alignment with Casa Grande Drive to the east. This would provide two primary “full-access” points, with both left and right turns permitted:

- Intersection of Knox Avenue with:
 - Summit Avenue, between PA 6 and PA 9A
 - Citrus Avenue, between PA 2A and 1

Secondary Access

Nine other access points would be provided:

- From Lytle Creek Road:
 - Into PA 4 at two points, northern and southern
 - Into PA 5 (north of the utility easement)
- From Summit Avenue
 - Into PA 5, south of the utility easement

- Between PA 9A and PA 10 (full access)
- Between PA 10 and PA 11A (full access)
- Into PA 12, commercial center

- From Citrus Avenue:
 - Into PA 12, commercial center (full-access)
 - Into PA 1

The City of Fontana is proposing to widen Summit Avenue along the project's southern boundary.

2.2.3 Site Development

The Citrus Heights North Specific Plan provides for long-range comprehensive planning of the area, to implement the City's standards for orderly growth and avoid "parcel-by-parcel" development. The project is to be built out in phases over three to five years, with construction beginning on residential portions before the commercial portion. Development of roadways and other public facilities and infrastructure would occur concurrently with the residential development, and are planned to accommodate the full-build-out of the project. The east-west easement would be crossed by the extension of Knox Avenue.

2.3 PROJECTS CONSIDERED FOR CUMULATIVE IMPACTS

The *State CEQA Guidelines* (Section 15130) require EIRs to discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable. The *State CEQA Guidelines* in Section 15065(c) defines "cumulatively considerable" as the incremental effects of an individual project when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. Consideration of cumulative impact combines the project evaluated in the EIR together with other projects causing related impacts. To do this, *State CEQA Guidelines* Section 15130 suggests two methods, either by creating a list of past, present, and probable future projects producing related or cumulative impacts, or by utilizing a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact.

To determine whether cumulative impacts would occur for vehicular traffic and for environmental issues that use vehicular traffic as major contributor, such as air quality and noise, the Comprehensive Transportation Plan (CTP) traffic (passenger vehicle) model and truck model, maintained by the Southern California Association of Governments (SCAG), was used in the *Traffic Impact Analysis (TIA)* (Draft), prepared for the proposed Citrus Height North Specific Plan project by LSA Associates, Inc. (July 22, 2003), and included in this EIR as **Appendix F** (Traffic Impact Analysis). Traffic projections for 2025 include volumes from the CTP as well as project traffic volumes from the *Traffic Impact Study for the Proposed Summit High School* (Korve Engineering, August 2002) were added at each intersection. In addition, turning movements into and out of the Citrus Heights (South) Specific Plan area, from the *Citrus Heights (South) Traffic Impact Analysis* (LSA, October 2002), were added at shared access locations on Summit Avenue.

SCAG published the *2001 Regional Transportation Plan (RTP)*, which presents "an assessment of the overall growth and economic trends in the SCAG Region for the years 2001–2025 and provides strategic direction for investments during this time period. The RTP should serve as a catalyst for linking the

various transportation agency investments within the SCAG Region to provide a cohesive, balanced and multi-modal transportation system that addresses regional goals and is consistent with federal and state requirements.” It is expected that the projects identified in the RTP were considered in the development of the CTP. Appendix K of the RTP is a listing of the projects considered, and this information is categorized by county, route and project limits, brief description, and year the project is expected to be completed.

For sections related to land use and planning, such as aesthetics, population and housing, public services, utilities and service systems, and recreation, the list of past, present, and probable future projects producing related or cumulative impacts method was used, and consists of the specific plans and community plans that are proposed for the City of Fontana; see **Table 3-21** (Related Projects [Residential Specific Plans and Community Plans in Fontana]).

For sections that evaluate physical characteristics of the project sites, such as biological resources, cultural resources, geology and soils, hazards, and hydrology and water quality, each of these sections considered cumulative impacts in a manner consistent with that discipline and the standards and regulations pertinent to that environmental issue area. For example, for biological resources, the cumulative impact section considered whether the project site was considered valuable habitat and if so, whether the project site would be useful in combining with other habitat areas to form wildlife migration routes or reserves for sensitive species. For geology and soils, the resource would be minimally impacted by the project, but the resource could impact the proposed project by requiring building and development restrictions. The potential for cumulative impacts to geology and soils due to the projects are also minimal, but could occur if the geology or soils in the area were already unstable and the combined projects may increase this instability.

2.4 DISCRETIONARY ACTIONS

A discretionary action is a decision taken by a government agency that calls for the exercise of judgment in deciding whether to approve a project. For this project, the government agency with discretionary approval authority is the City of Fontana. The proposed land use designation and related actions would require the following specific discretionary approvals from the City of Fontana:

- Approval of SPL #03-009, Citrus Heights North Specific Plan
- Approval of Development Agreements with individual developers
- Approval of Tentative Tracts and/or Parcel Maps for future development

3—ENVIRONMENTAL IMPACT ANALYSIS

Initial Study “No-Impact” Conclusions. The *Initial Study* (IS) (Appendix A) for the proposed project was issued in November 2003. Of the 16 environmental impact categories analyzed in accordance with the Checklist, the IS concluded that the proposed project would have no impact on two environmental categories: Agricultural Resources and Mineral Resources. Since the IS was issued, there has been no new information or change in circumstances that would require re-analyzing either of these environmental categories. Therefore, this EIR does not analyze the potential project environmental impacts on agricultural or mineral resources.

For several other environmental impact categories, the IS concluded “no impact” for one or more of the potential impact subcategories (i.e., checklist items). In all but one of these cases, there has been no new information or change in circumstances that would require re-analysis of the potential impact subcategories. Since the issuance of the IS the City of Fontana has issued its updated *General Plan*.¹ This land use issue is re-evaluated within the Draft EIR. For all other potential impact subcategories they remain as described in the IS.

¹ The City of Fontana adopted all elements except one (Housing) of its updated *General Plan* on October 21, 2003, but the document was not made available to the public until December 2003, after issuance of the *Draft IS*.

3.1 LAND USE AND PLANNING

“Land use” refers to the manner in which land is used for various activities, including: residential, commercial, industrial, recreational, open space, etc. Land use designates the affected parcel(s) for their permissible densities and intensities. This section evaluates land use in terms of the proposed project’s effects on the City’s General Plan Land Use Element and Zoning.

3.1.1 Environmental Setting

3.1.1.1 *On-Site Land Uses*

The location of the proposed Citrus Heights North Specific Plan project site is a vacant 211.9-acre property in the northwestern portion of the City of Fontana, near the foot of the San Gabriel Mountains in southwestern San Bernardino County. The surface streets bounding the site are Citrus Avenue on the east, Summit Avenue on the south, and Lytle Creek Road on the west. The western two-thirds of the site is bounded on the north by the right-of-way for Three Mile Road, while the eastern one-third of the site extends about $\frac{1}{4}$ mile further north. The site is traversed by two utility easements, neither of which is part of the project:²

- A northeast-southwest corridor (approximately 450 feet wide) with power transmission towers, Southern California Edison (SCE), Southern California Gas (SC Gas), and the Metropolitan Water District (MWD); and
- An east-west corridor (approximately 300 feet wide) used by MWD.

The project site is essentially vacant, undeveloped, and largely devoid of vegetation. There is one single-family residential house located just northeast of the Summit Avenue/Lytle Creek Road intersection. All native vegetation on-site has been disturbed by past agricultural activities. Portions of the project site have a long history of agricultural use, although they have not been used for this type of activity for many years. Because the site has no surface water and has been used for agriculture in the recent past, its level of wildlife activity is very low.

On April 26, 2002, the City issued a temporary permit allowing for the “processing for soils” on the southeastern 9-acre portion of the project site to support the widening of Summit Avenue between Sierra Avenue and Citrus Avenue. The permit expired on October 26, 2002, and the City has no plans to issue another permit, even when (as planned) the City proceeds with widening Summit Avenue between Citrus Avenue and Lytle Creek Road. Therefore, this parcel will no longer be used as a construction staging area.

3.1.1.2 *Surrounding Land Uses*

Several other Specific Plan (SP) areas for master-planned, mixed-use, primarily residential communities are in the site vicinity. Those immediately adjacent to the project site are the Westgate Specific Plan area to the west, and the recently approved Citrus Heights South Specific Plan to the south. In addition, immediately southwest of the southwestern corner of the project site is the Summit Heights Specific Plan area, and immediately southeast of the southeastern corner of the site is the Sierra Lakes Specific Plan area; both of these areas are partially constructed and occupied. These Specific Plan areas are shown on **Figure 2-2** (Project Vicinity Map).

² The two easements are shown on **Figure 2-4** (Project Land Use Plan).

Properties directly to the north and east are vacant, and not currently part of a specific plan. Across Summit Avenue to the south (at the southeastern corner of Lytle Creek Road and Summit Avenue) is a 47.9-acre site designated for the planned Summit High School. To the immediate southeast of the project site (at the southeastern corner of Summit Avenue and Citrus Avenue) is the Sierra Lakes Elementary School.

3.1.1.3 General Plan

On the City's *General Plan* Land Use Map, most of the project site is designated as Residential Planned Community (R-PC), which allows both single-family and multifamily dwellings at a maximum density of 6.4 dwelling units per acre.³ The *General Plan* provides the following information regarding the R-PC designation:

- 1) The intent of the R-PC designation is to provide for the managed growth of the master planned communities offering a mix of residential housing types and amenities available for various economic segments of the population.
- 2) The designation recognizes approved single-family residential development areas within approved Specific Plans.⁴
- 3) The R-PC designation is also intended to accommodate development of new planned residential communities in Fontana either using conventional zoning or a Specific Plan (for projects of 145 acres minimum).
- 4) For projects of 145 acres minimum size (net), the following provisions apply:
 - a) Single-family detached residential development is allowed by right, at densities from 3.0 to 4.7 du/acre, with a specific plan.
 - b) For single-family detached development at densities between 4.7 and 6.4 du/acre:
 - i) The project must be adjacent to an activity center or major primary highway as identified in the General Plan Circulation Element;
 - ii) The project must have a mix of for sale residential product types including: single-family homes, condominiums, townhomes, and/or rental multifamily housing projects that contain at least 100 units with a 25% usable open space;
 - iii) A specific plan must be prepared;
 - iv) The design of the community must encompass a variety of amenities to serve the project which may include, but are not limited to, the following:
 - 1) 25% open space,
 - 2) Trails and paseos,
 - 3) Child care facilities,
 - 4) Neighborhood/satellite community libraries,
 - 5) Fire stations,
 - 6) Golf courses,
 - 7) Fountains
 - 8) Water features,

³ *City of Fontana General Plan*, October 21, 2003, Chapter 3, Land Use Element, pp. 3-11 to 3-13 and Figure 3-4, p. 3-23.

⁴ Refer to those approved Specific Plans for additional detailed density information related to the areas designated R-PC.

- 9) Public art,
- 10) Amphitheaters,
- 11) Skate park and/or skateboard park,
- 12) Community owned sports fields, courts, tot lots, putting greens, pools, lakes, recreation/community complexes, exercise trails, and dog parks,
- 13) Public facilities/parks substantially in excess of that required by the Quimby Act provisions
- 14) Other amenities may include public facilities with a recognizable connection to the project, substantially in excess of minimum requirements.

v) If affordable housing is proposed for at least 20% of the units in the project, then per state law a density bonus of 25% will be granted, and a mix of for sale residential product types including single-family homes, duplexes, condominiums, townhomes, and/or multi-family housing (projects that contain at least 100 units) is permitted. A specific plan must be prepared. Overall average project density shall not exceed 8 du/ac.

5) For projects of less than 145 acres the following provision applies:

- a) Single-family detached residential development at 10,000 sq. ft. minimum lot size is required.

A 9-acre parcel in the southeastern corner of the project site is designated as Community Commercial (C-C) with a Local Activity Center Overlay, which allows nonresidential uses with a 0.1-to-1.0-floor area ratio (FAR)—the ratio of built floor space to the adjusted gross area of the land.⁵ The General Plan provides the following information regarding the C-C designation:⁶

- 1) This designation is intended to accommodate retail development including shopping centers, restaurants, and the like that serve the needs of Fontana residents.
- 2) Offices and businesses providing professional services, including legal services, financial institutions, administrative and corporate offices, medical offices and clinics are also permitted in these areas.
- 3) FARs at the end of this range are intended primarily for office type uses.

The *General Plan* provides the following information regarding the Local Activity Center Overlay designation:⁷

- 1) Activity Centers have been conceptually identified on Figure 3-4 in the *General Plan* Land Use Element, Page 3-23. This depiction is not intended to indicate these centers' ultimate size or precise location.
- 2) The Activity Center Overlay designation is intended to stimulate the development of intimately scaled activity centers within areas planned for residential development from Baseline Avenue to the northern border of the City. Activity Centers are intended to accommodate a mix of land use types serving only their surrounding residential neighborhood.
- 3) Activity Centers are generally located within a half-mile of potential users, allowing for a comfortable walking distance for most residents.

⁵ *Ibid.*, Chapter 3, Land Use Element, pp. 3-11 and 3-18; adjusted gross area = 70% of the gross area.

⁶ *Ibid.*, Chapter 3, Land Use Element, p. 3-14.

⁷ *Ibid.*, Chapter 3, Land Use Element, p. 3-18.

- 4) Activity Centers may be networked by multi-purpose trails and bicycle trails, with the purpose of linkage, as well as providing alternative means of transportation. Centers may also be linked to other adjacent or nearby residential open space or educational or community facilities.
- 5) Specific uses intended in these activity centers include: community serving retail commercial; professional offices, service businesses, entertainment centers, sales outlets, restaurants, day care centers, institutional, public and quasi public uses.
- 6) Residential development at the Medium and Multi-Family density designations is permitted within this designation, if the residential development is part of a project developed under a Specific Plan.
- 7) The mix of uses should promote civic activity, define neighborhood character and provide focus, provide places for people to meet and socialize, and enhance an area's overall quality of life.

3.1.1.4 General Plan Goals and Policies

Following are the goals and policies cited in the General Plan that pertain to the proposed project. Only that portion of the policy that is pertinent to the proposed project is provided below.

Goal #1. Land use in our community is balanced between residential, commercial, industrial, open space, and recreational land uses that are developed to high standards of quality and provide diverse economic, social, and cultural opportunities for our citizens and those who wish to live here.

Policies

- 1) Development shall be consistent with our land use plan . . .
- 2) A variety of residential land uses, product types, and densities shall be developed in Fontana to meet the housing needs of people with varied incomes and lifestyle choices.
- 3) New planned communities in our City shall be developed to high standards for site design and landscaping and shall be linked with amenities such as community facilities, schools, parks and other forms of open space.
- 4) Activity centers identified conceptually on the Land Use Plan shall be the preferred form of development for residentially serving retail, services and entertainment uses, and shall incorporate open spaces for public gathering as well.

Goal #2. Quality of life in our community is supported by development that avoids negative impacts on residents and businesses and is compatible with, and enhances, our natural and built environment.

Policies

- 1) New development with potentially adverse impacts on existing neighborhoods or residents such as noise, traffic, emissions and storm water runoff, shall be located and designed so that quality of life and safety in existing neighborhoods are preserved.
- 2) Not applicable.
- 3) Infill development within existing residential neighborhoods shall be compatible with adjacent uses and enhance the local character.
- 4) Not applicable.
- 5) Multiple uses within utility easements shall emphasize open spaces but may accommodate more intensive uses to safely augment adjacent uses.

Goal #3. Our community is developing in a unified, orderly, logical, environmentally sound manner, which ensures that the City is unified and accessible to all residents, and results in economically sound commercial areas, vibrant neighborhoods, and jobs rich centers.

Policies

- 1) Areas adjacent to freeway and major arterial corridors shall be given special land use and development standards guidance.
- 2) Not applicable.
- 3) Not applicable.
- 4) Improvements shall be made to transportation corridors that promote physical connectivity and reflect consistently high aesthetic values.
- 5) Activity centers should be linked with residential neighborhoods and be accessible by multiple modes of transportation.
- 6) Not applicable.

3.1.1.5 Zoning⁸

The 202.9-acre noncommercial portion of the project site is currently zoned as R-PC (Residential Planned Community) on the City of Fontana Land Use Zoning Map. The 9.0-acre commercial portion is zoned as C-C (Community Commercial with a Local Activity Center Overlay).

3.1.2 Environmental Impact Analysis

3.1.2.1 Thresholds of Significance

Based, in part, on Appendix G of the *State CEQA Guidelines*, as amended, the proposed project would have a significant effect on land use and planning, if it were to:

- Physically divide an established community;
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited, to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or
- Conflict with any applicable habitat conservation plan or natural communities conservation plan. (This threshold does not apply to the proposed project because the project site is not located within or otherwise subject to a habitat conservation plan or natural communities conservation plan.)

3.1.2.2 Project Impacts

On-Site Land Uses

The proposed Citrus Heights North Specific Plan project would replace the vacant portions of the 211.9-acre property with a master planned community. The replacement or loss of the open space use of the site is not a significant impact because it is not in any type of productive use, the vegetation is of low quality,

⁸ City of Fontana Land Use Zoning Map, as revised and adopted on April 15, 2004.

and it does not support animal wildlife. The removal of the vegetation on the project site is fully evaluated in the biological resources section (3.4) of this document.

The two utility easements that traverse the project site would be physically changed by the proposed project. The northeast-southwest corridor (approximately 450 feet wide) with power transmission towers belonging to SCE, and pipelines belonging to SC Gas and MWD would be crossed by a roadway, exiting the project site towards the northwest, immediately west of PA 1 and north of PA 3 (refer to **Figure 2-4**, Project Land Use Plan). The east-west corridor (approximately 300 feet wide) belonging to MWD would be crossed by Knox Avenue, a circular project street that would connect Summit Avenue to Citrus Avenue, at its western most location (refer to **Figure 2-4**). Prior to any construction activities occurring within these two easements, the proposed project would have to obtain the proper easements from the affected utilities. Obtaining the proper easements would ensure there are no significant adverse impacts on the two utility corridors.

Surrounding Land Uses

The proposed project would not affect the surrounding land uses. The project site is proposing land uses that are similar to those in the immediately adjacent Westgate Specific Plan area (to the west), the Summit Heights Specific Plan area (to the southwest), the recently approved Citrus Heights South Specific Plan (to the south), and the Summit Heights Specific Plan area and the Sierra Lakes Specific Plan area (to the southeast). These Specific Plan areas are shown on **Figure 2-2** (Project Vicinity Map). The proposed project would be consistent with these existing land uses. Since the proposed project is consistent with the developed surrounding land uses the proposed project would not physically divide an established community, and the impact would be less-than-significant.

Properties directly to the north and east of the project site are vacant, and not currently part of a specific plan. These lands are designated and zoned the same as the project site. Therefore, the proposed project would be consistent with these properties because there is a high probability that they would be developed pursuant to a Specific Plan similar to that of the proposed project. The proposed project impact on the lands to the north and east of the project site would be less-than-significant because it would not physically divide an established community.

The two schools across Summit Avenue to the south (the planned Summit High School and the Sierra Lakes Elementary School) would serve the residents of the proposed project. Schools are by their nature a consistent land use with the types of residential and commercial uses being proposed by the Citrus Heights North Specific Plan project. The proposed project impact on the two schools would be less-than-significant.

General Plan

The proposed Citrus Heights North Specific Plan project would develop a master planned community as described in the Project Description (section 2) of this document. The R-PC designation provides for the managed growth of master planned communities, which offer a mix of residential housing types and amenities that are available for various economic segments of the population. Developments within an R-PC designated area require the approval of a Specific Plan if the project is proposing residential lots less than 7,200 square feet. The minimum lot size being proposed by the Citrus Heights North Specific Plan project is 4,200 square feet, and there are also attached residential units being proposed, therefore a Specific Plan is required. The Citrus Heights North Specific Plan is being submitted for approval. Therefore, the proposed project is consistent with this aspect of the R-PC land use designation, and a less-than-significant impact would occur.

The R-PC designation recognizes approved single-family residential development areas within approved Specific Plans. The Citrus Heights North Specific Plan project is proposing seven PAs specifically designated for single-family residential development that would offer a mix of residential housing types.

Therefore, the proposed project is consistent with this aspect of the R-PC land use designation, and a less-than-significant impact would occur.

The R-PC designation also presents a list of provisions, which apply to all projects with a site larger than 145 acres. Specifically, for single-family detached development projects proposing densities between 4.7 and 6.4 du/acre the following provisions must be adhered to:

- *The project must be adjacent to an activity center or major primary highway as identified in the General Plan Circulation Element.* The proposed project is proposing an Activity Center in the form of neighborhood commercial on the northwest corner of Summit Avenue and Citrus Avenue.
- *The project must have a mix of for sale residential product types including: single-family homes, condominiums, townhomes, and/or rental multifamily housing projects that contain at least 100 units with a 25% usable open space.* The proposed project is offering a mix of residential housing types including: single-family within seven PAs and high-density residential within three PAs that each contain more than 100 units with a 25% usable open space.
- *A specific plan must be prepared.* The proposed project is preparing the Citrus Heights North Specific Plan.
- *The design of the community must encompass a variety of amenities to serve the project.* The proposed project includes the following amenities: a 3.6-acre public community sports center, an 11.3-acre public detention basin/park adjacent to the sports center, and three private recreation areas totaling 4.3 acres within the development areas. Typical amenities within the public detention basin/park include: athletic center, picnic areas, open turf areas, basketball-softball/baseball-soccer facilities. Typical amenities within the private recreation areas include: tot lot, picnic facilities, pool, shade tree and turf areas, restrooms, and on-site parking.

The proposed project is consistent with this aspect of the R-PC land use designation, and a less-than-significant impact would occur.

The 9-acre parcel in the southeastern corner of the project site is designated as Community Commercial (C-C) with a Local Activity Center Overlay. This area of the project site is designated as PA 12, and it would be developed with a neighborhood commercial center. This center would provide commercial retail and neighborhood services for the residents of the Citrus Heights North Specific Plan development. The proposed project is consistent with this aspect of the C-C land use designation, and a less-than-significant impact would occur.

The Local Activity Center Overlay designation is intended to stimulate the development of intimately scaled activity centers within areas planned for residential development from Baseline Avenue to the northern border of the City. The proposed Activity Center would accommodate a mix of neighborhood commercial land uses, which would serve the residents of the Citrus Heights North Specific Plan development. The activity center is located immediately adjacent to the proposed residential PAs and would be within walking distance of the residents.

General Plan Goals and Policies

The Citrus Heights North Specific Plan must be consistent with and compatible with the City's General Plan goals and policies. To be consistent with the General Plan the Specific Plan must demonstrate that it is compatible with the goals and policies presented in the General Plan that are applicable to the proposed project. A proposed project is consistent with the applicable goals and policies if it furthers them or

otherwise does not obstruct their attainment. Following is a consistency evaluation for the applicable goals and policies of the General Plan:

Goal #1. Land use in our community is balanced between residential, commercial, industrial, open space, and recreational land uses that are developed to high standards of quality and provide diverse economic, social, and cultural opportunities for our citizens and those who wish to live here. The proposed Citrus Heights North Specific Plan project is a master planned community consistent with the R-PC land use designation. It would provide a mix of residential types, commercial, and recreational opportunities. The proposed project is consistent with Goal #1. Therefore, a less-than-significant impact would occur.

Policy 1. *Development shall be consistent with our land use plan.* The proposed Citrus Heights North Specific Plan project is consistent with the City's Land Use Plan as is analyzed above. The proposed project is consistent with Policy 1. Therefore, a less-than-significant impact would occur.

Policy 2. *A variety of residential land uses, product types, and densities shall be developed in Fontana to meet the housing needs of people with varied incomes and lifestyle choices.* The proposed project would offer both attached and detached housing options within the same master planned community. The proposed project is offering a mix of residential housing types including: single-family within seven PAs and high-density residential within three PAs that each contain more than 100 units. The proposed project is consistent with Policy 2. Therefore, a less-than-significant impact would occur.

Policy 3. *New planned communities in our City shall be developed to high standards for site design and landscaping and shall be linked with amenities such as community facilities, schools, parks and other forms of open space.* The proposed project would be developed to the design and landscaping standards set by the City. The project is proposing to meet the needs of project residents and the public at large by including a community sports center and public park, a trail system, and private recreational facilities. The proposed project is consistent with Policy 3. Therefore, a less-than-significant impact would occur.

Policy 4. *Activity centers identified conceptually on the Land Use Plan shall be the preferred form of development for residentially serving retail, services and entertainment uses, and shall incorporate open spaces for public gathering as well.* The proposed project would develop an activity center on the northwest corner of Summit Avenue and Citrus Avenue. This activity center would offer convenient retail uses that would serve the residents of the proposed project and the immediate area. The proposed project would develop three private parks within the gated community and one large public park that would offer public gathering places. The proposed project is consistent with Policy 4. Therefore, a less-than-significant impact would occur.

Goal #2. Quality of life in our community is supported by development that avoids negative impacts on residents and businesses and is compatible with, and enhances, our natural and built environment. The proposed Citrus Heights North Specific Plan project is consistent with the existing and planned development that is located to the west and the south. As such, the proposed master planned community project is a northerly extension of the adjacent Specific Plan projects that have been approved around it. It is being planned and designed to City standards, which would avoid negative impacts on residents and businesses in the area. The proposed project is consistent with Goal #2. Therefore, a less-than-significant impact would occur.

Policy 1. *New development with potentially adverse impacts on existing neighborhoods or residents such as noise, traffic, emissions and storm water runoff, shall be located and designed so that quality of life and safety in existing neighborhoods are preserved.* The proposed Citrus Heights North Specific Plan project is designed to City standards, which address noise, traffic,

emissions, and storm water runoff. As designed the proposed project would not have negative affects on the quality of life because there are sound walls along all heavily traffic streets, streets are designed to accommodate the traffic, and the storm water system is designed to have sufficient capacity for the projected runoff from the property. The proposed project is consistent with Policy 1. Therefore, a less-than-significant impact would occur.

Policy 3. *Infill development within existing residential neighborhoods shall be compatible with adjacent uses and enhance the local character.* The proposed Citrus Heights North Specific Plan project is consistent with the existing and planned residential neighborhoods that are located to the west and the south of the project site. As such, the proposed master planned community project is a northerly extension of the adjacent Specific Plan projects that have been approved around it. It is being planned and designed to City standards, which would enhance the local character in the area. The proposed project is consistent with Policy 3. Therefore, a less-than-significant impact would occur.

Policy 5. *Multiple uses within utility easements shall emphasize open spaces but may accommodate more intensive uses to safely augment adjacent uses.* The two utility easements that traverse the project site would be physically changed by the proposed project. The northeast-southwest corridor (approximately 450 feet wide) with power transmission towers belonging to SCE, and pipelines belonging to SC Gas and MWD would be crossed by a roadway, exiting the project site towards the northwest, immediately west of PA 1 and north of PA 3 (refer to **Figure 2-4**, Project Land Use Plan). The east-west corridor (approximately 300 feet wide) belonging to MWD would be crossed by Knox Avenue, a circular project street that would connect Summit Avenue to Citrus Avenue, at its western most location (refer to **Figure 2-4**). Prior to any construction activities occurring within these two easements, the proposed project would have to obtain the proper easements from the affected utilities. Obtaining the proper easements would ensure there are no significant adverse impacts on the two utility corridors. Although the two utility easements are not a part of the proposed project, they do bisect the project site in a north/south and east/west direction, and they provide a sufficient amount of open space within the boundaries of the project site. The proposed project is consistent with Policy 5. Therefore, a less-than-significant impact would occur.

Goal #3. *Our community is developing in a unified, orderly, logical, environmentally sound manner, which ensures that the City is unified and accessible to all residents, and results in economically sound commercial areas, vibrant neighborhoods, and jobs rich centers.* The proposed Citrus Heights North Specific Plan project would be developed pursuant to City standards, which ensures a unified, orderly, logical, environmentally sound development. This approach ensures the proposed project would be unified and accessible to all residents, and result in an economically sound commercial area, with vibrant residential neighborhoods. The proposed project is consistent with Goal #3. Therefore, a less-than-significant impact would occur.

Policy 1. *Areas adjacent to freeway and major arterial corridors shall be given special land use and development standards guidance.* The northwestern corner of the proposed Citrus Heights North Specific Plan project is southeast of the I-15 freeway, and the southern boundary of the site is approximately 1 mile north of the SR-210 freeway. The project site is too far away from the SR-210 Freeway for it to be affected, but the project site can be seen from the I-15 Freeway. In addition, Citrus Avenue is identified as a primary highway that provides a major arterial north/south corridor in the City, and Summit Avenue is a secondary highway. These streets would be upgraded/constructed to City requirements. The proposed project is consistent with Policy 1. Therefore, a less-than-significant impact would occur.

Policy 4. *Improvements shall be made to transportation corridors that promote physical connectivity and reflect consistently high aesthetic values.* The project streets would be designed and constructed to City requirements. The proposed project would enhance the aesthetics of the local street network by installing landscape improvements along the entire project's frontage. The proposed project is consistent with Policy 4. Therefore, a less-than-significant impact would occur.

Policy 5. *Activity centers should be linked with residential neighborhoods and be accessible by multiple modes of transportation.* An activity center would be located at the northwest corner of Summit Avenue and Citrus Avenue. The project streets would be designed and constructed to City requirements. The activity center would be linked with the proposed residential neighborhoods via the local street network and by a proposed trail system within the development. The proposed project is consistent with Policy 5. Therefore, a less-than-significant impact would occur.

Zoning

Adoption of the proposed Citrus Heights North Specific Plan would be consistent with the City of Fontana's current Land Use Zoning Map, as revised and adopted on April 15, 2004. Therefore, a less-than-significant impact would occur.

3.1.3 Cumulative Impacts

No related projects were identified that have a potential to create significant cumulative impacts in conjunction with the proposed project relative to land use and planning issues. From a land use perspective, the development of the proposed project conforms to the existing land development regulations based on its consistency with applicable City of Fontana land use and zoning standards, and would not significantly contribute to the cumulative environmental impacts in the area.

3.1.4 Mitigation Measures

The project fulfills the requirements of the *City of Fontana General Plan*, and does not adversely impact land use or zoning. No mitigation measures are required for land use and planning.

3.1.5 Level of Significance After Mitigation

The proposed project would not result in a significant adverse land use and planning impact.

3.2 AESTHETICS

This section discusses the qualitative aesthetic characteristics of the existing environment that would be potentially impacted by the implementation of the proposed project, the consistency of the proposed project with established visual resources policies and guidelines of the *City of Fontana General Plan* and the Citrus Heights North Specific Plan, and the potential effects of project lighting.

3.2.1 Environmental Setting

Scenic Vistas. There are no scenic vistas identified in the City's General Plan. The topography of the project site is relatively flat; the highest elevation is approximately 1,740 feet AMSL in the northeast corner of the project site, and the lowest elevation is approximately 1,595 feet AMSL in the southwest corner of the property. The topography on the property surrounding the project area is similar to that on the project site. This relatively flat topography does not lend itself to scenic vistas.

Scenic Resources Within a State Scenic Highway. There are no designated State Scenic Highways in the vicinity of the project site.

On-Site Visual Character or Quality of the Site. The project site is essentially vacant and undeveloped, as shown in **Figure 2-3** (Project Vicinity Aerial Photograph). The property is only sparsely vegetated, mostly with non-native grasslands, but the property has a long history of agricultural use. Farming operations were abandoned years ago, and numerous piles of trash and construction debris are scattered across the project site. Based on the U.S. Geological Survey (USGS) 7.5-minute Devore, California Quadrangle 1996 map, the site has a relatively flat topography, with a central elevation of approximately 1,600 feet above mean sea level (AMSL), and slopes gently to the southwest at a less than 3-percent slope. A modest single-family residence and some landscaping trees are located near the southwestern corner of the project site (at 15842 Curtis Avenue); this residence constitutes the only major building on the site, and is the only source of light on the site. A concrete lined storm channel is located along the northern right-of-way of Summit Avenue.

The northwestern corner of the site is within $\frac{1}{2}$ mile of Interstate 15 (I-15), a major commuter freeway in the area. Residences of the Summit Heights Specific Plan area are located southwest of the project site, across the intersection of Summit Avenue and Lytle Creek Road. An elementary school is located immediately southeast, across the intersection of Summit Avenue and Citrus Avenue, and beyond the school is the Sierra Lakes Specific Plan area, another master-planned residential community. All other surrounding properties are vacant. Visually, the most predominant manmade physical aspect of the site are the electrical transmission towers that traverse the site in a graded 450-foot wide easement corridor, crossing the northern and western portions of the site.

See Site Photographs A through C in Section 3.5 (Environmental Analysis, Cultural Resources), **Figures 3-2a/b.**

Light or Glare. The only source of light currently on the project site is associated with the single-family residence located at 15842 Curtis Avenue. There are no sources of glare on the project site.

3.2.1.1 Existing Viewer Groups

Sensitivity. The sensitivity of viewers is based on several factors:

- Visibility of existing resources in the landscape;
- Proximity and elevation of viewers related to the visual resources;

- Frequency and duration of viewings; and
- Number, types, and expectations of viewers and viewer groups.

Generally, visual sensitivity increases proportionally to the total number of viewers, the frequency of viewing, and the duration of views. However, visual sensitivity is potentially higher for views seen by persons who are driving for pleasure, engaging in recreational activities, or homeowners; sensitivity tends to be lower for views by persons who are commuting to and from work.

Viewer Groups. Viewer groups associated with the proposed project site consist of residents, commuters, and pedestrians. Based on the frequency of viewing and duration of views, residents have the most visual sensitivity, followed by commuters and pedestrians.

Neighboring homeowners would be located south of Summit Avenue, directly southwest and southeast of the proposed site. Schoolchildren would be directly southeast, at the elementary school, and high school students are expected to occupy a planned high school immediately south of the site, across Summit Avenue, in September 2005. The local arterial roadways commonly used by commuters are Lytle Creek Road to the west, Summit Avenue to the south, and Citrus Avenue to the east. In addition, motorists on I-15 have views of the project site.

3.2.1.2 General Plan Aesthetic Goals

The City of Fontana General Plan (the Community Design Element) and the Citrus Heights North Specific Plan have established goals and policies, design guidelines, and standards for the protection of aesthetic and visual resources in the community. The goals from the Community Design Element of the City of Fontana General Plan⁹ that pertain to the aesthetic aspects of the proposed project are:

- Goal #1.** A unified overall community image and appearance with distinct districts and neighborhoods.
- Goal #2.** Preservation and use of open spaces as recreational amenities, visual boundaries, and view corridors. Preservation and use of open spaces as recreational amenities, visual boundaries, and view corridors.
- Goal #5.1.** Extensive use of high-quality, contemporary design that incorporates unifying, community-wide design elements by new development.
- Goal #5.2.** Neighborhood organization and design that reflect diverse and high-quality development standards and strong integration into the broader community.
- Goal #5.3.** In shopping centers, a high level of pedestrian amenities, distinct and varied architectural details, and careful integration into surrounding residential areas.
- Goal #6.** Use of appropriate design standards to minimize conflict and spillover effects at the interface of differing land uses.

3.2.2 Environmental Impact Analysis

3.2.2.1 Thresholds of Significance

The criteria used to determine the significance of an aesthetic impact are based on Appendix G of the *State CEQA Guidelines*. The proposed project would have a significant environmental impact if it were to:

⁹ *City of Fontana General Plan*, October 21, 2003, Chapter 6, Community Design Element, pp. 6-9 through 6-19.

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- Substantially degrade the existing visual character or quality of the site and its surroundings; and
- Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

3.2.2.2 *Methodology*

Characterizing aesthetic impacts can be highly subjective; therefore, evaluation of aesthetic resources in the landscape requires objectively identifying the visual features of the landscape and determining their importance and the sensitivity of receptors that view them. The process includes:

- Identifying sensitive receptors who have views of the project site and then determining the relative importance of these views;
- Identifying and qualitatively evaluating the project-related changes in the aesthetic character of the site and surrounding area, based on the modification of the physical conditions and the viewer sensitivity;
- Comparing the project-related impacts to the context of the existing setting, using the threshold criteria specified in Section 3.2.2.1;
- Analyzing policies to determine the project's consistency with relevant city planning regulations in the City of Fontana General Plan and with the objectives of the Citrus Height North Specific Plan;
- Analyzing bulk and mass impacts of the proposed project; and
- Determining light and glare impacts by comparing existing light sources with the proposed lighting plan, and designing the project to reduce the potential to generate spill light on adjacent sensitive receptors or to generate glare to receptors near the site.

3.2.2.3 *Project Impacts*

Scenic Vistas

There are no scenic vistas identified in the City's General Plan. Therefore, no impact would occur.

Scenic Resources Within a State Scenic Highway

There are no designated State Scenic Highways in the vicinity of the project site. Therefore, no impact would occur.

On-Site Visual Character or Quality of the Site

Views of Site from Adjacent Properties. Construction of buildings and other facilities/amenities on the project site would noticeably change the view onto the site from the surrounding properties, particularly within the residential communities southwest and southeast of the project site. These are the primary City residents who can view the project site on a regular basis because they live close to the intersections of Summit Avenue with Lytle Creek Road and with Citrus Avenue. The current view of vacant, flat, sparsely vegetated land would be changed to a view of landscaped street and wall treatments along Lytle Creek Road, Summit Avenue, Citrus Avenue, and the northern boundary of the project site. Roofs would

also be visible above the exterior boundary walls for those single-family homes and multi-family units constructed along the project site perimeter. The home elevations and roof planes would be varied to minimize repetitious flat plans, similar silhouettes, large unbroken surfaces, and same ridge heights. The proposed project is not monumental in scale, would relate harmoniously with the residential development in nearby specific plan areas, and with the established communities to the southeast and southwest. The overall effect of the proposed project on the on-site visual character and quality of the project site would be beneficial. Therefore, a less-than-significant impact would occur in regards to the visual effect of the proposed project on the surrounding neighborhoods.

Distant Views from Surrounding Land. The proposed project structures would not interfere with or change the distant views of hills and mountains from the properties surrounding the site. Therefore, no impact would occur.

Views of Site from I-15 During Construction. During construction, grading of the site could be partially visible, particularly when viewed from the northbound lanes of I-15. During grading of each phased development, views of disturbed soils and stockpiles would be visible from the neighboring residences and partially visible from I-15. However, these impacts would be temporary and would be replaced by the aesthetically landscaped and walled residential development, which would provide adequate landscape buffer and improve the visual character of the project site. Therefore, a less-than-significant impact would occur.

Views of Site from I-15 During Occupancy. The viewer sensitivity of commuters on I-15 would not be adversely impacted, because the project is required to comply with the design guidelines established in the Citrus Heights North Specific Plan, and with the community design guidelines of the City's General Plan. For example, the proposed project (as required by landscape standards of the Citrus Heights North Specific Plan and the design guidelines of the General Plan) would provide a buffer of landscaping along access rights-of-way that would improve the visual character of the project area.

The proposed project is a logical and orderly transition in land uses between the rural agricultural uses north of the project area and the increasingly urban residential density that is either planned for or already exists on the surrounding properties to the south, west, and east. Such a rural-urban transition already exists in northern Fontana. This project would move the transition point further north, and the project (particularly its northwestern corner, which is within $\frac{1}{2}$ mile of the I-15 freeway) would be visible from the freeway. However, upon completion, the project would appear as a northern extension of other existing and approved specific plan areas with master-planned residential communities—the Summit Heights Specific Plan area, the planned Citrus Heights South Specific Plan area (directly south of the project site), and the Sierra Lakes Specific Plan Area; see **Figure 2-2** (Project Vicinity Map). Eventually, the proposed project would blend in with fully established single-family residential neighborhoods to the west as well as to the south, and would not result in an adverse visual impact. Therefore, a less-than-significant impact would occur.

Light or Glare

Glare and spill light are the two major causes of ambient light pollution that could generate potential adverse impacts. Glare occurs when our eyes see a bright object against a dark background (such as when we experience oncoming headlights while driving) and spill light is caused by misdirected light.

Currently, there is almost no light and glare generated from the site because the site is vacant and undeveloped except for one single-family residence. The development of the proposed residential subdivision and neighborhood commercial center would create major new sources of light on the site. These light sources would be illuminated signage and entries; safety, security, and parking area lighting; streetlights; and aesthetic, architectural, and landscape lighting. Automobiles entering and leaving the site after dark would also generate a new intense source of light.

The proposed project would comply fully with the lighting standards established within the Citrus Heights North Specific Plan¹⁰ and the Community Design Element of the City's General Plan for the project area, including:

- The project proponent must submit a project lighting plan to the City for review and approval before the City issues a building permit.
- Streetlights would provide a safe level of illumination without intruding into residential areas, and is subject to approval by the City Engineer.
- Entry lighting would be designed to not create visual hot spots or glare, and the design would consider direct lighting low to the ground and limited to the immediate vicinity.
- Lighting of the neighborhood commercial center, the Community Sports Center, and other recreation areas would be designed to minimize light spillage onto nearby properties.

Because project lighting must comply with the lighting standards of the Citrus Heights North Specific Plan, the City's zoning ordinance, and the Community Design Guidelines of the City of Fontana General Plan, lighting created by the proposed project would not cause a significant impact on the surrounding residential land uses. Such land uses are the planned high school and the planned Citrus Heights South Specific Plan area to the immediate south, the planned Westgate Specific Plan area immediately west, the established residential developments southwest and southeast of the project site, and the vacant properties north and east of the project site. Therefore, a less-than-significant impact would occur regarding light spill.

The proposed project site would be surrounded by a perimeter wall, except for the commercial area on the northwest corner of Summit Avenue and Citrus Avenue. There are no surfaces along the perimeter wall or within the commercial area that would result in glare. Therefore, no impact would occur in regard to glare.

General Plan Aesthetic Goals

The aesthetic goals in the Citrus Heights North Specific Plan must be consistent with and compatible with the City's General Plan aesthetic goals and policies. To be consistent with the General Plan the Specific Plan must demonstrate that it is compatible with the goals and policies presented in the General Plan that are applicable to the proposed project. A proposed project is consistent with the applicable goals and policies if it furthers them or otherwise does not obstruct their attainment. Following is a consistency evaluation for the applicable aesthetic goals and policies of the General Plan:

Goal #1. *A unified overall community image and appearance with distinct districts and neighborhoods.* Section 5 of the Citrus Heights North Specific Plan specifies architectural and landscape design guidelines. The architectural design guidelines allow for a diversification of architectural styles while ensuring visual compatibility. They do not promote rigid adherence to style descriptions, but assist in achieving a particular design direction and high quality construction. The landscape design guidelines establish a theme for the proposed project by setting forth general criteria for landscaping the residential community, neighborhood commercial center, and the recreational amenities. The landscape design guidelines address entries, streetscapes, medians, recreational amenities, pocket parks, plant palette, lighting, and walls to create a unified plan for the proposed project. The proposed project is consistent with Goal #1. Therefore, a less-than-significant impact would occur.

Goal #2. *Preservation and use of open spaces as recreational amenities, visual boundaries, and view corridors.* PA 6 would provide an 11.3-acre joint use park/interim detention basin and a 3.6-acre

¹⁰ *Citrus Heights North Specific Plan* (Draft), prepared for Lewis Investment Company, LLC, by T&B Planning Consultants, Inc., October 15, 2003, pp. 5-51 and 5-52.

community sports center, which preserves open space and combines it with recreational amenities. The proposed project would provide visual boundaries and view corridors on-site by landscaping the perimeter and the internal street system to create an appropriate link with adjacent residential neighborhoods. Street trees would reflect the master planned communities design theme and would be selected from the proposed project plant palette. Landscaping along the perimeter streets would establish the main planting theme for the proposed project. The proposed project is consistent with Goal #2. Therefore, a less-than-significant impact would occur.

Goal #5.1. *Extensive use of high-quality, contemporary design that incorporates unifying, community-wide design elements by new development.* The Citrus Heights North Specific Plan project would be a master planned community, which would unify the design elements throughout the development. While each of the PAs would have their own specific design considerations, the overall design themes are consistent throughout the development. Therefore, no impact would occur.

Goal #5.2. *Neighborhood organization and design that reflect diverse and high-quality development standards and strong integration into the broader community.* The Citrus Heights North Specific Plan project is proposed as a master planned community. The Section 5 of the Specific Plan presents the intended “Design Guidelines” for the development of the property. The Design Guidelines provide the general criteria, which would maintain the similarities within each of the PAs regarding architecture, landscaping, entry monuments, and lighting design. The Design Guidelines provide for the limits, while allowing for flexibility within each of the PAs. Therefore, a less-than-significant impact would occur.

Goal #5.3. *In shopping centers, a high level of pedestrian amenities, distinct and varied architectural details, and careful integration into surrounding residential areas.* PA 12 is proposed as a neighborhood commercial center designed to provide the proposed project and surrounding communities with necessary retail services. Both of the frontage streets, Summit Avenue and Citrus Avenue, would have a roadway landscape treatment. A precision block wall would separate PA 12 from the adjoining residential neighborhoods within the project site (PAs 8 and 11A). A commercial entry treatment would be provided at both of the proposed entrances; one on each of the two street frontages. Therefore, a less-than-significant impact would occur.

Goal #6. *Use of appropriate design standards to minimize conflict and spillover effects at the interface of differing land uses.* The project’s landscaping of perimeter streets, internal streets, and pocket parks, and its entryway treatments (such as monument signage and aesthetic lighting) would integrate harmoniously with the overall design theme of the proposed project. These aesthetic improvements would complement the similar treatments in the nearby *Summit Heights Specific Plan* area and the adjacent planned *Citrus Heights South Specific Plan* area, and thereby improve the overall aesthetic quality of the site and the surrounding areas, as well as create a visual continuity. The aesthetic improvements would incorporate a mix of natural materials that are found in proximity to the site, such as stones, rocks, and soils. Aesthetic treatments would include entry features (monument sign and accent lighting), decorative walls, landscaped parkways, perimeter landscaping, landscaped interior streets, and fronting streets. Therefore, a less-than-significant impact would occur.

3.2.3 Cumulative Impacts

The proposed modification of the visual characteristics of a rural area (the project site) that is adjacent to a more densely developed area represents a logical, compact, and orderly outward extension of the urban fringes, and therefore would generate only a minimal incremental environmental impact. Moreover, the proposed project is compatible in scale, size, mass, height, and density of development with the surrounding planned development directly south (the *Citrus Heights South Specific Plan* area) and the existing development to the southeast (*Sierra Lakes Specific Plan* area).

3.2.4 Mitigation Measures

The project would not result in any significant adverse impacts related to aesthetic values, and no mitigation is required.

3.2.5 Level of Significance After Mitigation

The proposed project would not result in a significant aesthetic impact.

3.3 AIR QUALITY

3.3.1 Environmental Setting

3.3.1.1 *Regional Climate and Meteorology*

The project site is located in San Bernardino County within the City of Fontana. The County is in the northeastern portion of the South Coast Air Basin (Basin), which is regulated by the South Coast Air Quality Management District (SCAQMD). The SCAQMD has jurisdiction over an area of about 11,000 miles. The Basin is a subregion of the district and covers an area of 6,729 square miles that includes all of Orange County and the nondesert portions of Los Angeles, Riverside, and San Bernardino counties. The distinctive mild climate of the Basin is determined by its terrain and geographic location: a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the southwest and high mountains around the rest of its perimeter. The climate is tempered by cool sea breezes with light average wind speeds, and is interrupted occasionally by periods of extremely hot weather, winter storms, or hot and dry Santa Ana winds.¹¹

Regional air quality is affected by both the rate and location of pollutant emissions and by meteorological conditions, which influence the movement and dispersal of pollutants. Atmospheric conditions such as wind speed, wind direction, and air temperature gradients and atmospheric stability, solar radiation, along with local topography, provide the link between air pollutant emissions and air quality.

The Basin lies in the semipermanent high-pressure zone of the eastern Pacific. High-pressure systems are characterized by an upper layer of dry air that warms as it descends, restricting the mobility of cooler marine-influenced air near the ground surface, and forming subsidence inversions. Such inversions restrict the vertical dispersion of air pollutants released into the marine layer and, together with strong sunlight, can produce worst-case conditions for the formation of photochemical smog. The combination of low wind speeds and low inversions produces the greatest concentration of air pollutants. On days without inversions, or on days when winds average over 15 miles per hour (mph), the smog potential is greatly reduced.¹²

The air quality in San Bernardino County results from a unique combination of factors, airflow patterns, and emission sources, both local and those located through region. Exceedances of the State and federal air quality standards are acute during summer months, when onshore wind patterns transport pollutants to other areas of the Basin (notably Los Angeles and Orange counties) and they combine with local sources. San Bernardino County, compared to other areas of the Basin, records the most severe violations of air quality standards for ozone and inhalable particulate matter in the summer.

3.3.1.2 *SCAQMD Criteria Pollutants*

The criteria air pollutants of concern as established by the SCAQMD are ozone, carbon monoxide, particulate matter, oxides of nitrogen, sulfur dioxide, and lead. For these pollutants, both federal and State ambient air quality standards have been established to protect public health and welfare by setting maximum concentration levels of pollutants that are considered safe.

Ozone and ROGs

Ozone (O_3) is a photochemical oxidant that is formed when reactive organic gases (ROGs) interact in the presence of ultraviolet sunlight. O_3 is present in relatively high levels in the Basin. The federal and State standard for O_3 is a maximum concentration of 0.09 parts per million (ppm), averaged over 1 hour. There

¹¹ South Coast Air Quality Management District, *CEQA Air Quality Handbook*, April 1993, p. A8-1.

¹² *Ibid.*

is also a federal O₃ standard of 0.08 ppm, averaged over 8 hours. (The State does not have an 8-hour standard for O₃.)

ROGs are hydrocarbons and related compounds, which are by-products of the internal combustion engine. The term “ROG” is used by the California Air Resources Board (CARB) for air quality analysis and is defined essentially the same as the federal term “volatile organic compound” (VOC). There are no State or federal ambient air quality standards for ROGs because they are not classified as criteria pollutants. However, ROGs are regulated because reducing ROG emissions reduces the rate of photochemical reactions that contribute to the formation of O₃. ROGs are also transformed into organic aerosols in the atmosphere, contributing to higher levels of fine particulate matters and lower visibility.

Carbon Monoxide

Carbon monoxide (CO) is considered a local pollutant because it rapidly disperses into the ambient air and is found in high concentrations only near the source of emission. Automobiles and other mobile sources are the principal source of CO emissions; high levels of CO emissions can also be generated from fireplaces and wood-burning stoves. Currently, CO levels in the project region are in compliance with the State and federal 1-hour and 8-hour standards. CO concentrations in California have declined significantly because of two statewide programs: the 1992 wintertime oxygenated gasoline program, and Phases I and II of the reformulated gasoline program. New vehicles with oxygen sensors and fuel injection systems have also contributed to the decline in CO levels in the state. At present, all California counties except Los Angeles County are in compliance with the CO ambient air quality standards.

Nitrogen Dioxide

Nitrogen dioxide (NO₂) is often used interchangeably nitrogen oxides (NO_x), and is a by-product of fuel combustion from both mobile and stationary sources. Approximately 90 percent of the NO_x emitted from combustion sources is nitrogen oxide (NO), while the balance is NO₂. NO is oxidized in the atmosphere to NO₂, but some level of photochemical activity is needed for this conversion. This is why the highest concentrations of NO₂ occur during the fall and not in the winter, when, although atmospheric conditions favor the trapping of ground level releases, photochemical activity is insufficient (i.e., there is less sunlight) for the conversion to occur. In the summer, the conversion rates of NO to NO₂ are high, but atmospheric unstable conditions (i.e., the relatively high temperatures and windy conditions) disperse pollutants and so prevent the accumulation of NO₂ to levels approaching the 1-hour ambient air quality standard. The Basin has relatively low NO₂ concentrations and, since 1988, the State standard of 0.25 ppm for a one-hour period has been exceeded at only a very few air quality monitoring stations.

Particulate Matter

Particulate matter (PM) consists of extremely small, suspended particulates that arise from sources such as road dust, diesel fuel soot, combustion products, construction operations, and dust storms. These particulates scatter light and significantly reduce visibility, and particulates that are inhalable are a human health risk. The existing federal standard for inhalable particles targets particulates that are 10 microns or less in diameter (PM₁₀).

In July 1997, the EPA promulgated stricter standards for O₃ and fine particulates less than 2.5 microns in diameter (PM_{2.5}), and allowed air basins up to 15 years to attain the PM_{2.5} standard. Attainment of the new 8-hour O₃ standard will not be required until the 1-hour standard is achieved. The PM₁₀ standard was revised, but the existing PM₁₀ standard remains in effect until attainment is achieved. Until there have been sufficient monitoring data for EPA to designate the PM_{2.5} attainment status for each region, the PM₁₀ standard remains the particulate standard of reference.

Sulfur Dioxide

Sulfur dioxide (SO_2) is typically emitted as a result of the combustion of a fuel containing sulfur. Fuels such as natural gas contain very little sulfur, and consequently have very low SO_2 emissions when combusted. By contrast, fuels high in sulfur content such as lignite (a type of coal) emit very large amounts of SO_2 when combusted. Sources of SO_2 emissions within the Basin come from every economic sector and include a wide variety of gaseous, liquid, and solid fuels. The Basin is designated in attainment for all the SO_2 State and federal ambient air quality standards.

Lead

In all areas of California, lead (Pb) does not exceed federal or State standards; the Basin is designated as being in attainment for both State and federal Pb standards.

3.3.1.3 Existing Air Quality

Air Monitoring

Air-monitoring stations are located throughout the Basin. The monitoring station closest to the proposed project site is the Fontana Arrow Highway Air Monitoring Station, located approximately 5 miles southwest of the project site. This station monitors all criteria pollutants except CO, for which data were therefore obtained from the San Bernardino Fourth Street Air Monitoring Station, about 12 miles east of the Fontana monitoring station.

Monitoring Data

Air quality trends measured at these two stations are presented in **Table 3-1** (Existing Air Quality Data for Project Area) and **Figure 3-1** (Normalized Maximum Short-Term Historical Air Pollutant Concentrations). **Table 3-1** provides the concentration of each pollutant, the averaging time over which the concentration is measured, and, where applicable, the number of sampling days of each year (from 1998 to 2002) in which each of the California Ambient Air Quality Standards (CAAQS) or the National Ambient Air Quality Standards (NAAQS) was violated (exceeded). **Figure 3-1** provides the short-term normalized concentrations from 1993 to 2002 for O_3 , CO, NO_2 , and PM_{10} . Normalized concentrations represent the ratio of the highest measured concentrations in a given year to the most stringent applicable national or state ambient air quality standard. Therefore, a normalized concentration that is lower than one indicates that the measured concentration was lower than the most stringent ambient air quality standard.

Exceedances

As indicated in **Table 3-1** and **Figure 3-1**, O_3 and PM_{10} are the primary air pollutants of concern in the project area. O_3 continues to exceed both State and federal standards, and PM_{10} exceeds the State standards. In general, the entire Basin is classified as an extreme nonattainment area for O_3 because it violates both NAAQS and CAAQS. Although the long-term statistics of O_3 levels in the City of Fontana show that this region has made significant strides toward attainment of the previous federal O_3 1-hour standard, the City is still in violation of the State and federal O_3 standards. **Table 3-1** indicates that the project area also annually experiences a number of violations of the State 24-hour PM_{10} standard. However, the overall PM_{10} level in the City shows a decreasing trend, as depicted in **Figure 3-1**. Federal PM_{10} standards were not exceeded during the last four annual monitoring years. **Table 3-1** also shows that the maximum one-hour and eight-hour CO concentrations are less than both federal and State standards.

Table 3-1
EXISTING AIR QUALITY DATA FOR PROJECT AREA
(Fontana-Arrow Highway¹ and San Bernardino Fourth Street² Air Monitoring Stations)

Pollutant	California Standard	Federal Standard	Year	Year Coverage (%)	Maximum Level (ppm)	Days (Samples) State Standard Exceeded
O ₃ (1-hour)	0.09 ppm	0.12 ppm	2002	81	0.16	37
			2001	100	0.17	45
			2000	100	0.17	36
			1999	100	0.14	26
			1998	99	0.20	60
CO (1-hour)	20 ppm	35 ppm	2002	93	3	0
			2001	99	3	0
			2000	95	4	0
			1999	--	--	--
			1998	--	--	--
CO (8-hour)	9.0 ppm	9.0 ppm	2002	93	3.2	0
			2001	99	3.3	0
			2000	60	4.1	0
			1999	98	4.1	0
			1998	94	4.7	0
NO ₂ (1-hour)	0.25 ppm	None	2002	82	0.11	0
			2001	100	0.13	0
			2000	100	0.12	0
			1999	100	0.15	0
			1998	99	0.16	0
NO ₂ (AAM)	None	0.053 ppm	2002	82	0.033	NA
			2001	100	0.036	NA
			2000	100	0.036	NA
			1999	100	0.038	NA
			1998	99	0.036	NA
PM ₁₀ (24-hour)	50 µg/ m ³	150 µg/m ³	2002	NA	67	31
			2001	98	106	34
			2000	96	108	31
			1999	99	116	36
			1998	98	101	28
PM ₁₀ ³ (annual)	30 µg/m ³ (AGM)	50 µg/m ³ (AAM)	2002	NA	46/49	NA
			2001	98	43/50	NA
			2000	96	47/52	NA
			1999	99	54/60	NA
			1998	98	43/50	NA

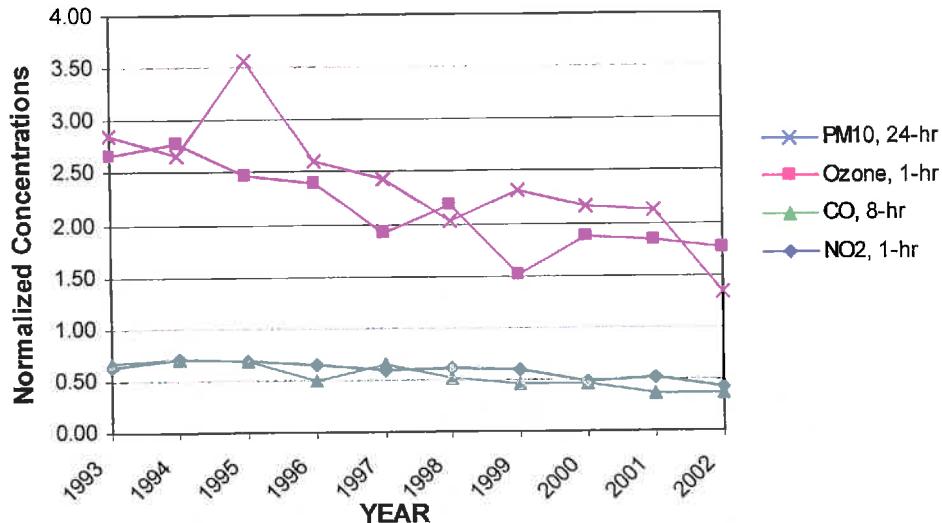
ppm = parts per million; AAM= annual arithmetic mean; AGM = annual geometric mean; NA = not applicable.

1. Data from this monitoring station were used for all pollutants except CO.; no lead and SO₂ data are included because the Basin is in attainment for these pollutants.

2. The only data used from this monitoring station were CO data.

3. Levels shown for annual PM₁₀ are AGM/AAM; maximum levels for PM₁₀ are shown in µg/ m³. The first number shown in the Days State Standard Exceeded column is the actual number of days measured during which the State standard was exceeded; the second number is the percentage of samples exceeding the State standard.

Source: California Air Resources Board, September 2003.



A normalized concentration is the ratio of the highest measured concentration to the applicable most stringent air quality standard. For example, in 1998, the highest 1-hour average ozone concentration measured in Fontana was 0.196 ppm. Because the most stringent ambient air quality standard is 0.09 ppm, the 1998 normalized concentration is 2.18 (0.196/0.09).

The CO data are from San Bernardino Fourth Street Air Monitoring Station, the closest station to the project area that records CO concentrations.

Source: (CARB 2003).

FIGURE 3-1
NORMALIZED MAXIMUM SHORT-TERM HISTORICAL
AIR POLLUTANT CONCENTRATIONS (1993-2002, Fontana)

Pollutant Sources

At this time, mobile sources account for approximately 96% of CO production in the Basin, and for slightly more than 50% of the Basin's ROGs. The remainder is produced in nearly equal amounts by residential, commercial, service industry, and industrial/manufacturing sources. Mobile sources such as on-road buses and large semi-trucks account for approximately 60% of NOX emissions. Among stationary sources of criteria air pollutants in the Basin, power plants and refineries are the most significant.

3.3.1.4 Applicable Air Quality Regulations, Plans, and Policies

Federal, State, and local agencies have set ambient air quality standards for certain air pollutants through statutory requirements and have established agency regulations and various plans, policies, and permits to maintain and improve air quality, as described below.

Federal Regulations

The federal Clean Air Act (CAA) was passed in 1970, and established the national air pollution control program. The basic elements of the CAA are the National Ambient Air Quality Standards (NAAQS) for criteria air pollutants, hazardous air pollutants standards, state attainment plans, motor vehicle emissions

standards, stationary source emissions standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.

NAAQS are the specific concentrations of criteria pollutants that constitute an adverse condition, and the air pollutants must be below these concentrations to attain the standard. The CAA requires that the U.S. Environmental Protection Agency (EPA) establish NAAQS and reassess, at least every five years, whether they are adequate to protect public health, based on current scientific evidence. The NAAQS are divided into primary and secondary standards; the former are set to protect human health within an adequate margin of safety, and the latter, to protect environmental values, such as plant and animal life.

Attainment. Air basins are classified as either “attainment” or “nonattainment” areas for each criteria pollutant, based on whether particular NAAQS have been attained or not. Air quality is considered in attainment if pollutant levels are continuously below or equal to the standards and violate them no more than once each year. Currently, the Basin is designated as a nonattainment area for O₃, CO, and PM₁₀.

CAA Amendments. In November 1990, Congress enacted a series of amendments to the CAA intended to intensify air pollution control efforts across the nation. One of the primary goals of the 1990 amendments to the CAA was an overhaul of the planning provisions for those areas not currently meeting NAAQS. The CAA identifies specific emission reduction goals, requires both a demonstration of reasonable further progress and attainment, and incorporates more stringent sanctions for failure to attain the NAAQS or to meet interim attainment milestones.

Table 3-2 (Ambient Air Quality Standards for Criteria Pollutants) presents the current federal standards.

State Regulations

California CAA. In 1988, the State Legislature passed the California Clean Air Act (CAA) to establish California’s air quality goals, planning mechanisms, regulatory strategies, and standards of progress. The California CAA provides the State with a comprehensive framework for air quality planning regulation. CARB, which became part of the California Environmental Protection Agency (Cal EPA) in 1991, is responsible for ensuring implementation of California CAA, responding to the federal CAA, and for regulating emissions from motor vehicles and consumer products.

Attainment. The California CAA requires attainment of California Ambient Air Quality Standards (CAAQS) by the earliest practicable date. The State standards are generally more stringent than the corresponding federal standards. Attainment Plans are required for air basins in violation of the State O₃, PM₁₀, CO, SO₂, or NO₂ standards. Responsibility for achieving State standards is placed on CARB and local air pollution control districts. District plans for nonattainment areas must be designed to achieve a 5% annual reduction in emissions. Preparation of and adherence to Attainment Plans are the responsibility of the local air pollution districts or air quality management districts.

Table 3-2 summarizes the California standards as well as the federal standards.

Local Regulations

South Coast Air Quality Management District. The California CAA (Health and Safety Code §40412) designates SCAQMD as the regional agency that is principally responsible for comprehensive air pollution control in the 12,000-square-mile jurisdiction that consists of three air basins: South Coast, the Salton Sea, and Mojave Desert. To that end, SCAQMD works directly with the Southern California Association of Governments (SCAG), county transportation commissions, and local governments, and cooperates actively with all State and federal government agencies. SCAQMD develops rules and regulations, establishes permitting requirements, inspects emission sources, and enforces such measures through education programs or fines, when necessary. SCAQMD is responsible for reducing emissions from area, point, and mobile sources.

Table 3-2
AMBIENT AIR QUALITY STANDARDS FOR CRITERIA POLLUTANTS

Pollutant	Averaging Time	California Standard	Federal Primary Standard	Pollutant Health and Atmospheric Effects	Major Pollutant Sources
Ozone (O ₃)	1 hour	0.09 ppm	0.12 ppm	High concentrations can directly irritate lungs. Long-term exposure may damage lung tissue.	Motor vehicles
	8 hours	---	0.08 ppm		
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Classified as a chemical asphyxiant, interferes with transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen.	Internal combustion engines, primarily gasoline-powered motor vehicles
	8 hours	9 ppm	9.0 ppm		
Nitrogen Dioxide (NO ₂)	Annual Average	---	0.05 ppm	Irritates eyes and respiratory tract. Colors atmosphere reddish-brown.	Motor vehicles, industrial sources, petroleum-refining operations, aircraft, ships, railroads
	1 hour	0.25 ppm	---		
Sulfur Dioxide (SO ₂)	Annual Average	---	0.03 ppm	Irritates upper respiratory tract; injures lung tissue. Can yellow leaves of plants, destroy marble, iron, and steel. Limits visibility and reduces sunlight.	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	---		
	24 hours	0.04 ppm	0.14 ppm		
Suspended Particulate Matter (PM ₁₀ and PM _{2.5})	Annual Geometric Mean	30 µg/m ³ (PM ₁₀)	65 µg/m ³ (PM _{2.5})	May irritate eyes and respiratory tract, decreases in lung capacity, cancer and increased mortality. Produces haze and limits visibility.	Dust and fume-producing industrial and agricultural operations, photochemical reactions, combustion, atmospheric and natural activities (e.g., wind-raised dust and ocean sprays).
	Annual Arithmetic Mean	---	50 µg/m ³ (PM ₁₀)		
	24 hours	50 µg/m ³ (PM ₁₀)	150 µg/m ³ (PM ₁₀) (15 µg/m ³ (PM _{2.5})		
Lead (Pb)	Monthly	1.5 µg/m ³	---	Causes kidney disease, neuromuscular and neurologic dysfunction, and anemia (in severe cases); disturbs gastrointestinal system	Present source: lead smelters, battery manufacturing and recycling facilities. Past source: combustion of leaded gasoline.
	Quarterly	---	1.5 µg/m ³		
Sulfates (SO ₄)	24 hours	25 µg/m ³	---	Decreases ventilator functions; aggravates asthmatic symptoms and cardiopulmonary disease; degrades visibility; damages vegetation; and damages property	Industrial processes.

Source: California Air Resources Board, *Ambient Air Quality Standards*, January 25, 1999.

Sources. Mobile sources of emissions—cars, trucks, buses, construction equipment, locomotives, ships, and airplanes—constitute 60% of the air pollution in the area. Emission standards for mobile sources are established by State or federal agencies, such as the CARB and EPA, rather than by local agencies such as SCAQMD. SCAQMD has transportation-related programs aimed primarily at reducing the number of cars on the road and promoting the use of cleaner fuels and vehicles, and is in the process of developing programs such as limits on bus or truck idling times and requirements for low-emission vehicle fleets. Stationary (point and area) sources constitute the remaining 40% of air pollution in the area, and SCAQMD employs a range of activities to control these sources.

Air Quality Management Plan. SCAQMD develops and adopts an Air Quality Management Plan (AQMP) that serves as the blueprint to show how air quality will be improved and to adopt rules necessary to bring the Basin into compliance with federal and State standards. AQMPs must be updated every 3 years, and each iteration of the plan is based on a 20-year horizon.

The 1997 AQMP reflected the combined technical and policy inputs of Cal EPA, CARB, and SCAG, and proposed policies and measures to achieve federal and State standards for healthful air quality in the Basin. The 1997 AQMP also addressed several State and federal planning requirements and showed that, with refinements to the 1994 AQMP control strategy, sufficient emission reductions are being achieved to meet all federal criteria pollutant standards within the time frames allowed under the federal CAA.

The 1997 AQMP was the first plan addressing California CAA requirements to demonstrate attainment of federal ambient air quality standards for PM₁₀. The plan also updated the demonstration of attainment for O₃ and CO, and included a maintenance plan for NO₂, because the Basin had qualified for attainment of that federal standard.

On January 12, 1999, Cal EPA proposed partial approval of the O₃ control strategy of the 1997 AQMP that had been submitted to Cal EPA as a revision to the Basin portion of the 1994 California Ozone State Implementation Plan (SIP). To address these concerns, the SCAQMD adopted the *1999 Amendment to the 1997 Ozone SIP Revision for the South Coast Air Basin* on December 10, 1999. The 1999 amendment provides additional short-term stationary source control measures that implement portions of the 1997 Ozone SIP's long-term stationary-source control measures. In addition, the amendment revised the adoption and implementation schedule for the remaining 1997 Ozone SIP short-term stationary-source control measures that the SCAQMD is responsible for implementing. Cal EPA indicated in a letter to the SCAQMD Governing Board that it believes the 1999 amendment would be approvable and would expedite the review and approval process.

The 1999 amendment does not revise the PM₁₀ portion of the 1997 AQMP, emission inventories, the mobile-source portions of the 1997 Ozone SIP Revision, or the O₃ attainment demonstration. However, with the new short-term stationary-source control measures, additional emission reductions are projected to occur in the near term. Specifically, the 1999 amendment:

- Includes new short-term stationary-source control measures;
- Revises the adoption/implementation schedule for 13 short-term VOCs and NOX stationary-source control measures from the 1997 Ozone SIP Revision; and
- Provides further VOC emission reductions in the near-term; and revises the emission reduction commitments for the long-term control measures in the 1997 Ozone SIP Revision.

Other Jurisdictions. Regional and local jurisdictions also play a role in air quality. Regional jurisdictions such as SCAG prepare population, employment, and traffic forecasts that are key components of regional air quality plans. Local governments have the authority and responsibility to reduce air pollution through their police power and land use decision-making authority. Specifically, local governments are

responsible for mitigating emissions resulting from land use decisions and for implementing transportation control measures as outlined in the AQMP.

The AQMP assigns local governments certain responsibilities to assist in meeting air quality goals and policies. In general, a first step towards implementation of a local government's responsibilities is accomplished through development of an enforceable local air quality implementation plan, by amending a city's or a county's general plan or by preparing a free standing air quality element to the general plan. Air quality policies need to be subsequently codified into zoning ordinances (or other legally enforceable mechanisms) that enable implementation of the AQMP.

3.3.2 Thresholds of Significance

3.3.2.1 *Air Quality Standard Violations*

Project-related air emissions would have a significant effect if they result in concentrations that create either a violation of an ambient air quality standard or contribute to an existing air quality violation. Should ambient air quality already exceed existing standards, the SCAQMD has established specific significance threshold criteria to account for the continued degradation of local air quality. **Table 3-3** (Allowable Change in Ambient Air Pollutant Concentrations) specifies these thresholds for considering effects on existing local air quality violations.

Table 3-3
ALLOWABLE CHANGE IN AMBIENT AIR POLLUTANT CONCENTRATIONS

Air Pollutant	Averaging Time	Air Pollutant Concentration
Carbon Monoxide (CO)	8 hours	0.45 ppm
	1 hour	1 ppm
Nitrogen Dioxide (NO ₂)	Annual	0.0005 ppm
	1 hour	0.01 ppm
Particulates (PM ₁₀)	Annual	1 $\mu\text{g}/\text{m}^3$
	24 hours	2.5 $\mu\text{g}/\text{m}^3$

Source: SCAQMD, Rule 1303, Table A-2

3.3.2.2 *Project Construction and Operation Standards*

Project-related air emissions would have a significant effect if they were to result in concentrations that exceed the SCAQMD air quality standards for project construction and operation. **Table 3-4** (SCAQMD Thresholds for Construction and Operation Emissions) presents the allowable contaminant generation rates at which (short-term) construction and (long-term) operational emissions are considered to have a significant effect on air quality throughout the Basin.

Table 3-4
SCAQMD THRESHOLDS FOR CONSTRUCTION AND OPERATION EMISSIONS

Pollutant	Project Construction (lb/day)	Project Operation (lb/day)
Carbon Monoxide (CO)	550	550
Reactive Organic Gases (ROGs)	75	55
Nitrogen Oxides (NO _x)	100	55
Sulfur Oxides (SO _x)	150	150
Particulate Matter (PM ₁₀)	150	150

3.3.2.3 District Requirements

Where available, the significance criteria established by the applicable air quality management district (AQMD) or air pollution control district (APCD) may be relied upon to make the following determinations. The proposed project would have a significant impact if it were to:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Expose sensitive receptors to substantial pollutant concentrations;
- Create objectionable odors affecting a substantial number of people; or
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors).

3.3.3 Project Impacts

3.3.3.1 Conflict with Applicable Air Quality Plan

The SCAQMD regulates air emissions in the Basin. The SCAQMD is required, pursuant to both the federal and State CAAs, to reduce emissions of criteria pollutants for which the Basin is in nonattainment. Strategies to achieve these emission reductions are developed in the AQMP prepared by SCAQMD for the region. The AQMP outlines regional programs and control measures to reduce future emissions based on population projections. Individual projects and long-term programs within the region are required to be consistent with the AQMP.

To comply with the AQMP, mitigation measures to reduce air emissions where possible have been provided in compliance with CEQA regulations. Additionally, the project would not induce population growth beyond SCAG and City projections. However, based on estimated operational emission calculations, the project would exceed operational ROG emission levels because of the use of consumer products by residents and vehicle-trips generated by the project. As a result, the project would not be consistent with the AQMP emission thresholds. However, because the project would comply with all other consistency requirements, including the *City of Fontana General Plan* and the City's Zoning and Development Code, impacts on the AQMP would be less-than-significant.

3.3.3.2 Violation of Air Quality Standards (Short-Term and Long-Term Impacts)

Air quality impacts of the proposed project are evaluated in terms of short-term and long-term impacts. Short-term impacts are the result of construction activities and long-term impacts are associated with the build-out or operational condition of the proposed project.

Methodology

Projected air emissions were calculated using the URBEMIS 2002 emissions model approved by CARB. URBEMIS is a computer program that can be used to estimate emissions associated with land development projects in California such as residential neighborhoods, shopping centers, industrial facilities, and office buildings; and area sources such as gas appliances, wood stoves, fireplaces, and landscape maintenance equipment; and construction projects. The URBEMIS 2002 model uses EMFAC2002 emissions factors for vehicle traffic. The model-estimated emissions of the project are compared to thresholds of significance for individual projects using the SCAQMD *CEQA Air Quality Handbook*. The *Handbook* recommends assessing emissions of reactive organic gases (ROGs) as an indicator of O₃.

Short-Term (Construction) Impacts

Construction activities of the proposed project would start with groundbreaking and site preparation in September 2005. Construction would begin six to nine months later, and occupancy by residents would begin about a year after that. The total build-out period for the residential portion of the development would be approximately three years. The commercial portion would have a build-out period of about four years. Based on this information, a four-phase construction scenario was assumed, as summarized in Table 3-5 (Project Construction Activities and Phasing).

Table 3-5
PROJECT CONSTRUCTION ACTIVITIES AND PHASING

Phase	Phase Period	Development Type	Size
1	September 2005 to February 2006	Earthwork and Project Site Preparation	211.9 acres
2	March 2006 to December 2007	Noncommercial Southern Portion of Site: Single-family residential units High-density residential units Park area, South Knox Avenue Community Sports Center	248 DUs 425 DUs 16.7 acres 3.6 acres
3	January 2008 to December 2008	Noncommercial Northern Portion of Site: Single-family residential units Park area, North Knox Avenue	554 DUs 5.6 acres
4	January 2009 to December 2009	Neighborhood commercial and retail area	9.0 acres

DU = dwelling unit.

Construction emissions can be distinguished as either on-site or off-site. On-site air pollutant emissions during construction would principally consist of exhaust emissions from off-road heavy-duty diesel and gasoline powered construction equipment, as well as fugitive particulate matter from earthwork and material handling operations. Off-site exhaust emissions would result from workers commuting to and from the job site, as well as trucks delivering building materials and equipment to the construction site.

The construction module of the URBEMIS 2002 computer program was used to calculate pollutant emissions. The land use specifications of four phases of project construction, given in **Table 3-4** above, were input in URBEMIS 2002. The type and number of equipment used in each subphase of construction operations were estimated based on type and extent of activity (see URBEMIS output in **Appendix A** for detailed assumptions). The results are summarized in **Table 3-6** (Maximum Daily Construction Emissions). These results indicate that, without mitigation, maximum construction NO_x emissions would exceed significance thresholds during all phases of construction. However, with the incorporation of the mitigation measures identified below in Section 3.3.5 (Mitigation Measures), emissions of Phases 1, 2, and 4 would be reduced to below these thresholds. With mitigation, maximum daily NO_x emission during Phase 3 of construction would remain slightly above the SCAQMD's significance threshold.

Table 3-6
MAXIMUM DAILY CONSTRUCTION EMISSIONS

Phase	Pollutant (lbs/day)			
	ROGs	NO_x	CO	PM₁₀
SCAQMD Significance Threshold	75	100	550	150
<u>1—Earthwork and Site Preparation</u>				
Maximum Daily Emissions, Unmitigated	20.09	143.61	163.82	36.13
Maximum Daily Emissions, Mitigated	19.12	94.35	155.96	32.20
Significant Impact After Mitigation?	No	No	No	No
<u>2—Noncommercial Southern Portion of Site</u>				
Maximum Daily Emissions, Unmitigated	32.58	148.71	194.50	6.86
Maximum Daily Emissions, Mitigated	28.00	97.66	185.85	2.70
Significant Impact After Mitigation?	No	No	No	No
<u>3—Noncommercial Northern Portion of Site</u>				
Maximum Daily Emissions, Unmitigated	53.69	162.20	250.12	6.92
Maximum Daily Emissions, Mitigated	47.26	107.91	241.50	3.04
Significant Impact After Mitigation?	No	Yes	No	No
<u>4—Neighborhood Commercial and Retail Area</u>				
Maximum Daily Emissions, Unmitigated	26.35	115.66	163.23	4.49
Maximum Daily Emissions, Mitigated	24.24	76.79	157.56	1.78
Significant Impact After Mitigation?	No	No	No	No

Source: URBEMIS 2002

Long-Term (Operational) Impacts

Emissions resulting from vehicle traffic, natural gas consumption, and consumer product usage were estimated using operational and area emissions modules of URBEMIS 2002. The analysis is based on an average of 14,939 project-related daily trips, as predicted in Section 3.13 (Environmental Impact Analysis, Transportation and Traffic). The results of the URBEMIS 2002 model for area source and vehicular source emissions are shown in **Table 3-7** (Daily Project Operation Emissions), and the detailed output sheets are provided in **Appendix A** (Air Quality).

vehicular source emissions are shown in **Table 3-7** (Daily Project Operation Emissions), and the detailed output sheets are provided in **Appendix A** (Air Quality).

Table 3-7
DAILY PROJECT OPERATION EMISSIONS

Emissions Source	Pollutant (lbs/day)¹			
	ROGs	NO_x	CO	PM₁₀
Area Source Emissions	62.47	14.44	17.02	0.05
Mitigated Area Source Emissions	62.34	12.89	16.33	0.04
Vehicular Source Emissions	98.14	94.48	1,035.38	113.09
Total Mitigated Emissions	160.48	107.37	1,051.71	113.13
SCAQMD Significant Thresholds	55	55	550	150
Are Thresholds Exceeded?	Yes	Yes	Yes	No

¹ Based on 14,939 daily trips generation by the project, as estimated in Section 3.13 (Transportation and Traffic) of this EIR. Opening year is considered 2010, when the project development is completed.

Source: URBEMIS2002.

As shown in **Table 3-7**, the long-term air emissions would exceed applicable thresholds for ROGs, NO_x, and CO (by approximately 192%, 95%, and 91%, respectively). The proposed project would result in significant air quality impacts related to ROGs and NO_x. For CO, further analysis was conducted, as described below.

Microscale Analysis of CO. According to Transportation Project-Level CO Protocol,¹³ if a project's CO emissions exceed the significant threshold, then a microscale local impact ("CO hot-spot") analysis is required. Given the low CO background in the project area (see **Table 3-1**) and the progressively cleaner vehicle fleet, the potential for any localized violations of CO standards is minimal.

Curbside CO concentrations were estimated using the CALINE4 dispersion model developed by the California Department of Transportation. The analysis used p.m. peak-hour traffic volume and worst-case meteorological assumptions (low wind speed, stable atmospheric conditions, and wind angles producing the highest CO concentrations for each case). CO concentrations were modeled for five intersections within one mile of the project site at which the level of service (LOS) would be changed to E or F (according to Section 3.13, Environmental Analysis, Traffic and Transportation). CO concentrations were modeled using future conditions (2007 and 2025, as projected in Section 3.13), with and without the proposed project. The results of CO analysis using the CALINE4 model are shown in **Table 3-8** (Estimated Future Carbon Monoxide Concentrations at Intersections with LOS of E or F).

The SCAQMD *CEQA Handbook* indicates that a significant impact would be identified if estimated CO concentrations would increase the existing background concentrations by 1.0 ppm based on 1-hour standard, or 0.45 ppm based on the 8-hour standard. In addition, if the project would cause an exceedance of State or federal standards, a significant CO hot spot would be generated.

¹³ FHWA, UCD-ITS-RR-97-21, December 1997.

Table 3-8
ESTIMATED FUTURE CARBON MONOXIDE CONCENTRATIONS
AT INTERSECTIONS WITH LOS E OR F

Intersection	Averaging Period	Year 2007 Concentrations ¹		Net Change	Year 2025 Concentrations ¹		Net Change
		Without Project	With Project		Without Project	With Project	
Knox Avenue and Summit Avenue	1 hour	3.3	3.5	+0.2	3.4	3.7	+0.3
	8 hours	3.5	3.7	+0.2	3.6	3.8	+0.2
Sierra Avenue and Casa Grande Drive	1 hours	3.6	3.6	0.0	4.3	4.3	+0.2
	8 hours	3.7	3.7	0.0	4.5	4.5	+0.0
Sierra Avenue and Summit Avenue	1 hour	3.5	3.6	+0.1	4.1	4.2	+0.1
	8 hours	3.7	3.7	0.0	4.1	4.2	+0.1
Sierra Avenue and Sierra Lakes Parkway	1 hr	3.7	3.6	-0.1	4.2	4.4	+0.2
	8 hour	3.8	3.7	-0.1	4.2	4.4	+0.2
Project Accesses at Summit Ave. and Planning Areas (PAs) 9/10	1 hour	3.5	3.7	+0.2	3.7	3.6	-0.1
	8 hours	3.7	3.8	+0.1	3.8	3.7	-0.1

Estimates are made using the CALINE4 dispersion model and EMFAC 2002 composite emission factors, assuming worst-case meteorological conditions. Concentrations correspond to a location between 50 and 70 feet from the edge of the given intersection.

State 1-hour average CO standard: = 20 ppm; State and federal 8-hour average CO standard = 9.0 ppm.

The existing concentrations are based on a 3-year (2000 through 2002) average of the maximum CO concentrations as measured at the San Bernardino Fourth Street Monitoring Station. (Based on **Table 3-2**, 1-hour and 8-hour concentrations are 3.3 ppm and 3.5 ppm, respectively.

¹ Estimated concentrations are based on projected future traffic volumes as estimated in Section 3.13 (Traffic and Transportation). The 1-hour average concentrations are modeled using the projected p.m. peak-hour traffic volume; the 8-hour average concentrations are estimated by multiplying the 1-hour average by a factor of 0.8, as suggested in the CO Protocol.

The results of CO modeling, as provided in **Table 3-8**, indicate that traffic generated by the project would increase local 1-hour and 8-hour CO concentrations adjacent to the subject intersections by a maximum of 0.3 and 0.2 ppm, respectively. This level of increase in CO concentrations represents a less-than-significant impact on air quality. In other words, although daily CO emissions would exceed the 550-pound hot-spot analysis trigger level, microscale analysis demonstrates that the air quality impact of that emission level is less-than-significant with a considerable margin of safety.

Sensitive Receptors

As indicated in the analysis of long-term operational impacts, the proposed project would exceed the NO_x and ROG thresholds set by the SCAQMD.

NO_x is a criteria pollutant and a precursor for O₃. ROGs are not considered a criteria pollutant, but are an O₃ precursor. Unlike primary criteria pollutants that are emitted directly from an emissions source, O₃ is a secondary pollutant because it is formed in the atmosphere through a photochemical reaction between ROGs, NO_x, oxygen, and other hydrocarbons and sunlight.

The ROG emissions produced by the project would not be concentrated, but would be dispersed locally, because the primary contributor of ROG would be vehicles operating in the project area and the use by residents in the proposed development of products emitting ROGs (e.g., detergents and cleaning

compounds; polishes; floor finishes; cosmetics and personal care products; home, lawn, and garden products; disinfectants and sanitizers; aerosol paints; and automotive specialty products; but not other paint products, furniture coatings, or architectural coatings). Additionally, the 1997 AQMP projected that, by 2010, the increased use of low- and zero-ROG consumer products would reduce ROG emissions from consumer products by approximately 85 percent. Full implementation of this AQMP control measure is expected to reduce toxic air contaminants (TAC) as well, because many ROGs contain toxics.

As a result, the proposed project would not expose nearby, or future on-site, residents to substantial pollutant concentrations.

Objectionable Odors

Odors from the residential, commercial, and recreational uses of the proposed project would not significantly differ from odors emanating from other residential uses (such as those located immediately southeast and southwest of the project site), and are considered compatible with both the existing and proposed surrounding land uses.

3.3.4 Cumulative Impacts

The *State CEQA Guidelines* require that projects be evaluated with respect to their contribution to the cumulative baseline. The proposed project was reviewed with respect to other related projects within a 2-mile radius. According to the City of Fontana Planning Department,¹⁴ seven development projects are planned within a 2-mile radius of the proposed project until 2010 (i.e., during the planned implementation timeframe of the proposed project).

All related projects were screened using the URBEMIS2002 model with “default” trip length and vehicle mix data for the Basin. No mitigation was assumed to be applied to related project’s traffic and area source emissions because their implementation is beyond the control of the project proponent. A preliminary modeling analysis shows that, except for PM₁₀, all criteria pollutants emissions associated with individual projects would be significant (without mitigation); see **Appendix A** (Air Quality).

The results of screening the proposed project and related projects using URBEMIS2002 show that the cumulative emissions would exceed applicable SCAQMD thresholds for all criteria air pollutants. The estimated cumulative emissions are presented below in **Table 3-9** (Maximum Daily Cumulative Emissions—Year 2010), and detailed output sheets are contained in **Appendix A**.

¹⁴ City of Fontana Community Development and Planning Department, John Dille, (909) 350-6718, December 16, 2003.

Table 3-9
MAXIMUM DAILY CUMULATIVE EMISSIONS—YEAR 2010

Project	Pollutant (lbs/day)¹			
	ROGs	NO_x	CO	PM₁₀
Citrus Heights North Specific Plan (SP)	160.5	107.4	1,051.7	113.1
Coyote Canyon SP (650 Single-Family Units)	79.7	55.9	536.6	59.7
Hunter's Ridge SP (1,725 Single-Family Units)	201.3	136.9	1,300.7	144.4
Summit Heights SP (974 Single-Family Units)	116.0	80.4	768.3	85.4
Citrus Heights South SP (499 Single-Family Units)	60.9	43.1	415.0	46.2
Sierra Lake SP (2,100 Single-Family Units)	243.5	164.7	1,561.0	173.3
Westgate SP (2505 Single-Family Units) ²	144.3	97.0	917.5	101.8
Rancho Fontana SP (2,295 Single-Family Units) ²	132.6	89.4	846.8	98.9
<i>Cumulative Total</i>	<i>1,138.8</i>	<i>774.8</i>	<i>7,397.6</i>	<i>822.8</i>
SCAQMD Significance Thresholds	55	55	550	150
Are Thresholds Exceeded?	Yes	Yes	Yes	Yes

1. Refer to the worksheets in Appendix A (Air Quality) for modeling files.

2. Approximately half of the development plan is within 2-mile distance from the project site; therefore, half of the total estimated emissions are considered.

3.3.5 Mitigation Measures

3.3.5.1 Short-Term Construction Mitigation Measures

The following mitigation measures would be required to reduce pollutant emissions from project construction activities:

NO_x

The URBEMIS model analysis shows that employing mitigation measures during construction could reduce the project-related emissions to a less-than-significant level. In particular, Mitigation Measures AQ-1 and AQ-2, in combination, would reduce NO_x emissions by approximately 34%, which would reduce the project impact to less-than-significant (except for construction Phase 3). The project shall employ as many of the following mitigation measures as are needed to reduce the NO_x levels to below significance:

- AQ-1** During construction, the construction manager shall ensure that oxidation catalysts are in use on all diesel construction equipment.
- AQ-2** During construction, the construction manager shall ensure that aqueous diesel fuel is used for construction equipment.
- AQ-3** During construction, the construction manager shall ensure that equipment engines are maintained in proper tune and ensure that all construction equipment are properly serviced and maintained in good operating condition.

- AQ-4** During construction, the construction manager shall ensure that the continuous idling of any construction equipment is restricted to 10 minutes.
- AQ-5** During construction, the construction manager shall ensure that catalytic converters are used on all gasoline equipment (except for small 2-cylinder generator engines).
- AQ-6** During construction, the construction manager shall cease construction during periods of high ambient O₃ concentrations (i.e., Stage-2 smog alerts) near the construction area.¹⁵
- AQ-7** During construction, the construction manager shall schedule all material deliveries to the construction site outside of peak traffic hours, and minimize other truck trips during peak traffic hours, or as approved by local jurisdictions.

In using the construction module of the URBEMIS model, it was noted that the ROG emissions exceedances of the project would be due to including emissions from architectural coating operations in the estimated emissions. Although the model seemed to overestimate this value, the following provisions need to be considered for structural coating operations to ensure ROGs are reduced to a less-than-significant level.

- AQ-8** During construction, the construction manager shall utilize as much as possible precoated and/or natural-colored building materials; water-based or low-VOC coatings; and coating transfer or spray equipment that has high transfer efficiency, such as the high-volume, low-pressure (HVLP) spray method; or manual application of coatings (such as using a paint brush, hand roller, trowel, spatula, dauber, rag, or sponge).

PM₁₀

Because the Basin is classified as a nonattainment area for O₃ and PM₁₀, industry “good practices” that minimize such emissions should be employed. The following measures are recommended to reduce emissions of PM₁₀ during project construction:

- Require all trucks hauling dirt, sand, soil, or other loose substances and building materials to be covered or to maintain a minimum freeboard of at least two feet between the top of the load and the top of the sides of the truck bed.
- Install vehicle wheel-washers or shakers before the roadway entrance at construction sites and wash off trucks before they leave the site.
- Require enclosures or chemical stabilization of open storage piles of sand, dirt, and other aggregate materials.
- Treat unattended construction areas (disturbed lands that have been, or are expected to be, unused for four or more consecutive days) with water to reduce fugitive dust.

¹⁵ SCAQMD, 1993.

3.3.5.2 Long-Term Operation Mitigation Measures

The following mitigation measures would be required to reduce pollutant emissions during project operation:

- AQ-9** During project design, the applicant shall incorporate structural-related emission-reducing technologies, such as insulation beyond Title 24 Standards of the Uniform Building Code (UBC) and efficient electrical equipment such as lower wattage lighting.
- AQ-10** As requested by the City or County, the applicant shall incorporate trip-reduction measures into the project design, including bicycle racks, pedestrian amenities, street lighting, and public transportation facilities.

3.3.5.3 Cumulative Air Quality

There are no mitigation measures available that would reduce the cumulative air quality impacts to a level that is less than significant.

3.3.6 Level of Significance After Mitigation

3.3.6.1 Short-Term Project Construction

With the incorporation of the mitigation measures, the short-term construction emissions due to the proposed project would be reduced to less-than-significant levels, except for the NO_x emission during Phase 3, which would slightly exceed the significance threshold on the days when most simultaneous impact activities would occur. During Phase 3 the NO_x emissions would remain significant and the impact would be unavoidable.

3.3.6.2 Long-Term Project Operation

Emission increases during the operation of the proposed project would exceed the SCAQMD's significance thresholds of 55 pounds per day (or 10 tons per year) for NO_x and ROG, in 2010. Mitigation measures would be applied, as described in Section 3.3.4. However, the mitigation measures would not be sufficient to reduce the project emissions to below the significance thresholds. Operational emissions of ROG and NO_x would result in an unavoidable, significant air quality impact.

3.3.6.3 Cumulative

The cumulative air quality emissions would result in a significant adverse impact that cannot be mitigated below a level of significance.

3.4 BIOLOGICAL RESOURCES

The content of this section is based on and summarizes information contained in the following reports, all of which are in **Appendix B** (Biological Resources):

- Michael Brandman Associates (Brandman), *Biological Constraints Analysis of APN 0226-092 in the City of Fontana, California*, December 6, 2001;
- Brandman, *Habitat Assessment for the California Gnatcatcher on the Citrus Heights and Citrus Heights North Properties, Located in the City of Fontana, San Bernardino County, California*, letter to Lewis Operating Corporation, September 22, 2003; and
- Brandman, *Negative Results for the Biological Surveys for the San Bernardino Kangaroo Rat on the Citrus Heights and Citrus Heights North Properties, Located in the City of Fontana, San Bernardino County, California*, letter to Lewis Operating Corporation, November 25, 2003.

3.4.1 Environmental Setting

The project site is relatively level with no areas of significant topographic relief. Most of the project site is undeveloped and heavily disturbed by past agricultural activities. It is sparsely vegetated and supports mostly non-native grasslands. The existing biological resources on the site of the proposed project and vicinity were identified based on review of relevant literature and a field survey.

3.4.1.1 Special-Status Species

Literature Review Results

Biological Resources. The sensitive biological resources present, or potentially present, on site and in the site region were identified through a review of information compiled by the California Department of Fish and Game (CDFG), including the *Natural Diversity Data Base* (NDDB),¹⁶ the U.S. Fish and Wildlife Service (USFWS);¹⁷ and the California Native Plant Society (CNPS).¹⁸ The literature review covered the 36-square-mile region of the U.S. Geological Survey (USGS) Devore, California, Topographical Quadrangle.¹⁹ The review indicates that fourteen special-status wildlife species and three sensitive plant communities have been reported to occur in the region; see Attachment A of **Appendix B** (Biological Resources).

Of the 14 wildlife species occurring in the region, 12 were determined to not occur on the site, based on the species' current distribution, habitat requirements, and the land uses on the project site and in the immediate vicinity. The other two species—the San Bernardino kangaroo rat (*Dipodomys merriami*

¹⁶ CDFG: Natural Diversity Data Base (NDDB), *Special Plants List*, 1996; *Endangered, Threatened, and Rare Plants of California*, 1996; and Data Base Record Search for Information on Threatened, Endangered, Rare, or Otherwise Sensitive Species for the Devore, California, U.S. Geological Survey (USGS) Topographic Quadrangle, 1998 data update.

¹⁷ USFWS: *Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the Delhi Sands Flower-loving Fly*, Federal Register (Fed. Reg.) 58(183): 49881-49887, 1993; and *Endangered and Threatened Wildlife and Plants*, Fed. Reg. 50 CFR Part 17.11 and 17.12, October 31, 1997.

¹⁸ CNPS: *California Native Plant Society's Electronic Inventory of Rare and Endangered Vascular Plants of California*, David C. Hudson & Associates and the Information Center for the Environment, University of California at Davis, 1998; and *California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California*, M.W. Skinner and B.M. Pavlik, Special Publication No. 1, 5th edition, 1994.

¹⁹ Michael Brandman Associates, Thomas J. McGill, Ph.D. (Regional Manager), February 26, 2004.

parvus) and the coastal California gnatcatcher (*Polioptila californica californica*)—were considered to potentially occur because the project site is near habitat that is designated as critical habitat for the gnatcatcher and proposed as critical habitat for the kangaroo rat. This habitat (in particular, Riversidian alluvial fan sage scrub [RAFSS]) is found in a 1,573-acre area that is north of Summit Avenue, between Citrus Avenue and Sierra Avenue, and is generally northeast of the project site.

Of the three sensitive plant communities reported in the literature review for the region, two were determined not to occur on the project site because the site is non-riparian.²⁰ The third community, RAFSS, could occur on the project site.

Jurisdiction. Data from the Soil Conservation Service (SCS)²¹ and the U.S. Geological Survey (USGS)²² were also reviewed to determine areas of potential biological resources and whether the U.S. Army Corps of Engineers (USACE) or the CDFG has jurisdiction (related to watercourses). Based on the information reviewed, there are no areas of either USACE or CDFG jurisdiction on the site of the proposed project.

Field Survey Results

A reconnaissance survey²³ was conducted of 100% of the site to assess biological resources within the project boundaries. Wildlife species were often identified by direct observation, but diagnostic signs (including scat, trails, tracks, burrows, nests, and sounds) were also employed. Site characteristics such as soils, topography, and evidence of human use were also noted.

Because RAFSS habitat exists close to the project site, general reconnaissance surveys and habitat assessments were undertaken for the California gnatcatcher and the San Bernardino kangaroo rat. The results found that the site is heavily disturbed and, except for some sparse RAFSS in fragmented patches, lacks natural habitat for these two species, and that it is highly unlikely that the gnatcatcher would occur on the project site.²⁴ In addition, focused surveys for the kangaroo rat (following USFWS protocols) were also conducted,²⁵ and no kangaroo rats were found on the project site.

3.4.1.2 Habitat Conservation Plans

As determined by the IS,²⁶ the City of Fontana currently has no conservation plan with which the project might conflict. However, in December 2003 (after publication of the IS), the City's updated *General Plan*,²⁷ containing information about a proposed conservation plan, was made available to the public. Because the USFWS has designated a portion of northern Fontana as critical habitat for the California gnatcatcher and the San Bernardino kangaroo rat, the City is developing a Multiple Species Habitat Conservation Plan (MSHCP) for an 11-square mile area north of Summit Avenue, which includes the project site. This proposed MSHCP is undergoing review by the USFWS and is not expected to be approved and/or implemented soon.

²⁰ Michael Brandman Associates, Thomas J. McGill, Ph.D. (Regional Manager), February 26, 2004.

²¹ U.S. Department of Agriculture, Soil Conservation Service, *Soil Survey of San Bernardino County Southwestern Part, California*, 1980.

²² U.S. Geological Survey, Ontario, California, Topographic Quadrangle map.

²³ Michael Brandman Associates, Thomas J. McGill, Ph.D., October 30, 2001, on foot and by vehicle.

²⁴ Michael Brandman Associates, letter to Lewis Operating Corporation, September 22, 2003.

²⁵ Philippe Verne, July 27, 2003, as reported in letter from Michael Brandman Associates to Lewis Operating Corporation dated November 25, 2003.

²⁶ *Initial Study, Citrus Heights North Specific Plan*, prepared by UltraSystems Environmental, November 2003.

²⁷ *City of Fontana General Plan*, October 21, 2003, Chapter 9, Open Space and Conservation Element, p. 9-23.

3.4.2 Environmental Assessment

3.4.2.1 *Thresholds of Significance*

Based on Appendix G of the *State CEQA Guidelines*, as amended, the proposed project would have a significant effect on biological resources if it were to:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFG or the USFWS;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impeded the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

3.4.2.2 *Project Impacts*

Generally, the literature reviews and field surveys of the project site indicate that there are no biological resource constraints related to construction on the project site, and development of the site is not expected to result in a take of a threatened or endangered species.

Special Species and Habitat

Site-specific field studies were performed for the California gnatcatcher and the San Bernardino kangaroo rat by the project's biologist. The specific field studies determined that the proposed project would have no impact on the California gnatcatcher, the San Bernardino kangaroo rat, or their habitat (RAFSS). Therefore, no impact would occur.

Conflict with a Conservation Plan

Currently, there is no habitat conservation plan that applies to the project site. However, when implemented, the MSHCP might identify potentially significant project impacts.

3.4.3 Cumulative Impacts

No significant or potentially significant biological resources would be impacted by the proposed project. As a result, the overall cumulative impact of the proposed project would be less-than-significant.

3.4.4 Mitigation Measures

Although the project would have no significant effect on biological resources under current regulatory requirements, implementation of the MSHCP at some future date could require the following mitigation measure to ensure that impacts remain less than significant:

BR-1 Comply with the mitigation measures required by the Multiple Species Habitat Conservation Plan in northern Fontana when it is approved and implemented.

3.4.5 Level of Significance After Mitigation

The proposed project would not result in a significant adverse impact on biological resources.

3.5 CULTURAL RESOURCES

Richard Perry, a consulting archaeologist certified by the Society of Professional Archaeologists, prepared a Cultural Resources Survey Report for the proposed project site. The information presented in this section was obtained from that report, which is provided in **Appendix C**.

3.5.1 Environmental Setting

The project site is undeveloped, flat, and sparsely vegetated vacant land in northern Fontana; see **Figure 3-2a** (Site Photographs A and B), and **Figure 3-2b** (Site Photograph C). Although most of the surrounding land is vacant, residential, commercial, and school projects have been approved or are being constructed immediately south and west of the project site. See Section 2 (Project Description) for additional information on the project site's environmental setting.

3.5.1.1 Literature Search

Mr. Perry completed a literature search of all pertinent databases and compiled reports to identify the cultural resources that have been recorded as being in the project area (i.e., in the project site or adjacent properties). The records search for the project area shows that six cultural resource investigations have been done on adjacent properties, but none has been conducted in the project site. The search found that the only resources of interest are historic archaeological sites or historic structures. No evidence of Native American occupation, either prehistoric or ethnographic, was found in the project area.

The most pertinent previous cultural resource survey in the area was prepared in 1995 by Jeanette McKenna, an archaeologist certified by SOPA, for the *Westgate Specific Plan* area. This specific plan area is directly west of the project site, across Lytle Creek Road and extending westward to Interstate 15 (I-15); the survey did not include the project site.²⁸

3.5.1.2 Reconnaissance Survey

Mr. Perry and Paul Secord, A.I.C.P., conducted a comprehensive reconnaissance field survey of the project site on July 29 and 30, 2003, and visually inspected most of the site. The survey was conducted in compliance with CEQA §15064.5. This survey included all of the planning areas (PAs) of the *Citrus Heights North Specific Plan* area except PA 5 and PA 12. Although these two parcels were not accessible for survey on foot, they were viewed from adjacent areas of the project site. No cultural resources were recorded on the project site.

3.5.1.3 General Plan Cultural Resources Goals

The City of Fontana General Plan identifies an area of high sensitivity for prehistoric archaeological resources, two areas with concentrations of historic-era buildings, and a number of potential historical sites, and specifies the following goals that relate to cultural resources.²⁹

Goal #4.1. *Seek to identify and inventory all historical and archaeological resources within the City boundaries and its sphere of influence.*

²⁸ Jeanette McKenna et al., *A Cultural Resources Reconnaissance Survey of the Westgate Property (1000+/- Acres) in the City of Fontana, San Bernardino County, California*, 1995; prepared for Unitex Management Corporation; archived in the Archaeological Information center, San Bernardino County Museum, Redlands, California.

²⁹ *City of Fontana General Plan*, October 21, 2003, Chapter 9, Open Space and Conservation Element, pp. 9-41 to 9-45 and 9-55.



Site Photograph A—from Lytle Creek Road, looking southeast at project site and residence in PA 5



Site Photograph B—From Summit Avenue, looking northeast at sand pile in PA 12.

Figure 3-2a
SITE PHOTOGRAPHS A AND B



Site Photograph C—From Citrus Avenue, looking west along the east-west easement between PA 8 and PA 2A.

**Figure 3-2b
SITE PHOTOGRAPH C**

Goal #4.2. *Encourage and support the preservation, rehabilitation, and/or restoration of historical and archaeological resources within the City boundaries and its sphere of influence.*

3.5.2 Environmental Impact Analysis

3.5.2.1 Thresholds of Significance

The criteria used to determine the significance of a cultural resources impact are based on Appendix G of the *State CEQA Guidelines*. The proposed project would have a significant environmental impact if it were to:

- Cause a substantial adverse change in the significance of an historical resource as defined in §15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5;
- Directly or indirectly destroy a unique paleontological resource or site or a unique geologic feature; or
- Disturb any human remains, including those interred outside of formal cemeteries.

3.5.2.1 Project Impacts

Historical Resources

During the project reconnaissance survey of July 29-30, 2003, many scattered piles of debris (such as trash, construction materials, and tires) were noted, but none contains anything of historical value. There was no evidence of structural remains on the area surveyed. However, one modest residence (dating from the 1960s) occupies PA 5, in the southwestern corner of the proposed project site. This structure has no historical value, as the City of Fontana's requirement for identification and evaluation of potentially historic structures applies only to structures built before 1957.³⁰ The other unsurveyed area is PA 12, in the southeastern corner of the project site. PA 12 is vacant undeveloped land and contains no known or observable historical resource. The northeast-southwest easement that crosses the project site contains the Boulder-Los Angeles power transmission lines, which is part of an historic-era site. However, the project does not include this easement, and would not affect this use. Therefore, no impact would occur.

Archaeological Resources

Based on reported information from outside the record search area, the project area is considered to be moderately sensitive to prehistoric (i.e., archaeological) resources.³¹ The project reconnaissance survey found no surface evidence of any archaeological resource on the project site.

A project site always has the potential to contain buried archaeological artifacts, especially those dating up to the 1890s. Although it is unlikely and not expected that any such archaeological resources would be uncovered during grading and construction on the proposed project site, the possibility of such an occurrence must be considered to be a potentially significant project impact.

Human Remains

Should human remains be uncovered during construction, notification of the coroner and designated Native American representatives shall proceed in accordance with Public Resources Code Section 5097.98, Health and Safety Code Section 7050.5, and *State CEQA Guidelines*. Therefore, a less-than-significant impact would occur.

General Plan Cultural Resource Goals

The proposed project would be consistent with the applicable goals and policies if it furthers them or otherwise does not obstruct their attainment. Following is a consistency evaluation for the applicable cultural resources goals of the General Plan:

Goal #4.1. *Seek to identify and inventory all historical and archaeological resources within the City boundaries and its sphere of influence.* No part of the project site is in or near Fontana's identified area of high sensitivity for prehistoric archaeological resources or concentrations of historic-era buildings, nor does the site contain any potential historic site that the City considers significant to the local community. The proposed project is consistent with Goal #4.1. Therefore, a less-than-significant impact would occur.

Goal #4.2. *Encourage and support the preservation, rehabilitation, and/or restoration of historical and archaeological resources within the City boundaries and its sphere of influence.* There are no historical resources on the project site. Archaeological resources would be preserved, if they were located on the project site, pursuant to the requirements of the San Bernardino County Museum. The proposed project is consistent with Goal #4.2. Therefore, a less-than-significant impact would occur.

³⁰ *City of Fontana General Plan*, October 21, 2003, Chapter 9, Open Space and Conservation Element, p. 9-39.

³¹ Information Center, San Bernardino County Museum, Robin Laska (Archaeological Information Coordinator).

3.5.3 Cumulative Impacts

The *City of Fontana General Plan* has developed and implemented measures to minimize cumulative impacts on cultural resources, and to fully document any such resources that may be disturbed by a project, in accordance with guidelines of CEQA and the State Historic Preservation Officer (SHPO).³² As a result, no significant cumulative impacts to cultural resources would occur.

3.5.4 Mitigation Measures

Archaeological Resources. The following measures shall be implemented during construction to mitigate the project's potential effects on archaeological resources that might be discovered during grading and construction:

- CR-1** The project applicant shall arrange for a qualified archaeologist to attend a pre-grade meeting to inform the construction managers about procedures to protect any cultural resources or human remains that are uncovered during grading and construction;
- CR-2** For any cultural materials that are observed during ground disturbance, all construction activity at the location shall be immediately suspended and the area shall be clearly staked and flagged. The materials shall be evaluated for potential significance in accordance with the *State CEQA Guidelines* by a qualified archaeologist. If determined not to be significant, construction shall be allowed to resume. If determined to be significant, a treatment plan shall be prepared and implemented as determined appropriate by the qualified archaeologist and the San Bernardino County Museum.

3.5.5 Level of Significance After Mitigation

The proposed project would not result in a significant cultural resources impact after mitigation.

³² *City of Fontana General Plan*, October 21, 2003, Chapter 9, Open Space and Conservation Element.

3.6 GEOLOGY AND SOILS

This section summarizes the information contained in the following reports:

- RMA Group, Geotechnical Consultants (RMA), *Major Geotechnical and Geologic Constraints, Fontana, North of Summit from I-15 to Fontana City Line, Fontana, California*, October 3, 2001; and
- RMA, *Geotechnical Field Reconnaissance of Thirteen Parcels North of Summit Between I-15 and Sierra Avenue, Fontana, CA*, technical memorandum to Lewis Operating Corporation, November 5, 2001.

The above reports are provided in **Appendix D** (Geology and Soils).

3.6.1 Environmental Setting

3.6.1.1 Geologic Setting and Soils

The regional geologic map of the site is shown on **Figure 3-3** (Regional Geologic Map).

Geography and Geology. The project site is a relatively flat, undeveloped property on a broad, coalescing alluvial fan that emanates from the San Gabriel Mountains and the Lytle Creek drainage on the north. Topographically, the alluvial fan sheet-flows to the south and southwest at a slope of about 2-3%. These alluvial sediments fill the western portion of the upper Santa Ana River Valley, a deep structural depression. The upper Santa Ana River Valley is bordered on the north by the San Gabriel Mountains, on the west by the Puente Hills, on the south by the Jurupa Mountains and other resistant granitic and metamorphic hills, and on the east by the San Bernardino Mountains.

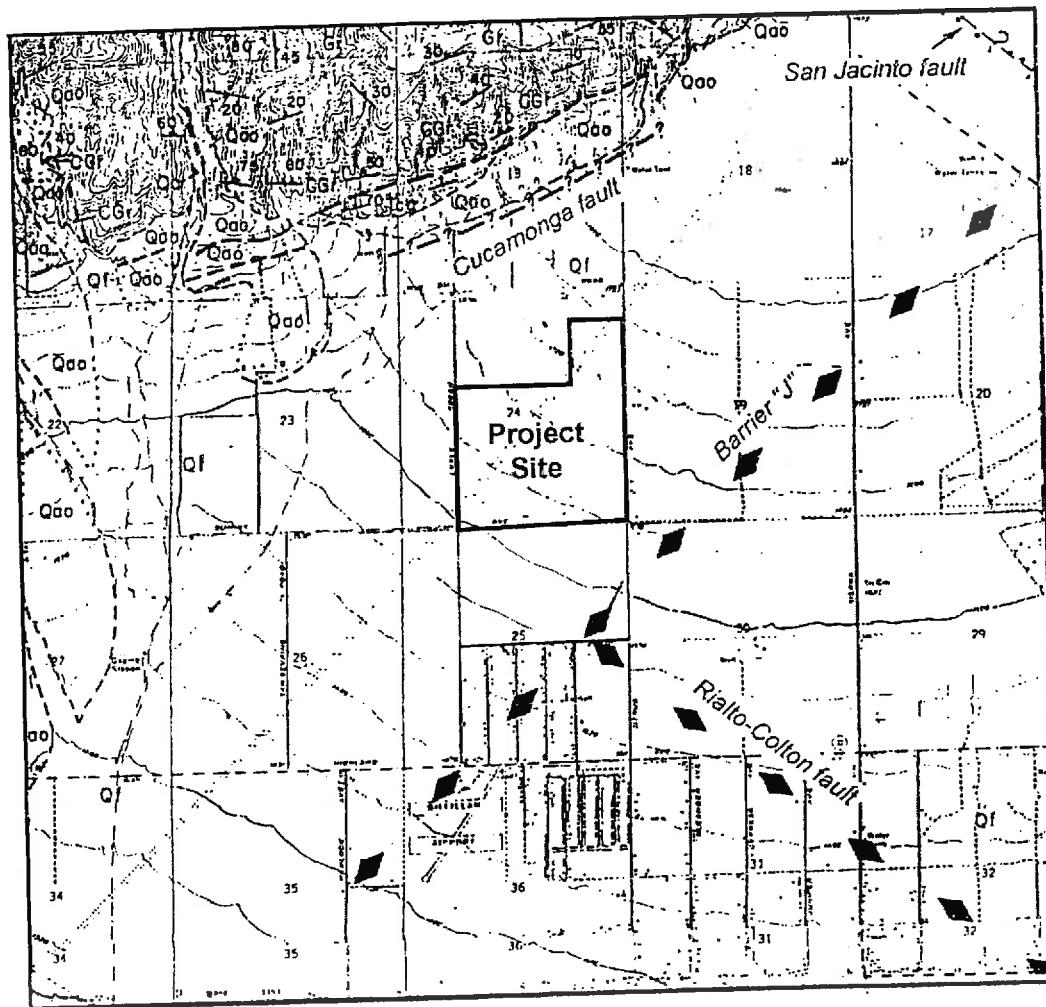
The alluvial deposits beneath the project site are coarse-grained and approximately 300 to 800 feet thick, and rest on crystalline basement bedrock.³³ Neither ground fissures nor ground subsidence resulting in the formation of fissures has been reported within the site. Aeolian (wind-blown) sands and silts may be present on the project site. Typically, alluvial and aeolian soils in northern Fontana have very low potential for expansion or corrosion.

Surface Water Conditions. No areas of ponding or standing water were present on the project site at the time field reconnaissance was undertaken. In general, soils underlying the project site are quite permeable.

Groundwater Conditions. Through most of the project site, the depth to groundwater ranges from about 100 to 400 feet beneath the ground surface;³⁴ see **Figure 3-4** (Regional Ground Water Contour Map).

³³ Fife, D.L., and others, *Geologic Hazards in Southwestern San Bernardino County, California*, California Division of Mines and Geology Special Report 113, 1976.

³⁴ Morton, D.M., *Generalized Geologic Map of Southwestern San Bernardino County*, U.S.G.S. SR-113, Plate 4-b, 1974.



REGIONAL GEOLOGIC MAP

Scale: 1" = 4,000'

Qf: Alluvial Fan Deposits

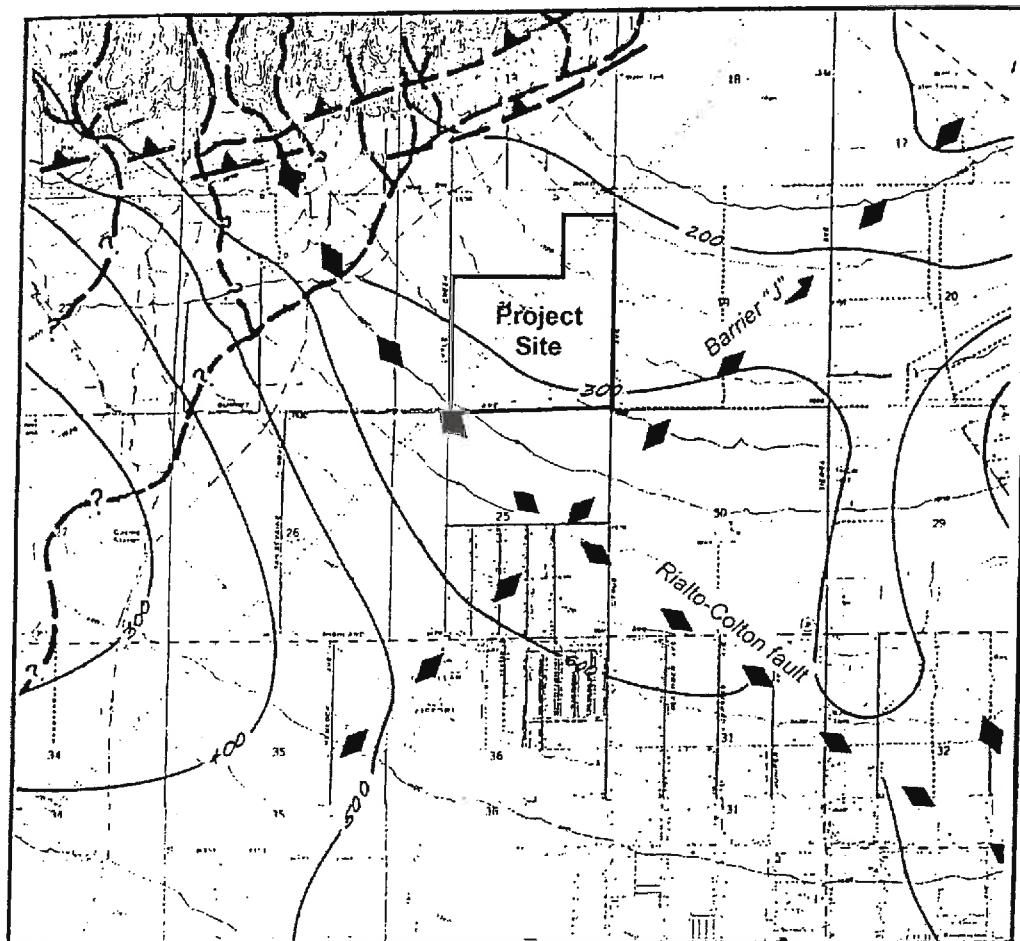
Qoa: Older Alluvium, undifferentiated

Tcg: Tertiary Conglomerate and Sandstone

CGr - Granulitic metamorphic rock

Source: Morton, D. M., 1974, Generalized Geologic Map of Southwestern San Bernardino County. U.S.G.S. SR-113, Plate 1-B.

Figure 3-3
REGIONAL GEOLOGIC MAP



REGIONAL GROUND WATER CONTOUR MAP

Scale: 1" = 4,000'

Legend

-200-- Line of equal depth to groundwater in feet

Source: Morton, D. M., 1974, Generalized Geologic Map of Southwestern San Bernardino County. U.S.G.S. SR-113, Plate 4-B.

Figure 3-4
REGIONAL GROUNDWATER CONTOUR MAP

3.6.1.2 Geologic and Soil Conditions

The following geologic and soil conditions and related natural phenomena can adversely affect developed land areas:

- (1) Earthquake faults and seismicity:
 - (a) Ground rupture,
 - (b) Strong seismic ground shaking,
 - (c) Seismic-related ground failure (including liquefaction), and
 - (d) Landslides;
- (2) Soil erosion;
- (3) Instability of the soil or underlying geologic unit (either an inherent condition of the site or a condition caused by the project), which can result in liquefaction, landslide, lateral spreading, subsidence (settlement), or collapse; and
- (4) Expansive soil.

Of the above-listed phenomena, the most common major environmental concern on developed land in California is Item 1, earthquakes and seismicity, because they create a risk of human injury and death, and of damage to and loss of structures.

(1) Earthquakes Faults and Seismicity

(a) Ground Rupture. The project site is located in an area that is seismically active, as is all of southern California, and there are many faults that could generate earthquakes that would be felt at the project site. The upper Santa Ana River Valley is bordered by two major active fault zones to the north, the Cucamonga and San Jacinto faults; the potentially active Chino fault, 17 miles southwest of the project site; and the active San Andreas fault, several miles northeast of the site. As shown on **Figure 3-4**, the project site is southwest of the junction of the east-to-northeast-trending Cucamonga fault zone and the northwest-trending San Jacinto fault zone. These two fault zones are the only Alquist-Priolo Earthquake Fault Zones in the City of Fontana.³⁵ Two concealed faults may also be located near the site: the northwest-trending Rialto-Colton fault (just southwest of the site) and the northeast-trending Ground Water Barrier J (just southeast of the site).

- *Cucamonga Fault:* The Cucamonga fault is the primary fault along the southern front of the eastern San Gabriel Mountains. This north-dipping thrust fault separates the crystalline bedrock of the San Gabriel Mountains and valley alluvium, and is about ½ mile northwest of the project site. The Cucamonga fault is considered capable of generating earthquakes as large as magnitude 7.0, with ground-rupturing events occurring every 150 to 700 years. The typical ground rupture during major earthquakes along this fault is on the order of 2 meters.
- *San Jacinto Fault:* The San Jacinto fault extends from the San Gabriel Mountains southeast to the Mexican border and beyond, and diagonally crosses the upper Santa Ana River Valley about 1 mile northeast of the project site. This right lateral, strike-slip fault has historically been the most active fault in southern California, and more than a dozen earthquakes with magnitudes ranging from 6.0 to 7.1 have been epicentered along this fault zone since the late 1800s. The fault generates ground-rupturing events at intervals of 100 to 300 years.

³⁵ *City of Fontana General Plan*, October 21, 2003, Chapter 11, Safety Element, Figure 11-1, p. 11-19.

- Rialto-Colton Fault: The California Department of Water Resources (DWR)³⁶ has mapped the Rialto-Colton fault about $\frac{1}{2}$ mile south of the project site (see **Figure 3-3**). Its location is based on the projection of low hills to the northwest and southeast of the site. There is no surface expression of the Rialto-Colton fault near the project site, and the fault is not included in any fault rupture hazard zones designated by the State of California, San Bernardino County, or the City of Fontana.
- Ground Water Barrier J: The DWR has also mapped Ground Water Barrier J near the project site.³⁷ It is believed that this barrier is a normal fault that displaces the base of fresh groundwater upward about 100 feet, and that it was caused by uplift of the San Gabriel Mountains. The fault has no surface expression and is concealed by thick alluvial deposits.

(b) Strong Seismic Ground Shaking. It is expected that nearby, large-magnitude earthquakes along the Cucamonga and San Jacinto faults could generate peak horizontal ground accelerations in excess of 1.0 g, depending on the epicenter, depth, and magnitude of earthquakes. Uniform Building Code³⁸ seismic source and near-source factors will vary throughout the site, depending upon the exact location and distance from the seismic activity.

(c) Liquefaction from Seismic-Related Ground Failure. The major hazard of seismic-related ground failure is liquefaction. Liquefaction is a phenomenon caused by earthquake-induced ground vibrations that increase the pore pressure in saturated, granular soils until the pressure equals the confining, overburden pressure. When this occurs, the soil can completely lose its shear strength and enter a liquefied state—thus destabilizing the soils. Liquefaction occurs when three conditions are met: underlying loose, coarse-grained (sandy) soils; groundwater with a depth of less than 50 feet or so; and a nearby large-magnitude earthquake. At the project site, groundwater levels are too deep for liquefaction to occur.³⁹

(d) Landslides from Seismic-Related Ground Failure. The project site is nearly level, and (similar to the project vicinity) slopes to the south and southwest with a gradient of 2-3%. In addition, the geologic unit and soil upon which the site rests are stable, and would not be subject to instability-related landslide.

(2) Soil Erosion

Soil erosion can occur due to high winds or flooding. The project site is located near the mouth of Cajon Pass, which occasionally carries strong Santa Ana winds (usually in the fall). These winds can significantly erode surface soils that are not protected by vegetation, concrete, or asphalt. The existing open space conditions on the project site exposes the soil to erosion during periods of high winds. According to the Federal Emergency Management Agency (FEMA) and the City of Fontana General Plan,⁴⁰ the project site is not located in a 100-year flood zone, so is not subject to soil erosion from flooding.

(3) Geologic or Soil Instability

Regional geologic maps and field observations indicate that coarse-grained alluvial fan deposits underlie the project site, as is the case throughout northern Fontana. Typically, these deposits consist of gravelly

³⁶ California Department of Water Resources (DWR), *Meeting Water Demands in the Chino-Riverside Area*, Bulletin No. 104-3, 1970.

³⁷ *Ibid.*

³⁸ Structural Engineers Association of California, *Uniform Building Code* (International Conference of Building Officials publication), 1997.

³⁹ *City of Fontana General Plan*, October 21, 2003, Chapter 11, Safety Element, Figure 11-2, p. 21.

⁴⁰ *Ibid.*, Figure 11-5, p. 11-35.

silty sands with cobbles and boulders. According to Fife and others (1976),⁴¹ the alluvial deposits beneath the project site are approximately 300 to 800 feet thick and rest on crystalline basement bedrock.

(4) Expansive Soil

The soils in northern Fontana are typically alluvial and aeolian (wind-blown) sands and silts that occur at and near the ground surface. The potential for these soils to expand or corrode is very low.

3.6.2 Environmental Impact Analysis

3.6.2.1 Thresholds of Significance

The criteria used to determine the significance of a geology and soils impact are based on Appendix G of the *State CEQA Guidelines*. The proposed project would have a significant environmental impact if it were to:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving (a) rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; (b) strong seismic ground-shaking; and seismic-related ground failure, including (c) liquefaction and/or (d) landslides;
- Result in substantial soil erosion or the loss of topsoil;
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site (a) liquefaction, (b) landslide, (c) lateral spreading, (d) subsidence, or (e) collapse;
- Be located on expansive soil, as defined in the current edition of the California Building Code (CBC), creating substantial risks to life or property; or
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

3.6.2.2 Project Impacts

Based on the known geologic and soils conditions present on the site of the proposed project and in the project site vicinity, residential and commercial development of the proposed project is feasible from an engineering geologic and geotechnical standpoint.

(1) Earthquake Faults and Seismicity

(a/b) Ground Rupturing and Strong Seismic Ground Shaking

The project site is not crossed by a known active or potentially active fault (i.e., a fault that has experienced movement within Holocene geologic time—within about the last 11,000 years), nor does any such faults project toward the site. Therefore, the potential for a ground rupture hazard is remote. As such, this issue would result in no impact with implementation of the proposed project.

The potential for strong ground-shaking effects most of southern California, and like other similar projects, the Citrus Heights North Specific Plan project would be subject to strong ground shaking. Like other projects, the proposed project would include design considerations to accommodate estimated

⁴¹ Fife, D.J., et al., *Geologic Hazards in Southwestern San Bernardino County, California*, California Division of Mines and Geology Special Report 113, 1976.

ground motions. As a result, the potential for adverse impacts due to ground motions would be less-than-significant with implementation of the proposed project.

(c) Liquefaction from Seismic-Related Ground Failure

Given the liquefaction conditions on-site and the fact that all proposed structures would be located on bedrock or dense fill over bedrock the potential for liquefaction is remote. As such, this issue would result in no impact with implementation of the proposed project.

(d) Landslides from Seismic-Related Ground Failure

No landslide masses have been identified at the project site. Considering that no landslide deposits have been identified at the project site, and that the site is largely underlain by hard rock and locally by relatively dense soils, it is unlikely that triggered landslide movements would occur. Thus, the potential for landsliding at the site is remote and would result in no impact with implementation of the proposed project.

(2) Soil Erosion

Alluvium that may be exposed in graded areas at the project site would be subject to erosion from rainfall. Being derived largely from weathered bedrock, the alluvial materials would be relatively high in silt and clay content. Considering these material characteristics, and that site development would include drainage channel improvements, soil erosion would result in a less-than-significant impact.

(3) Geologic or Soil Instability

The bedrock at the project site would not be subject to collapse or expansion that could cause distress to the proposed structures. In addition, available geotechnical studies suggest that the alluvium at the site is not generally expected to be subject to collapse or substantial consolidation. Subsequently, with the proposed grading and locations and elevations of the structures in the planning, it was determined that collapsible soils would not occur beneath any of the proposed structures. Therefore, collapsible soils would not be an issue and there would be no impact with implementation of the proposed project.

(4) Expansive Soil

Expansive soils generally result from having high percentages of expansive clay minerals, such as montmorillonite. If not adequately addressed, expansive soils can cause extensive damage to structures and paving. Having been recognized, expansive soils can be placed in areas where they are unlikely to have damaging effects, or they can be treated to reduce their potential for expansion. Structures can also be designed to accommodate some forces from soil expansion. Geotechnical studies indicate that the expansion potential of native soils is very low-to-low, and therefore, soil expansion would not represent a hazard to the planned structures. Therefore, this issue would result in no impact with implementation of the proposed project.

Alternative Wastewater Disposal Systems

The proposed project would be connected to a sewer system, and would not include any septic tanks or alternative wastewater disposal systems. Therefore, no project impact would occur.

3.6.3 Cumulative Impacts

The relative absence of problematic geologic and soils conditions on the project site and in the project vicinity indicates that the site has a very low potential to either cause, or be subject to, the occurrence of a significant adverse cumulative impact related to geology or soils.

3.6.4 Mitigation Measures

The project would not result in any significant adverse impacts related to geology and soils, and no mitigation is required.

3.6.5 Level of Significance After Mitigation

The proposed project would not result in a significant geology and soils impact.

3.7 HAZARDS AND HAZARDOUS MATERIALS

This section summarizes information contained in the following reports:

- Blasland, Bouck & Lee, Inc. (BBL), *Master Report, North Fontana Project, Fontana, California*, September 14, 2001;
- BBL, *Environmental Site Assessment Update, 215 Acres of Vacant Land, North Fontana Project, Fontana, California*, June 2003; including (as Appendix A) EDR Radius Map for 5655 Citrus Avenue, Fontana, CA 92336, prepared by Environmental Data Resources, Inc., April 24, 2003; and
- BBL, “Pesticide Sampling, Four Parcels, North Fontana Project,” letter dated June 19, 2003.

The above reports are provided in their entirety as **Appendix E** (Hazards and Hazardous Materials).

3.7.1 Environmental Setting

3.7.1.1 Project Location and Surface Area

The project site is located southeast of the I-15 freeway in north Fontana, immediately north of Summit Avenue, west of Citrus Avenue, and east of Lytle Creek Road. The site surface has sandy soils covered with natural grasses and vegetation. The surface topography is generally flat, with a slight southward slope.

3.7.1.2 Environmental Site Assessment

The proposed project site was subjected to a Phase I Environmental Site Assessment (ESA) performed in accordance with American Society for Testing and Materials (ASTM) Standard Practice E 1527-00. The proposed project area is included in the approximately 1,500 acres of land that was investigated as “north Fontana” for the Master Report, September 2001.

3.7.1.2.1 Stratigraphy and Groundwater

Chino Groundwater Basin

The project site is located within the upper Santa Ana River Valley area, and is within the Chino Groundwater Basin. The Basin is part of the Corona-Chino Valley crustal block, a major structural low that is bounded on the west by the Chino Fault and the Chino and San Jose Hills; on the north by the Cucamonga fault zone and the San Gabriel Mountains; on the east by the Rialto-Colton fault; and on the south by the La Sierra and Pedley Hills.

The Basin's stratigraphy is divided into non-water-bearing rocks and water-bearing sediments. The non-water-bearing rocks include the Tertiary sedimentary units belonging to the Puente and Topanga Formations, the Glendora volcanics, and pre-Tertiary meta-sediments and granites. The water-bearing sediments comprise deposits from the Holocene and Upper Pleistocene ages. These units outcrop as wind-blown dune sand, stream channel and floodplain deposits, alluvial fans, and terraces.

Groundwater

Within the Chino Groundwater Basin, the water-bearing sediment has a maximum thickness of approximately 1,100 feet, and the major groundwater supply is located beneath the Ontario-Montclair area, several miles west of the project site. Hydrologic data from the Chino Basin Municipal Water

District⁴² indicate that the principal groundwater flow direction near the project site is toward the south. However, flow directions can be changed by local groundwater pumping and/or other hydrologic factors. Based on data obtained from the California Department of Water Resources (DWR), Division of Planning and Local Assistance,⁴³ the depth to groundwater at the site ranges from 100 to 300 feet below ground surface (bgs). The static depth to groundwater in the U.S. Geological Survey (USGS) domestic water well located in the east-central portion of the project site was reported to be approximately 159 feet bgs.

3.7.1.2.2 Land Use

Historical Land Use

Aerial Photographs. Historical aerial photographs were reviewed from the late 1940s through the late 1990s at Continental Aerial Photo, Inc., in Los Alamitos, California.⁴⁴ In the late 1940's, the area consisted of vacant undeveloped land with a few scattered agricultural fields and associated houses. Sumps were noted on both the northeastern and eastern portions of the area. The northeastern sumps disappeared in the 1950s and 1960s, when major power transmission lines were constructed, running northeast-southwest across the northwestern portion of the project area. From the mid-1960s through the mid-1970s, additional houses and sheds (possibly associated with power line maintenance) were noted. In the mid-1970s, the I-15 freeway was constructed adjacent to and northwest of the area. In the late-1970s through the mid-1980s, an additional shed is in the power line maintenance area. In the mid-1990s, a bus or trailer parking lot is in the southeastern portion of the area, as well as additional residential development in the eastern portion. Although this parking lot was mostly vacated during the late 1990s, it was full again at the end of the 1990s.

Topographic Maps. Historical maps were reviewed that show the topography of the area in the mid-1950s through 1980.⁴⁵ All the maps show power transmission lines extending through the central and western portions of the area. Over these years, various buildings were mapped on the northeastern and southwestern portions, and agricultural fields were shown in the northwestern portion, with agricultural activities diminishing in the later years. A water tank was noted adjacent to and south of the area (near the intersection of Summit Avenue and Citrus Avenue), and two water wells were shown adjacent to the northwestern portion.

Current Land Use

Site Reconnaissance. Blasland, Bouck & Lee, Inc. (BBL) investigated 215 acres of the 1,500-acre area that BBL had evaluated earlier (as reported in the *Master Report*), and reported the new results in June 2003.⁴⁶ The study area consists of nine parcels of vacant land north of Summit Avenue and west of Citrus Avenue, and includes all of the proposed project site except for Planning Area (PA) 5 (in the southwestern corner) and PA 12 (in the southeastern corner); see **Figure 2-4** (Project Site Plan). Access to these two parcels was not available at the time of the investigation. The study area also includes the two utility easements that cross the project site.

On May 7, 2003, BBL visually inspected the study area and surrounding properties for any evidence of underground storage tanks (USTs), aboveground storage tanks (ASTs), chemical storage drums, electrical

⁴² Blasland, Bouck, & Lee, Inc. (BBL) *Master Report, North Fontana Project, Fontana, California*, September 14, 2001, p. 1-2.

⁴³ *Ibid.*, pp. 2-1, 2-2.

⁴⁴ *Ibid.*, Appendix A

⁴⁵ *Ibid.*, Appendix B, USGS 7.5-minute maps of Devore (CA) Quadrangle (1954-55, 1960, 1966, 1968, 1974, 1980).

⁴⁶ BBL, *Environmental Site Assessment Update, 215 Acres of Vacant Land, North Fontana Project, Fontana, California*, June 2003.

transformers that might contain polychlorinated biphenyls (PCBs), on-site storage or disposal of hazardous materials, or any other recognized environmental conditions.

Utility Easements. Metropolitan Water District (MWD) manholes and a Southern California Gas Company (SCGC) underground natural gas line were identified on parallel easements running northeast-southwest in the northwestern portion of the project site. The area also has two Southern California Edison (SCE) easements with high-voltage power lines; the first runs between the MWD and SCE easement(s) and the second extends eastward from the other easements, across the center of the site.

Debris. Piles of concrete debris, household trash, and yard waste were observed in the northwestern portion of the site along Lytle Creek Road and Casa Grande Avenue, and several soil piles were seen in the south-central portion of the site along Summit Avenue. Additional piles of metal, wood, concrete debris, roofing material, soil, household trash, and yard waste, as well as empty 55-gallon drums and 5-gallon buckets, were identified in the SCE easement in the central portion of the project site. Other piles of wood, concrete, cement bags, roofing material, tires, and household trash were noted in the eastern portion of the site along Citrus Avenue and Casa Grande Avenue. A notice of violation (NOV) issued by the City of Fontana pertaining to trash and debris removal was posted in the northeastern corner of the site.

No evidence of leaks or stains was observed in these areas of the project site, and no recognized environmental conditions were identified in association with any of the debris.

Transformer. One pole-mounted electrical transformer was observed on the south-central portion of the site along Summit Avenue. The transformer appeared to be in good condition and showed no visible evidence of leaking or staining. The transformer is owned and operated by SCE, so liability pertaining to any transformer-related spills, leaks, or fires is presumed to be SCE's responsibility. According to BBL, SCE reportedly adheres to EPA regulations that prohibit installation of transformers containing cooling oils with more than 50 parts per million (ppm) of PCBs. No recognized environmental conditions or other environmental issues were noted that involve PCBs at the site.

Residence. A small residence and associated structures are on the southwestern corner of the project site, in PA 5.

Pesticides. On four parcels in the northern portion of the project site that had historically been used for agriculture, BBL sampled shallow soils to determine whether they contain any residual chemical pesticides.⁴⁷ These parcels now constitute the project's Planning Areas 1, 2, 3, and 4; see **Figure 2-4** (Project Site Plan). The analytical results indicate the presence of pesticides in 9 of the 12 samples, at concentrations ranging from 0.0006 to 0.0380 milligrams per kilogram (mg/kg). All concentrations of pesticides detected at the project site are more than an order of magnitude below the Preliminary Remediation Goals of the U.S. Environmental Protection Agency (EPA), which cites a maximum level of 1.7 mg/kg for residential soil. Therefore, chemical pesticides are not considered to have any significant adverse impact.

Adjacent Land Use

The project site is bordered to the north by Casa Grande Avenue, to the east by Citrus Avenue, to the south by Summit Avenue, and to the west by Lytle Creek Road. Although a high school is planned to be built directly south of the project (on Summit Avenue), the site is currently surrounded by predominantly vacant land to the north, northeast, east, south, west, and northwest. To the immediate southeast is an elementary school and residential development, and to the immediate southwest is another residential development.

⁴⁷ BBL, *Pesticide Sampling, Four Parcels, North Fontana Project*, June 19, 2003.

A large water tank and an elementary school are southeast of the project site, across the intersection of Summit Avenue and Citrus Avenue. Piles of wood, concrete debris, household trash, yard waste, soil, and rocks were observed on the vacant parcels adjacent to and east of the site across Citrus Avenue, and piles of soil and wood were noted on the vacant parcels adjacent to and south of the site across Summit Avenue.

No recognized environmental conditions were noted on the properties adjacent to the site.

3.7.1.3 Regulatory Review

Database Review

Environmental Data Resources, Inc. (EDR) conducted a search of available environmental records.⁴⁸ The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments. Search distances were per ASTM standards. Following is a partial list of the databases reviewed. A more comprehensive roster of the reviewed databases, as well as the complete EDR report with identified site location maps, is in **Appendix E** (Hazards and Hazardous Materials).

- National Priorities List (NPL)
- CERCLIS sites with No Further Remedial Action Planned (NFRAP)
- Corrective Action Report (CORRACTS)
- Resource Conservation and Recovery Information System (RCRIS)
- Emergency Response Notification System List (ERNS)
- Toxic Chemical Release Inventory System (TRIS)
- Hazardous Materials Information Reporting System (HMIRS)
- (Cortese) Hazardous Waste and Substances Site List (Cortese List)
- Leaking Underground Storage Tanks (LUST)
- Aboveground Storage Tank Listing (AST)
- Toxic Pits Cleanup Act Sites (Toxic Pits)
- Comprehensive Environmental Response, Compensation and Liability Act Information System (CERCLIS)

The EDR database search identified one CHMIRS site approximately one-mile east of the proposed project: “Casa Grande/Sierra,” which sustained an accidental spill of ten gallons of paint. Reportedly, the spilled paint was removed soon after its presence was reported. This site is not a recognized environmental condition regarding the property.

Agency Queries

In addition, inquiries were also made to local regulatory agencies⁴⁹ regarding the project site, and none of them identified any hazardous site records for the property. These agencies are:

- San Bernardino County Fire Department (SBCFD)
- South Coast Air Quality Management District (SCAQMD)
- California Regional Water Quality Control Board, Santa Ana Region (RWQCB)

⁴⁸ Environmental Data Resources, *EDR Radius Map for 5655 Citrus Avenue, Fontana, CA 92336*, April 24, 2003.

⁴⁹ BBL, *Environmental Site Assessment Update, 215 Acres of Vacant Land, North Fontana Project, Fontana, California*, June 2003, p. 1.

3.7.2 Environmental Impact Analysis

3.7.2.1 Thresholds of Significance

The criteria used to determine the significance of a hazards or hazardous-materials impact are based on Appendix G of the *State CEQA Guidelines*. The proposed project would have a significant environmental impact if it were to:

- Create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site that is on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would create a significant hazard to the public or environment;
- Because of its location within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area;
- Because of its proximity to a private airstrip, result in a safety hazard for people residing or working in the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- Expose people or structures to significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

3.7.2.2 Environmental Site Assessment

There is no evidence of any recognized hazardous environmental condition or hazardous materials on the project site, or of any hazard to the public from routine transport, use, or disposal of such materials. Although the Summit Heights Elementary School and the planned Summit High School are adjacent to the project site, the proposed project would not emit any hazardous emissions or handle hazardous materials with $\frac{1}{4}$ mile of either school. Therefore, no impact would occur.

The Phase 1 ESA conducted for the project site identified areas that require additional investigation to ensure that materials and debris from these sources are properly disposed of. The proposed project is required to clean the project site during construction site preparation to ensure that no contamination or hazardous exposure from these areas would occur. During site preparation the proposed project would be required to remove trash and debris from the project site and properly dispose of it before site development. In addition, the proposed project is required to properly sample (analyze) the roofing materials observed at the property, which possibly contain asbestos, and disposed of them before site development. Therefore, a less-than-significant impact would occur.

The proposed project property is not located on any listed hazardous materials site, and would have no impacts related to aviation, emergency response or evacuation, or wildland fires. Therefore, no impact would occur.

3.7.3 Cumulative Impacts

Each of the related projects is required to clean their individual sites prior to their development. Therefore, no cumulative impacts related to hazardous materials would occur in association with the proposed project.

3.7.4 Mitigation Measures

The project would not result in any significant adverse impacts related to hazardous materials, and no mitigation is required.

3.7.5 Level of Significance After Mitigation

The proposed project would not result in a significant hazardous materials impact.

3.8 HYDROLOGY AND WATER QUALITY

3.8.1 Environmental Setting

3.8.1.1 *Hydrology*

Regionally, the Santa Ana River provides the primary drainage functions for the Chino Basin, flowing 69 miles across a watershed that originates in the San Bernardino Mountains and ultimately flows to the Pacific Ocean. There is limited surface water runoff in the area, primarily from canyon drainages in the northern area, and from surface drainages flowing north from the Jurupa Hills on the southern edge of the area. Surface flows from the northern canyons are intercepted by flood control channels, which flow south and ultimately discharge into the Santa Ana River system. Runoff from the southern drainages are also captured by local storm drainage systems, and conveyed to large channels that ultimately discharge to the Santa Ana River. Given the effectiveness of control of surface drainage flows by local and regional drainage facilities, surface water runoff is considered an insignificant water supply source.

The project site is located within the San Sevaine Creek watershed. The project site is within the Line "B" drainage of the Master Plan of Storm Drainage for the City. Line "B" is tributary to the existing Hawker-Crawford Channel located west on the west side of the I-15 freeway at Summit Avenue. The existing topographic relief of the project site consists of relatively flat contours, with the existing site drainage sheet flowing across the property in a southwesterly direction toward Summit Avenue. The project site is not located within a 100-year flood plain.

3.8.1.2 *Water Quality*

The proposed project site is within the northern area of the Upper Santa Ana River Valley on the Fontana Plain, situated on the south side of the San Gabriel Mountains. The proposed project area is comprised of a fairly flat and permeable surface. Natural rainfall drainage in the area tends to move in a northeast to southwest direction as sheet flow. Currently, no drainage courses are on or near the site.

Summit Avenue, which is the southern boundary of the project site, captures downstream runoff from the north/northeast and diverts it west to Lytle Creek Road where the direction of flow changes to the south. This runoff continues southwest until it intersects with the Highland Channel. The storm drain system will be extended to Lytle Creek Road and Curtis Avenue as a result of the Summit Heights Specific Plan.

3.8.2 Environmental Impact Analysis

3.8.2.1 *Thresholds of Significance*

The criteria used to determine the significance of a hydrology and water quality impact are based on Appendix G of the *State CEQA Guidelines*. The proposed project would have a significant environmental impact if it were to:

- Violate any water quality standards or waste discharge requirements;
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., reduce the production rate of pre-existing nearby wells to a level that would not support existing land uses or planned uses for which permits have already been granted);

- Substantially alter the existing drainage pattern of the site or area (including through the alteration of the course of a stream or river) in a manner that would result in substantial erosion or siltation on-or off-site;
- Substantially alter the existing drainage pattern of the site or area (including through the alteration of the course of a stream or river) or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site;
- Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of contaminated runoff;
- Otherwise substantially degrade water quality;
- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary, Flood Insurance Rate Map, or other flood hazard delineation map;
- Place within a 100-year flood hazard area structures that would impede or redirect flood flows;
- Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam; or
- Be subject to inundation by seiche, tsunami, or mudflow.

3.8.2.2 Project Impacts

Hydrology

A drainage plan has been prepared for the project site as shown on Figure 24 of the Citrus Heights North Specific Plan. All of the development within the master planned community would be required to incorporate the design criteria contained in the drainage plan. As proposed, the on-site drainage facilities would be split into two separate systems. The westerly portion consisting of PAs 4A and 4B would drain to a proposed 72-inch storm drain to be installed in Lytle Creek Road. The remaining PAs would drain to PA 6 located to the northwest corner of Summit Avenue and Knox Avenue. At this point an 11-foot by 9-foot reinforced concrete box (RCB) storm drain would be constructed by the proposed project in Summit Avenue.

Due to downstream restrictions on the capacity of regional flood control facilities, the proposed project is required to reduce developed runoff to a level slightly below the existing predevelopment rate. The proposed project would construct two interim detention basins on the project site to accomplish this reduction in runoff. The largest of these basins would be located within the 11.3-acre joint use basin/park in PA 6. A smaller interim detention basin would be located in PA 4B. These two basins would be designed to ensure the post developed condition on the project site would not over-burden the downstream regional flood control facilities. Therefore, a less-than-significant impact would occur.

Water Quality During Construction

Construction within the project site has the potential to result in runoff that could carry erosion material downstream. The proposed project would be subject to the requirements of the NPDES permit obtained for the proposed project. The NPDES permit program, administered through the RWQCB, requires that an erosion control plan utilizing Best Management Practices (BMP) be submitted and approved prior to the issuance of the permit. Compliance with the requirements of the NPDES permit would necessitate the use of erosion control measures and a stormwater pollution interception system during construction activities. Typical BMP erosion control measures would include, but would not be limited to, the use of

mulch, plastic sheeting, erosion control blankets, or sandbags to control erosion caused by rainfall, and development of check berms and desilting basins during construction activities would also typically used to prevent offsite sediment transport. A typical BMP stormwater pollution interception system would include a temporary detention/sedimentation basin and a filter or clarifier device that would remove pollutants from the runoff before it is released from the property. The implementation of the BMPs established in the NPDES permit for the project would reduce to a less-than-significant level the potential for the proposed project to violate any water quality standards.

Post-Development Water Quality

Urban runoff from the proposed project area would flow into a network of open channels, as well as along streets, into underground drainage systems and over undeveloped land. A substantial amount of this runoff would flow into regional flood control channels, which eventually discharges into the Santa Ana River. Urban runoff is a water quality concern because it commonly contains a variety of water pollutants, including elevated levels of pathogens, sediment, trash, fertilizers, pesticides, heavy metals and petroleum products. Stormwater can carry these pollutants to the ultimate receiving waters (rivers, streams, lakes, bays, and the ocean). This polluted runoff can result in exceeding the water quality standards for the receiving waters, as established by the RWQCB in its *Basin Plan*.

A significant amount of the urban surface water runoff that occurs in Fontana is intercepted by the City's storm drains (mainly the San Sevaine and Declez Channels), which flow into San Bernardino Flood Control facilities, then directly into the Santa Ana River. Because the discharges from the municipal storm drainage system can pollute the river, they are regulated by the RWQCB.

Along with the County of San Bernardino Flood Control District, the County of San Bernardino, and the other incorporated cities within San Bernardino County, the City of Fontana is a co-permittee for the Area-Wide Urban Storm Water Permit, issued by the RWQCB, pursuant to the National Pollutant Discharge Elimination System (NPDES) program under Section 402(p) of the federal Clean Water Act. This permit regulates urban runoff from areas under the jurisdiction of the permittees, including stormwater runoff, snowmelt runoff, and surface runoff and drainage that flows into the Santa Ana River and its tributaries.

To implement its obligations under the Area-Wide Urban Storm Water Permit, the City has adopted a Municipal Storm Water Management Plan (MSWMP), which consists of a variety of control measures, including prohibition or regulation of specific types of discharges, inspections, avoidance of sewage spills, public education, controls on new development and redevelopment, site maintenance practices, and construction site management practices.

All new construction projects involving a ground disturbance of at least one-acre in total area (as does the proposed project) must comply with the terms of the programmatic General Construction Permit issued by the RWQCB. This applies to private projects as well as projects undertaken by the City or other government entities. Specific construction site maintenance measures, spill prevention and response procedures, erosion control measures, etc., are required to be specified on a Storm Water Pollutant Prevention Plan (SWPPP) that must be approved prior to the issuance of a grading permit.

Before issuance of building permits, new development and redevelopment projects subject to the City's MSWMP restrictions are also required to submit and obtain approval of a Storm Water Quality Management Plan (SWQMP) that specifies the BMPs for water pollution control that are to be incorporated into the project design. Examples of common structural BMPs are control of runoff from impervious surfaces, efficient irrigation of common areas, and runoff minimization. Nonstructural BMPs include preparation and distribution of educational materials, restrictions on certain activities, and inspection of catch basins in common areas. To assist development applicants in preparing their SWQMPs, the City provides a list of approved structural and nonstructural BMPs.

The City regularly monitors its storm drain system to detect illegal or unwarranted discharges into the City system taking water and soil samples and making spot inspections. Fines may be imposed on businesses or individuals who discharge illegal substances into the storm drain system.

The measures specified in the SWQMP would reduce any potential operational water quality impacts to a level of insignificance. Because of this adherence to the SWPPP and SWQMP requirements, water quality is not expected to be significantly and adversely impacted by the proposed project. No violation of water quality standards or waste discharge requirements would occur.

3.8.3 Cumulative Impacts

3.8.3.1 Hydrology

The regional storm water drainage system is designed to accommodate the runoff generated from the areas it is designed to serve. Each of the related projects is required to limit the amount of runoff entering the regional drainage system so that it does not overload the system. The proposed project would reduce the amount of runoff currently flowing off-site. Therefore, a less-than-significant impact would occur.

3.8.3.2 Water Quality

Each of the related projects is required to obtain SWPPP and SWQMP permits. Obtaining these permits would reduce the potential for cumulative water quality impacts to less-than-significant levels.

3.8.4 Mitigation Measures

No mitigation measures are required for impacts related to hydrology and water quality.

3.8.5 Level of Significance After Mitigation

The proposed project would not result in a significant hydrology or water quality impact.

3.9 NOISE

3.9.1 Environmental Setting

3.9.1.1 Characteristics and Descriptions of Sound

Sound is a pressure wave transmitted through the air. It is described in terms of loudness or amplitude (measured in decibels), frequency or pitch (measured in hertz [Hz] or in cycles per second), and duration (measured in seconds or minutes). The standard unit of measurement of the loudness of sound is the decibel (dB).⁵⁰

The human ear is not equally sensitive to all frequencies. People with extremely sensitive hearing can hear sounds at a frequency as high as 20,000 Hz, but most people cannot hear sounds above 15,000 Hz. For everyone, hearing acuity falls off rapidly above 10,000 Hz and below 200 Hz. Sound waves below 16 Hz are not heard at all, but are “felt” more as a vibration.

Because the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale—the A-weighted decibel (dBA) scale—is usually used to relate measured sound to human sensitivity. The dBA scale achieves this compensation by discriminating against frequencies in a manner that approximates the sensitivity of the human ear.⁵¹

Noise is defined as unwanted sound, and can have adverse effects on people, ranging from annoyance, speech and sleep interference, and physiological responses, to hearing loss. Everyday sounds normally range from 30 dBA (very quiet) to 100 dBA (very loud). Noise levels are generally considered low when they are below 45 dBA, moderate in the 45-to 60-dBA ranges, and high when above 60 dBA. Examples of low daytime levels are isolated natural settings, such as the Grand Canyon (20 dBA), and quiet suburban residential streets (43 dBA).⁵² Examples of moderate level noise environments are urban residential and semi-commercial areas (55 dBA) and commercial locations (60 dBA). Although people often accept the higher levels associated with very noisy urban residential and residential-commercial zones (63 dBA), as well as those of industrial areas (65 to 70 dBA), these levels are nevertheless considered adverse noise levels.⁵³ Noise levels greater than 85 dBA can cause temporary or permanent hearing loss, even when experienced over short time periods.

To the human ear, a sound 10 dBA higher than another is judged to be twice as loud; 20 dBA higher is four times as loud; and so forth. Typically, the smallest change in sound levels that is detectable by human hearing under ambient conditions is 3 to 5 dBA. Changes of 1 to 3 dBA are detectable only under quiet, controlled conditions, and changes of less than 1 dBA are usually indiscernible.

Examples of various sound levels in different environments are shown in **Table 3-10** (Sound Levels and Human Response).

⁵⁰ U.S. Department of Transportation, *Highway Traffic Noise Analysis and Abatement Policy and Guidance*, June 1995.

⁵¹ Suter, Alice, *Noise and Its Effects*, November 1991.

⁵² The descriptor and decibel levels of noise sources in this discussion are typical of those that have been recorded in various studies, including that of the U.S. Environmental Protection Agency (USEPA), 1971, and of Beranak, 1971. Individual locations that match these descriptions can have different minimal decibel levels.

⁵³ U.S. Environmental Protection Agency, *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*, March 1974.

Table 3-10
SOUND LEVELS AND HUMAN RESPONSE

Noise Source	Noise Level (dBA)	Response
	150	
Carrier Jet Operation	140	Harmfully Loud
	130	Pain Threshold
Jet Takeoff (200ft.) Discotheque	120	
Unmuffled Motorcycle Auto Horn (3 ft.) Rock-and-Roll Band Riveting Machine	110	Physical Discomfort
Loud Power Mower Jet Takeoff (2,000 ft.) Garbage Truck	100	Very Annoying Hearing Damage (Steady 8-Hour Exposure)
Heavy Truck (50 ft.) Pneumatic Drill (50 ft.)	90	
Alarm Clock Freight Train (50 ft.) Vacuum Cleaner (10 ft.)	80	Annoying
Freeway Traffic (50 ft.)	70	Telephone Use Difficult
Dishwashers Air Conditioning Units (20 ft.)	60	Intrusive
Light Auto Traffic (100 ft.)	50	Quiet
Living Room Bedroom	40	
Library Soft Whisper (15 ft.)	30	Very Quiet
Broadcasting Studio	20	Just Audible
	10	Threshold of Hearing

Source: Melville C. Branch, R. Dale Beland et al., 1970, *Outdoor Noise in the Metropolitan Environment*, p. 2.

3.9.1.2 Noise Measurement Scales

Several rating scales (or noise “metrics”) exist to analyze adverse effects of noise (including traffic-generated noise) on a community. These scales include the equivalent noise level (Leq), the community noise equivalent level (CNEL), and the day/night noise level (Ldn). The noise levels are usually measured as dBA.

- Leq is a measurement of the sound energy level averaged over a defined time period (such as 1 minute, 15 minutes, 1 hour or 24 hours). Leq represents the amount of variable sound energy received by a receptor over a period of time in a single numerical value. For example,

a 1-hour Leq noise level measurement represents the average amount of acoustic energy that occurred in one hour. In fact, although all other metrics also represent the amount of variable sound energy received by a receptor over a time, they apply time-weighted factors and/or represent a specific measurement period.

- The CNEL noise metric, unlike the Leq metric, represents a specific (24-hour) noise measurement period. While a Leq measurement can be made of a 1-minute, 15-minute, 1-hour, or even a 24-hour period, the only CNEL measurement that can be generated is for a 24-hour period, and no other time period. CNEL also differs from Leq in that it applies a time-weighted factor designed to emphasize noise events that occur during the evening and nighttime hours (when noise-sensitive activities such as rest or sleep are of concern). Noise occurring during the daytime (7:00 a.m. to 7:00 p.m.) receives no penalty; noise produced during the evening (7:00 p.m. to 10:00 p.m.) is penalized by 5 dBA; and nighttime (10:00 p.m. to 7:00 a.m.) noise is penalized by 10 dBA.
- The Ldn noise metric is similar to the CNEL metric in that it represents a 24-hour period and applies similar time relevant penalties, however, it has a penalty only for nighttime, and no penalty for evening. The Ldn metrics yield approximately the same values (within 1 dBA) as do the CNEL metrics, but the CNEL is more restrictive.

3.9.1.3 Noise Sources and Receptors

Mobile Noise Sources. The primary motor vehicle noise sources are automobiles, trucks, buses, and motorcycles. The noise produced by these sources occurs mostly on roadways and may be loud enough to expose various land uses to excessive noise levels.

Stationary Noise Sources. Stationary noise sources within the project vicinity include air conditioners, swimming pool and spa equipment, stereo music equipment and amplifiers, children at play, and domestic animals from the nearby residential areas. The noise from these sources may occur as a single noise event, as short-term noise, or as long-term/continuous noise, but is very localized, as opposed to the more pervasive mobile sources of noise.

Sensitive Receptors. This noise analysis focuses primarily upon project impacts on sensitive noise receptors located near the project site or along roadways that would carry project-generated traffic. Such noise-sensitive land uses in the project area are single-family residences, multifamily residences, and schools.

3.9.1.4 Noise Environment in the Project Area

The proposed project site is currently vacant and undeveloped. Several other residential Specific Plan (SP) areas are in the vicinity. Immediately adjacent to the project site to the south are sites of the recently approved Citrus Heights South SP and a new high school. Directly west is one of the Westgate SP areas, which was recently revised to include the proposed Falcon Ridge Town Center commercial retail development. Two partially constructed and occupied SP areas are next to the southern corners of the site: the Summit Heights SP area is to the southwest, and the Sierra Lakes SP area is to the southeast. The properties directly north and east are vacant; although no specific uses have yet been proposed, most of the area is zoned for master-planned residential development.

The surrounding land uses contribute negligible amounts of noise, except for the construction site located southwest of Lytle Creek Road and Summit Avenue, from which noise from construction activities was audible during a site visit.

Ambient Noise Monitoring. Noise levels at four locations in the project area were monitored, and the results are shown in **Table 3-11** (Measured Noise Levels in Project Area). These current noise levels are acceptable for residential developments as defined by the *City of Fontana General Plan*.⁵⁴

Table 3-11
MEASURED NOISE LEVELS IN PROJECT AREA

Site	Time	Location ²	Measured Noise Level ¹ (dBA)			
			L_{eq}	L_{min}	L_{max}	L_{90}
1	1:50 – 2:30 p.m.	South of Summit Ave. and east of Lytle Creek Rd. (site of planned high school)	58.7	51.6	80.8	51.6
2	2:35 – 3:25 p.m.	East of Lytle Creek Rd. by the Three Mile Road right-of-way	55.4	51.6	73.0	51.6
3	3:30 – 3:50 p.m.	West of Citrus Avenue and south of Casa Grande Drive	51.7	51.6	61.7	51.6
4	3:55 – 4:35 p.m.	North of Summit Avenue, halfway between Citrus and Knox Avenues	58.7	51.6	84.0	51.6

1. Except for Location 3, each measurement is the average of two 20-minute measurements taken at the location.
2. Each location is 50 feet from the edge of the roadway.

Data are from noise monitoring conducted on September 9, 2003, by UltraSystems Environmental.

3.9.1.5 Existing Traffic Noise

Traffic Noise Modeling. Analysis of noise generated by the local roadways used peak-hour noise levels and was based on the traffic volumes provided in the *Traffic Impact Analysis for Citrus Heights North Specific Plan*.⁵⁵ For purposes of analysis, the greatest existing peak-hour traffic volume during the day (a.m. or p.m.) was used in modeling to determine the existing noise level on the local roadways. Vehicle speeds on each roadway were assumed to be the posted speed limit. Current roadway characteristics, such as number of lanes, width of roadways, incline of roadways, etc., were determined from field observations and photographs of the project site. As shown in **Table 3-12** (Existing CNEL Contour Distances in Project Area), the greatest noise levels in the project area, are experienced on Summit Avenue between Sierra Avenue and Lytle Creek Road. The existing noise levels on the roadways surrounding the project site are within acceptable levels for the proposed development.

3.9.1.6 Noise Standards and Ordinances

To limit population exposure to physically and/or psychologically damaging, as well as intrusive noise levels, the federal government, the State of California, and many local governments have established noise criteria, standards, and ordinances to protect public human health and safety and to control noise.

⁵⁴ *City of Fontana General Plan*, October 21, 2003, Chapter 12, Noise Element, p. 12-4

⁵⁵ LSA Associates, Inc., (Draft) *Traffic Impact Analysis, Citrus Heights North, City of Fontana*, prepared for Lewis Operating Corporation, July 22, 2003 (Appendix F of this EIR).

Table 3-12
EXISTING CNEL CONTOUR DISTANCES IN PROJECT AREA

Roadway	CNEL @ 100 ft.	Distance to Boundary of Noise Contour (feet)*		
		55-dBA-CNEL Contour	60-dBA-CNEL Contour	65-dBA-CNEL Contour
Citrus Avenue:				
Summit Avenue to Casa Grande Drive	49.2	26	8	3
Summit Avenue to Curtis Road	53.6	72	23	7
Summit Avenue:				
Citrus Avenue to Sierra Avenue	55.1	102	32	10
Citrus Avenue to Knox Avenue	53.6	73	23	7
Lytle Creek Road to Knox Avenue	52.0	50	16	5
Lytle Creek Road to Beech Avenue	50.8	38	12	4
Lytle Creek Road:				
Summit Avenue to Curtis Road	48.0	20	6	2
Summit Avenue to 3-Mile Right-of-Way	46.6	14	5	1

* Distances to CNEL contours given are from centerline of roadway.

Source: Ultrasystems Environmental Inc., 2003

Federal Government Standards

The U.S. Department of Housing and Urban Development (HUD) has set a goal of 45 dBA Ldn as a desirable maximum interior standard for residential units developed under HUD funding. While HUD does not specify acceptable exterior noise levels, standard construction of residential dwellings constructed under Title 24 typically provide 20 dBA of acoustical attenuation with the windows closed and 10 dBA with the windows open. Based on this assumption, the exterior Ldn or CNEL should not exceed 65 dBA under normal conditions.

State of California Standards

The California Department of Health Services (DHS) Office of Noise Control has studied the correlation of noise levels and their effects on various land uses (DHS no longer exists). The most current guidelines prepared by the State noise officer were issued in 1987 and are contained in the "General Plan Guidelines" issued by the Governor's Office of Planning and Research in 1990. These guidelines establish four categories for judging the severity of noise intrusion on specified land uses:

- Normally Acceptable: Is generally acceptable, with no mitigation necessary.
- Conditionally Acceptable: May require some mitigation, as established by a noise study.
- Normally Unacceptable: Requires substantial mitigation.
- Clearly Unacceptable: Probably cannot be mitigated to a less-than-significant level.

The types of land uses addressed by the State standards and the acceptable noise categories for each are presented in Table 3-13 (Land Use Compatibility for Community Noise Sources); there is some overlap between categories, which indicates that some judgment is required in determining the applicability of the numbers in every situation.

**Table 3-13
LAND USE COMPATIBILITY FOR COMMUNITY NOISE SOURCES**

Land Use Category	Noise Exposure (L_{dn} or CNEL, Db)					
	55	60	65	70	75	80
Residential – Low-Density Single-Family Homes, Duplex, Mobile Homes						
Residential – Multiple Family						
Transient Lodging – Motel, Hotels						
Schools, Libraries, Churches, Hospitals, Nursing Homes						
Auditorium, Concert Hall, Amphitheaters						
Sports Arena, Outdoor Spectator Sports						
Playgrounds, Neighborhood Parks						
Golf Courses, Riding Stables, Water Recreation, Cemeteries						
Office Buildings, Business Commercial and Professional						
Industrial, Manufacturing, Utilities, Agriculture						
      	NORMALLY ACCEPTABLE: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.					
      	CONDITIONALLY ACCEPTABLE: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.					
      	NORMALLY UNACCEPTABLE: New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.					
      	CLEARLY UNACCEPTABLE: New construction or development clearly should not be undertaken.					

Source: State of California, General Plan Guidelines, Office of Noise Control, Ellingworth & Rodkin, June 1990.

Residential Interior Standards. Title 24 of the California Administrative Code requires performing acoustical studies before constructing dwelling units in areas that exceed 60 dBA L_{dn} . Such studies are required to establish measures that limit interior noise to no more than 45 dBA L_{dn} and this level has been applied to many communities in California.

Local Standards

The noise guidelines of the City of Fontana are similar, though not identical, to those of the State. As shown in **Table 3-14** (City of Fontana Interior and Exterior Noise Standards), a noise level of less than 65 dBA CNEL is considered as normally acceptable for all developments. Levels between 65 and 70 dBA CNEL are acceptable for commercial and industrial uses. The noise levels considered by both the State and City are based on CNEL standards.

Table 3-14
CITY OF FONTANA INTERIOR AND EXTERIOR NOISE STANDARDS

Standard	Land Use	CNEL (dBA)
Interior Standards	Residential	45
	Commercial (hotels, motels, transient lodging)	45
	Institutional (hospitals, school classrooms, libraries, churches)	45
Exterior Standards	Residential	65*
	Commercial (hotels, motels, transient lodging)	70*
	Industrial	70

Source: City of Fontana, *General Plan*, September, 1997, Noise Element, p. 8-9

*Outdoor environment is limited to a private yard, patio, or balcony of a residence; the common areas of hotels and motels; hospital patios; park picnic areas; and school playgrounds.

3.9.2. Thresholds of Significance

A project is considered to have a significant noise impact when it causes an adopted noise standard to be exceeded for the project site or for adjacent sensitive receptors.

If noise levels currently exceed the applicable standards, such as the Fontana's 65 dBA CNEL for exterior noise in residential land uses, the noise impact of a project is determined by the extent of increase in noise level due to the project. As described in Section 3.9.1.1, a 5-dBA-CNEL increase in noise levels is considered a potentially significant impact, and a 10-dBA-CNEL increase in noise levels is a clearly significant impact.

3.9.3 Environmental Impact Analysis

3.9.3.1 Short-Term Construction Impacts

The proposed development project would involve the construction of 802 single-family and 425 high-density dwelling units, as well as a shopping center, community sports center, and public parkland. During the project construction phase, highly noticeable but temporary noise sources would be generated, principally from two sources: (a) noise from the transport of workers and equipment to and from the

construction site and (b) the noise made by construction activities. Construction activities occur in various steps, each of which involves different types of equipment with distinctive noise characteristics. These steps would alter the character of the noise levels surrounding the construction site as the project is developed. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow noise to be categorized according to three standard work phases: site preparation (e.g., grading and excavating), building erection, and finish work (such as asphalt paving), as discussed below.

Construction noise impacts of this project were estimated using the four-phase construction scenario (as anticipated by the project proponent) and the assumptions described in Section 3.3 (Environmental Analysis, Air Quality). The activities of each construction phase would use heavy-duty machinery and equipment, such as graders, scrapers, loaders, rollers, and pavers. Typical operating cycles of such equipment are one or two minutes of full-power operation, followed by three to four minutes at lower power. Noise levels at 50 feet from heavy-duty construction equipment typically range from 74 to over 100 dBA.

Table 3-15 (Noise Levels at Construction Sites) lists the loudest types of equipment generally operating at a construction site, the typical noise level each generates at a distance of 50 feet, and composite averages (equivalent site noise levels) of the noise from all equipment.

Table 3-15
NOISE LEVELS AT CONSTRUCTION SITES

Construction Step	Loudest Equipment	Noise Level at 50 feet (dBA)	
		Equipment	Composite
Site Preparation	Excavator	85	90
	Loader	85	
	Grader	85	
Building Erection	Crane	83	93
	Concrete Saw	90	
	Trucks, Dump	91	
	Other Equipment	85	
Asphalt Operations	Grader	85	91
	Paver	89	
	Roller	74	

In each phase of the project, construction activities would occur in several locations of the project site. For this analysis, the distance from the nearest receptor to the project site boundary was considered for each phase to estimate the noise emission levels. The planned Summit High School site immediately south of the project (across Summit Avenue), which is about 200 feet from the project site boundary, would be the nearest receptor.

Maximum construction noise levels projected at the nearest receptors from the project site are presented in **Table 3-16** (Project Construction Noise Levels at Nearest Receptors).

Table 3-16
PROJECT CONSTRUCTION NOISE LEVELS AT NEAREST RECEPTORS

Construction Step	Average Noise Level at Nearest Receptor at 200 feet (dBA)
Site Preparation – Phase 1	74
Building Erection – Phases 2, 3, and 4	77
Asphalt Operations – Phases 2, 3, and 4	75

These resulting estimated noise levels are conservative, because no attenuating mechanism is included in the analysis. Excessive noise levels resulting from construction activities generally would occur in the daytime hours. Construction noise would last the duration of construction, although it would be most noticeable during the initial months, when site grading and building construction activities are most intense. However, noise-sensitive receptors near the construction site (specifically, the Summit High School and residences south of the project site) would have the benefit of noise attenuation through distance, project perimeter walls, and/or vegetation.

The maximum noise levels during the loudest construction activities are projected to be between 74 dBA and 77 dBA at the nearest receptors (Summit High School and residences south of the site). This is above the local standard levels, so would be a potentially significant impact.

3.9.3.2 Long-Term Operational Impacts

Long-term noise impacts typically result from two types of sources, stationary and mobile sources. Project implementation would create stationary noise sources on the project site. These sources would include the typical residential stationary noise sources such as operation of power tools, vehicle maintenance, running air conditioners, and other activities. Typically, equipment noise is 55 dBA at 50 feet from the source. Typical design treatments such as acoustical shielding, orientation, baffles and/or enclosures are readily available if necessary. The potential impact from these sources was analyzed in terms of their proximity to the nearest sensitive receptor. The results of the analysis indicate that the noise levels generated by stationary sources would not result in significant impacts to nearby sensitive receptors. Additionally, noise impacts from stationary equipment are evaluated as part of the building permit process, and each project must demonstrate compliance with City noise standards. Compliance with City stationary noise requirements would reduce potential noise impacts to less than significant levels.

The principal cause of mobile noise sources in the project area would be vehicular traffic on local roadways.

Methodology

Traffic Noise Calculations. Noise levels estimated in this assessment were calculated using the Caltrans version of the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (RD-77-108), known as LEQV2. This model is the widely accepted method for estimating traffic noise impacts. The Caltrans/FHWA model determines a predicted noise level through a series of adjustments to a reference sound level. Adjustments are made by the model to account for traffic flows, varying distances from the roadway, finite length roadways and shielding. To compute the “equivalent noise level” during typical daytime, evening, and nighttime hours, a series of parameters are input into the model, such as average daily traffic volumes, roadway geometry, and vehicle speed and mix, for each roadway link analyzed. Weighting these noise levels and logarithmically summing them results in a 24-hour combined CNEL.

Traffic Scenarios. The proposed project, which is scheduled for completion in 2010, would consist of multiple scenarios of increasing traffic intensity subsequently resulting in increased noise levels. The project analysis scenarios are described below.

- Existing. This scenario refers to the existing, present-day noise conditions, without construction of the proposed project, based on traffic count data for 2003 found in the traffic analysis.
- Opening Year Without Project. This scenario refers to the future noise conditions without construction of the proposed project, based on traffic count data for 2007⁵⁶ found in the traffic analysis.
- Opening Year With Project. This scenario refers to noise conditions generated after the development of the proposed project during 2007.
- Year 2025 Without Project. This scenario refers to noise conditions generated during 2025. Additionally, it includes the assumption that although greater numbers of vehicles are anticipated on the surrounding roadways, no roadway right-of-ways are anticipated to significantly change between the present and year 2025.
- Year 2025 With Project. This scenario refers to same assumptions found in 2025 Without Project scenario, but includes noise conditions generated from the proposed project and modifications to rights-of-way as proposed in the Citrus Heights North Specific Plan.

For purposes of analysis, the greatest existing peak-hour volume, a.m. or p.m. was used to determine the existing noise levels. Vehicle speeds on each roadway were assumed to be the posted speed limit. Current roadway characteristics, such as the number of lanes and roadway inclines, were determined from field observations and photographs of the project site.

The reduction in noise levels due the atmosphere and hard ground surface (the drop-off rate) is three decibels per doubling of distance. This means that if the current decibel reading were 66 dBA at 50 feet from the noise source, at 100 feet the drop off rate would result in a reading of 63 dBA and at 200 feet the drop off rate would yield a 60-dBA-noise level.

Impacts

Project Opening Year (2007). Table 3-17 (Estimated Change in Noise Levels Due to Project [Opening Year]) indicates the estimated change in noise levels 50 feet from the centerline of the local roadways.

⁵⁶ The noise impact analysis is based on the traffic impact analysis, as presented in Section 3.13 of this document. As indicated in that section, at the time of preparation of the *Traffic Impact Analysis* (Appendix F) by LSA Associates (July 22, 2003), it was projected that the Citrus Heights North Specific Plan would be completed by 2007. However, the construction schedule was changed such that the project is now expected to be completed at the beginning of 2010. Because the project area is mostly undeveloped vacant land, it is assumed that the base year traffic data and, therefore, the predicted project impact would not be considerably different and so would not affect the impact assessment in this EIR.

Table 3-17
ESTIMATED CHANGE IN NOISE LEVELS DUE TO PROJECT (OPENING YEAR)

Street	Segment	Noise Level (dBA)		
		2007	Without Project	With Project
Lytle Creek Road	Curtis Avenue to Summit Avenue	52.4	56.1	3.7
Lytle Creek Road	Summit Avenue to Three-Mile Road RW	44.5	52.6	8.1
Summit Avenue	Beech Avenue to Lytle Creek Road	62.8	65.0	2.2
Summit Avenue	Lytle Creek Road to Knox Avenue	59.9	64.1	4.2
Summit Avenue	Knox Avenue to Citrus Avenue	61.8	65.0	3.2
Summit Avenue	Citrus Avenue to Sierra Avenue	62.6	65.0	2.4
Citrus Avenue	Curtis Avenue to Summit Avenue	61.9	64.3	2.4
Citrus Avenue	Summit Avenue to Casa Grande Drive	51.7	55.5	3.8
Citrus Avenue	Casa Grande Drive to Duncan Canyon Road	53.3	59.8	6.5
Knox Avenue	Curtis Avenue to Summit Avenue	43.2	53.0	9.8
Knox Avenue	Summit Avenue to project internal intersection	43.2	57.0	13.8

As indicated in **Table 3-17**, the proposed project would increase traffic noise levels on local roadways over the existing traffic noise levels. The most significant increases, those that would result in an increase of 3 dBA or greater, would occur along Lytle Creek Road, Citrus Avenue and Knox Avenue. Noise level increases along the future location of Knox Avenue would be the greatest as there is currently no traffic or roadway. However, noise levels along proposed Knox Avenue, as well as other segments, would not exceed the applicable threshold of 65 dBA CNEL for residential developments and is thus considered insignificant. As a result, the proposed project would have a less-than-significant impact on noise levels in the opening year.

2025 Without Project. Noise modeling was also conducted using the 2025 traffic projections contained in the LSA *Traffic Impact Analysis*. It was assumed that the 2025 roadways in the project area would retain essentially the same configuration as in 2007 and the same speed limits. As indicated in **Table 3-18** (Estimated Change in Noise Levels Due to Ambient Growth [2025]), based on the traffic volumes and this assumption, the future condition without the proposed project would result in noticeable and potentially significant increase in noise levels (over 65 dBA) along Summit Avenue between Lytle Creek Road and Knox Avenue in the project area.

Table 3-18
ESTIMATED CHANGE IN NOISE LEVELS DUE TO AMBIENT GROWTH (2025)

Street	Segment	Noise Level (dBA)		
		2007 Without Project	2025 Without Project	Net Increase
Lytle Creek Road	Curtis Avenue to Summit Avenue	52.4	58.5	6.1
Lytle Creek Road	Summit Avenue to Three-Mile Road RW	44.5	53.6	9.1
Summit Avenue	Beech Avenue to Lytle Creek Road	62.8	64.9	2.1
Summit Avenue	Lytle Creek Road to Knox Avenue	59.9	66.2	6.3
Summit Avenue	Knox Avenue to Citrus Avenue	61.8	65.1	3.3
Summit Avenue	Citrus Avenue to Sierra Avenue	62.6	63.6	1.0
Citrus Avenue	Curtis Avenue to Summit Avenue	61.9	63.0	1.1
Citrus Avenue	Summit Avenue to Casa Grande Drive	51.7	54.7	3.0
Citrus Avenue	Casa Grande Drive to Duncan Canyon Road	53.3	59.6	6.3
Knox Avenue	Curtis Avenue to Summit Avenue	43.2	49.5	6.3
Knox Avenue	Summit Avenue to project internal intersection	43.2	50.2	7.0

3.9.4 Cumulative Impacts

2025 With Project. Cumulative noise modeling was conducted for the future condition with the proposed project and the results are presented in **Table 3-19** (Estimated Change in Noise Levels Due to Project [2025]). As indicated in this table, the proposed project would result in an increase of over 5 dBA CNEL along the entire length of the future right-of-way of Knox Avenue. However, at these locations, the predicted noise level would not exceed the noise level thresholds for residential developments of 65 dBA CNEL.

As a result, the proposed project would not result in a significant cumulative noise impact.

Table 3-19
ESTIMATED CHANGE IN NOISE LEVELS DUE TO PROJECT (2025)

Street	Segment	Noise Level (dBA)		
		2025	Without Project	With Project
Lytle Creek Road	Curtis Avenue to Summit Avenue	58.5	59.7	1.2
Lytle Creek Road	Summit Avenue to Three Mile Road ROW	53.6	54.9	1.3
Summit Avenue	Beech Avenue to Lytle Creek Road	64.9	66.5	1.6
Summit Avenue	Lytle Creek Road to Knox Avenue	66.2	67.6	1.4
Summit Avenue	Knox Avenue to Citrus Avenue	65.1	66.9	1.8
Summit Avenue	Citrus Avenue to Sierra Avenue	63.6	64.6	1.0
Citrus Avenue	Curtis Avenue to Summit Avenue	63.0	65.9	2.9
Citrus Avenue	Summit Avenue to Casa Grande Drive	54.7	57.1	2.4
Citrus Avenue	Casa Grande Drive to Duncan Canyon Road	59.6	61.8	2.2
Knox Avenue	Curtis Avenue to Summit Avenue	49.5	59.6	10.1
Knox Avenue	Summit Avenue to project internal intersection	50.2	58.8	8.6

3.9.5 Mitigation Measures

3.9.5.1 Short Term Construction Impacts

The following mitigation measures would be required to reduce noise emissions from construction activities:

- N-1 Construction activities shall comply with §18-63 (9) of the Fontana Municipal Code, which states that construction noise is limited to weekdays, between 7:00 A.M. and 6:00 P.M.
- N-2 All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers.
- N-3 Stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.
- N-4 Stockpiling and vehicle-staging areas shall be located as far as practical from noise-sensitive receptors during construction activities.
- N-5 When necessary, use temporary sound barriers to reduce the impact of construction noise.

3.9.5.2 Long Term Operational Impacts

No mitigation would be required.

3.9.5.3 Long Term Cumulative Impacts

No mitigation would be required.

3.9.6 Level of Significance After Mitigation

Mitigation for Short-Term (Construction) Noise Impacts

With the incorporation of the mitigation measures, the short-term (construction) noise impacts due to the proposed project would be reduced to less-than-significant levels.

Operational Noise Impacts

The proposed project would not result in significant adverse noise impacts during the operational phases of the project.

3.10 POPULATION AND HOUSING

Housing Element of General Plan. Although the City of Fontana adopted an updated *General Plan* on October 21, 2003, the General Plan's Housing Element has not yet been finally approved by the State. The City has received State comments on its initial draft (August 2004), revised it, and has resubmitted it (on January 30, 2004) to the State for final approval. Although the City does not expect the State to make any material changes in the revised draft Housing Element, the Housing Element of the previous (1990) *General Plan* is technically still in effect.

The housing analysis in this section relies upon the other elements of the updated *General Plan* and current information available from other sources, as cited in this Section 3.10.

3.10.1 Environmental Setting

The project site is in the City of Fontana, the County of San Bernardino, and the planning area of the Southern California Association of Governments (SCAG). The SCAG region includes the counties of San Bernardino, Los Angeles, Ventura, Riverside, Orange, and Imperial. Most of the project site is currently vacant and sparsely vegetated, mostly with non-native grasslands. A modest single-family residence and some landscaping trees are located near the southwestern corner of the project site (at 15842 Curtis Avenue); this residence constitutes the only major building on the site. There are two utility easements that bisect the project site. A 450-foot wide power transmission lines/towers easement traverses the project site in a northeast-southwest corridor, and a second utility easement traverses the project site in an east to west direction.

3.10.1.1 Population

Current Population. According to city and county population and housing estimates of the California Department of Finance (DOF), as of January 01, 2003, the City of Fontana has a population of 145,770 and the County of San Bernardino has 1,832,966 people. SCAG estimates the population in its region to be 17,439,156 in 2003.⁵⁷ Population data for the County as a whole, its 24 incorporated cities, and its unincorporated area are shown in **Table 3-20** (Current Population and Population Growth Rates [San Bernardino County]).

Forecast Population Growth. In the most recent year for which data have been compiled (from January 1, 2002, to January 1, 2003), the City population grew 4.3%, which is almost twice as much as the County growth of 2.5%.⁵⁸ From 1990 to 2003 (based on SCAG data), the County population grew 29%, and that of the SCAG region, 19%. The DOF future projections for San Bernardino County population anticipate continued growth, as shown in **Table 3-21** (Projected Population Growth [San Bernardino County]).

⁵⁷ Southern California Association of Governments (SCAG), *Draft 2004 Regional Transportation Plan Program Environment Impact Report (RTP PEIR)*, December 2003.

⁵⁸ California State Department of Finance (DOF), Demographic Research Unit, *E-1: City/County Population Estimates with Annual Percent Change – January 1, 2002 and 2003*, no date.

Table 3-20
CURRENT POPULATION AND POPULATION GROWTH RATES
(SAN BERNARDINO COUNTY)

<i>Area</i>	<i>Total Population</i>	<i>Population Change (%)</i>
1-1-02	1-1-03	
<i><u>Incorporated Cities:</u></i>		
Adelanto	18,750	19,400
Apple Valley	57,100	58,900
Barstow	22,400	23,000
Big Bear Lake	5,725	5,875
Chino	69,100	70,700
Chino Hills	71,300	73,000
Colton	49,350	50,200
Fontana	139,800	145,800
Grand Terrace	12,000	12,100
Hesperia	65,500	67,800
Highland	46,000	47,400
Loma Linda	19,750	20,150
Montclair	34,050	34,300
Needles	5,150	5,225
Ontario	163,100	165,700
Rancho Cucamonga	137,800	146,700
Redlands	66,300	67,600
Rialto	95,300	96,600
San Bernardino	191,400	194,100
Twentynine Palms	25,600	25,150
Upland	70,900	71,800
Victorville	69,700	72,500
Yucaipa	43,750	45,400
Yucca Valley	17,550	17,950
Unincorporated Area	291,300	295,700
San Bernardino County	1,788,500	1,833,000

Source: California State Department of Finance (DOF), Demographic Research Unit, *E-1: City/County Population Estimates with Annual Percent Change – January 1, 2002 and 2003*, undated, for San Bernardino County.

Table 3-21
PROJECTED POPULATION GROWTH (SAN BERNARDINO COUNTY)

<i>Month and Year</i>	<i>Population Projection</i>	<i>Growth (from 1-1-03)</i>
July 2005	1,980,000	147,000 (08.0%)
July 2010	2,231,600	398,600 (21.7%)
July 2015	2,487,700	654,700 (35.7%)
July 2020	2,800,900	967,900 (52.8%)

Source: DOF, Demographic Research Unit, *Interim County Population Projections: California*, June 2001, for San Bernardino County.

3.10.1.2 Housing

The DOF estimates that there are (as of January 1, 2003) 39,205 housing units in the City, and that the vacancy rate is 5.27%. This rate of vacancy is low compared to 12% for the County for this same time period, with a projected 621,964 housing units. The average household size in Fontana is estimated to be 3.93 persons, which is higher than the County estimate of 3.263. The need for housing will continue because of the continuing population growth in the area and the demolition of existing units. Based on DOF 2020 population projections and the current 2003 estimate of average household size, San Bernardino County will need 858,382 housing units by the year 2020—an additional 236,400 homes.

⁵⁹Table 3-2 in the City's General Plan describes the "Land Use Statistical Summary: Residential Designations." Within this table it is forecasted that the total number of residential units that could be constructed in the City is 55,986. This number includes 29,750 dwelling units within "residential planned communities."

3.10.2 Environmental Impact Analysis

3.10.2.1 Thresholds of Significance

The criteria used to determine the significance of a population and housing impact are based on Appendix G of the *State CEQA Guidelines*. The proposed project would have a significant environmental impact if it were to:

- Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure); or
- Displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere.

3.10.2.2 Project Impacts

Population

The development of the project site would result in a population increase of due to the construction of 1,227 residential dwelling units. Based on an average household size of 3.93 persons per household, the proposed project would add an estimated 4,822 persons to the City's population upon project buildout. The project would thus increase the City's 2003 estimated population (145,770 persons⁶⁰) by approximately 3.3%.

The proposed Citrus Heights North Specific Plan project is consistent with the City's 2003 General Plan and zoning, which plan for a residential "buildout" population of 215,001 persons within the City.⁶¹ The proposed project's estimated 4,822 persons would constitute about 2.2% of this ultimate population. Although population growth would occur as a result of implementing the proposed project, this growth is in accordance with the long-range comprehensive planning to implement the City's standards for orderly growth. Therefore, a less-than-significant impact would occur.

Housing

The one existing single-family housing unit currently on the project site would be maintained within the design of the proposed project. The proposed project would increase the number of residential dwelling

⁵⁹ Table 3-2 (Land Use Statistical Summary: Residential Designations), City of Fontana General Plan, October 2003, Page 3-25.

⁶⁰ *Ibid.*, Chapter 1, Introduction, p. 1-2.

⁶¹ *Ibid.*, Chapter 3, Land Use Element, p. 3-27.

units in the City as shown in **Table 2-1** (Proposed Land Uses) in Section 2 (Project Description) of this document. The proposed project provides single-family homes on lots varying between 4,200 and 10,000 square feet, as well as multi-family dwelling units. The variety of housing types would be consistent with the City of Fontana's Housing Goal #5.1,⁶² to provide a wide range of housing to meet the needs of Fontana residents. Therefore, no impact would occur.

3.10.3 Cumulative Impacts

Table 3-22 (Related Projects [Residential Specific Plans and Community Plans in Fontana]) lists related residential projects that have been approved by the City of Fontana, as required by §15130 of the *State CEQA Guidelines*. A residential Specific Plan area is at least 160 acres in size, whereas a Community Plan area is smaller than 160 acres.

The proposed project would comply with the City's 2003 *General Plan* population and housing goals and policies. Although the proposed project would contribute to an increase in population and housing in the City of Fontana and San Bernardino County, this increase would not be significant within the context of the total city-wide or regional growth, and does not represent a significant impact.

3.10.4 Mitigation Measures

No mitigation measures would be required for project effects on population and housing.

3.10.5 Level of Significance After Mitigation

The proposed project would not result in a significant population and housing impact.

⁶² *City of Fontana General Plan*, October 21, 2003, Chapter 2, Executive Summary, p. 2.5

Table 3-22
RELATED PROJECTS
(RESIDENTIAL SPECIFIC PLANS AND COMMUNITY PLANS IN FONTANA)

<i>Specific or Community Plan</i> ¹	<i>Dwelling Units</i> ²	<i>Status</i> ³
Bellgrove II Community Plan	368	Approved
California Landings Specific Plan	~791	Adopted
Centerstone Community Plan	75	Approved
Citrus Heights (South) Specific Plan	495	Adopted
Coyote Canyon Specific Plan	660	Adopted
Fontana Grandview Community Plan	157	Approved
Fontana Star Community Plan	111	Approved
Hunter's Ridge Specific Plan	1,793	Adopted
Morningside Community Plan	~422	Approved
Northgate Specific Plan	500	Adopted
Rancho Fontana Specific Plan	2,395	Adopted
Sierra Lakes Specific Plan	2,100	Adopted
South Park Specific Plan	366	Adopted
Southridge Village Specific Plan	8,800	Adopted
Summit Heights Specific Plan	~974	Adopted
Walnut Village Specific Plan	1,644	Adopted
West End Specific Plan	3,752	Adopted
Westgate Specific Plan	2,505	Adopted
Total	27,908	---

1. *City of Fontana General Plan*, Oct. 21, 2003, Ch. 3, Land Use Element, pp. 3-4, -5.

2. Although the City has approved or adopted a residential plan based on an estimated number of dwelling units, the numbers may change during final project design, but will not be substantially different.

3. City approval is sufficient for Community Plans to be implemented, but Specific Plans require City adoption.

Source: City of Fontana, Orlando Hernandez (Senior Planner), February 19, 2004.

3.11 PUBLIC SERVICES

This section describes the current levels of service (based on the most recently available data supplied by public agencies and other service providers) and addresses potential project impacts on future demand for:

- Public schools
- Police protection and emergency services
- Fire protection and emergency services
- Public libraries

This discussion is based, in the most part, on data and information supplied by the providers of these public services as well as by the City of Fontana General Plan.⁶³

Impacts on other public services are discussed in Section 3.12 (Recreation), including public parks, and Section 3.13 (Public Utilities and Service Systems).

3.11.1 Environmental Setting

Currently, the City of Fontana, the County of San Bernardino, the Fontana Unified School District, and various public and private healthcare providers provide public services to the project area.

3.11.1.1 *Public Schools*⁶⁴

Facilities

Almost every school in Fontana is at or above capacity, and the City's current population growth rate is high. Although Fontana is served by several school districts, all of the proposed project site is located within the service area of the Fontana Unified School District (FUSD). The FUSD schools currently serving and planned to serve the project area are described in **Table 3-23** (Public Schools Serving the Project Site). To help fund additional school capacity to accommodate new residents, the FUSD assesses all residential developments a fee of \$5.69 per square foot of housing.

City of Fontana General Plan⁶⁵

The Public Facilities, Services, and Infrastructure Element (Chapter 8) of the General Plan contains the following goal related to public schools:

Goal #1. School Capacity and Enrollment: High-quality schools with adequate physical capacity are provided in all areas of our City.

⁶³ *City of Fontana General Plan*, October 21, 2003, Chapter 8, Public Facilities, Services, and Infrastructure Element.

⁶⁴ Fontana Unified School District, Diane Mendez (Facilities Planning Assistant), January 5-7, 2004.

⁶⁵ As updated on October 21, 2003.

Table 3-23
PUBLIC SCHOOLS SERVING THE PROJECT SITE

School	Address (in Fontana)	Approximate Distance from Project	Status (Existing or Planned Opening Date)	Number of Students	
				Current	Capacity
Sierra Lakes Elementary	5740 Avenal Place	(adjacent)	Existing	604	615
Almeria Middle	7723 Almeria Ave.	4½ miles	Existing	1,616	1,991
Wayne Ruble Middle	6762 Juniper Ave.	2½ miles	Aug. 2004	—	1,300
A.B. Miller High	6921 Oleander Ave.	2½ miles	Existing	3,584	3,768
Summit High ¹	15551 Summit Ave.	(adjacent)	Sept. 2005	—	2,800

1. City of Fontana General Plan, October 21, 2003, Figure 8-1, misidentifies this facility as "Citrus" High School.

Source of all information except distances: Fontana Unified School District, Diane Mendez (Facilities Planning Assistant), January 5-7, 2004

3.11.1.2 Police Protection⁶⁶

Facilities

The City of Fontana Police Department's (FPD) station is located at 17005 Upland Avenue, which is 6 miles southeast of the project site. This facility currently serves the City's 145,770 residents, and is adequate to serve 160,000 residents. The FPD station is supported by a "contact station" in the southwestern portion of the City, in Fire Station 74, which is staffed by volunteers or non-sworn personnel (records clerks). Construction of a second contact station, to serve northern and western Fontana from Kohl's Center, is expected to be completed May 2004; this station will be at 14940 Summit Avenue, about ¼ mile west of the project site.⁶⁷

Services

Response Times. The FPD's average emergency response times currently are about 11 minutes for Priority 1 calls (violent crimes in progress) and about 14 minutes for Priority 2 calls (property crimes in progress and reports of violent crimes).

Staffing. The FPD currently has authorized 147 sworn positions (of which 146 are currently filled) and 64 non-sworn positions (of which 60 are currently filled); these staffing levels will remain in effect through 2003-2004. The updated Fontana General Plan (October 21, 2003) states that the City's police protection standard and goal, based on its law enforcement needs, is 1.4 sworn officers per 1,000 residents; however, the current ratio is 1.0 per 1,000 residents, which is below this standard.

⁶⁶ Fontana Police Department (FPD), Larry Clark (Deputy Chief of Police), December 17, 2003; FPD website (www.fontana.org/police), as updated on October 24, 2003, and accessed on December 10, 2003; and City of Fontana General Plan, October 21, 2003, Chapter 8, Public Facilities, Services, and Infrastructure Element, p. 8-9.

⁶⁷ Fontana Police Department, Dawn Rowe (Community Policing Technician, Special Operations), February 25, 2004.

City of Fontana General Plan

The Public Facilities, Services, and Infrastructure Element (Chapter 8) of the City of Fontana General Plan contains the following goal related to police protection services:

Goal #2. Our law enforcement... services meet our population's public safety needs and contribute to a sense of safety and high quality of life in our community.

3.11.1.3 Fire Protection⁶⁸

The Central Valley Division of the San Bernardino County Fire Department (SBCFD) services the City of Fontana. This Division serves 572 square miles and a population of 155,850 persons with eight fire stations, of which seven are in or adjacent to the City of Fontana; three new fire stations are planned, of which two will serve Fontana.

Facilities

The SBCFD facility nearest to the project site is Station 78, at 7110 Citrus Avenue (just north of Baseline Avenue), about 2 miles south of the project site. This station serves the northern area of Fontana, including Walnut Village, Sierra Lakes, Hunter's Ridge and the new 210 Freeway. Staff and facilities from the other nearby stations provide backup services to Station 78 as needed. One of the new fire station is planned to open in two to three years at Duncan Canyon Road and Lytle Creek Road (about a mile north of the project site), and would take over servicing the project area from Station 78.

Services

Station 78 provides a comprehensive range of services, related to residential structure fires; vehicle, trash, and miscellaneous fires; wildland fires; rescues and hazardous material spills; and medical aid and paramedic service. The staffing and equipment of the new fire station at Lytle Creek Road and Duncan Canyon Road are anticipated to be similar in scope and capabilities to those of Station 78. The current average response time to the project site is estimated by the SBCFD to be approximately five minutes.⁶⁹ However, this time will be reduced to two to three minutes when the new station opens.

Fire Flows. Fire flows are determinations of the amount of water needed in any part of a development to adequately fight fires. To provide sufficient fire protection, residential and commercial developments must establish sufficient fire flows. The fire flow guidelines are based on factors such as the type of construction, type of development, structure separation distances, and nature of site vegetation. The SBCFD requires that project proponents submit evidence that the infrastructure of the project will be sufficient to provide the project with fire protection and emergency services.

Service Rating.⁷⁰ The ability of the SBCFD to suppress fires is rated by the Insurance Service Office (ISO), based on evaluation of water supply, equipment, personnel, and alarm and paging systems. On the ISO ten-point scale (with one being the best rating), the current rating for service in Fontana is three. When the two new Fontana fire stations are opened, the ISO rating could improve to a rating of two.

⁶⁸ San Bernardino County Fire Department, SBCFD website (www.sbcfire.org), accessed on December 11, 2003, and January 6, 2004; *City of Fontana General Plan*, October 21, 2003, Chapter 8, pp. 8-9; and San Bernardino County Fire Department, Doug Crawford (Planning and Engineering Supervisor), March 4, 2004.

⁶⁹ *City of Fontana General Plan*, October 21, 2003, Chapter 8, Public Facilities, Services, and Infrastructure, p. 8-9.

⁷⁰ *Ibid.*

City of Fontana General Plan

The Public Facilities, Services, and Infrastructure Element (Chapter 8) of the City of Fontana General Plan contains the following goal related to fire protection services:

Goal #2. Our... fire protection services meet our population's public safety needs and contribute to a sense of safety and high quality of life in our community.

3.1.1.4 Public Libraries⁷¹

Facilities

Existing Facilities. The Fontana Library, a branch of the San Bernardino County Library System, would serve the proposed project. The library facility is located near the Civic Center (at 16860 Valencia Street), about 3½ miles from the project site. The library has about 13,000 square feet of space and is often overcrowded. Currently, it falls short of reaching the national minimum standard of two books per capita. Three other County branch libraries are within 8 miles of the project site: Rialto, Bloomington, and Kaiser (a part-time facility at Kaiser High School in southern Fontana).

Planned Facilities. The rate of recent and projected growth in the Fontana area is high, with a population of 215,937 projected in 2021 for the Fontana Library service area. In response, replacement of the Fontana Library in 2005 with a 95,000-square-foot Resource Center has been approved as a "Tier 1, First Priority" in the *Library Facilities Master Plan*. This major facility would be the Reference Center for the County Library System, and would have approximately 323,500 catalog items, including in-depth resources and special collections, special services, and ancillary amenities. Replacement of the Fontana Library with the Resource Center will increase the City's library square footage almost five-fold, from 0.10 square foot per person to 0.48. The *Master Plan* also recommends (as a "Tier 2, Second Priority") construction of an 8,500-square-foot facility in northern Fontana or Rialto. The City is exploring funding sources for such additional library services, including developer impact fees.

Services

The Fontana Library is open daily. Library staff and volunteers operate the library and its programs, which include lending, information, free Internet access, special youth programs and literature, bookmobiles, books by mail, interlibrary loans, and library literacy. The opening of the much larger Resource Center (planned for 2005) and its role as a major library reference center would greatly enhance and expand the library services in Fontana, as well as relieve overcrowding.

City of Fontana General Plan

The Public Facilities, Services, and Infrastructure Element (Chapter 8) of the City of Fontana General Plan contains the following goals related to library services:

Goal #3. Our new civic center campus, along with the new Fontana library, fulfills its vision as a multi-use community focal point, providing civic, educational, entertainment and cultural uses.

The City also requires that the project applicant pay a Library Facility Fee, based on the size and nature of the project or as negotiated with the City, to offset and compensate for project impacts on the City's library staff, services, and facilities.

⁷¹ *City of Fontana General Plan*, October 21, 2003, Chapter 8, Public Facilities, Services, and Infrastructure Element, pp. 8-10; San Bernardino County Library Master Facilities Plan, December 2001, pp. 81-83, accessed via website (www.sbccounty.gov/library/facilities/main.htm), January 7, 2003.

3.11.2 Environmental Impact Analysis

3.11.2.1 Thresholds of Significance

Determination of the significance of a public services impact is based on Appendix G of the *State CEQA Guidelines*. The proposed project would have a significant environmental impact if it were to:

- Have an effect upon, or result in a need for, new or altered government services for schools, police and fire protection, and other public facilities (libraries and hospitals).

3.11.2.2 Project Impacts

Public Schools⁷²

School Capacity. The project would generate additional student enrollments. **Table 3-24** (Students Generated by the Project) is based on the number of anticipated households in the proposed project and the student generation factors provided by the Fontana Unified School District (FUSD).

Table 3-24
STUDENTS GENERATED BY THE PROJECT

School Level	Student Generation Rate (per Dwelling Unit)¹	Projected Number of Project-Generated Students²
Elementary School	0.66	810
Middle School	0.30	368
High School	0.30	368
Totals, All Grades	1.26	1,546

1. Fontana Unified School District, Diane Mendez (Assistant, Facilities Planning), January 5, 2004.

2. Based on the proposed project's 1,227 dwelling units (802 single-family units and 425 multifamily units).

Although the schools currently serving the project area (Sierra Lakes Elementary School, Almeria Middle School, and A.B. Miller High School) are either at or near their physical capacity, increases in student population due to the urbanization of the northern portion of Fontana have been anticipated and are being planned for by the FUSD.

Two planned new schools that will serve the project area will likely open before the residential portions of the project are occupied: Wayne Ruble Middle School (with a 1,300-student capacity) in 2004 and Summit High School (with a 2,800-student capacity) in 2005. These schools would provide adequate capacity to serve the projected 736 additional middle- and high-school students generated by the project.

However, addition of the project's 810 elementary students would exceed the current capacity of Sierra Lakes Elementary School (615 students). The FUSD is identifying sites for new elementary schools, but has not yet acquired a site(s). Adding portable classrooms to the existing school, and/or redrawing school service boundaries to redistribute the student load could accommodate the additional elementary students generated by the project.

City of Fontana General Plan. It is the goal of the City to provide high-quality schools with adequate physical capacity are provided in all areas of the City. Students generated from the proposed project would attend FUSD schools. There will be available capacity at the new middle and high school for

⁷² Fontana Unified School District (FUSD), Diane Mendez (Assistant, Facilities Planning), January 5 and 6, 2004.

project-generated students. However, a new elementary school would be required, and is being planned for in the project area. Therefore, a significant impact would occur.

Police Protection

Additional Police Service. The project's addition of residents and commercial facilities might generate the need for additional services from the FPD, and so require additional staffing. The project is expected to add 4,288 residents to Fontana, and 9 gross acres of neighborhood shops and restaurants. According to the FPD, every 1,000 additional residents generate an average of 612 additional service calls per year.⁷³ Based on this factor, the proposed project would generate more than 2,600 additional service calls per year. Additional service calls would be required to serve the commercial portion of the project, but the volume cannot be estimated.

Using the current ratio of officers to residents (0.99 per 1,000 residents) and an estimated project population of 4,288 residents, the proposed project would result in a need for an additional four to five sworn officers; using the higher standard ratio in the updated General Plan (1.4 per resident), the need would be for six additional officers. The City of Fontana is committed to maintaining adequate police response times.⁷⁴ The project's additional residents and facilities would have a significant impact related to police protection and emergency services.

City of Fontana General Plan. It is the goal of the City to provide law enforcement services that meet the City's population public safety needs, and contribute to a sense of safety and high quality of life in the community. The proposed project would be a gated community to ensure the safety of the residents. Therefore, a less-than-significant impact would occur.

Fire Protection⁷⁵

Fire Flow. Fire flow is not currently available on the project site. The San Bernardino County Fire Planning and Engineering Department would determine the fire flow requirements for the specific development and supporting infrastructures in the *Citrus Heights North Specific Plan* development area. The proposed project would be required to install water lines that provide the appropriate fire flows to the satisfaction of the SBCFD. Therefore, no impact would occur.

Emergency Access. The *Uniform Fire Code*⁷⁶ establishes the following emergency access requirements that apply to the proposed project. Vertical clearance of 13 feet 6 inches and roadway width of 20 feet for emergency vehicles must be provided, and public access requirements cannot be supplanted. Fire accessways longer than 150 feet must have a turning radius of at least 45 feet. Roads shall be designed to tolerate the weight of emergency vehicles and have all-weather surfacing. The final site design would integrate access requirements consistent with the *Uniform Fire Code* and input from the SBCFD. The roadway improvements and internal circulation design requirements specified in the *Citrus Heights North Specific Plan* provide for proper emergency access regarding vertical clearance, roadway width, and turning radius at cul-de-sacs. Therefore, a less-than-significant impact would occur.

Additional Fire Protection Service. The proposed residential development would generate additional need for fire protection from the SBCFD station serving the City. At present, Station 78 has the capacity to service the proposed project, and neither the current fire response time of five minutes nor the projected

⁷³ Fontana Police Department (FPD): Larry Clark (Deputy Chief of Police), December 17, 2003; Dawn Rowe (Special Operations, Communications Policing Technician), January 7 and 28, 2004; and www.fontang.org/police, as updated on October 24, 2003.

⁷⁴ *City of Fontana General Plan*, October 21, 2003, p. 8-27.

⁷⁵ San Bernardino County Fire Department, Doug Crawford (Planning and Engineering Supervisor), March 4, 2004.

⁷⁶ Uniform Fire Code, published by the Western Fire Chiefs Association and the National Fire Protection Association, 2001 (incorporated into the California Building Code).

response time of two to three minutes (after the opening of the planned new station at Duncan Canyon Road and Lytle Creek Road) is expected to be adversely affected by the proposed project. However, the additional residences and businesses would create a generally increased demand for fire protection services and so would be a significant impact.

Water and Access During Construction. The site preparation work for the proposed project would provide the required water flows and access for emergency vehicles to fight fires on the project site; this may require temporary water supplies and roads. Consistent with the SBCFD, construction contractors would be required to put temporary fire control plans and systems into place. All construction plans would be reviewed by the SBCFD to confirm that emergency access and water supply are adequate for fire protection throughout the proposed project site. Such impacts during construction would be temporary. Therefore, a less-than-significant impact would occur.

City of Fontana General Plan. It is the goal of the City to provide fire protection services that meet the City's population public safety needs, and contribute to a sense of safety and high quality of life in the community. The City is committed to maintaining adequate fire response times, building new fire stations in areas of new development so that response times are not eroded, and maintaining an ISO rating of Class 3.⁷⁷ The additional residences and businesses would create a generally increased demand for fire protection services and so would be a significant impact.

Libraries

Additional Demand. The projected increase in population resulting from the project (approximately 4,288 persons) would impact the existing library facilities, and require additional library facilities and catalog items. Planning recommendations have been outlined in the San Bernardino County *Library Facility Master Plan* to accommodate population growth in the area. The additional residences and businesses would create a generally increased demand for library services and so would be a significant impact.

City of Fontana General Plan. It is the goal of the City to provide library facilities within the City that meets the requirements of the residents. The additional residences and businesses would create a generally increased demand for library services and so would be a significant impact.

3.11.3 Cumulative Impacts

The proposed project would require extending public services into an area that currently requires only fire protection. Cumulative impacts on public services from the residential master-planned projects in the northern portion of Fontana, including the proposed project, would be significant.

3.11.4 Mitigation Measures

City Impact Fees. The City of Fontana charges various project impact fees to project developers to offset the costs of providing certain public services and facilities to the project's additional residences, residents, businesses, business patrons, and property owners. In addition to the specific fees noted in the preceding discussions (Police Facility Fee, Fire Impact Fee, Library Facility Fee, and the FUSD school impact fee), the City also charges developers a Landscape Improvement Fee, a Municipal Service Impact Fee (for general City administrative and miscellaneous services), and a Public Facility Improvement Fee. These fees are usually based on the number of dwelling units or other factors related to the size and nature of the project, but may instead be net amounts that are negotiated with the City in return for the project's provision of specified amenities.

⁷⁷ *City of Fontana General Plan*, October 21, 2003, Ch. 8, Facilities, Services, and Infrastructure Element, p. 8-27.

These impact fees are required as part of the City's project approval process, and are intended to compensate the City and mitigate for the costs of additional City services that would be needed by the project's residents, employees, and property owners. The Project Applicant reasonably expects that these fees would be used to improve and expand the City's infrastructure and service capacity to accommodate the increased demand on City facilities and services due to the project. The following mitigation measure is required to reduce project impacts to less than significant:

PS-1 The developer will pay all City of Fontana development impact fees to the City and a school impact fee to the Fontana Unified School District (FUSD) before issuance of a building permit to pay the developer's share of the increased cost of public services such as fire and police protection, other emergency services, public schools, and public libraries.

The City would collect applicable development impact fees at the time of building permit issuance, and, pursuant to §15130(a)(3) of the *State CEQA Guidelines*, these fees would mitigate the project's direct and cumulative impacts on public services to less than significant. The City policy is to withhold building permits until it has verified that all project development impact fees have been paid.

3.11.5 Level of Significance After Mitigation

The proposed project would not result in a significant impact on public services.

3.12 RECREATION

3.12.1 Environmental Setting

3.12.1.1 *Regional and County Parks*

Residents of Fontana are close to the San Bernardino County Martin-Tudor-Jurupa Hills Regional Park, which is near the City's southern border. This facility features a water park, museum, trains, nature center, and over 1,000 acres of open space.⁷⁸

3.12.1.2 *City Parks*

Types of Parks. As defined by the City of Fontana General Plan,⁷⁹ the City has two types of parks: community and neighborhood. A community park has 20 to 40 or more acres that serves 10,000 to 30,000 people within a radius of 1.5 miles. A neighborhood park has 10 to 20 acres (if not located next to an elementary school) and serves 2,500 to 5,000 people within a half-mile radius. If a neighborhood park is next to an elementary school it has 5 to 15 acres. According to the *City General Plan* park definitions, the proposed project site is not now within the service boundaries of any neighborhood park; however, it is within the service boundaries of the North Fontana Park, which is a community park. Furthermore, a new neighborhood park (the Patricia Majarro Park), to be located adjacent to the Sierra Lakes Elementary School, is planned to open in about two years.

Parkland Area. The City has 1,460 acres of parkland, of which about 400 acres are developed and about 1,000 acres are open space.⁸⁰ Based on the City's current population of 145,770,⁸¹ there are approximately 2.7 acres of parkland per 1,000 persons at present. (The 1,000 open-space acres are excluded when determining parkland ratios). The City is not meeting its standard of 5 acres of parkland per 1,000 residents.⁸²

Parks on or Near Project Site. There are no parks or other recreational facilities currently located on the proposed project site. The City has a total of 33 public parks,⁸³ of which one community park and four neighborhood parks are near the project site:

- *North Fontana Park*, including the Jessie Turner Community Center and the Dorothy Grant Head Start Center (37.5 acres, at 6396 Citrus Avenue) is a community park about one-mile south of the project site; it has facilities for basketball, barbequing, soccer, and tennis; ball fields; a playground; a swimming pool; picnic tables and shelter; restrooms; and a snack bar.
- *Rosena Park* (3.4 acres, at 15057 Greys Peak) is a neighborhood park about 1½ miles southwest of the site; it has facilities for bocce and horseshoes, picnic tables and shelters, a playground, and restrooms.
- *Koehler Park/The Landings* (10 acres, at 15352 Walnut Avenue) is a neighborhood park about 2½ miles southwest of the site; it has ball fields, a soccer field, tennis courts, picnic tables and shelters, barbeque facilities, a playground, a snack bar, and restrooms.

⁷⁸ *City of Fontana General Plan*, October 21, 2003, Chapter 10, Parks, Recreation & Trails Element, p. 10-2.

⁷⁹ *Ibid.*, pp. 10-2 and 10-5.

⁸⁰ City of Fontana Public Services Department, Ray Gonzales (Recreation Manager, Recreation and Community Services Division, January 8, 2004.

⁸¹ *City of Fontana General Plan*, October 21, 2003, based on California Department of Finance data, 2003.

⁸² *Ibid.*, Chapter 10, Parks, Recreation & Trails Element, p. 10-5.

⁸³ City of Fontana Public Services Department, *City of Fontana Fall Schedule*, 2003.

- *San Sevaine Park* (5.7 acres, at 5444 Cherry Avenue) and the associated *Hunter's Ridge Park* (4.71 acres, at 5220 Cherry Avenue) are neighborhood parks that are 2½ to 3 miles west, respectively; they have facilities for basketball, volleyball, tennis, and barbequing, as well as picnic tables, a playground, and restrooms.
- *Cambria Park* (2.5 acres, at Walnut Village) is a neighborhood park about three miles southeast of the site; this park has trails and a playground.

The project site is currently within the service boundaries of one City community park (North Fontana Park), and is within the boundaries of a planned City neighborhood park (Patricia Majarro Park), that is expected opening in about two years.⁸⁴

Park Development Fee. The City requires residential developers to pay a fee of \$5,550 per single-family-unit dwelling unit (or as negotiated with the City) to provide funds to maintain, improve, and construct parks and park facilities in Fontana. The City collects such applicable Park Development Fees at the time of building permit issuance.

Other Recreational Facilities. In addition, the Sierra Lakes Golf Course (which is privately owned but open to the public) is nearby, immediately southeast of the project site. Furthermore, the nearby Sierra Lakes Elementary School has a playing field that is available to organized sports groups under joint use agreements between the City and the Fontana Unified School District, although this field is not open for use by the general public.

Quimby Act. The State's Quimby Act requires developers to provide or pay for 4 acres of new parkland per 1,000 additional persons.⁸⁵ However, the State's standard is not applicable to this project site because the City of Fontana has the following stricter standard:

- Maintain a Citywide ratio of five "turn-key" acres of parks per 1,000 residents.

3.12.2 Environmental Impact Analysis

3.12.2.1 Thresholds of Significance

The criteria used to determine the significance of a recreational impact are based on Appendix G of the *State CEQA Guidelines*. The proposed project would have a significant environmental impact if it were to:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
- Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

3.12.2.2 Environmental Impacts

The project would not demolish or remove any existing park facilities either on or adjacent to the site. However, the project is anticipated to increase the City's population by 4,822 persons, which would increase the use of existing parks and other recreational facilities and/or increase the demand for new such facilities.

⁸⁴ City of Fontana Public Works Department, Paul Burton (Senior Park Planner, Recreation and Community Services Division), February 9, 2004.

⁸⁵ *City of Fontana General Plan*, October 21, 2003, p. 10-5.

City Parkland Standards

The project would provide a total of 21.4 acres of parkland/recreational facilities. The 4.3 acres of pocket parks would provide passive recreational areas for the project residents. In addition, 13.5 acres would serve a dual purpose as an interim detention basin and permanent public parkland, and 3.6 acres would be dedicated to public recreational use as a Community Sports Center. This Sports Center would benefit the City by filling a need for more youth and adult sports programs in Fontana, as specifically identified in 1998 through community workshops and a survey of residents.⁸⁶

Using Fontana's standard of 5 acres of parkland per 1,000 persons, the proposed project's 4,822 residents would require adding approximately 24 acres of parkland in Fontana. The project's pocket parks would not fulfill any of the project's 24-acre requirement because they would be accessible only to project residents; nor would the Community Sports Center and interim detention basin/parkland areas count towards the 23 acres, because these areas would not be owned by the City.⁸⁷ Therefore, a significant impact would occur.

Physical Deterioration of Parks and Recreational Facilities

Improvements to regional parks are funded through property taxes levied on property owners, and so a share of regional park costs would be allocated to the project's residents and business owners through their property taxes. For the Martin-Tudor-Jurupa Regional Park, which services a larger segment of the County population than just Fontana residents, the increased usage of the park by project residents would be small because the proposed project is providing private parks on the project site that would, for the most part, provide for the park/recreational needs of the residents. However, the overall project impacts of increased usage of parks and recreational facilities would cause some physical deterioration of the facilities and so would be a significant impact.

Construction or Expansion of Recreational Facilities

For regional parks, project impacts would be offset by the additional property taxes that would be paid by the project's property owners. However, the overall project impacts of increased population and park usage would be a significant impact related to constructing or expanding recreational facilities.

3.12.3 Cumulative Impacts

Cumulative impacts on parks and recreation facilities ensuing from all approved residential master-planned projects in the City, including those of the proposed project, would be significant.

3.12.4 Mitigation Measures

Park Fee. The City requires that the project proponent and all other various project applicants pay a Park Fee, based on the size and nature of each project or as negotiated with the City. To offset and compensate for project impacts on the City's parks staff, services, and facilities, including project-related adverse physical effects from constructing or expanding recreational facilities or causing or accelerating their deterioration, and to reduce such impacts to less than significant, the following mitigation measure would be required:

⁸⁶ *City of Fontana General Plan*, October 21, 2003, Chapter 10, Parks, Recreation & Trails Element, p. 10-7.

⁸⁷ City of Fontana Public Services Department, Paul Burton (Senior Park Planner, Recreation and Community Services Division), January 13, 2004.

PS-1 The developer will pay the City of Fontana Park Fee to the City before issuance of a building permit to pay the project's share of the City's increased costs related to parks and recreation facilities.

3.12.5 Level of Significance After Mitigation

The proposed project would not result in a significant recreational impact.

3.13 TRANSPORTATION AND TRAFFIC

This transportation and traffic section summarizes the technical analysis and findings of the *Traffic Impact Analysis (TIA)* (Draft), prepared for the proposed Citrus Height North Specific Plan project by LSA Associates, Inc. (July 22, 2003), and it is included as **Appendix F** (Traffic Impact Analysis).

Purpose. The purpose of the TIA was to:

- Assess the project's potential circulation impacts;
- Satisfy the requirements for a TIA established by the San Bernardino County Congestion Management Program (CMP), which was adopted November 3, 1993 and revised December 2001; and
- Satisfy CEQA requirements for disclosure of potential impacts and mitigation measures.

TIA Parameters. The TIA evaluated the proposed 211.9-acre residential and retail development of the *Citrus Heights North Specific Plan*, comprising 1,228⁸⁸ dwelling units on 177 acres⁸⁹ and a 9-acre neighborhood commercial area. The report analyzed existing traffic conditions and project-related traffic impacts of the anticipated completion of the Citrus Heights North project at both full generation (opening year) and at conditions in 2025, the long-range forecast year. Specifically, the study addressed forecast future traffic volumes along roadways in the vicinity of the project site, and the impact of project-generated traffic on the future traffic conditions.

3.13.1 Environmental Setting

Circulation Improvement Fee. The City requires that all development projects pay a Circulation Improvement Fee, based on the size and nature of the project or as negotiated with the City, to offset and compensate for project impacts on the City's transportation and traffic facilities.

3.13.1.1 Determination of Study Area (Methodology)

CMP TIA Guidelines. The study area for the traffic analysis was initially defined based on criteria in the CMP TIA guidelines.⁹⁰ These criteria require that the study area include (1) each CMP arterial segment and intersection where the anticipated passenger car equivalent (PCE) traffic volume attributable to the project equals or exceeds 80 two-way trips during the peak hour, and (2) each freeway link where the PCE volume is 100 or more two-way trips within 5 miles of the project site. In north Fontana, the CMP system includes the I-10 and SR-210 freeways, Baseline Road, and Cherry, Citrus, Sierra, and Highland Avenues.

Additional Intersections. Because this area has only very recently begun to develop, not all roadways in the area are included in the CMP system. Therefore, at the request of the City of Fontana, the TIA also analyzed other intersections in the project vicinity that meet the 80-trip threshold, even though they are not included in the CMP. Further, the TIA analyzed the anticipated project access locations, where traffic could turn directly into a planning area (PA) of the project (from Lytle Creek Road, Summit Avenue, and Citrus Avenue).

⁸⁸ Since the TIA was completed the number of single-family residential units has been reduced by one to 1,227.

⁸⁹ Since the TIA was completed the size of the project site has changed to 202.9 acres and the 9-acre neighborhood commercial area.

⁹⁰ San Bernardino Associated Governments (SANBAG), Congestion Management Program for San Bernardino County, 1999 Update.

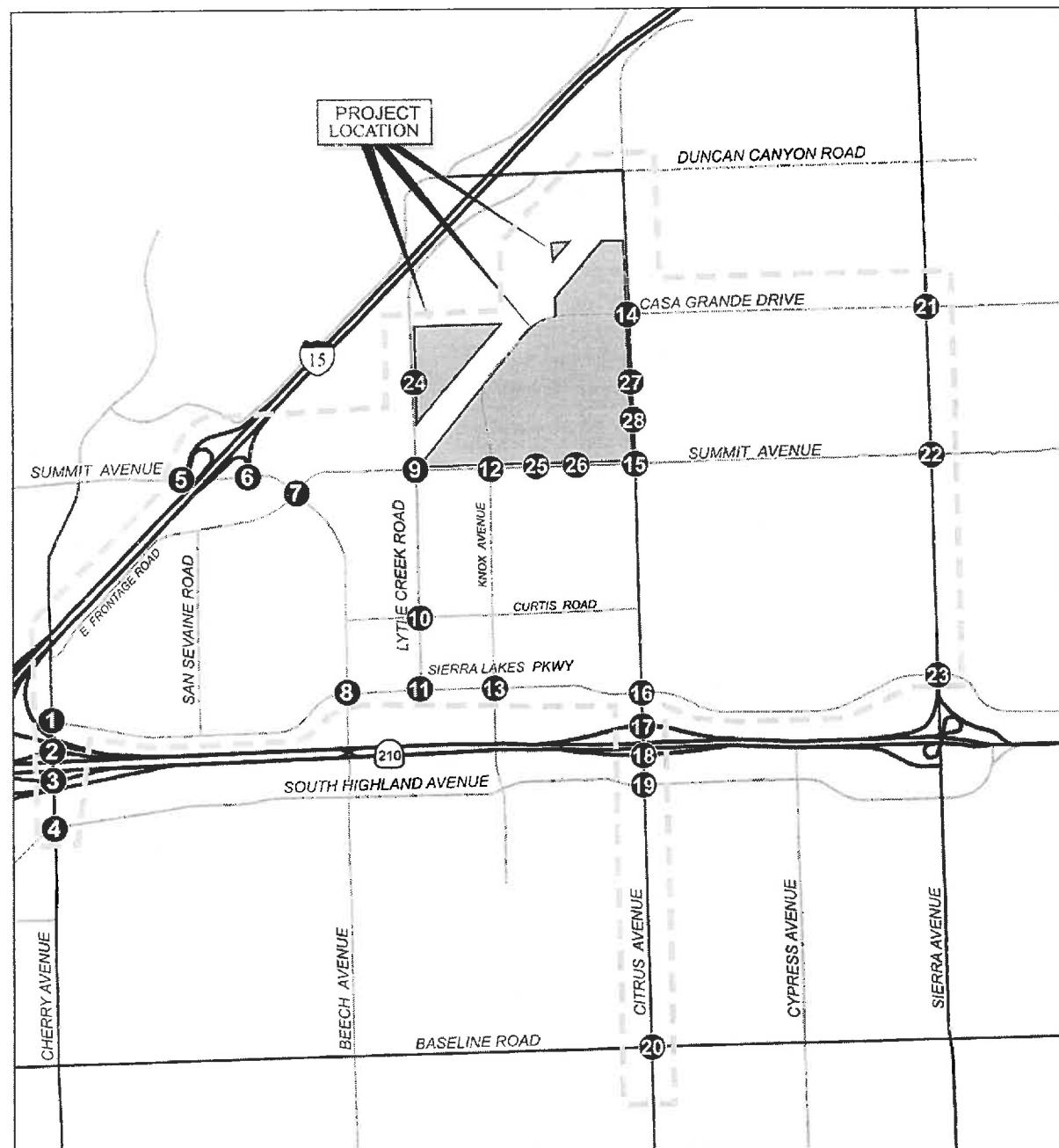
Peak Hours. Consistent with the CMP requirements for residential projects, the TIA analyzed weekday a.m. and p.m. peak-hour conditions. The a.m. peak hour is the one-hour of highest traffic volumes occurring between 7:00 and 9:00 a.m.; the p.m. peak hour is the one-hour of highest traffic volumes occurring between 4:00 and 6:00 p.m. Because the project trip generation is anticipated to be greatest during the p.m. peak hour, the project study area was determined based on the p.m. peak-hour traffic volumes.

Study Area Determination. For the TIA, application of the CMP guidelines yielded a total of 9 “CMP intersections,” and 5 freeway segments in the study area; application of the CMP guidelines to non-CMP system roadways yielded 14 additional intersections in the study area. Further, five project access locations were analyzed as part of the study area. **Figure 3-5** (Study Area Intersections) shows the locations of the 23 key intersections, the 5 freeway segments, and the 5 project access locations that comprise the study area.

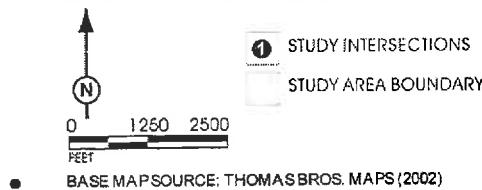
The exact locations studied are as follows:

Intersections in Study Area:

1. Cherry Avenue and Sierra Lakes Parkway
2. Cherry Avenue and SR-210 Westbound Ramps (CMP)
3. Cherry Avenue and SR-210 Eastbound Ramps (CMP)
4. Cherry Avenue and South Highland Avenue (CMP)
5. I-15 Southbound Ramps and Summit Avenue (CMP)
6. I-15 Northbound Ramps and Summit Avenue (CMP)
7. Beech Avenue and Summit Avenue
8. Beech Avenue and Sierra Lakes Parkway
9. Lytle Creek Road and Summit Avenue
10. Lytle Creek Road and Curtis Avenue
11. Lytle Creek Road and Sierra Lakes Parkway
12. Knox Avenue and Summit Avenue (future intersection)
13. Knox Avenue and Sierra Lakes Parkway
14. Citrus Avenue and Casa Grande Drive (future intersection)
15. Citrus Avenue and Summit Avenue
16. Citrus Avenue and Sierra Lakes Parkway
17. Citrus Avenue and SR-210 Westbound Ramps (CMP)
18. Citrus Avenue and SR-210 Eastbound Ramps (CMP)
19. Citrus Avenue and South Highland Avenue (CMP)
20. Citrus Avenue and Baseline Road (CMP)
21. Sierra Avenue and Casa Grande Drive (future intersection)
22. Sierra Avenue and Summit Avenue
23. Sierra Avenue and Sierra Lakes Parkway



Source: LSA Associates



• BASE MAPSOURCE: THOMAS BROS. MAPS (2002)

Figure 3-5
STUDY AREA INTERSECTIONS

Project Access Locations in Study Area

1. Lytle Creek Road and PA 4 Access
2. Summit Avenue and PA 9/10 Access
3. Summit Avenue and PA 10/11 Access
4. Citrus Avenue and PA 8 Access
5. Citrus Avenue and PA 12 (Retail) Access

Freeway Segments in Study Area

1. I-15, between Foothill Boulevard and Baseline Road
2. I-15, between Baseline Road and SR-210
3. I-15, between SR-210 and Summit Avenue
4. SR-210, between Day Creek Boulevard and I-15
5. SR-210, between Citrus Avenue and Pepper Avenue

Figures 3-6a and 3-6b (Existing [2003] Intersection Geometric Configurations) show the existing turn lanes at the study area intersections.

3.13.1.2 Existing Roadway Systems

Streets. An inventory of the existing study area street system was conducted by LSA during May 2003. The existing street network, number of mid-block lanes, and intersection stop controls are illustrated in **Figure 3-7** (Existing Roadway Network). The number of mid-block arterial lanes indicates the average number of through-travel lanes. Additional lanes at intersections and acceleration/deceleration lanes that widen the roadway are not included in the number of arterial lanes.

Freeways. Regional access is provided by I-15, via an interchange at Summit Avenue, and by SR-210, via an interchange at Citrus Avenue.

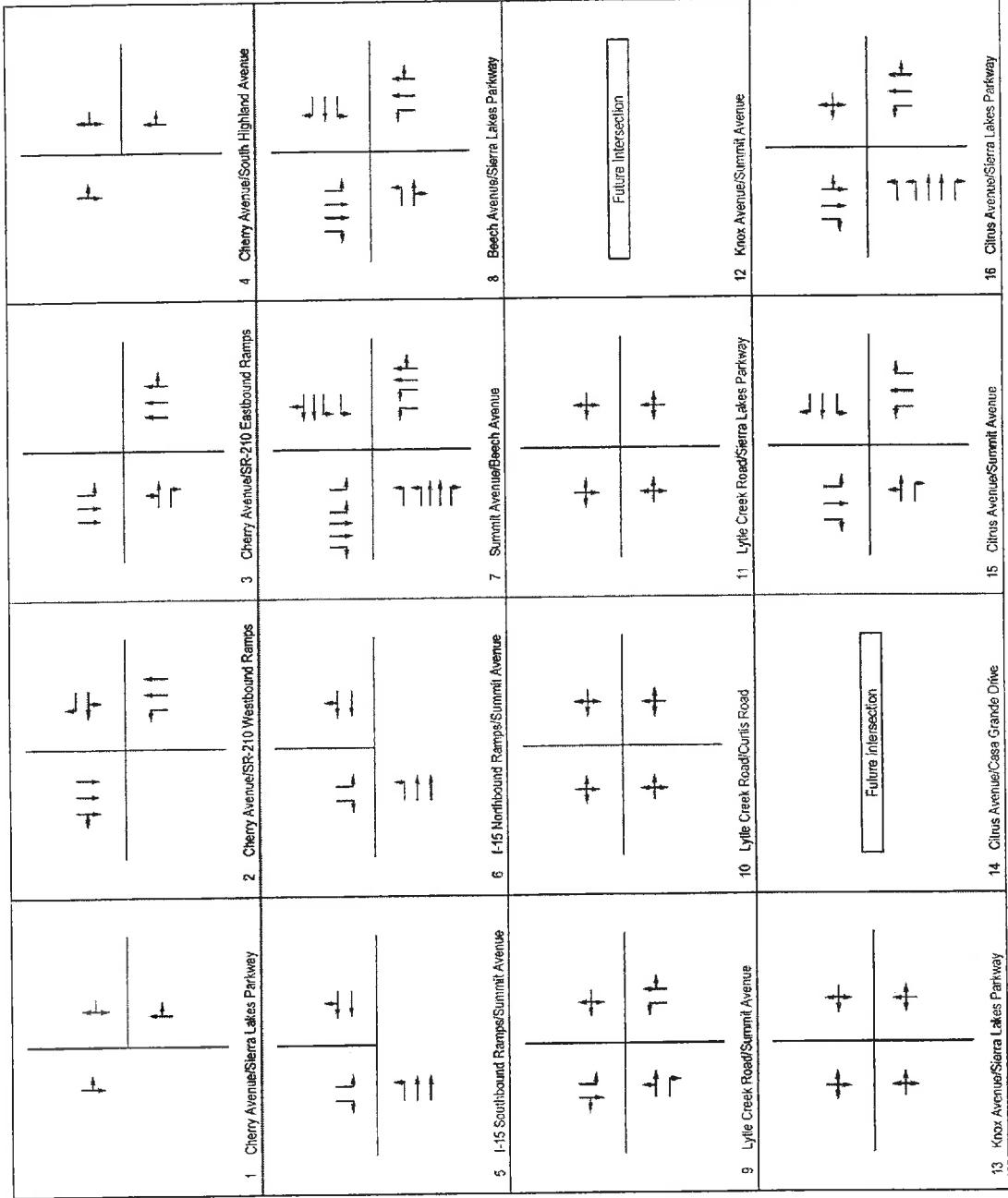
3.13.1.3 Existing Traffic Volumes

Intersections

Existing traffic conditions at study area intersections are based on a.m. and p.m. peak-hour intersection turn movement counts collected by LSA Associates, Inc. (LSA) in May 2003. The count sheets are in Appendix A of the *TIA*, which is **Appendix F** of this EIR. In accord with CMP guidelines, vehicle classification counts were conducted for at least one location on each arterial. Passenger-car-equivalent (PCE) volumes were computed using a PCE factor of 1.5 for 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for trucks with 4 or more axles. This factor takes into consideration that heavy trucks travel and maneuver more slowly than typical passenger cars. For locations at which no classification counts were conducted, truck percentages were developed from the percentages at approaches to adjacent intersections, and PCE volumes were computed using a PCE factor of 2.5 for all trucks.

Freeways

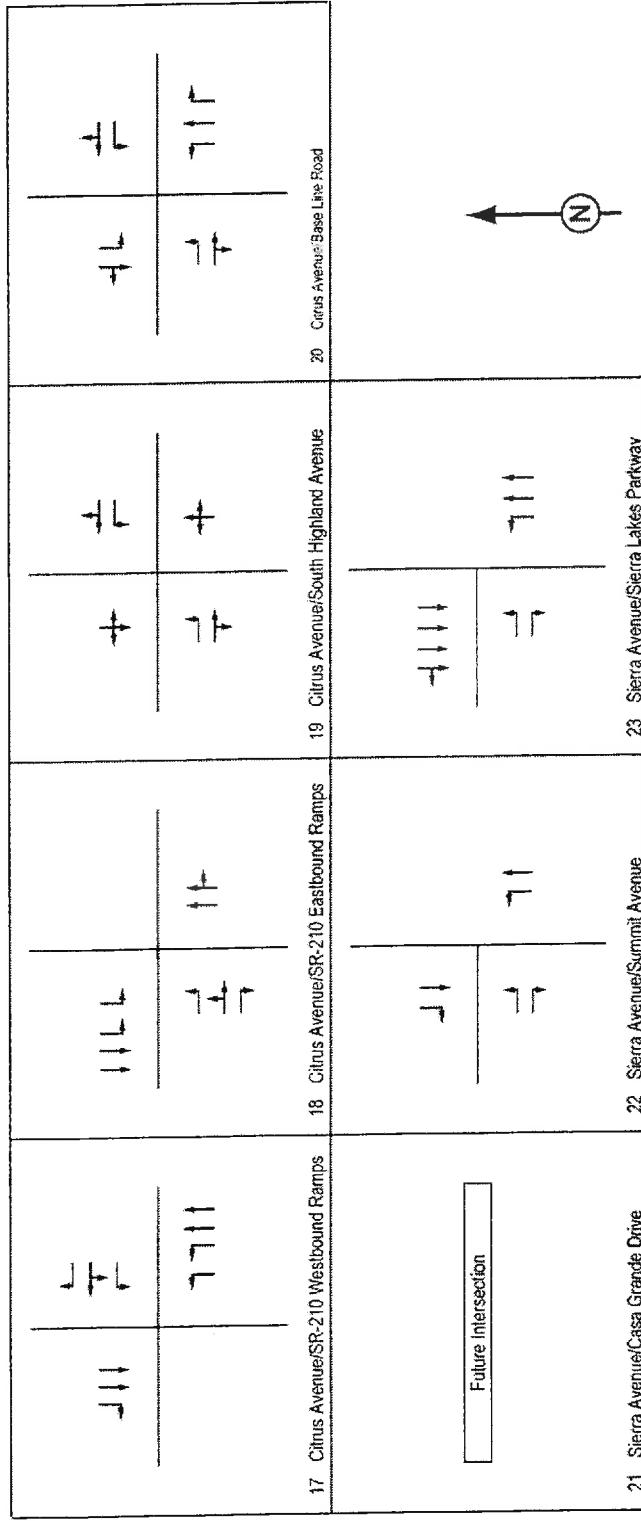
For I-15, existing traffic conditions are based on 2002 data from the annual average daily traffic volume data of the California Department of Transportation (Caltrans). The percentage of trucks is based on 2001 data from the annual average truck traffic data obtained by Caltrans. PCE volumes for the freeway were computed using a PCE factor of 2.5 for all trucks and adding the result to the passenger car volumes. For SR-210, no traffic counts are available in San Bernardino County.



Source: LSA Associates



**Figure 3-6a
EXISTING (2003) INTERSECTION GEOMETRIC CONFIGURATIONS (1 OF 2)**



Source: LSA Associates

Figure 3-6b
EXISTING (2003) INTERSECTION GEOMETRIC CONFIGURATIONS (2 OF 2)

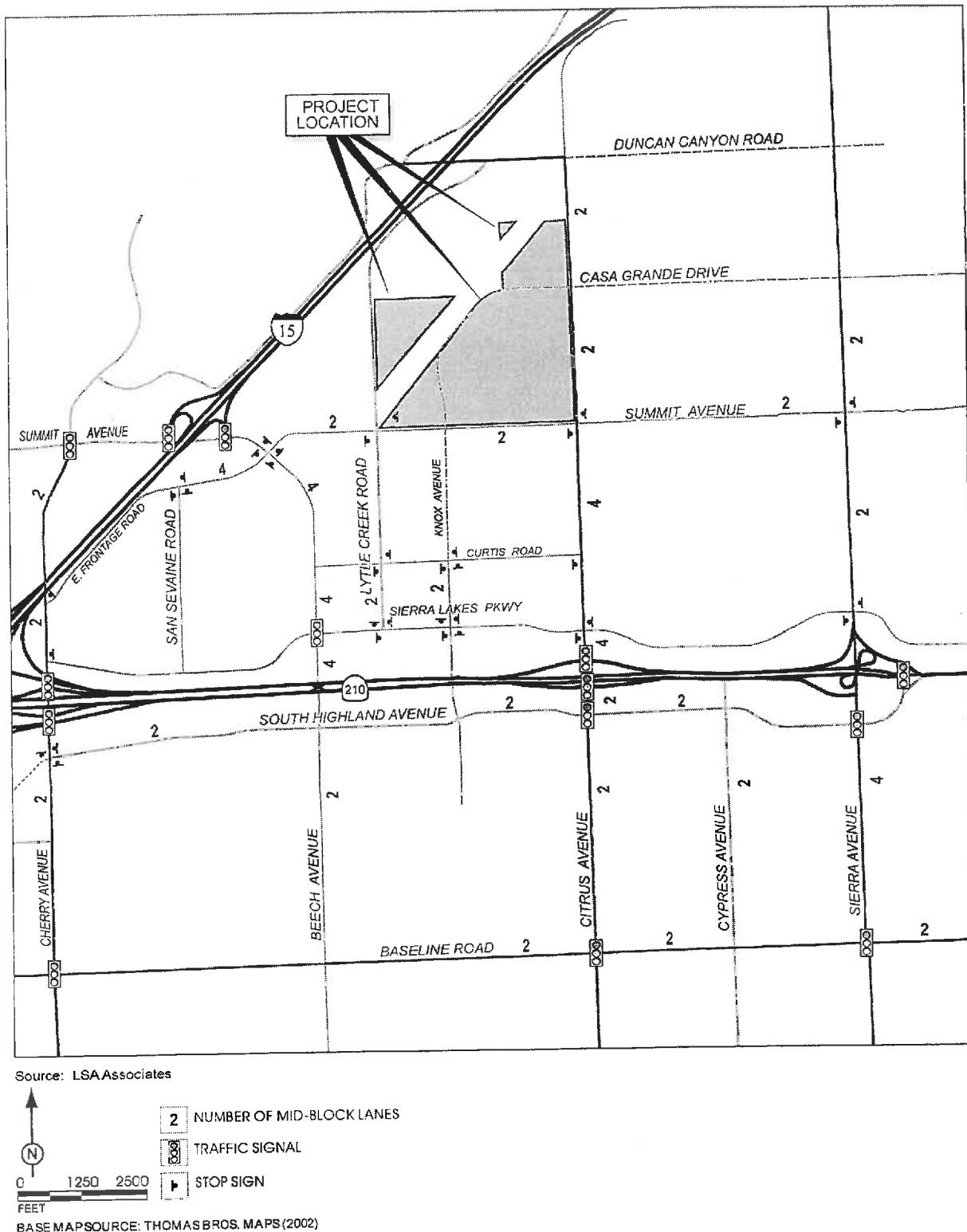


Figure 3-7
EXISTING ROADWAY NETWORK

3.13.1.4 Level of Service (LOS) Definitions and Methodology

Roadway operations and the relationship between capacity and traffic volumes are generally expressed in terms of levels of service (LOS), which are graded using the letters A through F. These levels recognize that, while an absolute limit exists as to the amount of traffic that can travel through a given intersection (the absolute capacity), the conditions that motorists experience rapidly deteriorates as traffic approaches the absolute capacity, and traffic congestion is experienced. The general flow of traffic is unstable, which means that relatively small incidents (i.e., a momentary engine stall) can cause considerable delays and fluctuations in speeds. This near-capacity situation is labeled LOS E. Beyond LOS E, capacity is exceeded, and arriving traffic exceeds the ability of the intersection to accommodate it. As a result, an upstream queue forms, and the queue continues to lengthen until the demand volume declines.

Complete definitions of LOS A through LOS F are in the Highway Research Board Special Report 209, *2000 Highway Capacity Manual* (HCM 2000). **Table 3-25** (Level of Service [LOS] Definitions) describes the six levels of service, as abstracted from the HCM 2000.

Table 3-25
LEVEL OF SERVICE (LOS) DEFINITIONS

A	No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.
D	This level encompasses a zone of increasing restriction, approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is seldom attained, no matter how great the demand.
F	This level describes forced-flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, both speed and volume can drop to zero.

The level of service criteria for unsignalized and signalized intersections are summarized in **Table 3-26** (Intersection Level of Service Criteria).

For all study area intersections, the *2000 Highway Capacity Manual* (HCM 2000) analysis methodologies were used to determine intersection levels of service. All levels of service were calculated using the Traffix (version 7.6) software, which uses the HCM 2000 methodologies. Saturation flow rates consistent with CMP guidelines for existing conditions, opening year (2007), and future year (2025) analyses were used in the calculations of intersection capacity.

3.13.1.5 Existing (2003) Traffic Conditions

Intersections

The existing a.m. and p.m. peak-hour PCE volumes for the analysis intersections are shown in **Figures 3-8a and 3-8b** (Existing [2003] Traffic Volumes).

Table 3-26
INTERSECTION LEVEL OF SERVICE CRITERIA

Level of Service	Average Delay per Vehicle (seconds)	
	Unsignalized Intersection	Signalized Intersection
A	< 10	< 10
B	> 10 and < 15	> 10 and < 20
C	> 15 and < 25	> 20 and < 35
D	> 25 and < 35	> 35 and < 55
E	> 35 and < 50	> 55 and < 80
F	> 50	> 80

An intersection LOS analysis was conducted for existing conditions to determine current circulation system performance. The existing LOS conditions for the study area intersections are summarized in **Table 3-27** (Existing [2003] Intersection Levels of Service); as the table indicates, all study area intersections are currently operating at satisfactory levels of service, except for Cherry Avenue at South Highland Avenue (a.m. and p.m. peak hours).

Freeways

Table 3-28 (Existing [2003] Freeway Mainline Analysis) summarizes the existing a.m. and p.m. peak-hour freeway mainline traffic volumes and levels of service for the study area freeway segment on I-15. As shown in this table, all study area segments of I-15 are currently operating at satisfactory levels of service.

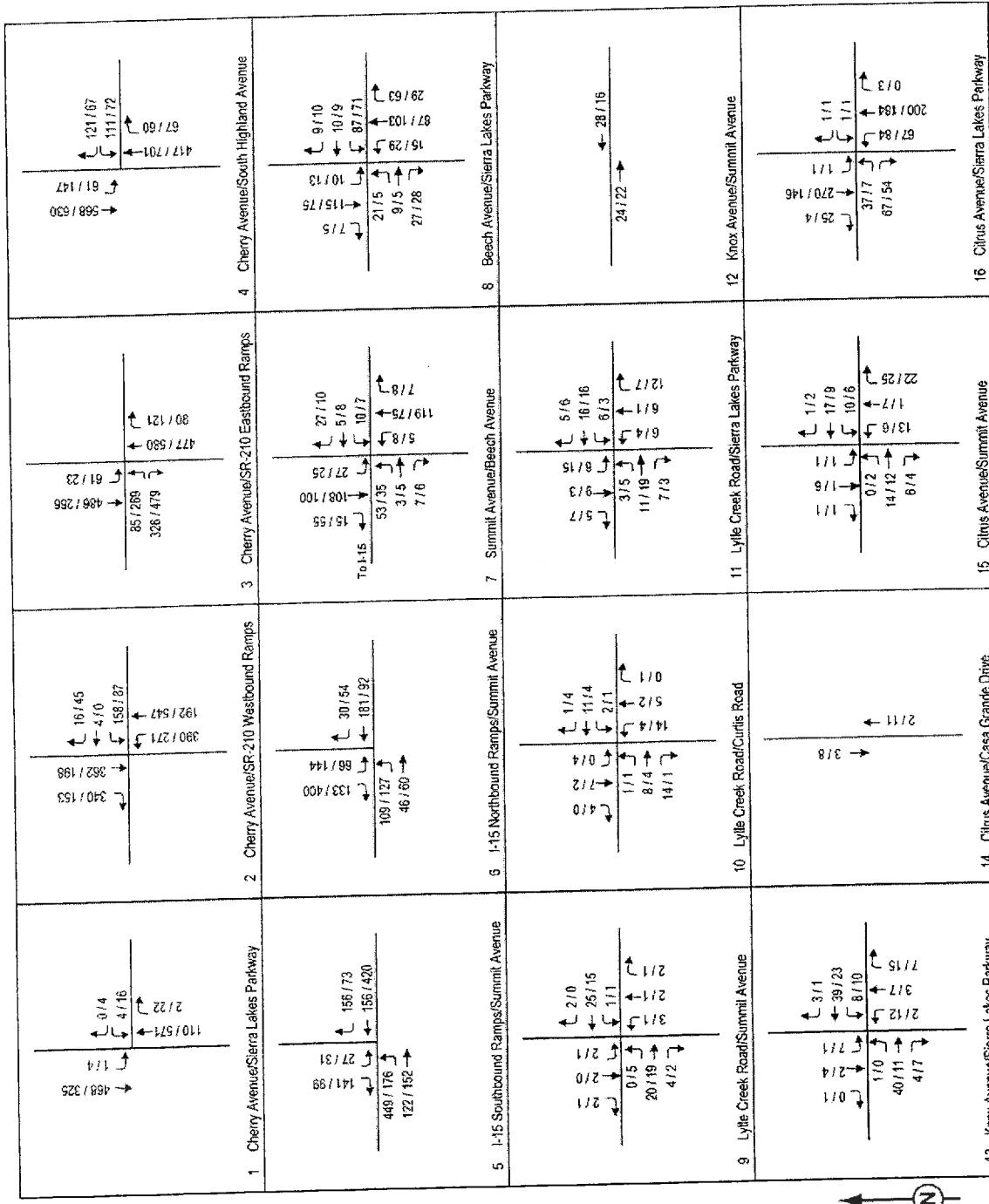
Although no traffic counts are available for SR-210 in San Bernardino County, field observation indicates that the study area segments on SR-210 meet the CMP standard of LOS E.

3.13.2 Environmental Impact Analysis

3.13.2.1 Thresholds of Significance

The criteria used to determine the significance of an transportation and traffic impact are based on Appendix G of the *State CEQA Guidelines*. The proposed project would have a significant environmental impact if it were to:

- Increase traffic substantially in relation to the existing traffic load and capacity of the street system (i.e., substantially increase the number of vehicle-trips, the V/C ratio on roads, or congestion at intersections);
- Exceed, either individually or cumulatively, an LOS standard established by the county congestion management agency (CMA) for designated roads or highways;
- Change air traffic patterns, including either increasing traffic levels or changing a location that results in substantial safety risks;
- Substantially increase hazards due to a design feature or incompatible uses;
- Result in inadequate emergency access;
- Result in inadequate parking capacity; or
- Conflict with adopted policies supporting alternative transportation.



SOURCE: LSA Associates

123 / 456 AM / PM Peak Hour Volume

EXISTING (2003) TRAFFIC VOLUMES (1 of 2)

Figure 3-8a

❖ 3—ENVIRONMENTAL IMPACT ANALYSIS: 3.13, Transportation and Traffic ❖

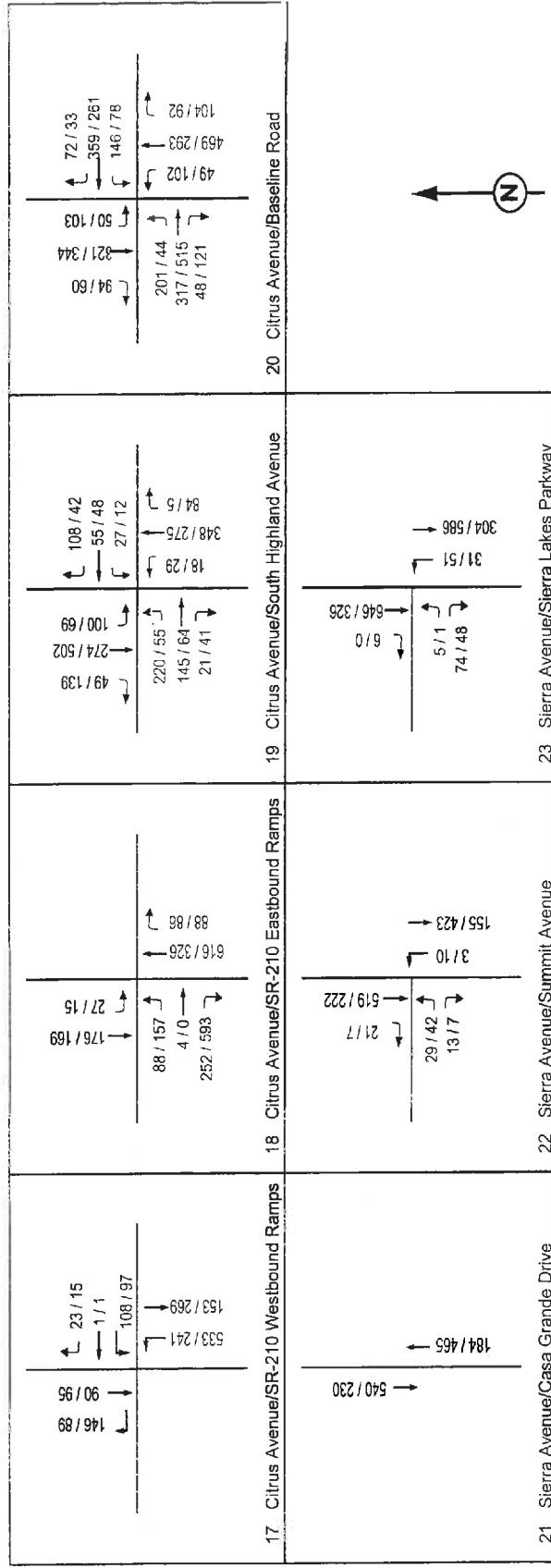


Figure 3-8b
EXISTING (2003) TRAFFIC VOLUMES (2 of 2)

Table 3-27
EXISTING (2003) INTERSECTION LEVELS OF SERVICE

<i>Intersection</i>	<i>Control</i>	<i>A.M. Peak Hour</i>			<i>P.M. Peak Hour</i>		
		<i>V/C</i>	<i>Delay</i>	<i>LOS</i>	<i>V/C</i>	<i>Delay</i>	<i>LOS</i>
1. Cherry Avenue/ Sierra Lakes Parkway	2WSC		12.9	B		17.4	C
2. Cherry Avenue/ SR-210 Westbound Ramps	Signal	0.58	23.8	C	0.33	15.9	B
3. Cherry Avenue/ SR-210 Eastbound Ramps	Signal	0.36	21.9	C	0.46	20.5	C
4. Cherry Avenue/ South Highland Avenue	AWSC	1.00	38.5	F	1.21	108.2	F
5. I-15 Southbound Ramps/Summit Avenue	Signal	0.48	22.7	C	0.33	19.9	B
6. I-15 Northbound Ramps/Summit Avenue	Signal	0.22	24.0	C	0.38	19.3	B
7. Summit Avenue/Beech Avenue	2WSC		10.7	B		10.2	B
8. Beech Avenue/Sierra Lakes Parkway	Signal	0.12	25.3	C	0.12	24.3	C
9. Lytle Creek Road/Summit Avenue	2WSC		9.2	A		9.1	A
10. Lytle Creek Road/Curtis Road	2WSC		9.2	A		8.9	A
11. Lytle Creek Road/Sierra Lakes Parkway	AWSC	0.03	7.0	A	0.03	7.0	A
12. Knox Avenue/Summit Avenue				(Future Intersection)			
13. Knox Avenue/ Sierra Lakes Parkway	AWSC	0.06	7.2	A	0.04	7.0	A
14. Citrus Avenue/Casa Grande Drive				(Future Intersection)			
15. Citrus Avenue/Summit Avenue	2WSC		9.1	A		9.1	A
16. Citrus Avenue/Sierra Lakes Parkway	2WSC		11.4	B		11.0	B
17. Citrus Avenue/SR-210 Westbound Ramps	Signal	0.31	17.8	B	0.17	16.4	B
18. Citrus Avenue/SR-210 Eastbound Ramps	Signal	0.39	16.3	B	0.50	18.6	B
19. Citrus Avenue/South Highland Avenue	Signal	0.53	23.1	C	0.53	12.5	B
20. Citrus Avenue/Baseline Road	Signal	0.74	34.8	C	0.78	34.5	C
21. Sierra Avenue/ Casa Grande Drive				(Future Intersection)			
22. Sierra Avenue/Summit Avenue	2WSC		13.9	B		14.2	B
23. Sierra Avenue/ Sierra Lakes Parkway	2WSC		10.2	B		9.1	A

2WSC = Two-Way Stop Control

AWSC = All-Way Stop Control

LOS = Level of Service

V/C = Volume/Capacity ratio

Boldface letters indicate exceedance of LOS standard.

Delay = Average control delay in seconds; at unsignalized intersections, worst-case approach is reported.

Table 3-28
EXISTING (2003) FREEWAY MAINLINE ANALYSIS

Freeway Segment	Lanes			A.M. Peak Hour			P.M. Peak Hour				
	<i>Mixed</i>	<i>HOV</i>	<i>Cap.</i>	<i>Total</i>	<i>SF</i>	<i>V/C</i>	<i>LOS</i>	<i>Total</i>	<i>SF</i>	<i>V/C</i>	<i>LOS</i>
I-15 Northbound											
Foothill Boulevard to Baseline Road	4	0	9,200	4,572	4,813	0.52	C	6,209	6,536	0.71	D
Baseline Road to SR-210	4	0	9,200	3,959	4,168	0.45	B	5,377	5,660	0.62	C
SR-210 to Summit Avenue	4	0	9,200	4,006	4,217	0.46	B	5,441	5,727	0.62	C
I-15 Southbound											
Summit Avenue to SR-210	4	0	9,200	4,897	5,154	0.56	C	4,452	4,686	0.51	C
SR-210 to Baseline Road	4	0	9,200	4,839	5,094	0.55	C	4,399	4,631	0.50	C
Baseline Road to Foothill Boulevard	4	0	9,200	5,588	5,882	0.64	C	5,080	5,347	0.58	C

Based on CMP guidelines, the capacity of a mixed-flow lane is 2,300 vehicles per hour, and the capacity of a high-occupancy vehicle (HOV) lane is 1,600 vehicles per hour.

Service flow (SF) for each segment is calculated by dividing the total volume by the peak-hour factor (PHF). A PHF of 0.95 is assumed for the service flow estimation.

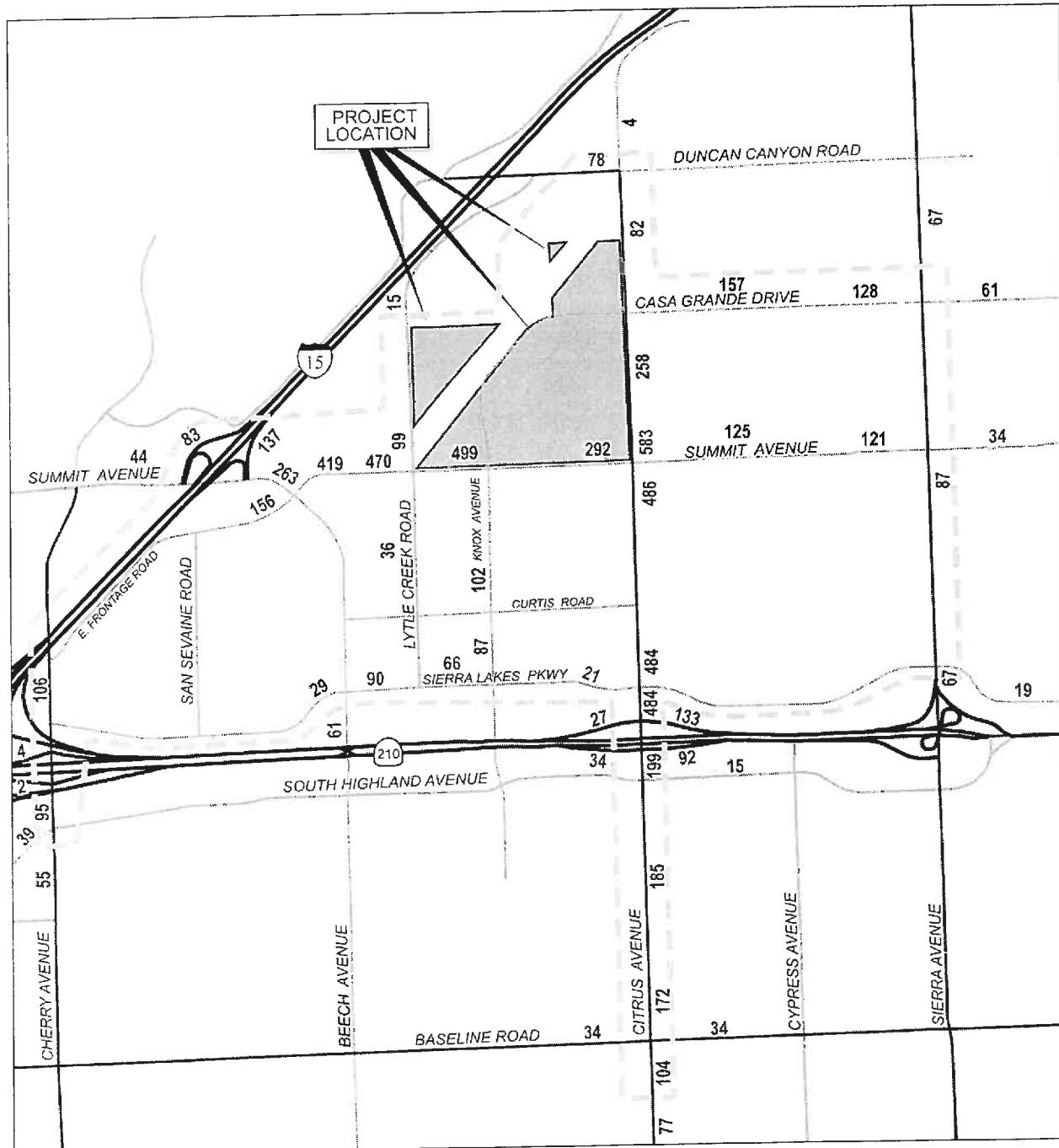
3.13.2.2 Level of Service Threshold Criteria

The CMP standard LOS is E, which is used for area freeways and may be used for intersection LOS. However, the CMP also allows local discretion and requirements to be used to determine project impacts and appropriate mitigation. The City of Fontana uses LOS C as a significance threshold level; i.e., roadways and intersections operating at LOS D, E, or F are required to be mitigated to LOS C or better. The California Caltrans regulates freeway ramp intersections, and establishes a standard threshold of LOS D; intersections operating at LOS E or F are required to be mitigated to LOS D or better.

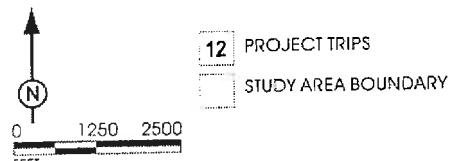
3.13.2.3 Project Impacts

Figure 3-9 (Study Area Determination [Project Trips]) shows the total two-way (bidirectional) project trip volumes during the p.m. peak hour based on the distribution of project-generated trips, and the resultant footprint of the study area.

Table 3-29 (Two-Way Project Trip Volumes on Freeway Segments in Project Vicinity) summarizes the total two-way project trip volumes on freeway segments in the project vicinity during the p.m. peak hour.



Source: LSA Associates



BASE MAP SOURCE: THOMAS BROS. MAPS (2002)

Figure 3-9
STUDY AREA DETERMINATION (PROJECT TRIPS)

Table 3-29
TWO-WAY PROJECT TRIP VOLUMES ON FREEWAY SEGMENTS IN PROJECT VICINITY

<i>Freeway Segment</i> ¹	<i>Peak-Hour Project Trips</i>		<i>In Study Area?</i> ²
	<i>a.m.</i>	<i>p.m.</i>	
I-15:			
Foothill Boulevard to Baseline Road	104	158	Yes
Baseline Road to SR-210	125	190	Yes
SR-210 to Summit Avenue	152	220	Yes
Summit Avenue to Duncan Canyon Road	0	0	No
SR-210:			
Milliken Avenue to Day Creek Boulevard	60	91	No
Day Creek Boulevard to I-15	67	103	Yes
I-15 to Cherry Avenue	56	85	No
Cherry Avenue to Beech Avenue	48	73	No
Beech Avenue to Citrus Avenue	32	61	No
Citrus Avenue to Sierra Avenue	132	225	Yes
Sierra Avenue to Alder Avenue	132	225	Yes
Alder Avenue to Ayala Drive	115	196	Yes
Ayala Drive to Riverside Avenue	90	153	Yes
Riverside Avenue to Pepper Avenue	73	124	Yes

1. Segments of I-15 south of Foothill Blvd. and of SR-210 east of Pepper Ave. exceed the CMP's five-mile limit from the project site and so were excluded from the study area.

2. Segment is included in study area if total bidirectional project trips would be 100 or more during the p.m. peak hour.

Methodology

The CMP guidelines require examination of project traffic impacts under conditions in the opening year and in the forecast year (2025). The CMP TIA procedures require analysis using 2025 traffic data from an approved local or regional traffic model. The 2025 traffic volumes for the proposed Citrus Heights North Specific Plan project were developed using the Comprehensive Transportation Plan (CTP) traffic (passenger vehicle) model and truck model, maintained by the Southern California Association of Governments (SCAG). For the SCAG traffic (passenger vehicle) model, the base year is 2000 and the forecast year is 2025; for the SCAG truck model, the base year is 1994, and the forecast year is 2020.

Because only isolated segments of the major roadways in the study area are included in the base year traffic model, special model runs of the CTP model were obtained using base year socio-economic data with the 2025 roadway network. These model runs represent the traffic volume that would be expected to exist in 2000, had the 2025 network been in place in 2000. In addition, model runs with 2025 socio-economic data and the 2025 network, as modified by the proposed project, were obtained to represent future traffic conditions. The socio-economic data used were the approved Summit Heights Retail Center and the proposed Falcon Ridge Town Center, located at the intersection of Beech Avenue and Summit Avenue.

Intersections Traffic Estimation

Passenger Vehicle Modeling. The following methodology was employed for passenger vehicles to determine the a.m. and p.m. peak-hour intersection turn movements for 2025 without-project conditions:

- (1) The difference between the modeled 2000 and 2025 peak-period directional arterial traffic volumes (for each intersection approach and departure) were identified from loaded network model plots. This difference defines the growth in traffic over the next 25-year period.
- (2) The incremental growth in peak-period approach and departure volumes was factored to develop the incremental change in peak-hour volumes. The CTP model uses a three-hour a.m. peak period and a four-hour p.m. peak period. SCAG has established that the a.m. peak hour comprises 38 percent of the a.m. peak period, and that the p.m. peak hour comprises 28 percent of the p.m. peak period. Therefore, the incremental changes in peak-period volumes were multiplied by the appropriate factors to develop incremental changes in peak-hour volumes.
- (3) The incremental growth in approach and departure volumes between 2000 and 2025 was factored to reflect the forecast growth between the year of the ground counts (2003) and 2025. For this purpose, linear growth between the 2000 base condition and the forecast 2025 condition was assumed. Because the increment between 2003 and 2025 is 22 years of the 25-year time span, a factor of 0.88 (22/25) was used.
- (4) The forecast growth in approach and departure volumes to 2025 was added to the 2003 ground counts, resulting in post-processed forecast year 2025 link volumes.
- (5) Forecast year 2025 turn volumes were developed using existing turn volumes and the future approach and departure volumes, based on the methodologies contained in the National Cooperative Highway Research Program Report (NCHRP) 255.⁹¹
- (6) For cumulative impact estimation, Project traffic volumes from the Traffic Impact Study for the Proposed Summit High School (Korve Engineering, August 2002) were added at each intersection. In addition, turning movements into and out of the Citrus Heights (South) Specific Plan area, from the *Citrus Heights (South) Traffic Impact Analysis* (LSA, October 2002), were added at shared access locations on Summit Avenue.

Truck Modeling. The following describes in detail the methodology employed for trucks to determine the a.m. and p.m. peak-hour intersection turn movements for year 2025 without-project conditions:

- (1) The difference between the modeled 1994 and 2000 peak-period directional arterial traffic volumes (for each intersection approach and departure) were identified from loaded network model plots. This difference defines the growth in traffic over the 26-year period.
- (2) The incremental growth in peak-period approach and departure volumes was factored to develop the incremental change in peak-hour volumes. The CTP model uses a three-hour a.m. peak period and a four-hour p.m. peak period. SCAG has established that the a.m. peak hour comprises 38 percent of the peak period and that the p.m. peak hour comprises 28 percent of the peak period. Therefore, the incremental changes in peak-period volumes were multiplied by the appropriate factors to develop incremental changes in peak-hour volumes.

⁹¹ Transportation Research Board, *Highway Traffic Data for Urbanized Area Project Planning and Design*, December 1982.

- (3) The incremental growth in approach and departure volumes between 1994 and 2020 was factored to reflect the forecast growth between the year of the ground counts (2003) and 2025. For this purpose, linear growth between the 1994 base condition and the forecast 2020 condition was assumed. Because the increment between 2003 and 2025 is 22 years of the 26-year time span, a factor of 0.85 (22/26) was used.
- (4) The forecast growth in approach and departure volumes to 2025 was added to the 2003 traffic counts, resulting in post-processed forecast year 2025 link volumes.
- (5) Forecast year 2025 PCE turn volumes were developed using existing turn volumes and the future approach and departure volumes, based on the methodologies contained in the NCHRP 255.

Traffic Volumes. Total PCE volumes were developed by summing the passenger vehicle volumes and the truck PCE volumes. Background traffic volumes at study area intersections for opening year (2007)⁹² conditions were developed by interpolating between 2003 volumes and 2025 without-project volumes.

Freeway Traffic Estimation

I-15 (2025). Freeway mainline volumes for I-15 in 2025 were developed using the same post-processing methodology described above for intersections, except that only the increment of growth in the modeled volumes representing growth after 2002 was used in Step 3, and Step 5 was omitted.

SR-210 (2025). Freeway mainline volumes for SR-210 in 2025 were developed by calculating “model adjustment factors” representing the amount by which the modeled future volumes over- or under-estimate the post-processed volumes on I-15. Separate model adjustment factors were calculated for each peak hour. These adjustment factors were then applied to the modeled future volumes on SR-210.

I-15 (2007). Freeway mainline volumes for I-15 in 2007 were developed by interpolating between 2002 traffic volumes and year 2025 with-project traffic volumes.

SR-210 (2007). Free mainline volumes for SR-210 in 2007 were developed by calculating model adjustment factors representing the amount by which the modeled future volumes over- or under-estimate the interpolated 2007 volumes on I-15. Separate model adjustment factors were calculated for each peak hour. These adjustment factors were then applied to the modeled future volumes on SR-210.

Project Trip Generation

Trip generation for the proposed project was developed using rates from the Institute of Transportation Engineers (ITE) *Trip Generation Handbook*, 6th edition, based on land use type. ITE notes that land uses “such as retail establishments, certain restaurants, banks, service stations, and convenience markets attract traffic from the passing stream of traffic,” which is referred to as “pass-by.” Such pass-by trips are counted in the total trip generation for a project site, but are not new trips on the adjacent roadways. This traffic analysis uses a pass-by rate of 35 percent, from the City of Fontana guidelines.

Table 3-30 (Project Trip Generation) summarizes the a.m. peak-hour, p.m. peak-hour, and daily trip generation for the project. As shown in this table, the project is expected to generate 14,939 net new daily trips, with 908 trips occurring during the a.m. peak hour and 1,480 during the p.m. peak hour.

⁹² At the time of preparation of the TIA by LSA, the Citrus Heights North Specific Plan was anticipated to be completed by 2007. However, a change in the construction schedule determined that project completion would be late 2009 or early 2010. The base year traffic data and, therefore, the predicted project impact are assumed to be not considerably different, and thus would not affect the impact assessment.

Table 3-30
PROJECT TRIP GENERATION

Land Use	A.M. Peak Hour			P.M. Peak Hour			Daily Volume
	In	Out	Total	In	Out	Total	
Single-Family Residential (803 DUs):							
Trips/Unit ¹	0.19	0.56	0.75	0.65	0.36	1.01	9.57
Trip Generation	153	451	604	523	290	813	7,704
Condominiums/Townhouses (425 DUs):							
Trips/Unit ²	0.07	0.37	0.44	0.36	0.18	0.54	5.86
Trip Generation	31	165	196	160	80	240	2,608
Shopping Center (107 TSF):							
Trips/Unit ³	0.95	0.60	1.55	2.95	3.19	6.14	66.54
Trip Generation	101	65	166	315	342	657	7,120
Pass-By Trips (35%) ⁴	(36)	(23)	(58)	(110)	(120)	(230)	(2,492)
Net New Trips	66	42	108	205	222	427	4,628
Total Project Trip Generation	250	658	908	888	592	1,480	14,939

1. Rates based on Land Use 210 (Single Family Detached Housing), ITE *Trip Generation*, 6th ed.

2. Rates based on Land Use 230 (Residential Condominium Townhouse), ITE *Trip Generation*, 6th ed.

3. Rates based on Land Use 820 (Shopping Center), ITE *Trip Generation*, 6th ed.

4. The pass-by rate for a Shopping Center of this size would be 38.1%, based on ITE *Trip Generation*, 6th ed. However, based on City of Fontana guidelines, the pass-by rate has been limited to 35%.

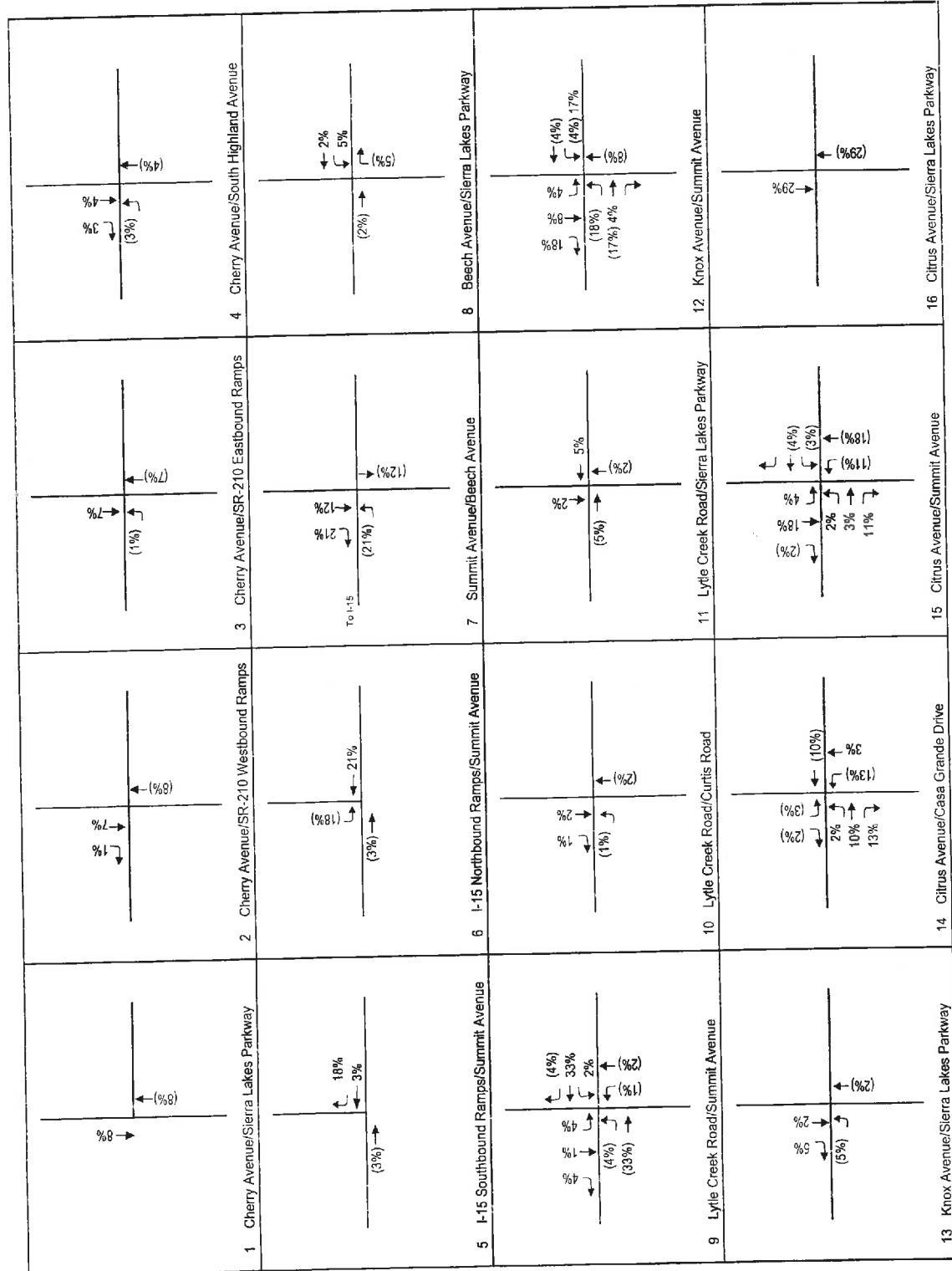
DU = dwelling unit; TSF = thousand square feet.

Trip Distribution and Assignment

Trip distribution patterns for project traffic were developed using the CTP model's select zone trip assignments for the traffic analysis zone containing the project site. Separate select zone assignments were obtained for the residential and commercial portions of the project. **Figures 3-10a/b** (Project Trip Generation—Residential) and **Figures 3-11a/b** (Project Trip Generation—Commercial) show the trip distribution patterns for project traffic during the a.m. and p.m. peak hours.

The project trip generation was applied to the trip distribution patterns for the project to develop trip assignments for new project trips. **Figures 3-12a/b** (Project Trip Assignments—Residential) and **Figures 3-13a/b** (Project Trip Assignments—Commercial) show the resulting project traffic volumes at the study area intersections.

The pass-by trips are assumed to be attracted from each turning movement at the intersection of Citrus Avenue and Summit Avenue, in proportion to the number of passenger vehicles making that movement. Although pass-by trips are not assigned to roadways away from the project site, they are accounted for at the project driveways and at intersections in the immediate vicinity of the project. The net changes in traffic volumes resulting from pass-by trips are shown in **Figure 3-14** (Net Changes from Pass-by Trips).



Source: LSA Associates

(12%) 34% (Inbound) Outbound Distribution

PROJECT TRIP GENERATION—RESIDENTIAL (1 of 2)



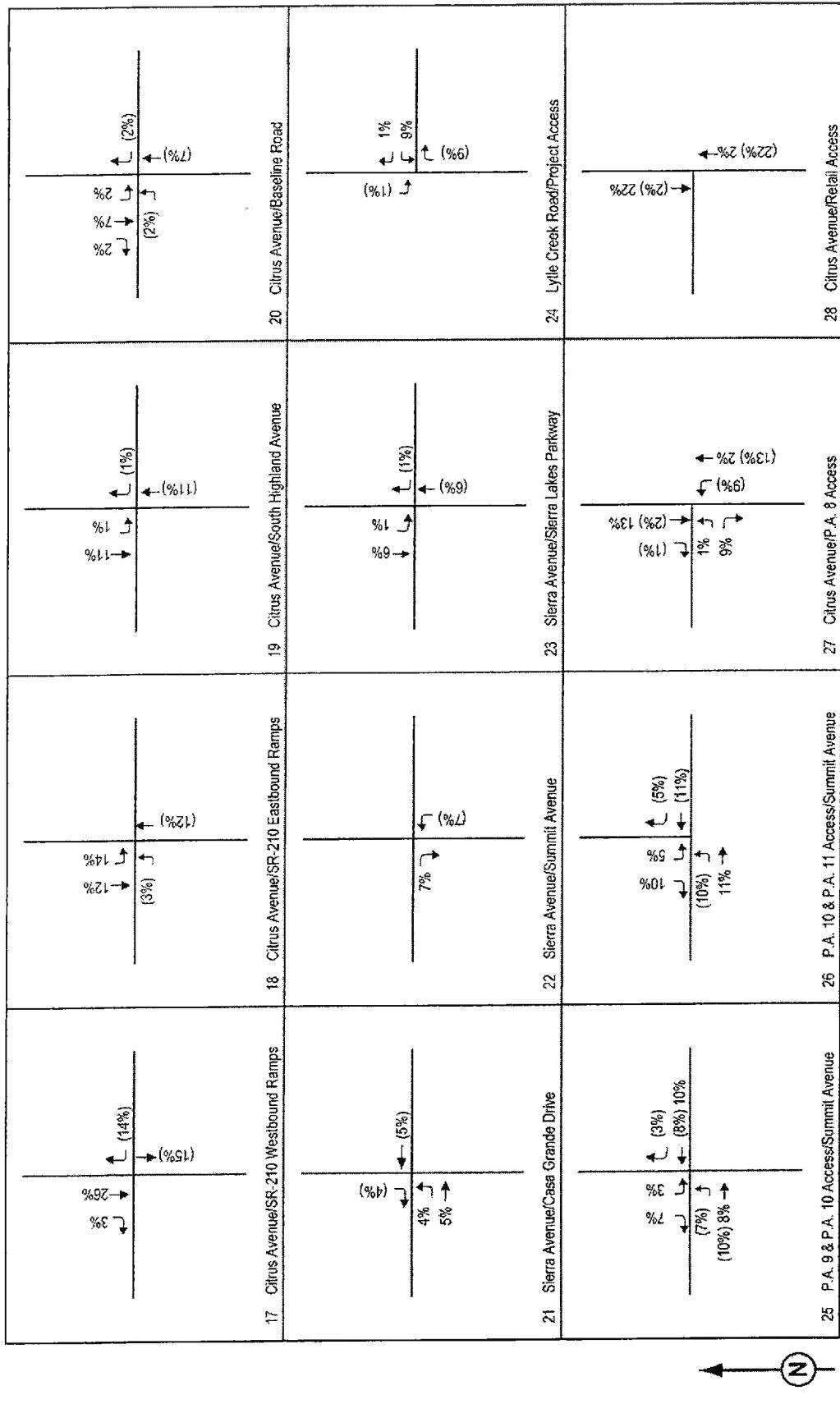
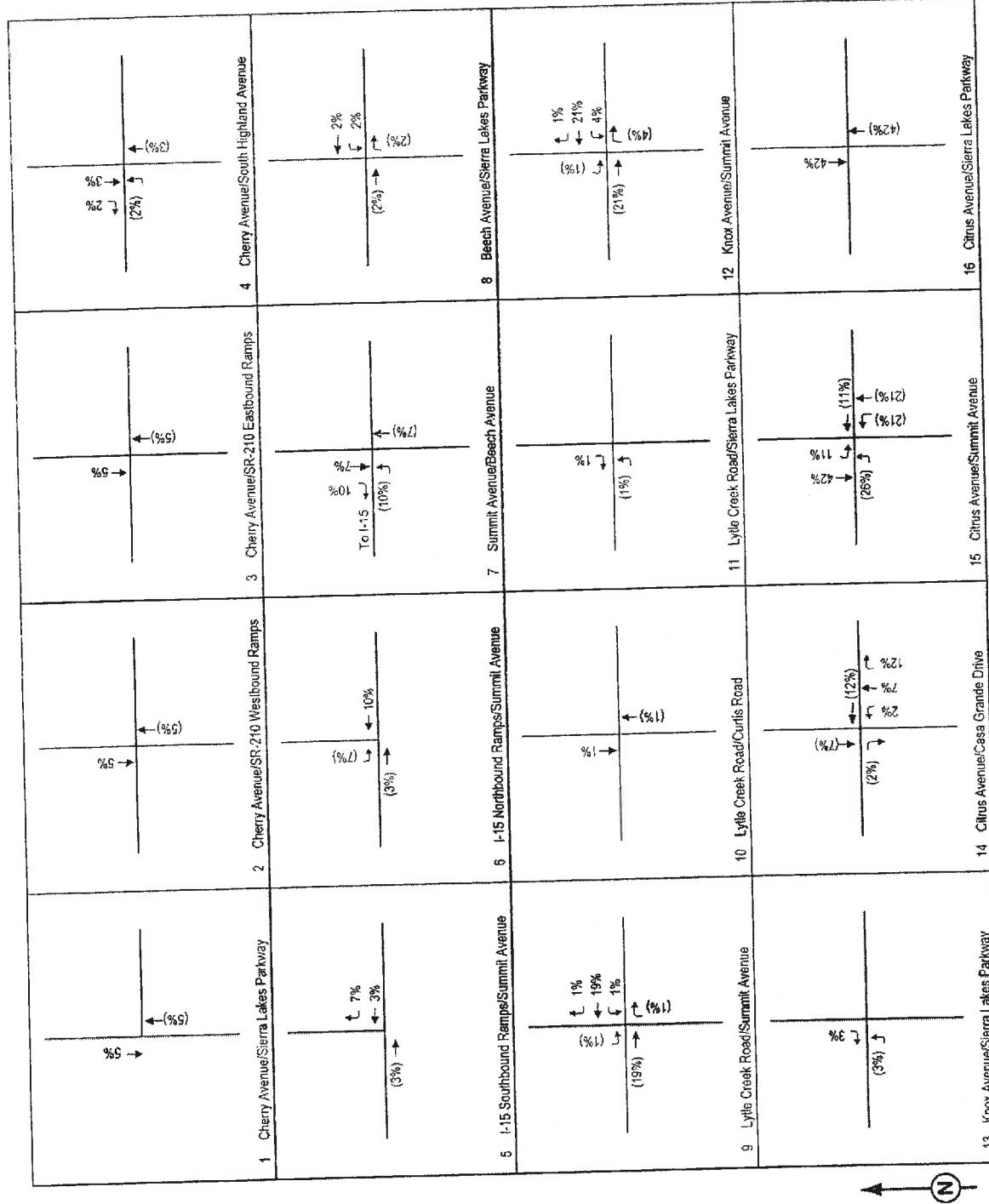
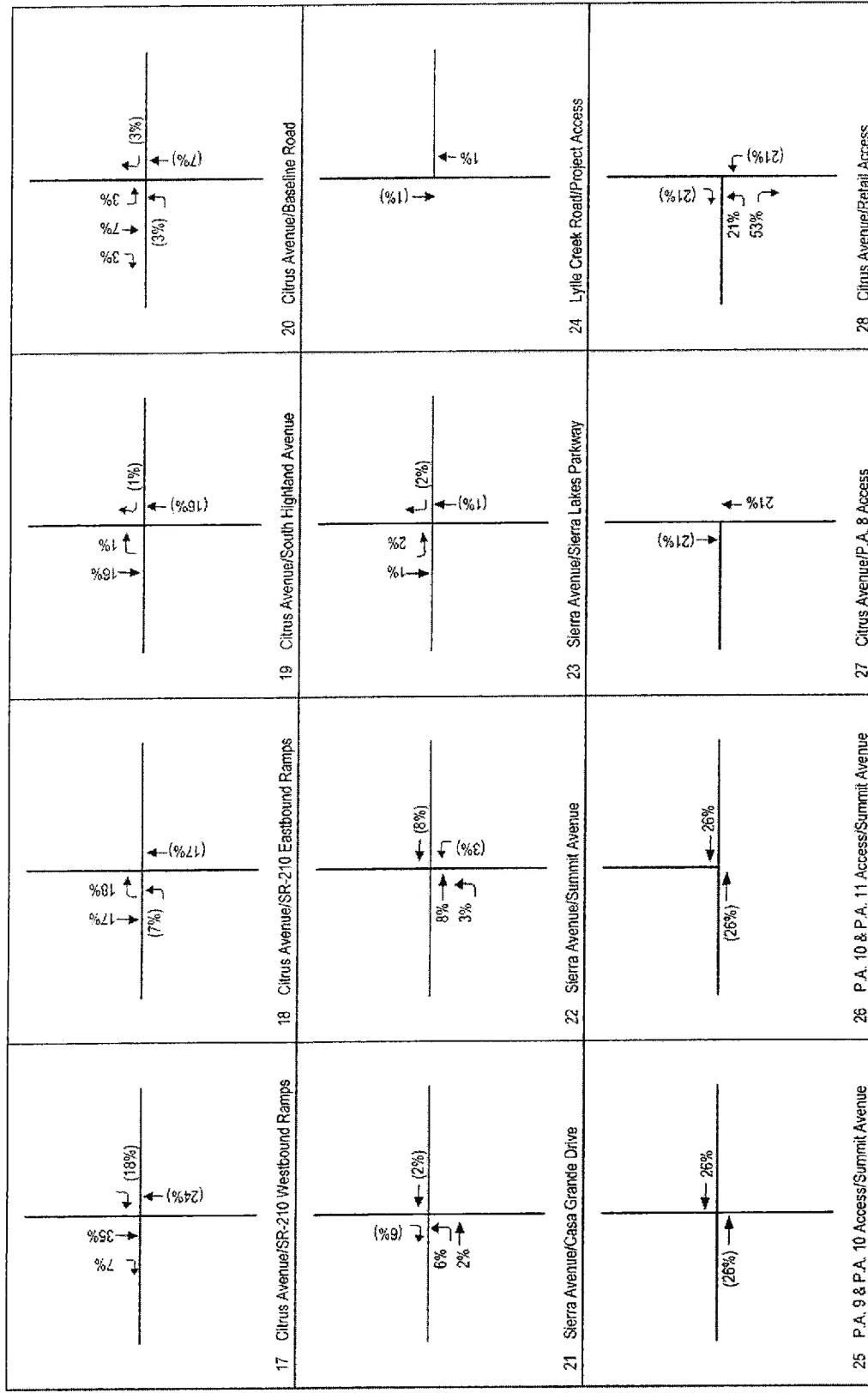


Figure 3-10b
PROJECT TRIP GENERATION—RESIDENTIAL (2 of 2)

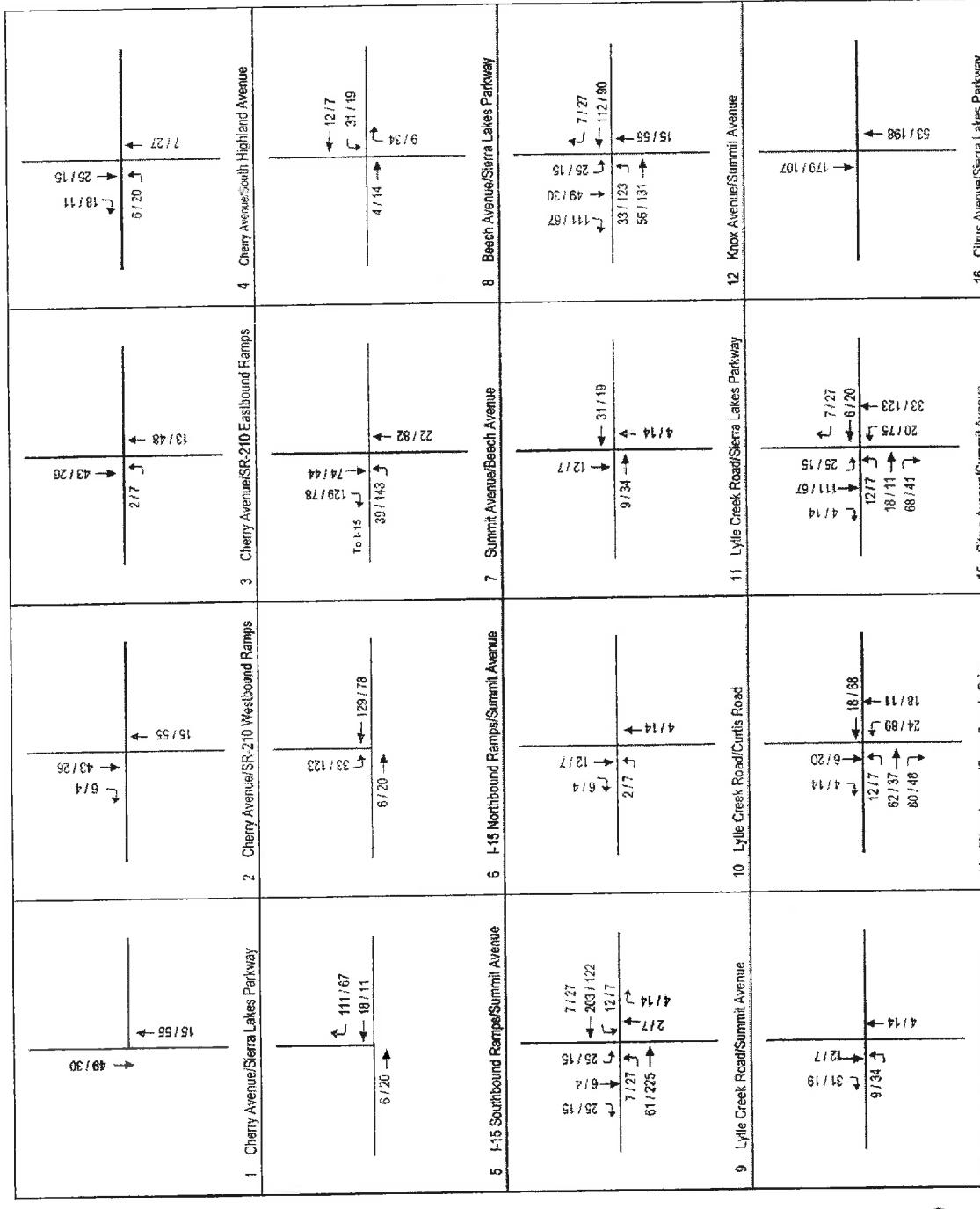


**Figure 3-11a
PROJECT TRIP GENERATION—COMMERCIAL (1 of 2)**



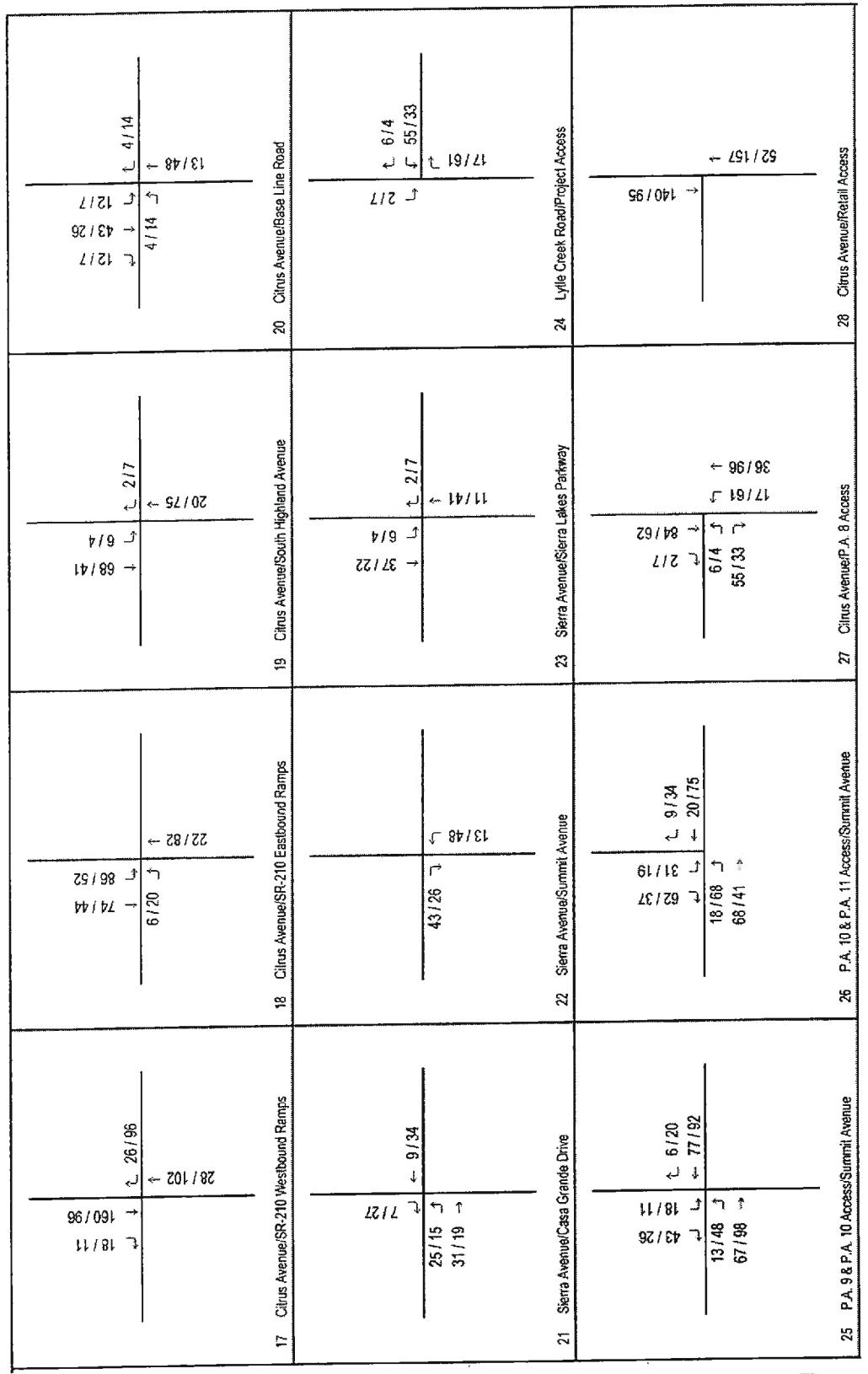
PROJECT TRIP GENERATION—COMMERCIAL (2 of 2)

3—ENVIRONMENTAL IMPACT ANALYSIS: 3.1.3, transportation and traffic



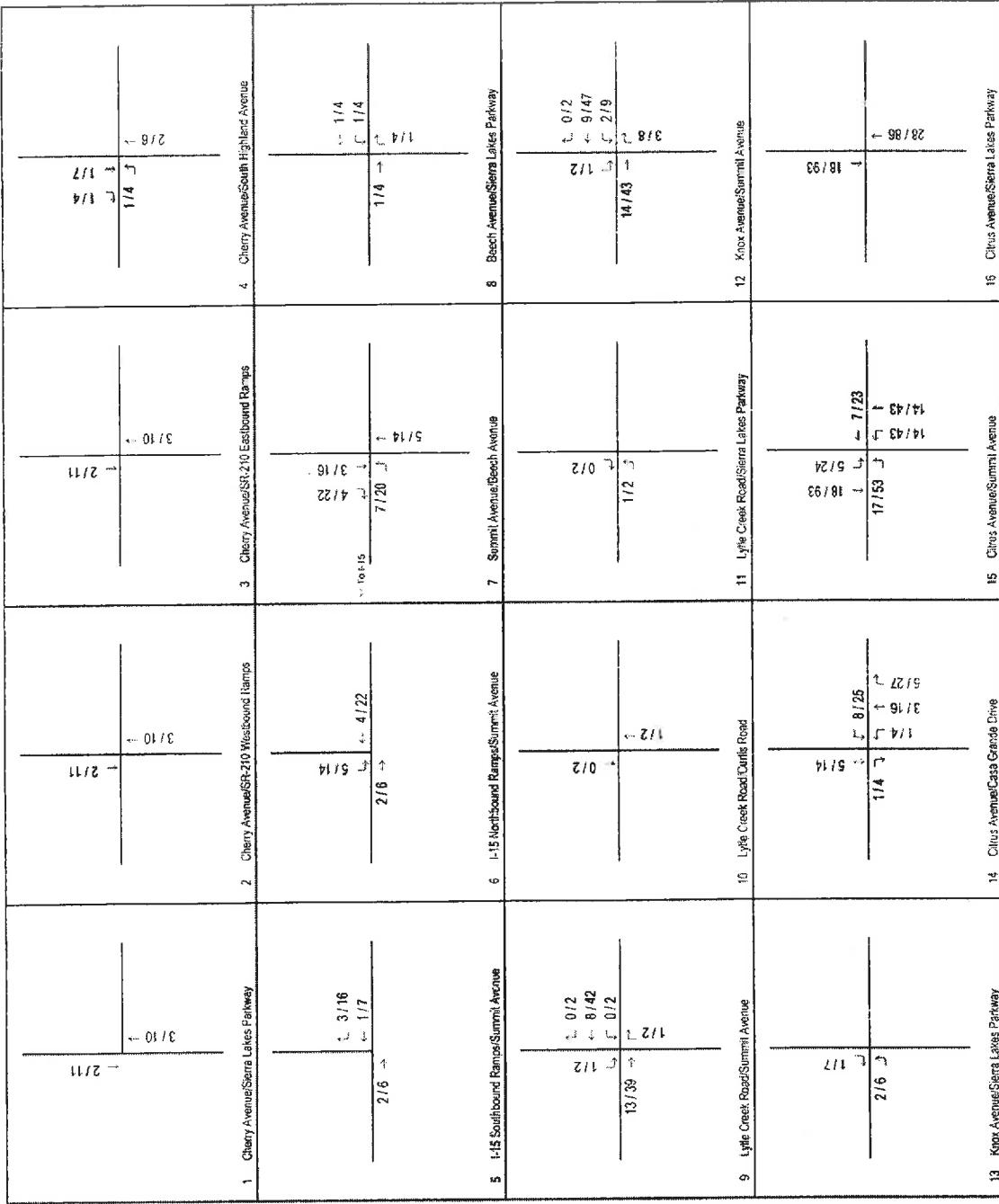
Source: LSA Associates
12/34 AM/PM Trips

Figure 3-12a
PROJECT TRIP ASSIGNMENTS—RESIDENTIAL (1 of 2)



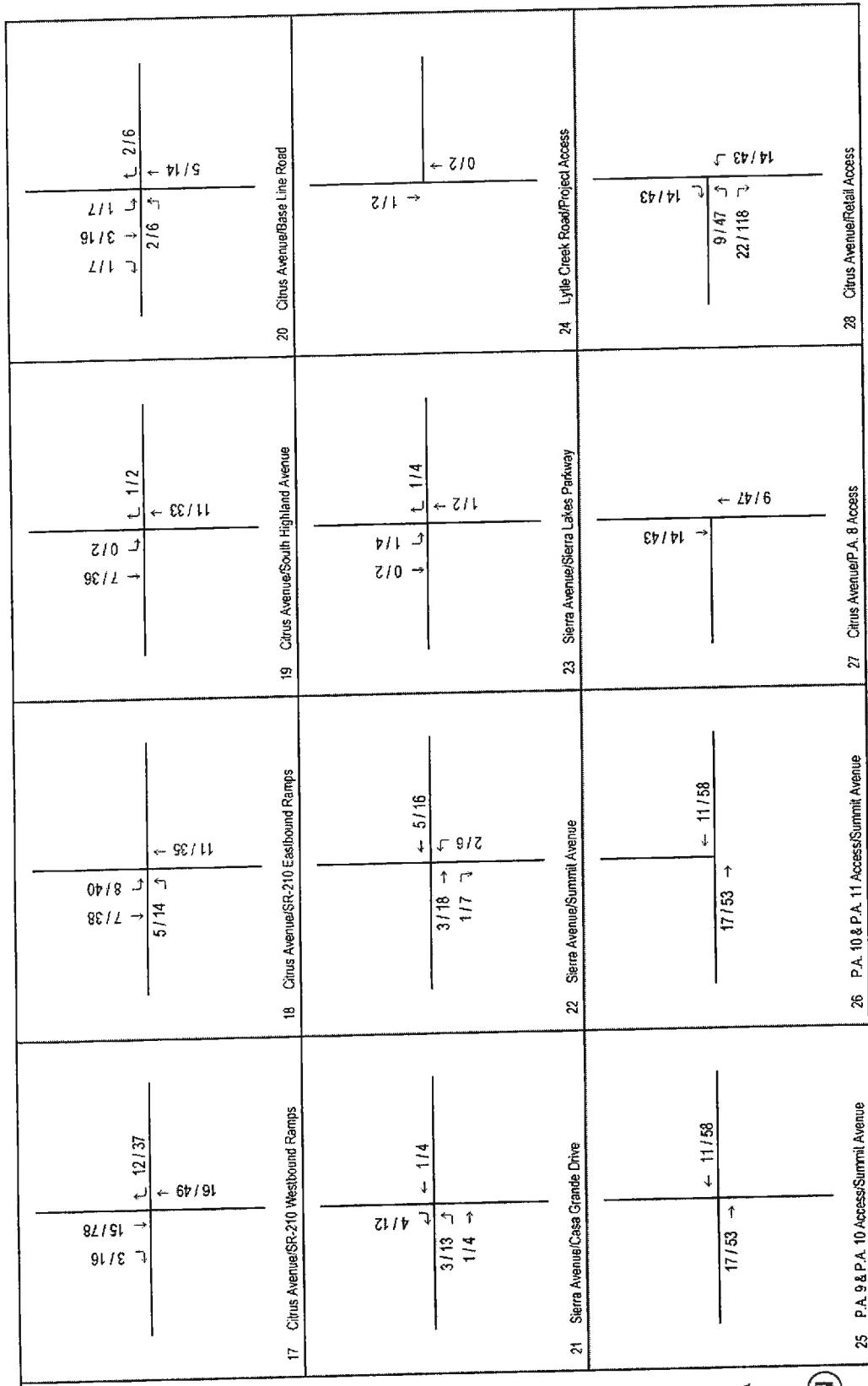
❖ **Figure 3-12b**
PROJECT TRIP ASSIGNMENTS—RESIDENTIAL (2 of 2)

❖ 3—ENVIRONMENTAL IMPACT ANALYSIS: 3.13, Transportation and Traffic ❖



PROJECT TRIP ASSIGNMENTS—COMMERCIAL (1 of 2)

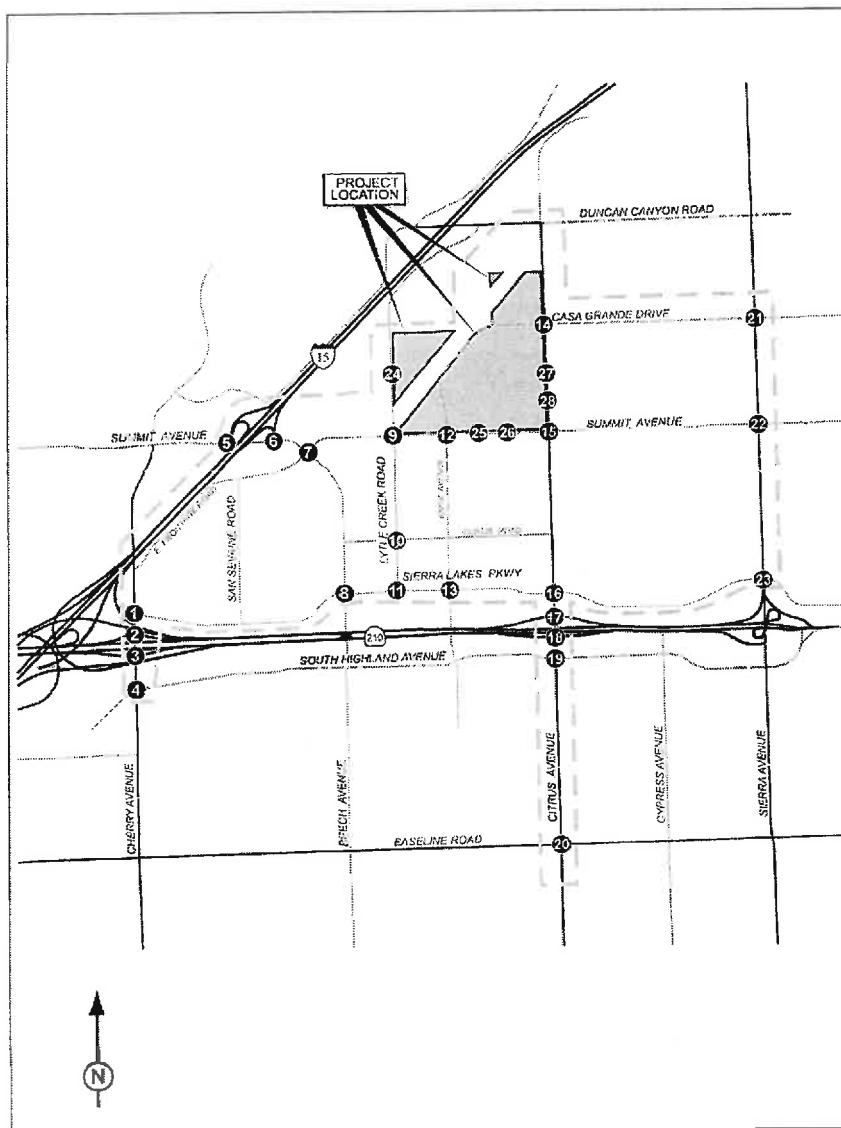
Source: LSA Associates
12/31 AWBM Trips



Source: LSA Associates
12/34 AM/PM Trips

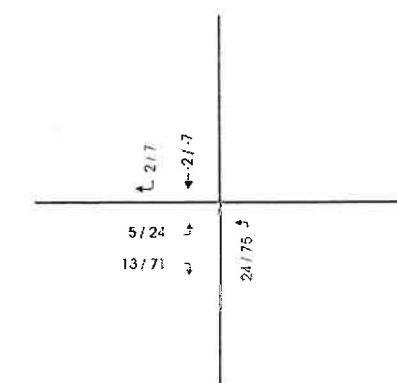


PROJECT TRIP ASSIGNMENTS—COMMERCIAL (2 of 2)

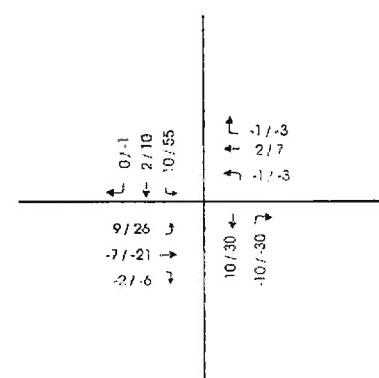


Source: LSA Associates

12/34 AM/PM Trips



28 Citrus Avenue/Retail Access



15 Citrus Avenue/Summit Avenue

Figure 3-14
NET CHANGES FROM PASS-BY TRIPS

Total project traffic volumes (including residential, new commercial, and pass-by trips) are shown in **Figures 3-15a/b** (Total Project Traffic Volumes).

3.13.2.4 Opening Year 2007 Conditions⁹³

Traffic volumes in 2007 were developed using the approach discussed under “Analysis Methodology” in the TIA, and the analysis was based on the following improvements to the existing circulation system:

- Completion of Lytle Creek Road as a two-lane collector from Sierra Lakes Parkway to Summit Avenue; this improvement is currently under construction.
- Widening of Summit Avenue to a four-lane modified secondary highway from Beech Avenue to Citrus Avenue. The City of Fontana has committed to this improvement project.
- Widening of Sierra Lakes Parkway to a four-lane arterial from Beech Avenue to Citrus Avenue. The City of Fontana has committed to this improvement project.
- Signalization of the following four intersections: Summit Avenue with Beech Avenue, Citrus Avenue, and Lytle Creek Road; and Citrus Avenue and Sierra Lakes Parkway; these improvements are committed projects being completed by adjacent development.
- Extension of Knox Avenue from Curtis Avenue to Summit Avenue; this improvement is a committed project being completed by adjacent development.
- Extension of Summit Avenue and Casa Grande Avenue from Citrus Avenue to Sierra Avenue; these improvements will be implemented by adjacent development.

Figures 3-16a/b (Future Intersection Geometric Configurations) show the intersection geometric configurations.

Year 2007 Without-Project Conditions

Intersections. The a.m. and p.m. peak-hour turn volumes for study area intersections in 2007 without the project are shown in **Figures 3-17a/b** (Year 2007 Traffic Volumes—Without Project).

⁹³ At the time of preparation of the TIA by LSA, the Citrus Heights North Specific Plan was scheduled for completion by 2007. However, a change in the construction schedule determined that project completion would be late 2009 or early 2010. It is assumed that the base year traffic data and, therefore, the predicted project impact would not be considerably different, and thus would not affect the impact assessment.

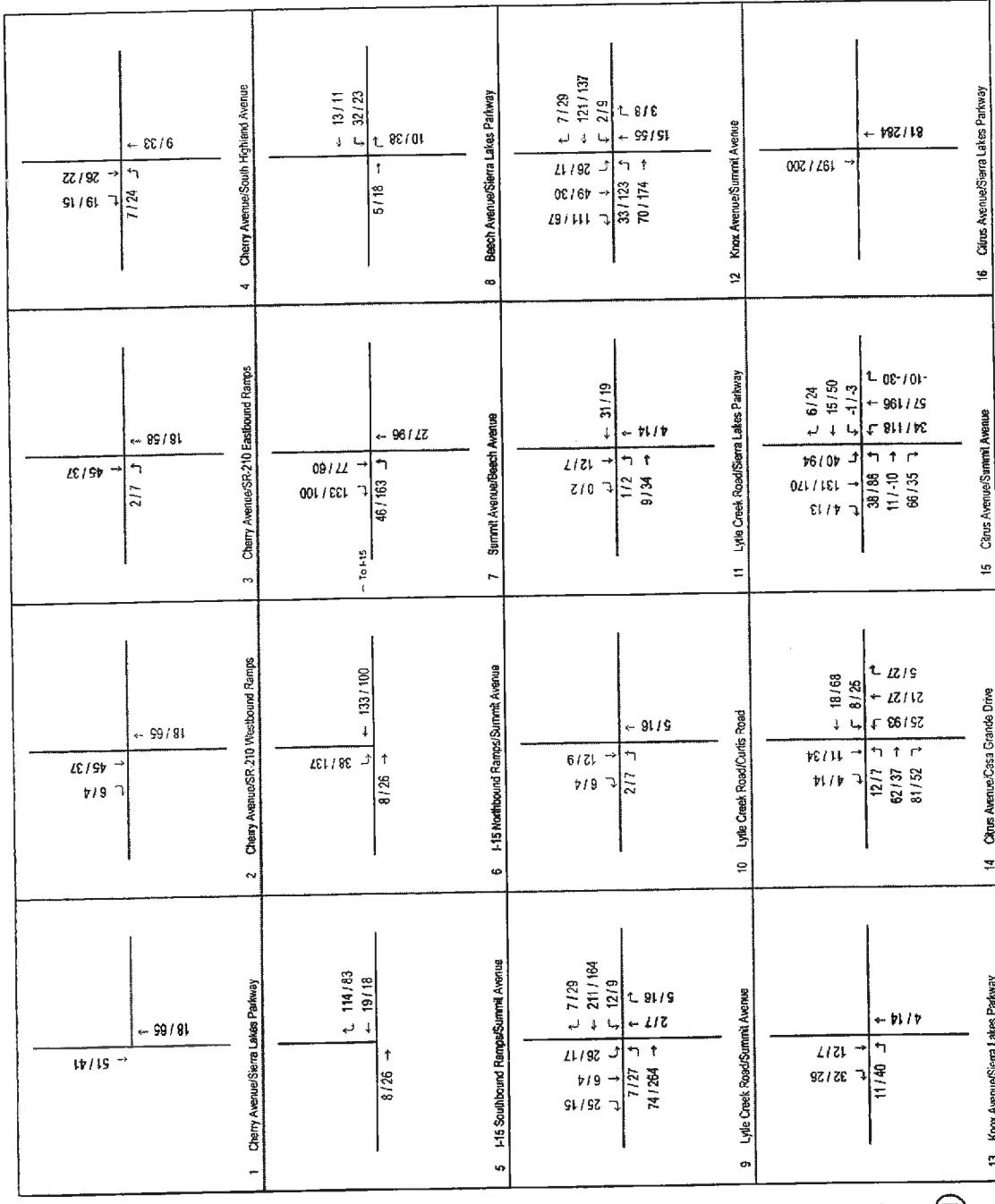


Figure 3-15a
TOTAL PROJECT TRAFFIC VOLUMES (1 of 2)

Source: LSA Associates

12/34 AM/PM Trips

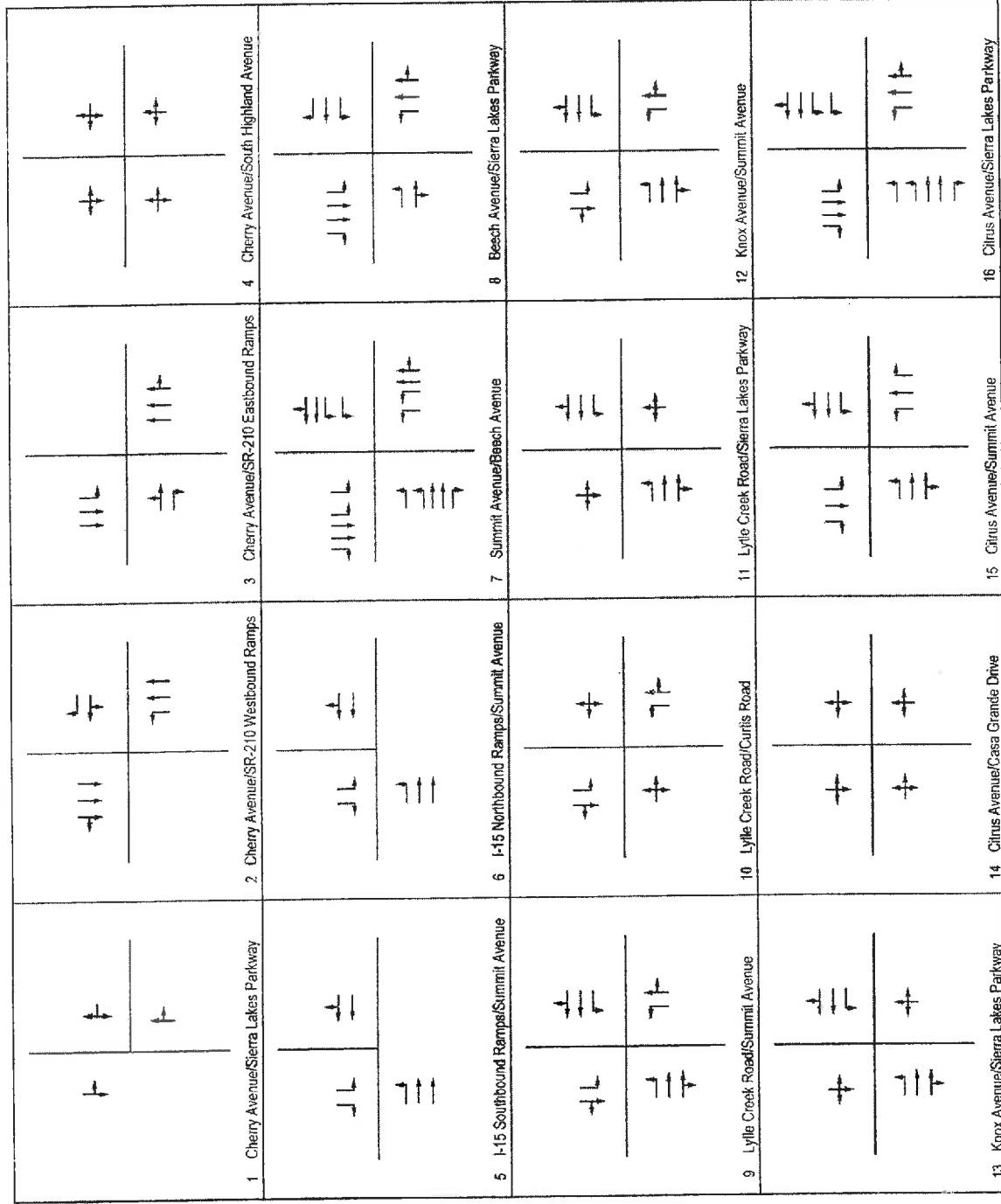
17 Citrus Avenue/SR 210 Westbound Ramps	18 Citrus Avenue/SR 210 Eastbound Ramps	19 Citrus Avenue/South Highland Avenue	20 Citrus Avenue/Base Line Road
44/151 → 21/27 ↑ 38/133	11/34 ↓ 81/82 ↑ 94/92 ↓ 33/117	6/16 ↑ 75/77 ↓ 31/108 ↑ 3/9	13/14 ↓ 46/42 ↑ 18/62 ↓ 6/20 ↑ 6/20
21 Sierra Avenue/Casa Grande Drive	22 Sierra Avenue/Summit Avenue	23 Sierra Avenue/Sierra Lakes Parkway	24 Lyle Creek Road/Project Access
28/28 ↓ 32/23 → 10/38	3/18 ↓ 44/33 → 5/16	37/24 ↓ 12/43 → 3/11	52/1457 ↓ 35/189 → 14/71 ↑ 16/50 ↓ 38/118 → 0/12 ↑ 2/17 ↓ 55/33 → 6/4 ↓ 17/61 → 1/12 ↑ 5/55 ↓ 6/4
25 P.A. 9 & P.A. 10 Access/Summit Avenue	26 P.A. 10 & P.A. 11 Access/Summit Avenue	27 Citrus Avenue/P.A. 8 Access	28 Citrus Avenue/Retail Access



Source: LSA Associates

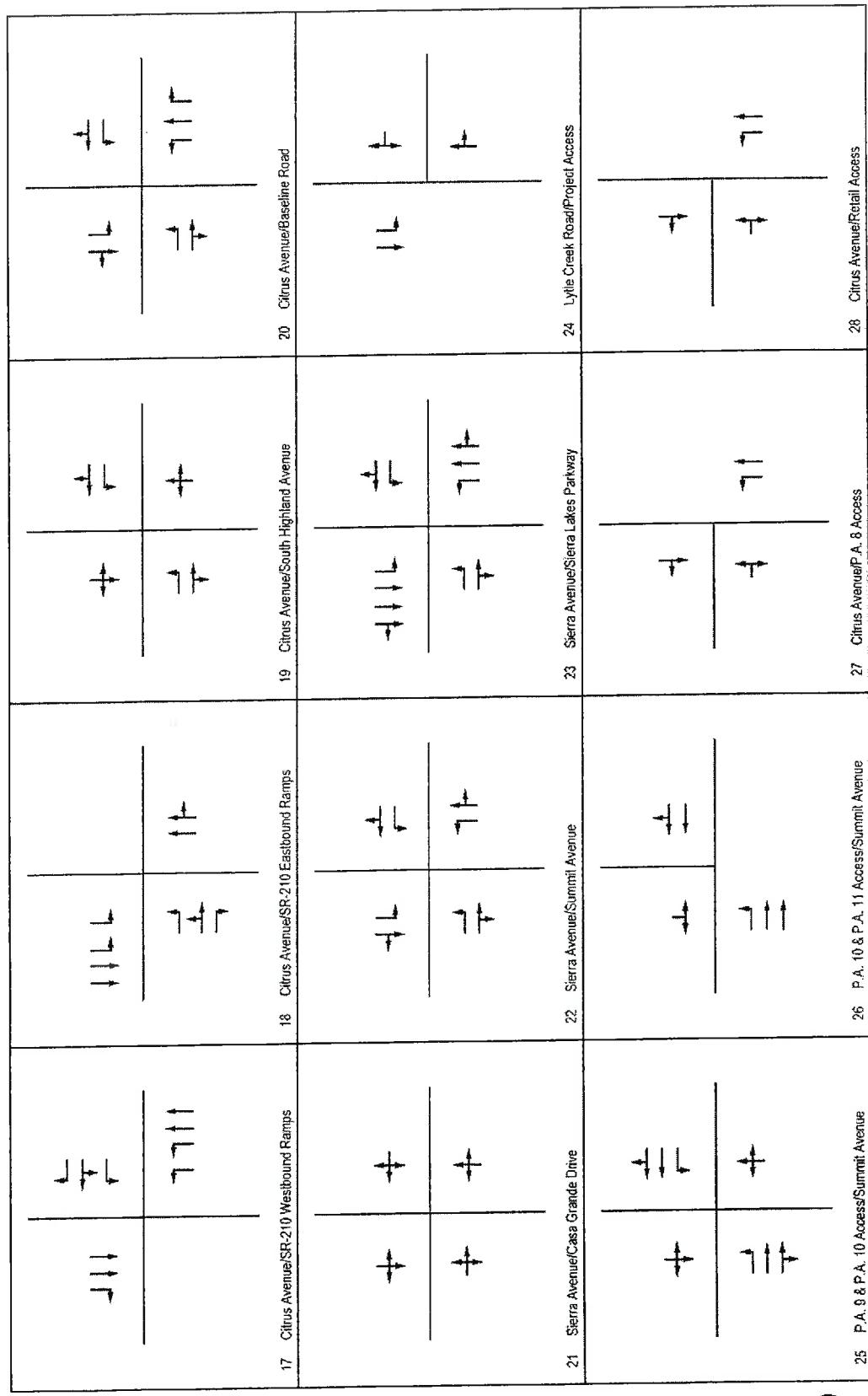
12/34 AM/PM Trips

Figure 3-15b
TOTAL PROJECT TRAFFIC VOLUMES (2 of 2)



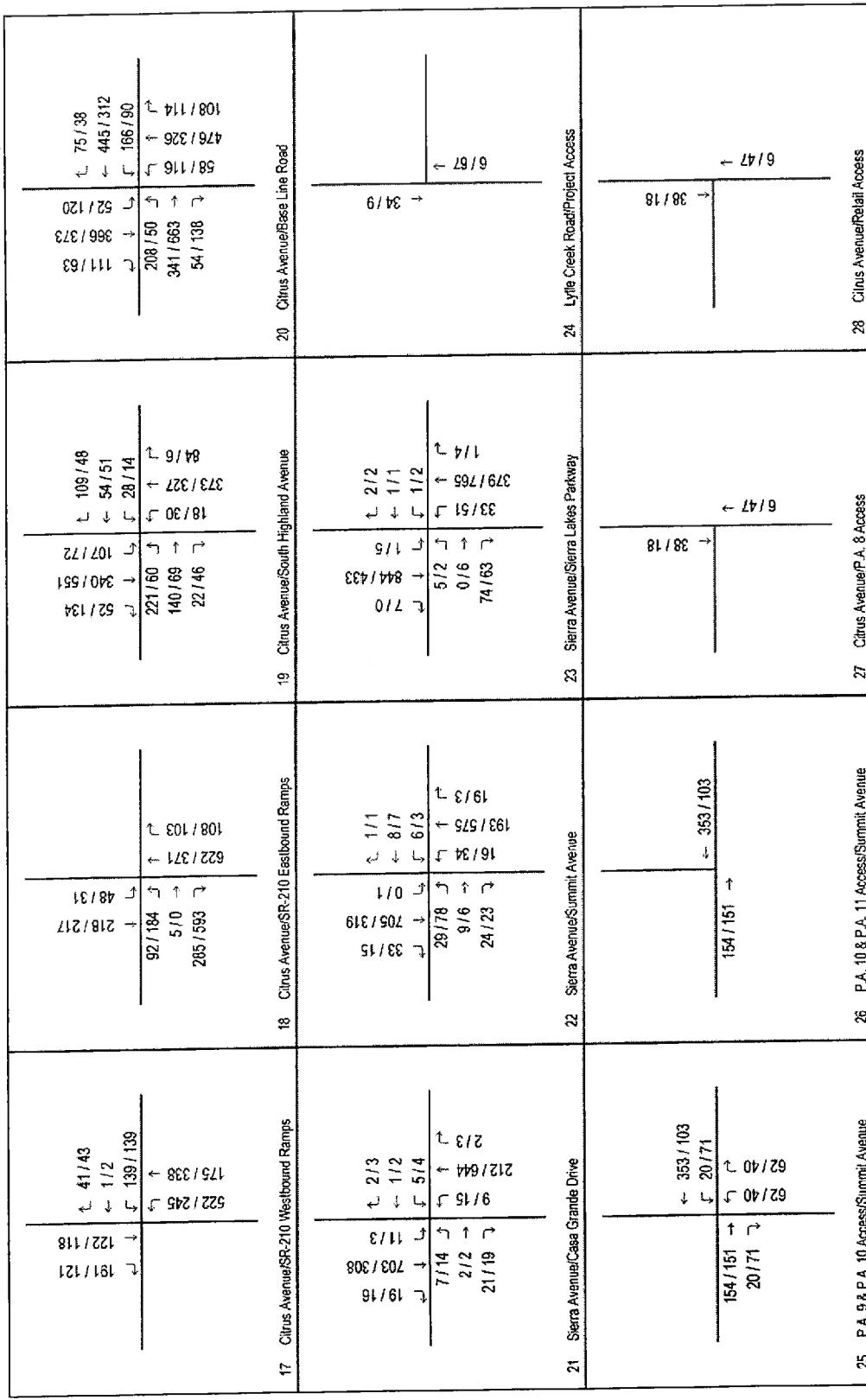
Source: LSA Associate

FUTURE INTERSECTION GEOMETRIC CONFIGURATIONS (1 o 2)



Source: LSA Associates

Figure 3-16b
FUTURE INTERSECTION GEOMETRIC CONFIGURATIONS (2 of 2)



Source: LSA Associates



Figure 3-17b
YEAR 2007 TRAFFIC VOLUMES—WITHOUT PROJECT (2 of 2)

The LOS for the study area intersections in the year 2007 without the project is summarized in **Table 3-31** (Year 2007 Intersection Levels of Service—Without Project).

As indicated in this table, all intersections examined are projected to operate at a satisfactory LOS under year 2007 without-project conditions, except for the following:

- Cherry Avenue and South Highland Avenue (a.m. and p.m. peak hours)
- Citrus Avenue and Baseline Road (a.m. and p.m. peak hours)
- Sierra Avenue and Summit Avenue (p.m. peak hour)

Table 3-31
YEAR 2007 INTERSECTION LEVELS OF SERVICE—WITHOUT PROJECT

<i>Intersection</i>	<i>Control</i>	<i>A.M. Peak Hour</i>			<i>P.M. Peak Hour</i>		
		<i>V/C</i>	<i>Delay</i>	<i>LOS</i>	<i>V/C</i>	<i>Delay</i>	<i>LOS</i>
1. Cherry Avenue/ Sierra Lakes Parkway	2WSC		16.3	C		24.1	C
2. Cherry Avenue/ SR-210 Westbound Ramps	Signal	0.62	24.4	C	0.38	15.6	B
3. Cherry Avenue/ SR-210 Eastbound Ramps	Signal	0.41	22.1	C	0.52	21.0	C
4. Cherry Avenue/ South Highland Avenue	2WSC	1.28	92.0	F	1.57	230.6	F
5. I-15 Southbound Ramps/Summit Avenue	Signal	0.51	23.8	C	0.38	19.8	B
6. I-15 Northbound Ramps/Summit Avenue	Signal	0.25	23.5	C	0.42	22.3	C
7. Summit Avenue/Beech Avenue	Signal	0.22	27.3	C	0.15	23.6	C
8. Beech Avenue/Sierra Lakes Parkway	Signal	0.26	29.7	C	0.23	29.3	C
9. Lytle Creek Road/Summit Avenue	Signal	0.25	17.8	B	0.06	18.9	B
10. Lytle Creek Road/Curtis Road	2WSC		14.9	B		10.2	B
11. Lytle Creek Road/Sierra Lakes Parkway	AWSC	0.40	10.0	A	0.19	8.1	A
12. Knox Avenue/Summit Avenue	2WSC		12.2	B		11.4	B
13. Knox Avenue/ Sierra Lakes Parkway	AWSC	0.25	8.7	A	0.11	7.8	A
14. Citrus Avenue/Casa Grande Drive	2WSC		8.7	A		9.2	A
15. Citrus Avenue/Summit Avenue	Signal	0.15	22.5	C	0.10	21.8	C
16. Citrus Avenue/Sierra Lakes Parkway	Signal	0.26	23.9	C	0.19	21.7	C
17. Citrus Avenue/SR-210 Westbound Ramps	Signal	0.35	19.9	B	0.21	17.8	B
18. Citrus Avenue/SR-210 Eastbound Ramps	Signal	0.42	17.7	B	0.53	19.8	B
19. Citrus Avenue/South Highland Avenue	Signal	0.56	22.9	C	0.57	13.1	B
20. Citrus Avenue/Baseline Road	Signal	0.81	39.5	D	0.93	45.7	D
21. Sierra Avenue/ Casa Grande Drive	2WSC		19.9	C		20.1	C
22. Sierra Avenue/Summit Avenue	2WSC		21.6	C		28.4	D
23. Sierra Avenue/ Sierra Lakes Parkway	2WSC		17.3	C		22.7	C

2WSC = Two-Way Stop Control

Boldface letters indicate exceedance of LOS standard.

AWSC = All-Way Stop Control

Delay = Average control delay in seconds; at

LOS = Level of Service

unsignalized intersections, worst-case approach is reported.

V/C = Volume/Capacity ratio

Freeway Segments. **Table 3-32** (Year 2007 Freeway Mainline Analysis—Without Project) summarizes the opening year (2007) without-project a.m. and p.m. peak-hour freeway mainline traffic volumes and

LOS for the study area freeway segments. As shown in this table, all freeway segments examined are projected to operate at a satisfactory LOS (E or better) in 2007 without-project conditions.

Table 3-32
YEAR 2007 FREEWAY MAINLINE ANALYSIS—WITHOUT PROJECT

Freeway Segment	Lanes			A.M. Peak Hour			P.M. Peak Hour				
	<i>Mixed</i>	<i>HOV</i>	<i>Cap.</i>	<i>Total Vol.</i>	<i>SF Vol.</i>	<i>V/C</i>	<i>LOS</i>	<i>Total Vol.</i>	<i>SF Vol.</i>	<i>V/C</i>	<i>LOS</i>
I-15 Northbound											
Foothill Boulevard to Baseline Road	4	0	9,200	5,155	5,426	0.59	C	8,022	8,444	0.92	E
Baseline Road to SR-210	4	0	9,200	4,624	4,868	0.53	C	7,298	7,683	0.84	D
SR-210 to Summit Avenue	4	0	9,200	4,724	4,972	0.54	C	7,849	8,263	0.90	E
I-15 Southbound											
Summit Avenue to SR-210	4	0	9,200	7,531	7,928	0.86	D	5,617	5,912	0.64	C
SR-210 to Baseline Road	4	0	9,200	6,826	7,185	0.78	D	5,436	5,722	0.62	C
Baseline Road to Foothill Boulevard	4	0	9,200	7,342	7,729	0.84	D	6,017	6,334	0.69	C
SR-210 Eastbound											
Day Creek Boulevard to I-15	3	1	8,500	2,711	2,853	0.34	B	6,108	6,430	0.76	D
Citrus Avenue to Sierra Avenue	3	1	8,500	2,817	2,966	0.35	B	5,274	5,552	0.65	C
Sierra Avenue to Alder Avenue	3	1	8,500	2,903	3,055	0.36	B	5,103	5,371	0.63	C
Alder Avenue to Ayala Drive	3	1	8,500	2,870	3,021	0.36	B	4,959	5,220	0.61	C
Ayala Drive to Riverside Avenue	3	1	8,500	3,258	3,430	0.40	B	5,194	5,467	0.64	C
Riverside Avenue to Pepper Avenue	3	1	8,500	3,767	3,965	0.47	B	5,426	5,711	0.67	C
SR-210 Westbound											
Pepper Avenue to Riverside Avenue	3	1	8,500	4,737	4,986	0.59	C	5,118	5,388	0.63	C
Riverside Avenue to Ayala Drive	3	1	8,500	4,391	4,622	0.54	C	4,291	4,516	0.53	C
Ayala Drive to Alder Avenue	3	1	8,500	4,219	4,441	0.52	C	3,971	4,180	0.49	B
Alder Avenue to Sierra Avenue	3	1	8,500	4,443	4,676	0.55	C	4,074	4,288	0.50	C
Sierra Avenue to Citrus Avenue	3	1	8,500	4,772	5,023	0.59	C	4,063	4,277	0.50	C
I-15 to Day Creek Boulevard	3	1	8,500	5,704	6,004	0.71	C	3,994	4,204	0.49	B

Based on *CMP Guidelines*, the capacity of a mixed flow lane is 2,300 vehicles per hour, and the capacity of a high-occupancy-vehicle (*HOV*) lane is 1,600 vehicles per hour.

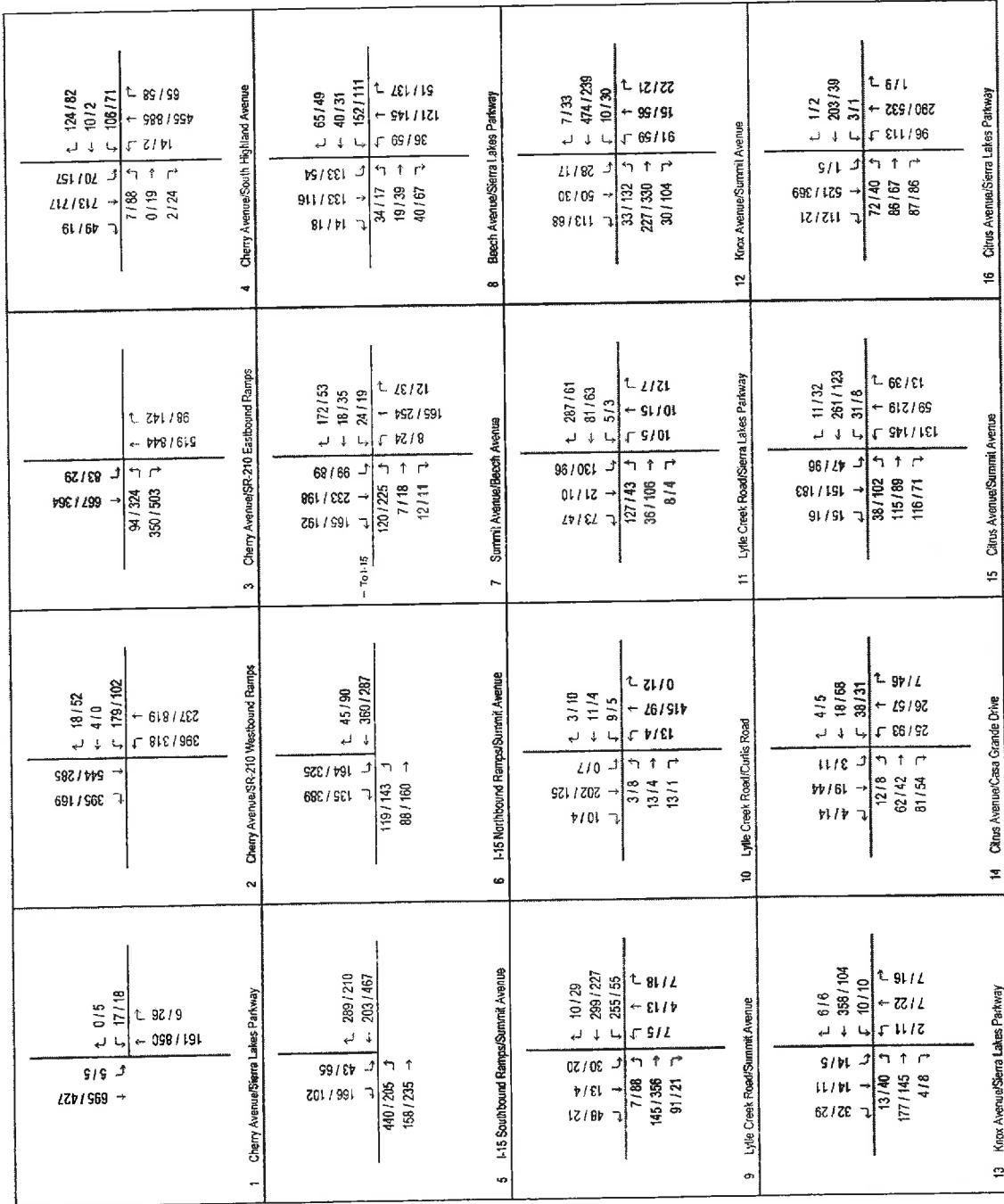
Service flow (*SF*) for each segment is calculated by dividing the total volume by the peak hour factor (PHF). A PHF of 0.95 is assumed for the service flow estimation.

Year 2007 with-Project Condition

The year 2007 with-project condition considers the addition of traffic generated by the proposed project to the roadways in the project vicinity on the opening year.

- *Intersections.* The a.m. and p.m. peak hour turn volumes for study area intersections in the year 2007 with the project are illustrated in **Figures 3-18a/b** (Year 2007 Traffic Volumes—With Project).

❖ 3—ENVIRONMENTAL IMPACT ANALYSIS: 3.13, Transportation and Traffic



Source: LSA Associates
123/456 AM/PM Volume

Figure 3-18a
YEAR 2007 TRAFFIC VOLUMES—WITH PROJECT (1 of 2)



17 Citrus Avenue/SR-210 Westbound Ramps	18 Citrus Avenue/SR-210 Eastbound Ramps	19 Citrus Avenue/South Highland Avenue	20 Citrus Avenue/Base Line Road	142/123	142/123	142/123	142/123
				297/292	297/292	297/292	297/292
212/148	219/489	285/593	655/488	108/103	108/103	108/103	108/103
				5/0	5/0	5/0	5/0
522/245	522/245	103/218	103/218	↑	↑	↑	↑
				2/3	2/3	2/3	2/3
297/139	297/139	285/593	655/488	2/3	2/3	2/3	2/3
				1/2	1/2	1/2	1/2
79/176	79/176	285/593	655/488	1/2	1/2	1/2	1/2
				139/139	139/139	139/139	139/139
17 Sierra Avenue/Casa Grande Drive	18 Sierra Avenue/Summit Avenue	19 Sierra Avenue/Sierra Lakes Parkway	20 Lyle Creek Road/Project Access	30/55	30/55	30/55	30/55
				21/19	21/19	21/19	21/19
34/42	34/42	21/24	21/24	2/3	2/3	2/3	2/3
				1/13	1/13	1/13	1/13
212/644	212/644	68/56	68/56	5/4	5/4	5/4	5/4
				1/1	1/1	1/1	1/1
35/42	35/42	29/78	29/78	1/1	1/1	1/1	1/1
				13/23	13/23	13/23	13/23
30/308	30/308	19/3	19/3	0/1	0/1	0/1	0/1
				3/15	3/15	3/15	3/15
30/319	30/319	31/575	31/575	1/1	1/1	1/1	1/1
				1/1	1/1	1/1	1/1
212/106	212/106	39/1808	39/1808	1/4	1/4	1/4	1/4
				1/13	1/13	1/13	1/13
38/204	38/204	74/63	74/63	1/2	1/2	1/2	1/2
				0/6	0/6	0/6	0/6
38/118	38/118	33/51	33/51	1/2	1/2	1/2	1/2
				1/12	1/12	1/12	1/12
17/61	17/61	17/61	17/61	5/13	5/13	5/13	5/13
				1/1	1/1	1/1	1/1
35/111	35/111	35/111	35/111	6/4	6/4	6/4	6/4
				55/33	55/33	55/33	55/33
17/61	17/61	17/61	17/61	6/69	6/69	6/69	6/69
				1/4	1/4	1/4	1/4
38/204	38/204	38/204	38/204	1/18	1/18	1/18	1/18
				176/106	176/106	176/106	176/106
17/61	17/61	17/61	17/61	1/50	1/50	1/50	1/50
				1/27	1/27	1/27	1/27
38/118	38/118	38/118	38/118	1/190	1/190	1/190	1/190
				136/123	136/123	136/123	136/123
17/61	17/61	17/61	17/61	6/4	6/4	6/4	6/4
				55/33	55/33	55/33	55/33
38/204	38/204	38/204	38/204	14/71	14/71	14/71	14/71
				35/133	35/133	35/133	35/133
25 PA 9 & PA 10 Access/Summit Avenue	25 PA 9 & PA 10 Access/Summit Avenue	26 PA 10 & PA 11 Access/Summit Avenue	27 Citrus Avenue/P.A. 8 Access	62/40	62/40	62/40	62/40
				13/48	13/48	13/48	13/48
239/302	239/302	239/245	239/245	44/1253	44/1253	44/1253	44/1253
				6/20	6/20	6/20	6/20
20/71	20/71	20/71	20/71	1/19	1/19	1/19	1/19
				31/34	31/34	31/34	31/34
62/37	62/37	62/37	62/37	18/68	18/68	18/68	18/68
				239/296	239/296	239/296	239/296
17/61	17/61	17/61	17/61	5/190	5/190	5/190	5/190
				136/123	136/123	136/123	136/123
24 Lyle Creek Road/Project Access	24 Lyle Creek Road/Project Access	25 PA 9 & PA 10 Access/Summit Avenue	28 Citrus Avenue/Retail Access	1/190	1/190	1/190	1/190
				35/133	35/133	35/133	35/133

Source: LSA Associates

123/456 AM/PM Volume



Figure 3-18b
YEAR 2007 TRAFFIC VOLUMES—WITH PROJECT (2 of 2)

- The LOSs for the study area intersections in the year 2007 with the project are summarized in Table 3-33 (Year 2007 Intersection Levels of Service—with Project).

**Table 3-33
YEAR 2007 INTERSECTION LEVELS OF SERVICE—WITH-PROJECT**

<i>Intersection</i>	<i>Control</i>	A.M. Peak Hour			P.M. Peak Hour		
		V/C	Delay	LOS	V/C	Delay	LOS
1. Cherry Avenue/ Sierra Lakes Parkway	2WSC		17.6	C		27.6	D
2. Cherry Avenue/ SR-210 Westbound Ramps	Signal	0.63	24.3	C	0.38	15.5	B
3. Cherry Avenue/ SR-210 Eastbound Ramps	Signal	0.43	21.7	C	0.54	21.1	C
4. Cherry Avenue/ South Highland Avenue	2WSC	1.36	112.4	F	1.66	265.4	F
5. I-15 Southbound Ramps/Summit Avenue	Signal	0.57	24.8	C	0.41	18.8	B
6. I-15 Northbound Ramps/Summit Avenue	Signal	0.31	23.0	C	0.45	22.7	C
7. Summit Avenue/Beech Avenue	Signal	0.24	26.3	C	0.24	22.7	C
8. Beech Avenue/Sierra Lakes Parkway	Signal	0.28	29.9	C	0.27	29.5	C
9. Lytle Creek Road/Summit Avenue	Signal	0.29	18.2	B	0.19	18.2	B
10. Lytle Creek Road/Curtis Road	2WSC		15.2	C		10.5	B
11. Lytle Creek Road/Sierra Lakes Parkway	AWSC	0.41	10.2	B	0.21	8.3	A
12. Knox Avenue/Summit Avenue	2WSC		22.5	C		30.2	D
13. Knox Avenue/ Sierra Lakes Parkway	AWSC	0.26	8.9	A	0.11	8.0	A
14. Citrus Avenue/Casa Grande Drive	2WSC		10.6	B		13.8	B
15. Citrus Avenue/Summit Avenue	Signal	0.30	29.4	C	0.33	28.8	C
16. Citrus Avenue/Sierra Lakes Parkway	Signal	0.32	21.2	C	0.25	17.0	B
17. Citrus Avenue/SR-210 Westbound Ramps	Signal	0.36	20.8	C	0.29	20.8	C
18. Citrus Avenue/SR-210 Eastbound Ramps	Signal	0.46	20.0	B	0.60	23.0	C
19. Citrus Avenue/South Highland Avenue	Signal	0.61	22.6	C	0.63	13.0	B
20. Citrus Avenue/Baseline Road	Signal	0.86	42.4	D	0.96	51.7	D
21. Sierra Avenue/ Casa Grande Drive	2WSC		29.0	D		33.8	D
22. Sierra Avenue/Summit Avenue	2WSC		24.1	C		35.8	E
23. Sierra Avenue/ Sierra Lakes Parkway	2WSC		14.6	B		15.9	C
24. Lytle Creek Road/Project Access	2WSC		9.0	A		9.3	A
25. Summit Avenue/PA 9 & 10 Access	2WSC		13.9	B		15.9	C
26. Summit Avenue/PA 10 & 11 Access	2WSC		11.7	B		10.9	B
27. Citrus Avenue/PA 8 Access	2WSC		9.4	A		9.4	A
28. Citrus Avenue/Retail Access	2WSC		9.9	A		13.3	B

2WSC = Two-Way Stop Control

AWSC = All-Way Stop Control

LOS = Level of Service

V/C = Volume/Capacity ratio

Boldface letters indicate exceedance of LOS standard.

Delay = Average control delay in seconds; at unsignalized intersections, worst-case approach is reported.

- As indicated in this table, all intersections examined are projected to operate at a satisfactory LOS under year 2007 with-project conditions, except for the following, which would potentially operate at less than satisfactory LOS. As this would exceed the threshold criteria described in Section 3.13.2.2, the project would potentially result in adverse and significant impacts in 2007.
- Cherry Avenue and Sierra Lakes Parkway (p.m. peak hour)—Addition of project traffic would degrade the LOS to D, which would exceed the City's significance threshold level of LOS C.
- Cherry Avenue and South Highland Avenue (a.m. and p.m. peak hours)—This intersection would operate at an unsatisfactory LOS under 2007 without-project conditions; addition of project traffic would contribute to this unsatisfactory LOS. Both the without-project and with-project traffic in 2007 would degrade to LOS F, which would exceed the City's significance threshold level of LOS C.
- Knox Avenue and Summit Avenue (p.m. peak hour)—Addition of project traffic would degrade the LOS to D, which would exceed the City's significance threshold level of LOS C.
- Citrus Avenue and Baseline Road (a.m. and p.m. peak hours)—This intersection would operate at an unsatisfactory LOS under 2007 without-project conditions; addition of project traffic would contribute to this unsatisfactory LOS. Both the without-project and with-project traffic in 2007 would degrade to LOS D, which would exceed the City's significance threshold level of LOS C.
- Sierra Avenue and Casa Grande Drive (a.m. and p.m. peak hours)—Addition of project traffic would degrade the LOS to D, which would exceed the City's significance threshold level of LOS C.
- Sierra Avenue and Summit Avenue (p.m. peak hour)—This intersection would operate at an unsatisfactory LOS under 2007 without-project conditions; addition of project traffic would contribute to this unsatisfactory LOS. The without-project traffic would result in LOS D; and the with-project traffic would worsen to LOS E, which would exceed the City's significance threshold level of LOS C.

Freeway Segments. **Table 3-34** (Year 2007 Freeway Mainline Analysis—with Project) summarizes the opening year 2007 with-project a.m. and p.m. peak-hour freeway mainline traffic volumes and LOS for the study area freeway segments.

As shown in this table, all freeway segments examined are projected to operate at a satisfactory LOS (E or better) in 2007 with-project conditions. As this would not exceed the threshold criteria described in Section 3.13.2.2, the project would not result in adverse and significant impacts on freeway segments.

3.13.2.5 Forecast Year 2025 Conditions

Year 2025 traffic volumes were developed using the TIA analysis methodology. The analysis of year 2025 conditions is based on the same circulation improvements assumed under year 2007 conditions.

Year 2025 Without-Project Condition

Intersections. The a.m. and p.m. peak-hour turn volumes for study area intersections in the year 2025 without the project are shown in **Figures 3-19a/b** (Year 2025 Traffic Volumes—Without Project).

The LOS for the study area intersections in year 2025 without the project are summarized in **Table 3-35** (Year 2025 Intersection Levels of Service—Without Project).

As shown in this table, all intersections examined are projected to operate at a satisfactory LOS under year 2025 without-project conditions, except for the following:

- Cherry Avenue and Sierra Lakes Parkway (a.m. and p.m. peak hours)
- Cherry Avenue and South Highland Avenue (a.m. and p.m. peak hours)
- Citrus Avenue and Baseline Road (a.m. and p.m. peak hours)
- Sierra Avenue and Casa Grande Drive (a.m. and p.m. peak hours)
- Sierra Avenue and Summit Avenue (a.m. and p.m. peak hours)
- Sierra Avenue and Sierra Lakes Parkway (a.m. and p.m. peak hours)

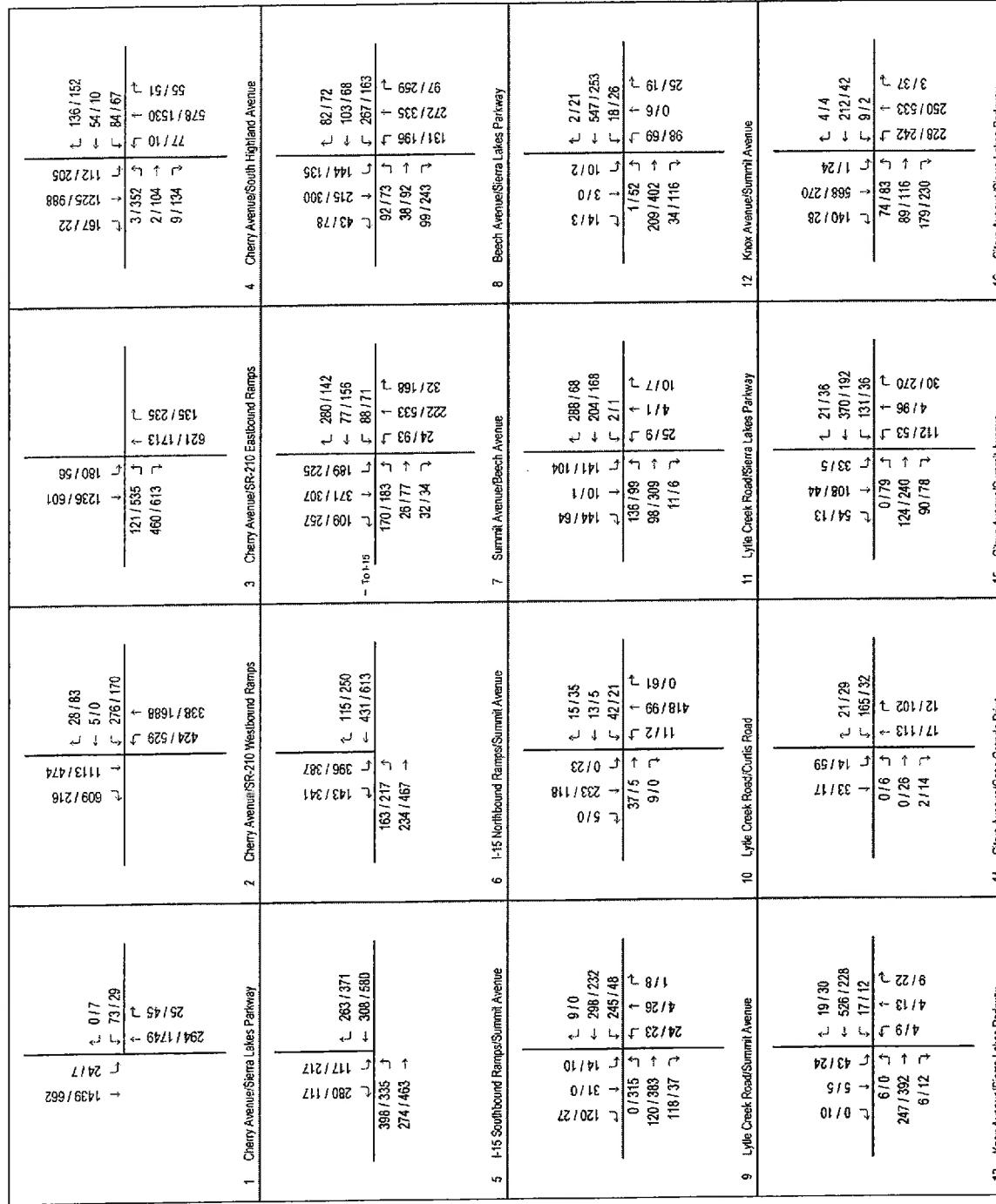
Freeway Segments. Table 3-36 (Year 2025 Freeway Mainline Analysis—Without-Project) summarizes the a.m. and p.m. peak-hour freeway mainline traffic volumes and levels of service for the study area freeway segments in the year 2025 without the project.

Table 3-34
YEAR 2007 FREEWAY MAINLINE ANALYSIS—WITH-PROJECT

Freeway Segment	Lanes			A.M. Peak Hour			P.M. Peak Hour				
	Mixed	HOV	Cap.	Total Vol.	SF Vol.	V/C	LOS	Total Vol.	SF Vol.	V/C	LOS
I-15 Northbound:											
Foothill Boulevard to Baseline Road	4	0	9,200	5,182	5,455	0.59	C	8,118	8,545	0.93	E
Baseline Road to SR-210	4	0	9,200	4,658	4,903	0.53	C	7,414	7,804	0.85	D
SR-210 to Summit Avenue	4	0	9,200	4,762	5,012	0.54	C	7,986	8,407	0.91	E
I-15 Southbound:											
Summit Avenue to SR-210	4	0	9,200	7,645	8,048	0.87	D	5,700	6,000	0.65	C
SR-210 to Baseline Road	4	0	9,200	6,918	7,282	0.79	D	5,511	5,801	0.63	C
Baseline Road to Foothill Boulevard	4	0	9,200	7,418	7,809	0.85	D	6,079	6,399	0.70	C
SR-210 Eastbound:											
Day Creek Boulevard to I-15	3	1	8,500	2,728	2,872	0.34	B	6,170	6,495	0.76	D
Citrus Avenue to Sierra Avenue	3	1	8,500	2,911	3,065	0.36	B	5,366	5,648	0.66	C
Sierra Avenue to Alder Avenue	3	1	8,500	2,997	3,154	0.37	B	5,195	5,468	0.64	C
Alder Avenue to Ayala Drive	3	1	8,500	2,952	3,107	0.37	B	5,039	5,304	0.62	C
Ayala Drive to Riverside Avenue	3	1	8,500	3,322	3,497	0.41	B	5,256	5,533	0.65	C
Riverside Avenue to Pepper Avenue	3	1	8,500	3,819	4,020	0.47	B	5,476	5,765	0.68	C
SR-210 Westbound:											
Pepper Avenue to Riverside Avenue	3	1	8,500	4,758	5,008	0.59	C	5,191	5,465	0.64	C
Riverside Avenue to Ayala Drive	3	1	8,500	4,417	4,649	0.55	C	4,381	4,612	0.54	C
Ayala Drive to Alder Avenue	3	1	8,500	4,252	4,476	0.53	C	4,087	4,302	0.51	C
Alder Avenue to Sierra Avenue	3	1	8,500	4,481	4,716	0.55	C	4,207	4,428	0.52	C
Sierra Avenue to Citrus Avenue	3	1	8,500	4,810	5,063	0.60	C	4,196	4,417	0.52	C
I-15 to Day Creek Boulevard	3	1	8,500	5,753	6,056	0.71	D	4,034	4,246	0.50	B

Based on CMP guidelines, the capacity of a mixed flow lane is 2,300 vehicles per hour, and the capacity of a high-occupancy-vehicle (HOV) lane is 1,600 vehicles per hour.

Service flow (SF) for each segment is calculated by dividing the total volume by the peak hour factor (PHF). A PHF of 0.95 is assumed for the service flow estimation.



Source: LSA Associates
123456 AM/PM Volume



Figure 3-19a
YEAR 2005 TRAFFIC VOLUMES—WITHOUT PROJECT (1 of 2)

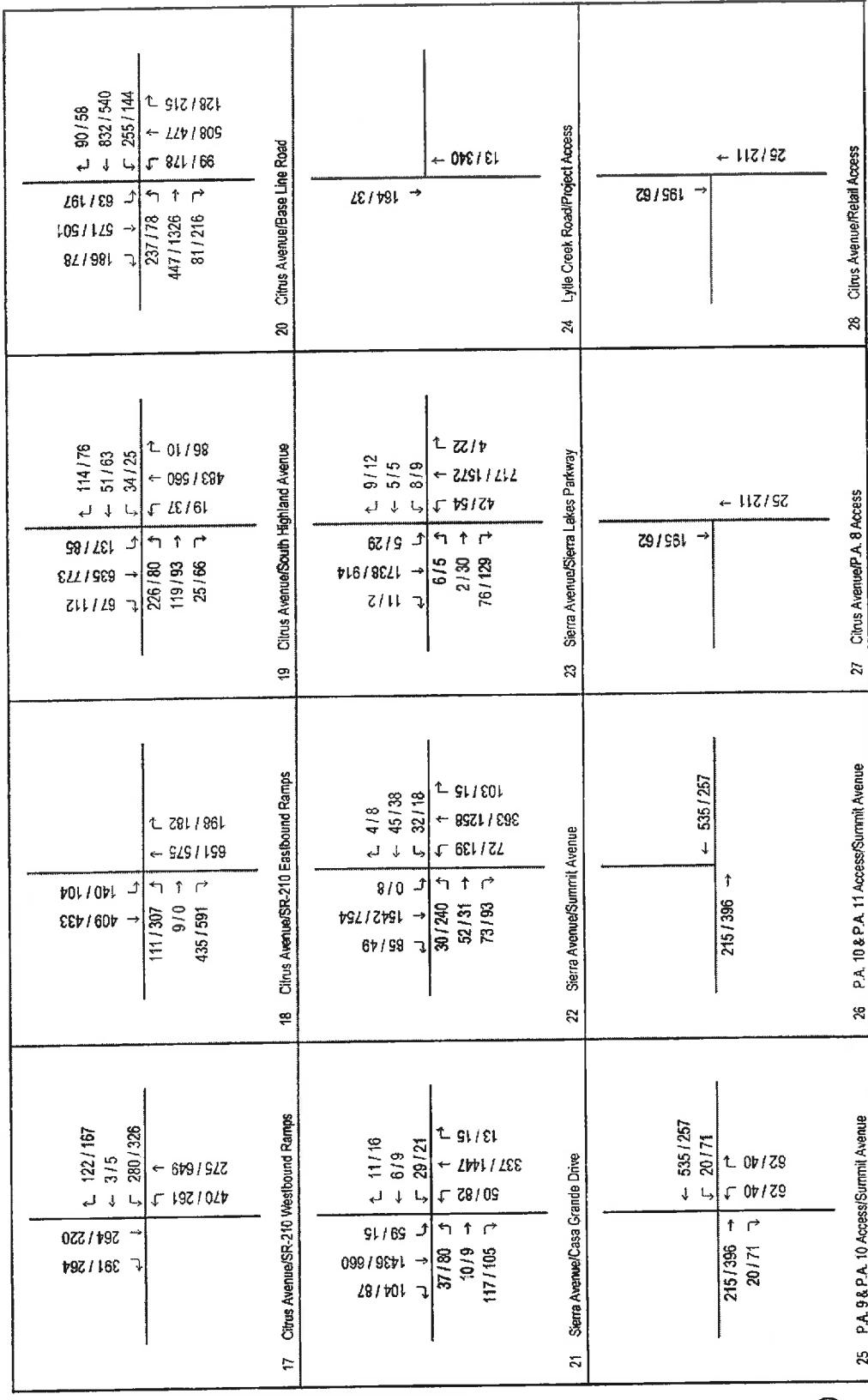


Figure 3-19b
YEAR 2005 TRAFFIC VOLUMES—WITHOUT PROJECT (2 of 2)

Source: LSA Associates
123456 AM/PM Volume

Table 3-35
YEAR 2025 INTERSECTION LEVELS OF SERVICE—WITHOUT PROJECT

<i>Intersection</i>	<i>Control</i>	<i>A.M. Peak Hour</i>			<i>P.M. Peak Hour</i>		
		<i>V/C</i>	<i>Delay</i>	<i>LOS</i>	<i>V/C</i>	<i>Delay</i>	<i>LOS</i>
1. Cherry Avenue/ Sierra Lakes Parkway	2WSC		195.8	F		>300	F
2. Cherry Avenue/ SR-210 Westbound Ramps	Signal	0.84	29.8	C	0.64	16.7	B
3. Cherry Avenue/ SR-210 Eastbound Ramps	Signal	0.67	23.3	C	0.82	26.4	C
4. Cherry Avenue/ South Highland Avenue	2WSC	2.58	>300	F	3.80	>300	F
5. I-15 Southbound Ramps/Summit Avenue	Signal	0.61	26.6	C	0.66	23.5	C
6. I-15 Northbound Ramps/Summit Avenue	Signal	0.54	24.6	C	0.67	25.4	C
7. Summit Avenue/Beech Avenue	Signal	0.39	28.3	C	0.46	26.1	C
8. Beech Avenue/Sierra Lakes Parkway	Signal	0.48	33.0	C	0.60	34.1	C
9. Lytle Creek Road/Summit Avenue	Signal	0.35	22.3	C	0.31	17.6	B
10. Lytle Creek Road/Curtis Road	2WSC		17.9	C		11.4	B
11. Lytle Creek Road/Sierra Lakes Parkway	AWSC	0.50	11.9	B	0.28	9.6	A
12. Knox Avenue/Summit Avenue	2WSC		15.7	C		20.2	C
13. Knox Avenue/ Sierra Lakes Parkway	AWSC	0.40	10.1	B	0.30	9.3	A
14. Citrus Avenue/Casa Grande Drive	2WSC		10.1	B		11.1	B
15. Citrus Avenue/Summit Avenue	Signal	0.30	26.1	C	0.30	25.0	C
16. Citrus Avenue/Sierra Lakes Parkway	Signal	0.45	25.8	C	0.40	23.5	C
17. Citrus Avenue/SR-210 Westbound Ramps	Signal	0.50	23.0	C	0.37	19.4	B
18. Citrus Avenue/SR-210 Eastbound Ramps	Signal	0.58	22.2	C	0.64	22.9	C
19. Citrus Avenue/South Highland Avenue	Signal	0.77	23.7	C	0.74	16.9	B
20. Citrus Avenue/Baseline Road	Signal	1.29	124.7	F	1.57	225.8	F
21. Sierra Avenue/ Casa Grande Drive	2WSC		>300	F		>300	F
22. Sierra Avenue/Summit Avenue	2WSC		>300	F		>300	F
23. Sierra Avenue/ Sierra Lakes Parkway	2WSC		116.2	F		>300	F

2WSC = Two-Way Stop Control

AWSC = All-Way Stop Control

LOS = Level of Service

V/C = Volume/Capacity ratio

Boldface letters indicate exceedance of LOS standard.

Delay = Average control delay in seconds; at unsignalized intersections, worst-case approach is reported.

Table 3-36
YEAR 2025 FREEWAY MAINLINE ANALYSIS—WITHOUT PROJECT

Freeway Segment	Lanes			A.M. Peak Hour				P.M. Peak Hour			
	Mixed	HOV	Cap.	Total Vol.	SF Vol.	V/C	LOS	Total Vol.	SF Vol.	V/C	LOS
I-15 Northbound:											
Foothill Boulevard to Baseline Road	4	0	9,200	7,252	7,634	0.83	D	14,549	15,315	1.66	F
Baseline Road to SR-210	4	0	9,200	7,029	7,389	0.80	D	14,217	14,965	1.63	F
SR-210 to Summit Avenue	4	0	9,200	7,306	7,691	0.84	D	16,521	17,390	1.89	F
I-15 Southbound:											
Summit Avenue to SR-210	4	0	9,200	17,017	17,912	1.95	F	9,812	10,328	1.12	F
SR-210 to Baseline Road	4	0	9,200	13,979	14,715	1.60	F	9,169	9,652	1.05	F
Baseline Road to Foothill Boulevard	4	0	9,200	13,658	14,377	1.56	F	9,390	9,884	1.07	F
SR-210 Eastbound:											
Day Creek Boulevard to I-15	3	1	8,500	4,959	5,220	0.61	C	11,181	11,769	1.38	F
Citrus Avenue to Sierra Avenue	3	1	8,500	5,154	5,425	0.64	C	9,654	10,162	1.20	F
Sierra Avenue to Alder Avenue	3	1	8,500	5,310	5,590	0.66	C	9,340	9,832	1.16	F
Alder Avenue to Ayala Drive	3	1	8,500	5,250	5,526	0.65	C	9,077	9,554	1.12	F
Ayala Drive to Riverside Avenue	3	1	8,500	5,961	6,275	0.74	D	9,507	10,007	1.18	F
Riverside Avenue to Pepper Avenue	3	1	8,500	6,892	7,254	0.85	D	9,932	10,454	1.23	F
SR-210 Westbound:											
Pepper Avenue to Riverside Avenue	3	1	8,500	8,666	9,122	1.07	F	9,369	9,862	1.16	F
Riverside Avenue to Ayala Drive	3	1	8,500	8,033	8,456	0.99	E	7,854	8,267	0.97	E
Ayala Drive to Alder Avenue	3	1	8,500	7,719	8,125	0.96	E	7,269	7,652	0.90	E
Alder Avenue to Sierra Avenue	3	1	8,500	8,127	8,555	1.01	F	7,457	7,850	0.92	E
Sierra Avenue to Citrus Avenue	3	1	8,500	8,730	9,190	1.08	F	7,437	7,828	0.92	E
I-15 to Day Creek Boulevard	3	1	8,500	10,435	10,984	1.29	F	7,310	7,695	0.91	E

Based on CMP guidelines, the capacity of a mixed flow lane is 2,300 vehicles per hour, and the capacity of a high-occupancy-vehicle (HOV) lane is 1,600 vehicles per hour.

Service flow (SF) for each segment is calculated by dividing the total volume by the peak hour factor (PHF). A PHF of 0.95 is assumed for the service flow estimation.

Boldface letters indicate exceedance of LOS standard.

As shown in this table, all freeway segments examined are projected to operate at satisfactory levels of service (LOS E or better) under 2025 without-project conditions, except for the following:

- I-15 Northbound, between Foothill Boulevard and Summit Avenue (p.m. peak hour)
- I-15 Southbound, between Summit Avenue and Foothill Boulevard (a.m. and p.m. peak hour)
- SR-210 Eastbound, between Day Creek Boulevard and I-15 (p.m. peak hour)
- SR-210 Eastbound, between Citrus Avenue and Pepper Avenue (p.m. peak hour)
- SR-210 Westbound, between Pepper Avenue and Riverside Ave. (a.m. and p.m. peak hours)
- SR-210 Westbound, between Alder Avenue and Citrus Avenue (a.m. peak hour)
- SR-210 Westbound, between I-15 and Day Creek Boulevard (a.m. peak hour)

Year 2025 with-Project Condition

The year 2025 with-project condition considers the addition of traffic generated by the proposed project to the roadways in the project vicinity in the year 2025.

Intersections. The a.m. and p.m. peak-hour turn volumes for study area intersections in the year 2025 with the project are shown in **Figures 3-20a/b** (Year 2025 Traffic Volumes—with Project).

The LOS for the study area intersections in year 2025 with the project are summarized in **Table 3-37** (Year 2025 Intersection Levels of Service—with-Project).

Table 3-37
YEAR 2025 INTERSECTION LEVELS OF SERVICE—WITH PROJECT

<i>Intersection</i>	<i>Control</i>	<i>A.M. Peak Hour</i>			<i>P.M. Peak Hour</i>		
		<i>V/C</i>	<i>Delay</i>	<i>LOS</i>	<i>V/C</i>	<i>Delay</i>	<i>LOS</i>
1. Cherry Avenue/ Sierra Lakes Parkway	2WSC		243.4	F		>300	F
2. Cherry Avenue/ SR-210 Westbound Ramps	Signal	0.85	30.0	C	0.66	16.8	B
3. Cherry Avenue/ SR-210 Eastbound Ramps	Signal	0.69	23.2	C	0.83	26.8	C
4. Cherry Avenue/ South Highland Avenue	2WSC	2.67	>300	F	3.88	>300	F
5. I-15 Southbound Ramps/Summit Avenue	Signal	0.67	27.1	C	0.69	16.8	C
6. I-15 Northbound Ramps/Summit Avenue	Signal	0.60	25.4	C	0.79	26.8	C
7. Summit Avenue/Beech Avenue	Signal	0.41	27.9	C	0.55	>300	C
8. Beech Avenue/Sierra Lakes Parkway	Signal	0.51	33.0	C	0.64	23.5	C
9. Lytle Creek Road/Summit Avenue	Signal	0.40	22.1	C	0.42	28.7	B
10. Lytle Creek Road/Curtis Road	2WSC		18.4	C		26.7	B
11. Lytle Creek Road/Sierra Lakes Parkway	AWSC	0.53	12.4	B	0.30	34.8	A
12. Knox Avenue/Summit Avenue	2WSC		45.1	E		19.0	F
13. Knox Avenue/ Sierra Lakes Parkway	AWSC	0.41	10.4	B	0.31	11.6	A
14. Citrus Avenue/Casa Grande Drive	2WSC		14.1	B		10.0	C
15. Citrus Avenue/Summit Avenue	Signal	0.44	30.5	C	0.46	173.4	C
16. Citrus Avenue/Sierra Lakes Parkway	Signal	0.51	24.2	C	0.46	9.5	C
17. Citrus Avenue/SR-210 Westbound Ramps	Signal	0.52	22.6	C	0.46	23.0	C
18. Citrus Avenue/SR-210 Eastbound Ramps	Signal	0.63	23.7	C	0.71	29.9	C
19. Citrus Avenue/South Highland Avenue	Signal	0.83	25.2	C	0.80	22.2	B
20. Citrus Avenue/Baseline Road	Signal	1.34	137.6	F	1.60	21.0	F
21. Sierra Avenue/ Casa Grande Drive	2WSC		>300	F		>300	F
22. Sierra Avenue/Summit Avenue	2WSC		>300	F		>300	F
23. Sierra Avenue/ Sierra Lakes Parkway	2WSC		122.8	F		>300	F
24. Lytle Creek Road/Project Access	2WSC		9.8	A		11.7	B
25. Summit Avenue/PA 9 &10 Access	2WSC		16.9	C		26.4	D
26. Summit Avenue/PA 10 & 11 Access	2WSC		13.9	B		13.1	B
27. Citrus Avenue/PA 8 Access	2WSC		10.5	B		9.9	A
28. Citrus Avenue/Retail Access	2WSC		11.3	B		16.2	C

2WSC = Two-Way Stop Control

AWSC = All-Way Stop Control

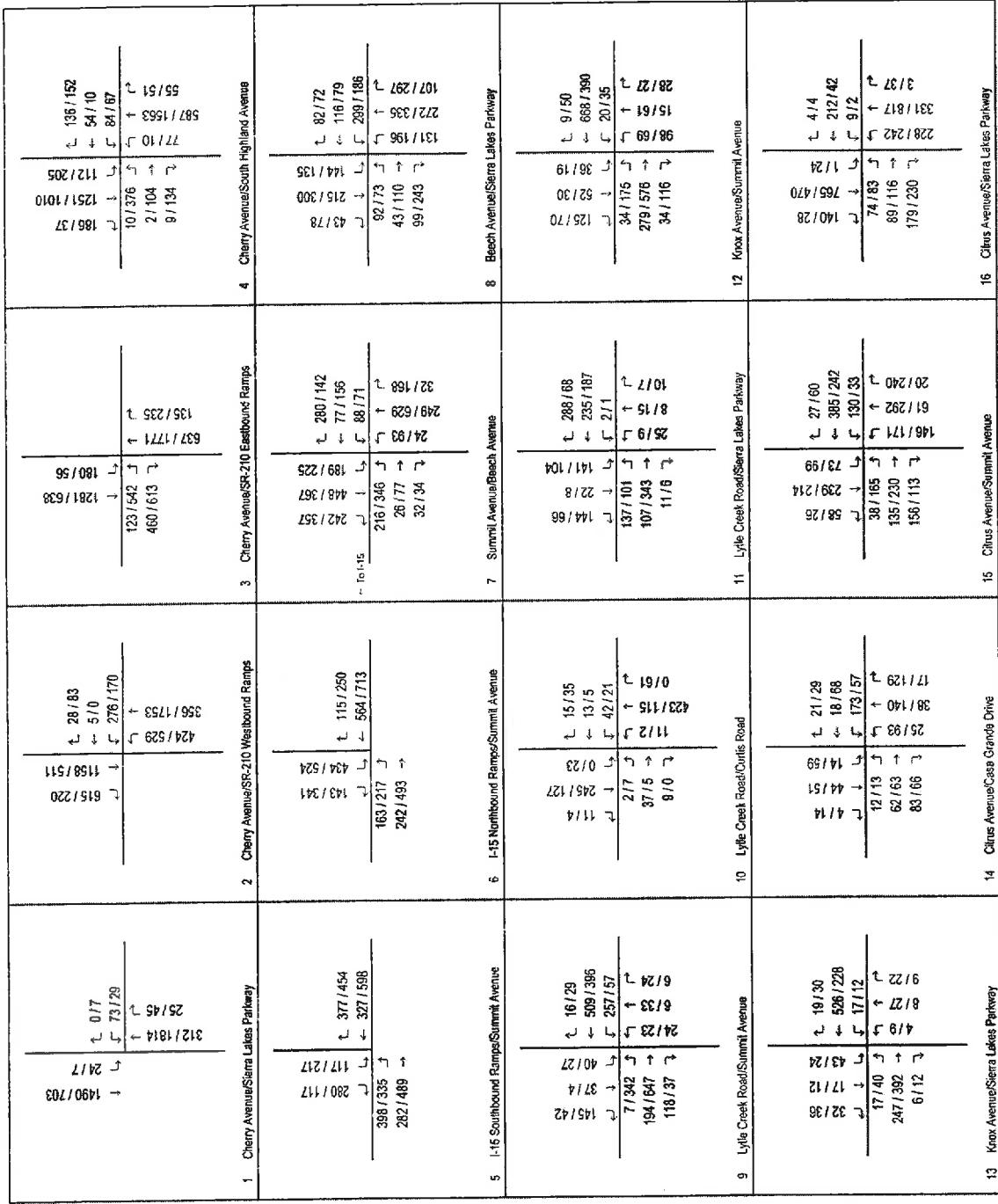
LOS = Level of Service

V/C = Volume/Capacity ratio

Boldface letters indicate exceedance of LOS standard.

Delay = Average control delay in seconds; at unsignalized intersections, worst-case approach is reported.

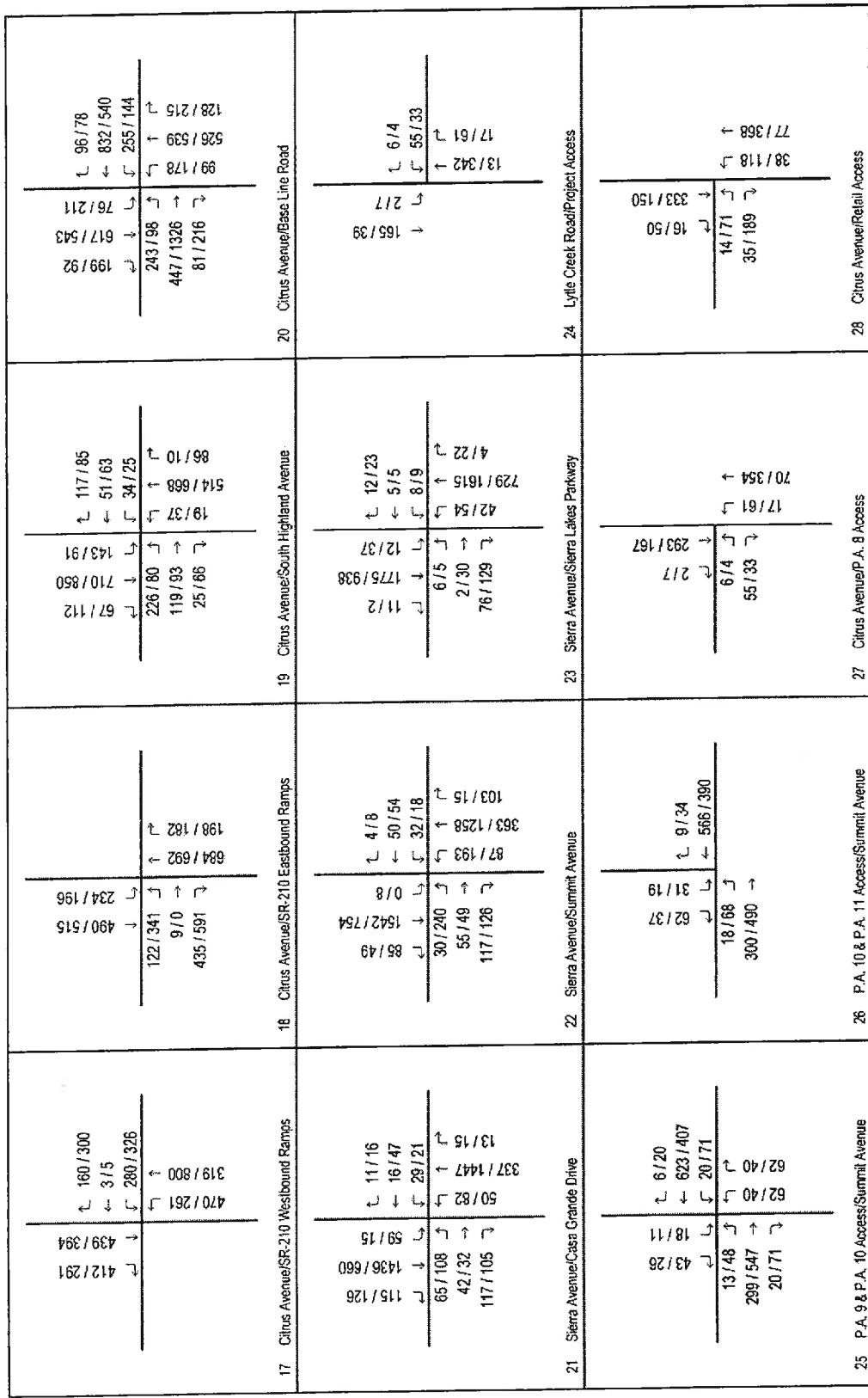
3—ENVIRONMENTAL IMPACT ANALYSIS: 3.13, Transportation and Traffic



Source: LSA Associates

Figure 3-20a
YEAR 2025 TRAFFIC VOLUMES—WITH PROJECT (1 of 2)

❖ 3—ENVIRONMENTAL IMPACT ANALYSIS: 3.13, Transportation and Traffic ❖



Source: LSA Associates
123/456 AM/PM Volume

Figure 3-20b
YEAR 2025 TRAFFIC VOLUMES—WITH PROJECT (2 of 2)

As indicated in this table, with project conditions, the following intersections would operate at an unacceptable LOS (D, E or F). As this would exceed the threshold criteria described in Section 3.13.2.2, this would potentially result in adverse and significant impacts.

- Cherry Avenue and Sierra Lakes Parkway (a.m. and p.m. peak hours)—This intersection would operate at an unsatisfactory LOS under 2025 without-project conditions; addition of project traffic would contribute to this unsatisfactory condition. Both the without-project and with-project traffic in 2025 would degrade to LOS F, which would exceed the City's significance threshold level of LOS C.
- Cherry Avenue and South Highland Avenue (a.m. and p.m. peak hours)—This intersection would operate at an unsatisfactory LOS under 2025 without-project conditions; addition of project traffic would contribute to this unsatisfactory condition. Both the without-project and with-project traffic in 2025 would degrade to LOS F, which would exceed the City's significance threshold level of LOS C.
- Knox Avenue and Summit Avenue (a.m. and p.m. peak hours)—Addition of project traffic would degrade operations to LOS F, which would exceed the City's significance threshold level of LOS C.
- Citrus Avenue and Baseline Road (a.m. and p.m. peak hours)—This intersection would operate at an unsatisfactory LOS under 20205 without-project conditions; addition of project traffic would contribute to this unsatisfactory condition. Both the without-project and with-project traffic in 2025 would degrade to LOS F, which would exceed the City's significance threshold level of LOS C.
- Sierra Avenue and Casa Grande Drive (a.m. and p.m. peak hours)—This intersection would operate at an unsatisfactory LOS under 2025 without-project conditions; addition of project traffic would contribute to this unsatisfactory condition. Both the without-project and with-project traffic in 2025 would degrade to LOS F, which would exceed the City's significance threshold level of LOS C.
- Sierra Avenue and Summit Avenue (a.m. and p.m. peak hours)—This intersection would operate at an unsatisfactory LOS under 2025 without-project conditions; addition of project traffic would contribute to this unsatisfactory condition. Both the without-project and with-project traffic in 2025 would degrade to LOS F, which would exceed the City's significance threshold level of LOS C.

Freeway Segments. **Table 3-38** (Year 2025 Freeway Mainline Analysis—with Project) summarizes the a.m. and p.m. peak-hour freeway mainline traffic volumes and LOSs for the study area freeway segments in year 2025 with the project. As shown in this table, the following freeway segments are projected to operate at an unsatisfactory LOS (E, or F) under 2025 with-project conditions. As this would exceed the threshold criteria described in Section 3.13.2.2, the project would potentially result in adverse and significant impacts on freeway segments in 2025.

Table 3-38
YEAR 2025 FREEWAY MAINLINE ANALYSIS—WITH-PROJECT

Freeway Segment	Lanes			A.M. Peak Hour			P.M. Peak Hour				
	Mixed HOV	Cap.	Total Vol.	SF Vol.	V/C	LOS	Total Vol.	SF Vol.	V/C	LOS	
I-15 Northbound:											
Foothill Boulevard to Baseline Road	4	0	9,200	7,280	7,663	0.83	D	14,645	15,416	1.68	F
Baseline Road to SR-210	4	0	9,200	7,052	7,424	0.81	D	14,332	15,087	1.64	F
SR-210 to Summit Avenue	4	0	9,200	7,344	7,731	0.84	D	16,658	17,534	1.91	F
I-15 Southbound:											
Summit Avenue to SR-210	4	0	9,200	17,131	18,032	1.96	F	9,895	10,415	1.13	F
SR-210 to Baseline Road	4	0	9,200	14,071	14,811	1.61	F	9,244	9,730	1.06	F
Baseline Road to Foothill Boulevard	4	0	9,200	13,734	14,457	1.57	F	9,452	9,950	1.08	F
SR-210 Eastbound:											
Day Creek Boulevard to I-15	3	1	8,500	4,977	5,239	0.62	C	11,243	11,835	1.39	F
Citrus Avenue to Sierra Avenue	3	1	8,500	5,248	5,524	0.65	C	9,746	10,259	1.21	F
Sierra Avenue to Alder Avenue	3	1	8,500	5,404	5,689	0.67	C	9,432	9,929	1.17	F
Alder Avenue to Ayala Drive	3	1	8,500	5,332	5,613	0.66	C	9,157	9,639	1.13	F
Ayala Drive to Riverside Avenue	3	1	8,500	6,025	6,342	0.75	D	9,569	10,073	1.19	F
Riverside Avenue to Pepper Avenue	3	1	8,500	6,943	7,309	0.86	D	9,982	10,508	1.24	F
SR-210 Westbound:											
Pepper Avenue to Riverside Avenue	3	1	8,500	8,687	9,144	1.08	F	9,442	9,939	1.17	F
Riverside Avenue to Ayala Drive	3	1	8,500	8,059	8,483	1.00	E	7,944	8,362	0.98	E
Ayala Drive to Alder Avenue	3	1	8,500	7,752	8,160	0.96	E	7,385	7,773	0.91	E
Alder Avenue to Sierra Avenue	3	1	8,500	8,165	8,595	1.01	F	7,590	7,990	0.94	E
Sierra Avenue to Citrus Avenue	3	1	8,500	8,768	9,230	1.09	F	7,570	7,968	0.94	E
I-15 to Day Creek Boulevard	3	1	8,500	10,485	11,036	1.30	F	7,351	7,737	0.91	E

Based on CMP guidelines, the capacity of a mixed flow lane is 2,300 vehicles per hour, and the capacity of a high-occupancy-vehicle (HOV) lane is 1,600 vehicles per hour.

Service flow (SF) for each segment is calculated by dividing the total volume by the peak hour factor (PHF). A PHF of 0.95 is assumed for the service flow estimation.

Boldface letters indicate exceedance of LOS standard.

- I-15 Northbound, between Foothill Boulevard and Summit Avenue (p.m. peak hour)—This segment would operate at LOS F under 2025 without-project conditions; addition of project-generated traffic would contribute to this unsatisfactory condition. Both the without-project and with-project traffic in 2025 would degrade to LOS F, which would exceed the CMP's significance threshold level of LOS E.
- I-15 Southbound, between Summit Avenue and Foothill Boulevard (a.m. and p.m. peak hours)—This segment would operate at LOS F under 2025 without-project conditions; addition of project-generated traffic would contribute to this unsatisfactory condition. Both the without-project and with-project traffic in 2025 would degrade to LOS F, which would exceed the CMP's significance threshold level of LOS E.
- SR-210 Eastbound, between Day Creek Boulevard and I-15 (p.m. peak hour)—This segment would operate at LOS F under 2025 without-project conditions; addition of project-generated traffic would contribute to this unsatisfactory condition. Both the without-project and with-project traffic in 2025 would degrade to LOS F, which would exceed the CMP's significance threshold level of LOS E.
- SR-210 Eastbound, between Citrus Avenue and Pepper Avenue (p.m. peak hour)—This segment would operate at LOS F under 2025 without-project conditions; addition of project-generated traffic would contribute to this unsatisfactory condition. Both the without-project and with-project traffic in 2025 would degrade to LOS F, which would exceed the CMP's significance threshold level of LOS E.
- SR-210 Westbound, between Pepper Avenue and Riverside Avenue (a.m. and p.m. peak hours)—This segment would operate at LOS F under 2025 without-project conditions; addition of project-generated traffic would contribute to this unsatisfactory condition. Both the without-project and with-project traffic in 2025 would degrade to LOS F, which would exceed the CMP's significance threshold level of LOS E.
- SR-210 Westbound, between Alder Avenue and Citrus Avenue (a.m. peak hour)—This segment would operate at LOS F under 2025 without-project conditions; addition of project-generated traffic would contribute to this unsatisfactory condition. Both the without-project and with-project traffic in 2025 would degrade to LOS F, which would exceed the CMP's significance threshold level of LOS E.
- SR-210 Westbound, between I-15 and Day Creek Boulevard (a.m. peak hour): This segment would operate at LOS F under 2025 without-project conditions; addition of project-generated traffic would contribute to this unsatisfactory condition. Both the without-project and with-project traffic in 2025 would degrade to LOS F, which would exceed the CMP's significance threshold level of LOS E.

3.13.3 Cumulative Impacts

Project Contributions to Total New Volumes. As part of the CMP TIA requirements, the contribution of project increment traffic to total new traffic was determined (as a “fair-share” percentage) for all study area intersections and freeway segments, as shown in **Table 3-39** (Year 2025 Intersection Fair-Share Percentages).

Table 3-39
YEAR 2025 INTERSECTION FAIR-SHARE PERCENTAGES¹

Intersection	Total Approach Volume		Total Growth	Project Trips	Project Percentage
	2003	2025			
1. Cherry Avenue/ Sierra Lakes Parkway	942	2,605	1,663	106	6.4
2. Cherry Avenue/ SR-210 Westbound Ramps	1,301	3,267	1,966	106	5.4
3. Cherry Avenue/ SR-210 Eastbound Ramps	1,738	3,855	2,117	102	4.8
4. Cherry Avenue/ South Highland Avenue	1,677	3,720	2,043	94	4.6
5. I-15 Southbound Ramps/Summit Avenue	951	2,210	1,259	127	10.1
6. I-15 Northbound Ramps/Summit Avenue	877	2,538	1,661	263	15.8
7. Summit Avenue/Beech Avenue	342	2,665	2,323	419	18.0
8. Beech Avenue/Sierra Lakes Parkway	416	2,104	1,688	90	5.3
9. Lytle Creek Road/Summit Avenue	47	1,661	1,614	552	34.2
10. Lytle Creek Road/Curtis Road	28	406	378	36	9.5
11. Lytle Creek Road/Sierra Lakes Parkway	89	917	828	78	9.4
12. Knox Avenue/Summit Avenue	38	1,619	1,581	649	41.1
13. Knox Avenue/ Sierra Lakes Parkway	92	842	750	87	11.6
14. Citrus Avenue/Casa Grande Drive	19	783	764	384	50.3
15. Citrus Avenue/Summit Avenue	81	1,882	1,801	743	41.2
16. Citrus Avenue/Sierra Lakes Parkway	485	2,096	1,611	484	30.1
17. Citrus Avenue/SR-210 Westbound Ramps	807	2,377	1,570	485	30.9
18. Citrus Avenue/SR-210 Eastbound Ramps	1,346	2,517	1,171	325	27.8
19. Citrus Avenue/South Highland Avenue	1,281	2,180	899	200	22.2
20. Citrus Avenue/Baseline Road	2,046	4,182	2,136	172	8.1
21. Sierra Avenue/ Casa Grande Drive	695	2,673	1,978	128	6.5
22. Sierra Avenue/Summit Avenue	711	2,772	2,061	121	5.9
23. Sierra Avenue/ Sierra Lakes Parkway	1,012	2,867	1,855	86	4.6
24. Lytle Creek Road/Project Access	9	486	477	109	22.9
25. Summit Avenue/PA 9 &10 Access	34	1,282	1,248	406	32.5
26. Summit Avenue/PA 10 & 11 Access	34	1,039	1,005	385	38.3
27. Citrus Avenue/PA 8 Access	19	625	606	353	58.2
28. Citrus Avenue/Retail Access	19	945	926	673	72.7

1. P.M. peak hour

Table 3-40 (Year 2025 Freeway Mainline Fair-Share Percentages) summarizes the project contributions to study area intersections and freeway segments, respectively.

**Table 3-40
YEAR 2025 FREEWAY MAINLINE FAIR-SHARE PERCENTAGES¹**

Freeway Segment	Volume		Total Growth	Project Trips	Project Percentage
	Existing	2025			
I-15 Northbound:					
Foothill Boulevard to Baseline Road	6,209	14,645	8,436	96	1.1
Baseline Road to SR-210	5,377	14,332	8,956	116	1.3
SR-210 to Summit Avenue	5,441	16,658	11,217	137	1.2
I-15 Southbound:					
Summit Avenue to SR-210	4,452	9,895	5,443	83	1.5
SR-210 to Baseline Road	4,399	9,244	4,845	75	1.5
Baseline Road to Foothill Boulevard	5,080	9,452	4,372	62	1.4
SR-210 Eastbound:					
Day Creek Boulevard to I-15	2,190	11,243	9,053	62	0.7
Citrus Avenue to Sierra Avenue	2,190	9,756	7,556	92	1.2
Sierra Avenue to Alder Avenue	0	9,432	9,432	92	1.0
Alder Avenue to Ayala Drive	0	9,157	9,157	80	0.9
Ayala Drive to Riverside Avenue	0	9,569	9,569	63	0.7
Riverside Avenue to Pepper Avenue	0	9,982	9,982	51	0.5
SR-210 Westbound:					
Pepper Avenue to Riverside Avenue	0	9,442	9,442	73	0.8
Riverside Avenue to Ayala Drive	0	7,944	7,944	90	1.1
Ayala Drive to Alder Avenue	0	7,385	7,385	116	1.6
Alder Avenue to Sierra Avenue	0	7,590	7,590	133	1.8
Sierra Avenue to Citrus Avenue	1,970	7,570	5,600	133	2.4
I-15 to Day Creek Boulevard	1,970	7,351	5,381	40	0.7

Existing volumes for SR-210 between Day Creek Blvd. and Sierra Ave. are modeled volumes provided by SANBAG. SR-210 east of Sierra Avenue will not open until 2006.

1. P.M. peak hour

Peak-hour project traffic is the total project traffic volume at each study area intersection, as described in the “Project Impacts” section of the TIA. The total new traffic is the difference between the year 2025 with-project traffic volumes and the existing (2003) peak-hour traffic volumes. The project percentage contribution to total new traffic is calculated by dividing the project increment by the total new traffic. These calculations are required for a CMP TIA, and consider only the growth in traffic up to the levels of the SCAG estimates for population housing and employment for 2025. In an ultimate *General Plan* build-out horizon, growth in traffic may exceed these volumes, reducing the percentage of contribution of the proposed project. Therefore, these percentages should be evaluated in this context before application to mitigation costs to reflect the total project fair-share contribution.

3.13.4 Mitigation Measures

3.13.4.1 *Improvements To Mitigate Impacts*

At any intersection and freeway segment where project development is forecast to have a significant impact, the CMP requires that improvements be identified as mitigation measures. The standards for such mitigation measures are as follows:

- For intersections and freeway segments that meet a jurisdiction's minimum LOS standard under existing conditions, the mitigation measures must maintain conformance with that standard.
- For intersections and freeway segments that fail to meet a jurisdiction's minimum LOS standard under existing conditions, the mitigation measures must maintain the existing level of service, at a minimum.

3.13.4.2 *Year 2007 Improvements*

Under year 2007 with-project conditions, six study intersections would not meet the minimum LOS standards of the City of Fontana. The following modifications to intersection lane configurations would be mitigation measures in accord with CMP requirements.

- **TT-1** *Cherry Avenue and Sierra Lakes Parkway*:
 - Add a second southbound through lane.
- **TT-2** *Cherry Avenue and South Highland Avenue*:
 - Install a traffic signal.
- **TT-3** *Knox Avenue and Summit Avenue*:
 - Install a traffic signal.
- **TT-4** *Citrus Avenue and Baseline Road*:
 - Add a second eastbound through lane.
 - Add a second westbound through lane.
- **TT-5** *Sierra Avenue and Casa Grande Drive*:
 - Install a traffic signal.
- **TT-6** *Sierra Avenue and Summit Avenue*:
 - Install a traffic signal

3.13.4.3 *Year 2025 Intersection Improvements*

Under year 2025 with-project conditions, eight intersections would not meet the minimum LOS standards of the City of Fontana. The following modifications to intersection lane configurations would be mitigation measures in accord with CMP requirements.

- **TT-7** *Cherry Avenue and Sierra Lakes Parkway*:
 - Add a second northbound through lane.
 - Add a second southbound through lane.
 - Install a traffic signal.

- **TT-8 Cherry Avenue and South Highland Avenue:**
 - Add a second northbound through lane.
 - Add a second southbound through lane.
 - Install a traffic signal.
- **TT-9 Knox Avenue and Summit Avenue**
 - Install a traffic signal.
- **TT-10 Citrus Avenue and Baseline Road:**
 - Add a second westbound through lane.
 - Add second and third eastbound through lanes.
 - Convert the dedicated northbound right-turn lane to a shared through/right-turn lane.
- **TT-11 Sierra Avenue and Casa Grande Drive:**
 - Add a second northbound through lane.
 - Add a second southbound through lane.
 - Install a traffic signal.
- **TT-12 Sierra Avenue and Summit Avenue:**
 - Add a second northbound through lane.
 - Add a second southbound through lane.
 - Install a traffic signal.
- **TT-13 Sierra Avenue and Sierra Lakes parkway:**
 - Install a traffic signal.
- **TT-14 PA 9/10 Access and Summit Avenue:**
 - Add a dedicated northbound left-turn lane.

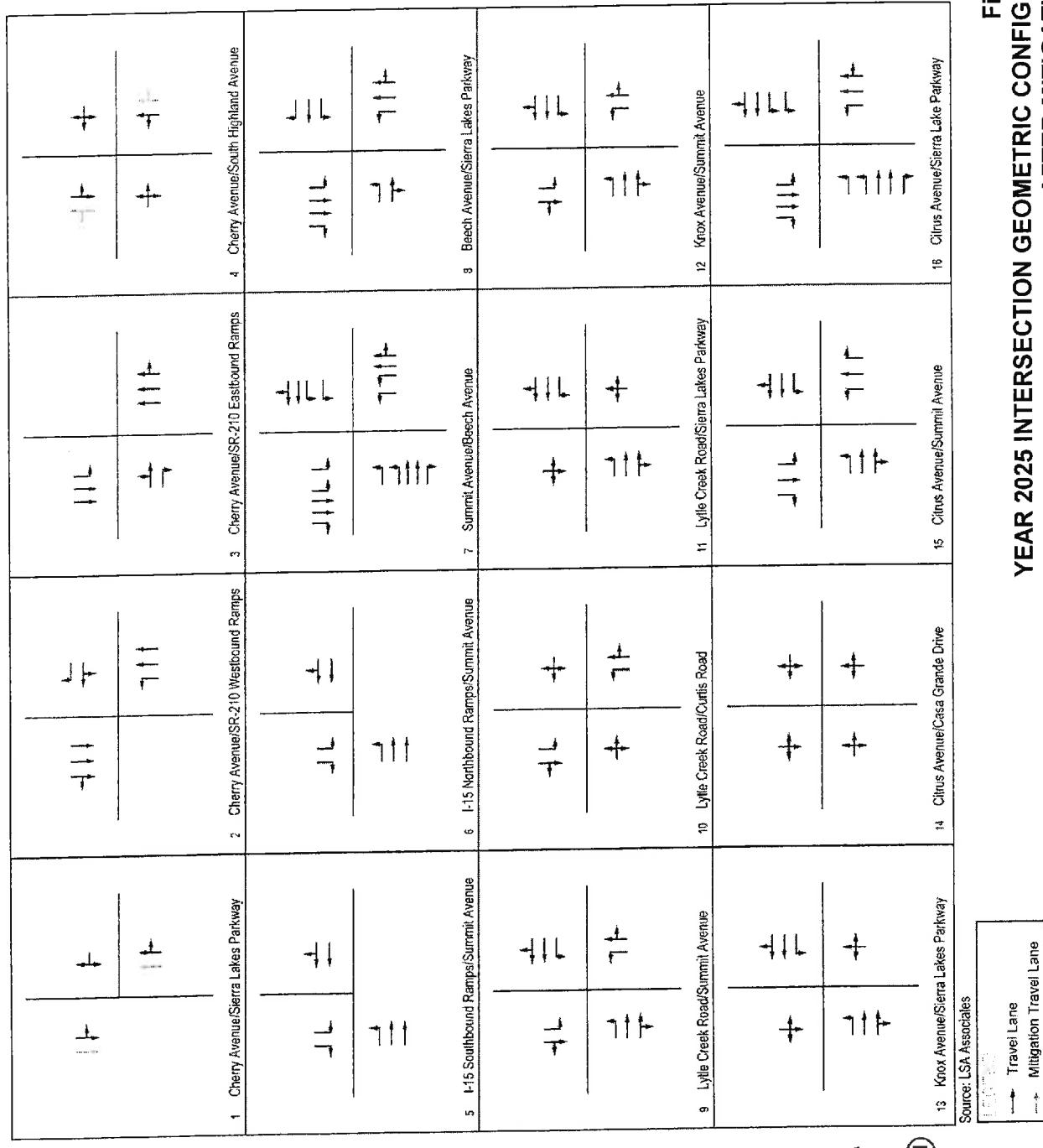
Figures 3-21a/b (Year 2025 Intersection Geometric Configurations After Mitigation) show the intersection geometric configurations in 2025 resulting after implementation of mitigation measures.

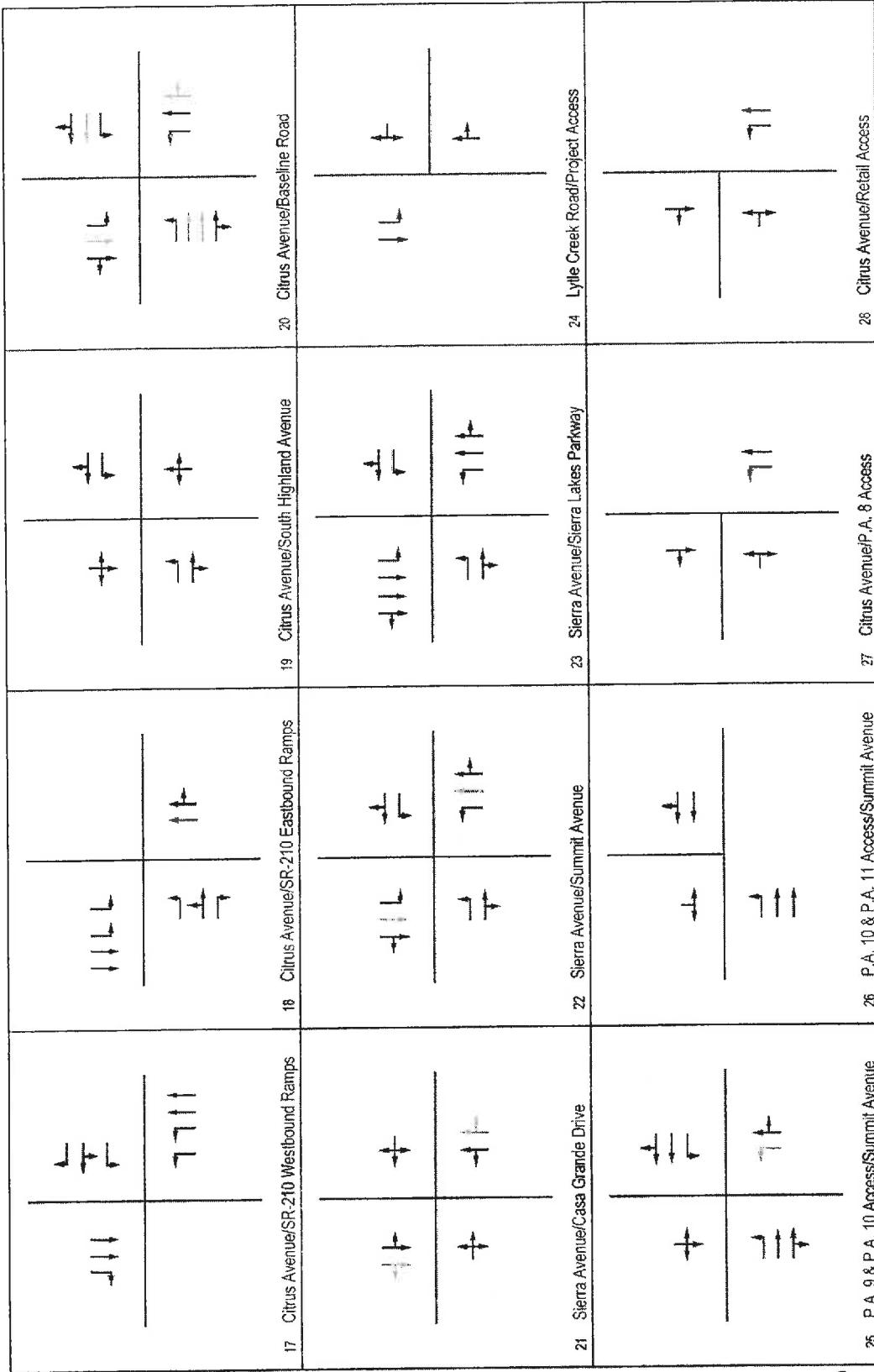
3.13.4.4 Year 2025 Freeway Improvements

Under year 2025 with-project conditions, seven freeway segments would not meet the CMP's LOS E standard. The following lane additions to improve freeway operations would be mitigation measures in accord with CMP requirements:

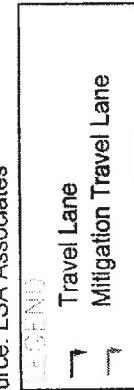
- **TT-15 I-15, between Foothill Boulevard and Baseline Road:**
 - Add three northbound mixed-flow lanes.
 - Add one northbound high-occupancy-vehicle (HOV) lane.
 - Add two southbound mixed-flow lanes.⁹⁴
 - Add one southbound HOV lane.
- **TT-16 I-15, between Baseline Road and SR-210:**
 - Add two northbound mixed-flow lanes.
 - Add one northbound HOV lane.
 - Add two southbound mixed-flow lanes.
 - Add one southbound HOV lane.

⁹⁴ To balance lanes in each direction, Caltrans would likely desire to have an additional southbound lane constructed; however, this lane is not included because it would not be required as mitigation to provide satisfactory operations.





Source: LSA Associates



**Figure 3-21b
YEAR 2025 INTERSECTION GEOMETRIC CONFIGURATIONS
AFTER MITIGATION (2 of 2)**

- **TT-17 I-15, between SR-210 and Summit Avenue:**
 - Add three northbound mixed-flow lanes.⁹⁵
 - Add one northbound HOV lane.
 - Add four southbound mixed-flow lanes.
 - Add one southbound HOV lane.
- **TT-18 SR-210, between Day Creek Boulevard and I-15:**
 - Add two eastbound mixed-flow lanes.
 - Add two westbound mixed-flow lanes.
- **TT-19 SR-210, between Citrus Avenue and Alder Avenue:**
 - Add one eastbound mixed-flow lane.
 - Add one westbound mixed-flow lane.
- **TT-20 SR-210, between Alder Avenue and Riverside Avenue:**
 - Add one eastbound mixed-flow lane.⁹⁶
- **TT-21 SR-210, between Riverside Avenue and Pepper Avenue:**
 - Add one eastbound mixed-flow lane.
 - Add one westbound mixed-flow lane.

3.13.5 Level of Significance After Mitigation

3.13.5.1 Levels of Service with Improvements at Intersections

Table 3-41 (Year 2007 Intersection Levels of Service—with Project and with Improvements) and **Table 3-42** (Year 2025 Intersection Levels of Service—with Project and with Improvements) present the LOS in years 2007 and 2025, respectively, under project conditions and with improvements as mitigation for project impacts at intersections.

Implementation of the intersection improvements at the study area intersections that previously would have sustained a significant project impact would now maintain the minimum LOS standards, and thus would reduce the impact to less than significant.

3.13.5.2 Levels of Service with Improvements on Freeway Mainlines

Table 3-43 (Year 2025 Freeway Mainline Operation—with Project and with Improvements) presents the LOS in year 2025 under project conditions and with improvements as mitigation for project impacts on the freeways.

Implementation of the freeway mainline improvements in the study area freeway segments that would have previously sustained a significant project impact would now maintain the minimum LOS standards, and thus would reduce the impact to less than significant. No freeway improvements would be required under year 2007 with-project conditions, as no potentially significant impacts were expected to result, either without the project or with the project.

⁹⁵ To balance lanes in each direction, Caltrans would likely desire to have an additional northbound lane constructed; however, this lane is not included because it would not be required as mitigation to provide satisfactory operations.

⁹⁶ To balance lanes in each direction, Caltrans would likely desire to have an additional westbound lane constructed; however, this lane is not included because it would not be required as mitigation to provide satisfactory operations.

Table 3-41
YEAR 2007 INTERSECTION LEVELS OF SERVICE—WITH PROJECT AND WITH IMPROVEMENTS

<i>Intersection</i>	<i>Control</i>	<i>A.M. Peak Hour</i>			<i>P.M. Peak Hour</i>		
		<i>V/C</i>	<i>Delay</i>	<i>LOS</i>	<i>V/C</i>	<i>Delay</i>	<i>LOS</i>
1. Cherry Avenue/ Sierra Lakes Parkway	2WSC		12.5	B		21.7	C
2. Cherry Avenue/ SR-210 Westbound Ramps	Signal	0.63	24.3	C	0.38	15.5	B
3. Cherry Avenue/ SR-210 Eastbound Ramps	Signal	0.43	21.7	C	0.54	21.1	C
4. Cherry Avenue/ South Highland Avenue	Signal	0.65	11.6	B	0.67	10.0	A
5. I-15 Southbound Ramps/Summit Avenue	Signal	0.57	24.8	C	0.41	18.8	B
6. I-15 Northbound Ramps/Summit Avenue	Signal	0.31	23.0	C	0.45	22.7	C
7. Summit Avenue/Beech Avenue	Signal	0.24	26.3	C	0.24	22.7	C
8. Beech Avenue/Sierra Lakes Parkway	Signal	0.28	29.9	C	0.27	29.5	C
9. Lytle Creek Road/Summit Avenue	Signal	0.29	18.2	B	0.19	18.2	B
10. Lytle Creek Road/Curtis Road	2WSC	—	15.2	C	—	10.5	B
11. Lytle Creek Road/Sierra Lakes Parkway	AWSC	0.41	10.2	B	0.21	8.3	A
12. Knox Avenue/Summit Avenue	Signal	0.27	16.5	B	0.23	19.3	B
13. Knox Avenue/ Sierra Lakes Parkway	AWSC	0.26	8.9	A	0.11	8.0	A
14. Citrus Avenue/Casa Grande Drive	2WSC	—	10.6	B	—	13.8	B
15. Citrus Avenue/Summit Avenue	Signal	0.30	29.4	C	0.33	28.8	C
16. Citrus Avenue/Sierra Lakes Parkway	Signal	0.32	21.2	C	0.25	17.0	B
17. Citrus Avenue/SR-210 Westbound Ramps	Signal	0.36	20.8	C	0.29	20.8	C
18. Citrus Avenue/SR-210 Eastbound Ramps	Signal	0.46	20.0	B	0.60	23.0	C
19. Citrus Avenue/South Highland Avenue	Signal	0.61	22.6	C	0.63	13.0	B
20. Citrus Avenue/Baseline Road	Signal	0.69	32.8	C	0.71	32.2	C
21. Sierra Avenue/ Casa Grande Drive	Signal	0.51	6.1	A	0.46	6.5	A
22. Sierra Avenue/Summit Avenue	Signal	0.55	10.6	B	0.44	14.3	B
23. Sierra Avenue/ Sierra Lakes Parkway	2WSC	—	14.6	B	—	15.9	C
24. Lytle Creek Road/Project Access	2WSC	—	9.0	A	—	9.3	A
25. Summit Avenue/PA 9 &10 Access	2WSC	—	13.9	B	—	15.9	C
26. Summit Avenue/PA 10 & 11 Access	2WSC	—	11.7	B	—	10.9	B
27. Citrus Avenue/PA 8 Access	2WSC	—	9.4	A	—	9.4	A
28. Citrus Avenue/Retail Access	2WSC	—	9.9	A	—	13.3	B

2WSC = Two-Way Stop Control

Boldface letters indicate exceedance of LOS standard.

AWSC = All-Way Stop Control

Delay = Average control delay in seconds; at

LOS = Level of Service

unsignalized intersections, worst-case approach is

V/C = Volume/Capacity ratio

reported.

Table 3-42
YEAR 2025 INTERSECTION LEVELS OF SERVICE—WITH PROJECT AND WITH IMPROVEMENTS

<i>Intersection</i>	<i>Control</i>	A.M. Peak Hour			P.M. Peak Hour		
		V/C	Delay	LOS	V/C	Delay	LOS
1. Cherry Avenue/ Sierra Lakes Parkway	Signal	0.52	3.2	A	0.59	1.6	A
2. Cherry Avenue/ SR-210 Westbound Ramps	Signal	0.85	30.0	C	0.66	16.8	B
3. Cherry Avenue/ SR-210 Eastbound Ramps	Signal	0.69	23.2	C	0.83	26.8	C
4. Cherry Avenue/ South Highland Avenue	Signal	0.65	10.7	B	0.88	24.3	C
5. I-15 Southbound Ramps/Summit Avenue	Signal	0.67	27.1	C	0.69	23.5	C
6. I-15 Northbound Ramps/Summit Avenue	Signal	0.60	25.4	C	0.79	28.7	C
7. Summit Avenue/Beech Avenue	Signal	0.41	27.9	C	0.55	26.7	C
8. Beech Avenue/Sierra Lakes Parkway	Signal	0.51	33.0	C	0.64	34.8	C
9. Lytle Creek Road/Summit Avenue	Signal	0.40	22.1	C	0.42	19.0	B
10. Lytle Creek Road/Curtis Road	2WSC	—	18.4	C	—	11.6	B
11. Lytle Creek Road/Sierra Lakes Parkway	AWSC	0.53	12.4	B	0.30	10.0	A
12. Knox Avenue/Summit Avenue	Signal	0.34	15.8	B	0.31	17.3	B
13. Knox Avenue/ Sierra Lakes Parkway	AWSC	0.41	10.4	B	0.31	9.5	A
14. Citrus Avenue/Casa Grande Drive	2WSC	—	14.1	B	—	23.0	C
15. Citrus Avenue/Summit Avenue	Signal	0.44	30.5	C	0.46	29.9	C
16. Citrus Avenue/Sierra Lakes Parkway	Signal	0.51	24.2	C	0.46	22.2	C
17. Citrus Avenue/SR-210 Westbound Ramps	Signal	0.52	22.6	C	0.46	21.0	C
18. Citrus Avenue/SR-210 Eastbound Ramps	Signal	0.63	23.7	C	0.71	25.2	C
19. Citrus Avenue/South Highland Avenue	Signal	0.83	25.2	C	0.80	18.1	B
20. Citrus Avenue/Baseline Road	Signal	0.80	30.3	C	0.82	30.1	C
21. Sierra Avenue/ Casa Grande Drive	Signal	0.64	9.8	A	0.63	10.0	A
22. Sierra Avenue/Summit Avenue	Signal	0.71	16.3	B	0.61	22.2	C
23. Sierra Avenue/ Sierra Lakes Parkway	Signal	0.45	5.9	A	0.63	10.4	B
24. Lytle Creek Road/Project Access	2WSC	—	9.8	A	—	11.7	B
25. Summit Avenue/PA 9 &10 Access	2WSC	—	15.3	C	—	23.8	C
26. Summit Avenue/PA 10 & 11 Access	2WSC	—	13.9	B	—	13.1	B
27. Citrus Avenue/PA 8 Access	2WSC	—	10.5	B	—	9.9	A
28. Citrus Avenue/Retail Access	2WSC	—	11.3	B	—	16.2	C

2WSC = Two-Way Stop Control

AWSC = All-Way Stop Control

LOS = Level of Service

V/C = Volume/Capacity ratio

Delay = Average control delay in seconds; at unsignalized intersections, worst-case approach is reported.

Table 3-43
YEAR 2025 FREEWAY MAINLINE ANALYSIS—WITH PROJECT AND WITH IMPROVEMENTS

Freeway Segment	Lanes			A.M. Peak Hour				P.M. Peak Hour			
	Mixed	HOV	Cap.	Total Vol.	SF Vol.	V/C	LOS	Total Vol.	SF Vol.	V/C	LOS
<u>I-15 Northbound:</u>											
Foothill Blvd. to Baseline Rd.	7	1	17,700	7,280	7,663	0.43	B	14,645	15,416	0.87	D
Baseline Rd. to SR-210	6	1	15,400	7,052	7,424	0.48	B	14,332	15,097	0.98	E
SR-210 to Summit Ave.	7	1	17,700	7,344	7,731	0.44	B	16,658	17,534	0.99	E
<u>I-15 Southbound:</u>											
Summit Ave. to SR-210	8	1	20,000	17,131	18,032	0.90	E	9,895	10,415	0.52	C
SR-210 to Baseline Rd.	6	1	15,400	14,071	14,811	0.96	E	9,244	9,730	0.63	C
Baseline Rd. to Foothill Blvd.	6	1	15,400	13,734	14,457	0.94	E	9,452	9,950	0.65	C
<u>SR-210 Eastbound:</u>											
Day Creek Blvd. to I-15	5	1	13,100	4,977	5,239	0.40	B	11,243	11,835	0.90	E
Citrus Ave. to Sierra Ave.	4	1	10,800	5,248	5,524	0.51	C	9,746	10,259	0.95	E
Sierra Ave. to Alder Ave.	4	1	10,800	5,404	5,689	0.53	C	9,432	9,929	0.92	E
Alder Ave. to Ayala Dr.	4	1	10,800	5,332	5,613	0.52	C	9,157	9,639	0.89	E
Ayala Dr. to Riverside Ave.	4	1	10,800	6,025	6,342	0.59	C	9,569	10,073	0.93	E
Riverside Ave. to Pepper Ave.	4	1	10,800	6,943	7,309	0.68	C	9,982	10,508	0.97	E
<u>SR-210 Westbound:</u>											
Pepper Ave. to Riverside Ave.	4	1	10,800	8,687	9,144	0.85	D	9,442	9,939	0.92	E
Riverside Ave. to Ayala Dr.	3	1	8,500	8,059	8,483	1.00	E	7,944	8,362	0.98	E
Ayala Dr. to Alder Ave.	3	1	8,500	7,752	8,160	0.96	E	7,385	7,773	0.91	E
Alder Ave. to Sierra Ave.	4	1	10,800	8,165	8,595	0.80	D	7,590	7,990	0.74	D
Sierra Ave. to Citrus Ave.	4	1	10,800	8,768	9,230	0.85	D	7,570	7,968	0.74	D
I-15 to Day Creek Blvd.	5	1	13,100	10,485	11,036	0.84	D	7,351	7,737	0.59	C

Based on CMP guidelines, the capacity of a mixed flow lane is 2,300 vehicles per hour, and the capacity of a high-occupancy-vehicle (HOV) lane is 1,600 vehicles per hour.

Service flow (SF) for each segment is calculated by dividing the total volume by the peak hour factor (PHF). A PHF of 0.95 is assumed for the service flow estimation.

3.14 UTILITIES AND SERVICE SYSTEMS

This section describes the current levels of service (based on data recently supplied by public agencies and other service providers) and addresses potential project impacts on future demand for:

- Cable television service
- Electricity
- Natural gas
- Solid waste collection and disposal
- Stormwater flow and drainage
- Telephone service
- Wastewater collection, treatment, and disposal
- Water

This discussion is based, in the most part, on data and information supplied by the providers of these public services as well as by the City of Fontana General Plan.⁹⁷

3.14.1 Environmental Setting

Currently, utilities and other service systems are provided to the project area by the City of Fontana, the County of San Bernardino, and various other public agencies and private companies. The City is committed to developing infrastructure concurrently with occupancy of development projects, and to financially supporting infrastructure maintenance to sustain or improve current levels of service, health, and safety.

3.14.1.1 *Cable Television Service*⁹⁸

The sole provider of cable television service to the project site would be Adelphia.

3.14.1.2 *Electricity*⁹⁹.

The sole provider of electrical service to the City of Fontana is Southern California Edison (SCE), which purchases power from the California Power Exchange. The company has a 50,000-square-mile service area and serves more than 4,200,000 business and residential customers. SCE's Boulder-Los Angeles power transmission lines cross the project site on a northeast-southwest easement. These power transmission lines convey power generated at Boulder Dam, which was constructed in 1939 as a hydroelectric power source.

Over a 15-year period beginning in 1999, SCE is investing more than \$14 billion to replace and improve its infrastructure. These facilities are being built to accommodate the 45,000 to 50,000 new customers per year that SCE expects during the implementation phases of the infrastructure project.

New development usually requires the installation of new transformers or the upgrading of existing transformers; the land developer pays for the cost of transformers, and any other required facilities. The

⁹⁷ *City of Fontana General Plan*, October 21, 2003, Chapter 8, Public Facilities, Services, and Infrastructure Element

⁹⁸ Adelphia, e-mail from Lerone Hearne (Construction Lead), January 12, 2004.

⁹⁹ *City of Fontana General Plan*, October 21, 2003, p. 8-23; Southern California Edison, Amanda Renteria (Planning Administrative Assistant), March 4, 2004; and SCE website (www.sce.com/sc3/006_about_sce), accessed March 4, 2004.

particular requirements of a development, such as new or expanded facilities and the location of power feedlines, are determined in consultation with SCE after full development of project plans.

3.14.1.3 Natural Gas¹⁰⁰

The Southern California Gas Company (SCGC) provides natural gas for the City of Fontana, with availability based upon conditions of gas supply and regulatory agencies and under the jurisdiction of the California Public Utilities Commission. Currently, the average amount of gas used by a Fontana household is 799 therms per single-family home and 482 therms per multi-family dwelling unit.

3.14.1.4 Solid Waste Collection and Disposal¹⁰¹

Solid waste collection is contracted by the City of Fontana to Burrtec Waste Industries, Inc., which provides regular automated pickup of residential and commercial trash. Residents are provided with separate barrels for weekly collection of trash, recyclables, and green waste; twice-a-year free curbside pickup of bulky items; and curbside used-oil pickup. Businesses are encouraged to recycle their solid waste. Of the solid waste collected, 58% is disposed trash and 42% is nondisposed materials (of which 28% is recyclable material and 14% is green waste).

The City has a Source Reduction and Recycling Element (SRRE) that applies to both residences and businesses, and a Household Hazardous Waste (HHW) Element. HHW is not accepted by Burrtec, but may be disposed of at a facility operated by the City of Fontana (at 16454 Orange Avenue) that is open on Saturday mornings. Burrtec hauls the disposed waste to the Mid-Valley Sanitary Landfill (also known as the “Fontana Refuse Disposal Site”), at 2390 Alder Avenue in Rialto. This facility is a Class III solid waste landfill owned by the County of San Bernardino and operated by Burrtec under contract. In 2002, this landfill received 375,397 tons of waste (1,028 tons per day); it is permitted to accept 7,500 tons per day of waste, and its planned to continue operating for 30 more years.¹⁰² The recyclable waste is taken to the West Valley Material Recycling Facility.

Although the City has not yet met its State-mandated recycling goal of 50% waste diversion by 2000, it has been working to increase the amount of recycling through community education programs, and so the percentage of recycled waste can be expected to keep growing.

Disposed Waste in 2000. In 2000, the amount of residential solid waste disposed of at the landfill by the City of Fontana was 83,984 tons.¹⁰³ Based on the City’s population in 2000 (128,174),¹⁰⁴ the average amount of disposed waste per resident was 0.66 tons per year. In addition, the City disposed of 41,365 tons¹⁰⁵ of business waste, bringing the City’s total waste disposal in 2000 to 125,349 tons.

¹⁰⁰ SCGC, letter from Rogelio Rawlins, Technical Services Supervisor, December 17, 2003.

¹⁰¹ Burrtec Waste Industries, Inc., Eric Herbert, Vice President, December 18, 2003; and Burrtec Waste Industries, e-mail message, February 26, 2004.

¹⁰² California Integrated Waste Management Board (CIWMB) website (www.ciwmb.ca.gov) (Facility/Site Summary Details, Mid-Valley Sanitary Landfill, accessed on December 19, 2003, and 2002 California Landfill Tonnage Report, accessed on December 10, 2003).

¹⁰³ California Integrated Waste Management Board (CIWMB) website (www.ciwmb.ca.gov/SWIS/detail.asp), accessed on March 1, 2004.

¹⁰⁴ City of Fontana General Plan, October 21, 2003, Chapter 5, Housing Element, p. 5-5;

¹⁰⁵ CIWMB website (www.ciwmb.ca.gov/SWIS/detail.asp), accessed on March 1, 2004. Although the CIWMB website also expresses this amount as 9.9 lb/employee/day, this average daily rate based on the number of employees is a poor predictor for estimating the current or projected amounts of waste because the amount generated varies immensely from business to business, based on the type of activities.

Estimated Waste Disposed of in 2003. For 2003, based on the City's population of 145,770, the amount of residential disposed waste is estimated to be 95,505 tons.¹⁰⁶ Assuming that the amount of business disposed waste grew at the same rate as population (13.7%), the business disposed waste for 2003 can be roughly estimated to be 47,032 tons. Both estimates are high because they do not take into account the City's trend of an increasingly higher rate of recycling and consequently lower rate of disposed waste. The combined amount of residential and business disposed waste is estimated to be roughly 142,537 tons, without adjusting for an increased rate of recycling.

3.14.1.5 Stormwater Flow and Drainage¹⁰⁷

Both the San Bernardino Flood Control District (SBFCD) and the City provide flood control facilities for Fontana. The SBFCD providing the larger infrastructure (dams, basins, channels, and storm drains to convey flood flows), and the City (under its Master Storm Drainage Plan) provides local storm drains that feed into the SBFCD system. In most cases, the storm drainage facilities are designed to protect against a 100-year flood, as required. The City complies with the requirements of the National Pollution Discharge Elimination System (NPDES) and, under permit from the Santa Ana Regional Water Quality Control Board Basin Plan, implements a Municipal Storm Water Management Plan. The City is committed to continue close cooperation with the SBFCD and adjacent cities in planning and implementing the drainage facilities needed to protect lives and property.

Flood control facilities are being built in Fontana north of the SR-210 freeway as the area develops. In the project area, storm drainage flows westward along Summit Avenue to Lytle Creek Road, then southward into the channel of the San Sevaine Creek Project.

The City levies a Storm Drain Fee and County Flood Control Fee on all development projects.

3.14.1.6 Telephone Service¹⁰⁸

Telephone service for most of the project site is provided by SBC California (formerly Pacific Bell); Verizon serves a small residential portion in the western edge of the project site (the 300-foot strip from the centerline of Lytle Creek Road to the east). Both companies have various existing distribution facilities adjacent to or near the Specific Plan area.

3.14.1.7 Wastewater Collection, Treatment, and Disposal¹⁰⁹

IEUA and Facilities. Wastewater from the City of Fontana is collected, treated, and disposed of by the facilities of the regional Inland Empire Utilities Agency (IEUA), and lateral sewer lines are provided by the City. The City's sewerage system is maintained in accordance with its Master Plan of Sewers, and is designed and operated in close collaboration with the IEUA. The City is committed to enforce all Clean Water Act regulations and to comply with the requirements of the NPDES. The City administers a water-recycling program in conjunction with the IEUA.

Currently, of the five¹¹⁰ wastewater treatment plants operated by IEUA, two plants (RP-1 and RP-4) in its Northern Service Area handle flow from the project area. The total system currently handles 57.8 million

¹⁰⁶ Calculated as (145,770 residents) multiplied by (3.59 lb/day/resident) multiplied by (365 days/yr) divided by (2,000 lb/ton).

¹⁰⁷ *City of Fontana General Plan*, October 21, 2003, pp. 8-20 and 8-21 (including Figure 8-5); and City of Fontana, Todd Miller (Associate Engineer, Engineering and Development Department), February 24, 2004, and Richard Brooks (Environmental Control Specialist), February 26, 2004.

¹⁰⁸ SBC, Brian Snowden (OSP Engineer), December 15, 2003.

¹⁰⁹ IEUA, Matthew Poeske, P.E. (Senior Associate, Planning Department), January 16, 2004.

¹¹⁰ A sixth plant (RP-6) is scheduled to begin operation in March 2004, and will eventually replace RP-2.

gallons per day (mgd) of wastewater flow, which is 87% of its capacity of 66.2 mgd.¹¹¹ A new regional plant (RP-5) is planned to start up in March 2004, and RP-2 will be retired; the expected increase in the system capacity is 9 mgd.

Permits and Standards. The IEUA operates under several Waste Facility Discharge permits from the Regional Water Quality Control Board (RWQCB), and current meets all RWQCB wastewater treatment requirements. The IEUA currently has projects to improve its energy efficiency, such as cogeneration at RP-1 that uses converted anaerobic digester gas to create electrical power for use by the plant. The IEUA recycles 100% of its biosolids, meets all regulatory limits for discharge to the environment and use of recycled water (including nitrogen reduction), and is committed to continue to do so.

Expected Growth. Population growth as a result of residential development in Fontana has been incorporated into the IEUA's *Wastewater Facilities Master Plan*. The IEUA has forecast, planned, and budgeted for growth in its service area, as detailed in its Ten-Year Capital Improvement Program (TYCIP).¹¹² The TYCIP forecasts utilization rates of 85-91% at IEUA's treatment plants in fiscal year 2012/2013, based on a total system flow of 71.9 mgd and a system capacity of 83.2 mgd. Sewer projects undertaken to expand for future capacity are based largely on historical population growth in the area and the *City of Fontana General Plan*.

Development Fees. The City levies a Sewer Connection and Sewer Expansion fees on all development projects; the latter fee is a “pass-through” fee that is collected for the IEUA by the City. The Sewer Expansion Fee is based on an average flow of 270 gallons per day per “expansion dwelling unit” (EDU).¹¹³ Flow from commercial developments is estimated in terms of EDUs, based on the number and type of plumbing fixtures installed in each building, which vary greatly depending upon the type of business. For example, a convenience store or copy center generates far less flow than a restaurant or laundromat.

3.14.1.8 Water Supply¹¹⁴

Although the project site is within the service area of the Inland Empire Utilities Agency (IEUA), a water wholesaler, IEUA currently does not supply any water to the City of Fontana. Water in the project area is supplied by two water retailers:

- *Fontana Water Company (FWC)*, which serves the southern portion of the project area, south of the east-west utility easement (i.e., Planning Areas [PAs] 5, 6, 7, 8, 9A/B, 10, 11A/B, and 12); FWC is owned by the San Gabriel Valley Water Company (SGVWC) and serves SGVWC's Fontana District.
- *West Valley Water District (WVWD) (formerly the West San Bernardino County Water District)*, which serves the northern portion of the project area (PAs 1, 2A/B 3, 4A/B)

Although these two companies have separate infrastructures, their operating interface provides uninterrupted service.

¹¹¹ *IEAU Ten-Year Capital Improvement Program, Fiscal Year 2002/03 for Fiscal Period 2003/04 Through 20012/13* (Table 1), June 16, 2003, accessed on December 10, 2003, at <http://www.ieua.org>.

¹¹² *IEAU Ten-Year Capital Improvement Program, Fiscal Year 2002/03 for Fiscal Period 2003/04 Through 20012/13* (Table 1), June 16, 2003, accessed on December 10, 2003, at <http://www.ieua.org>.

¹¹³ City of Fontana, Richard Brooks (Environmental Control Specialist), February 26, 2004.

¹¹⁴ IEUA, telephone conversation with David Hill (Manager, Water Resources), December 15, 2003; FWC, Michael McGraw (Manager), letter dated December 22, 2003, and telephone conversation on January 2, 2004; and WVWD, Lon Tsai (Chief Engineer) letter dated December 23, 2003 and telephone conversation on January 8, 2004.

FWC. FWC obtains about 90% of its water supply from groundwater (37 production wells in the Chino groundwater basin, as well as other groundwater sources), and small amounts of water from the California State Water Project and from surface water (streamflow) from Lytle Creek. This percentage can vary, based on the streamflow volume in Lytle Creek and the presence of contamination in the groundwater supply. FWC operates an integrated water system to produce, store, transport, and deliver water throughout its service area. This system includes:

- 13 reservoirs with a total capacity of 34 million gallons (mg) of water,
- A horizontal tunnel and more than 500 miles of distribution pipeline
- A surface water treatment plant with a capacity of up to 20 mg/day (mgd),
- A total water supply capacity (from surface water and groundwater) of about 105 mgd (depending upon seasonal droughts and groundwater contamination levels)

WVWD. The WVWD water supply sources are well water, Lytle Creek surface water, and the State Water Project. The project area is in WVWD's Pressure Zone 6, which has 11.25 million gallons of storage.

3.14.2 Environmental Impact Analysis

3.14.2.1 Thresholds of Significance

The criteria used to determine the significance of a utility and service systems impact are based on Appendix G of the *State CEQA Guidelines*. The proposed project would have a significant environmental impact if it were to:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (RWQCB);
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed;
- Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs;
- Not comply with federal, state, and local statutes and regulations related to solid waste; or
- Create litter problems in the community.

3.14.2.2 Compliance with City of Fontana General Plan¹¹⁵

General Plan Goals

The General Plan contains the following goals related to utilities and service systems:

Goal #5: Infrastructure Quality and Reliability: Careful planning ensures the timely, logical and cost-effective development of infrastructure facilities in our City.

Goal #6: Wastewater Treatment: Our City manages its wastewater in an environmentally sound and cost-effective manner.

Goal #7: Reducing Solid Waste: Our City has one of the most effective solid waste reduction and recycling records in the County.

Goal #8: Improving Flood Control Facilities: Our City's flood control and drainage system is equitably financed and offers exceptional protection of lives and property over a full range of minor to major floods.

Goal #9: Public Facilities: Public utility companies provide contemporary levels of service in our community at competitive rates.

Goal #10: Enhanced Communication Technology: Our City uses the latest in communication technology to conveniently link homes, businesses, schools and public facilities to a dynamic community Intranet.

The General Plan describes in detail the policies and actions endorsed by the City to attain these goals.

3.14.2.3 Compliance with CEQA Guideline re Water Supply

§15083.5 of the *State CEQA Guidelines* requires the Lead Agency to:

- Request any public water system that may supply water to the project to fully assess the water supply (including information related to the agency's urban water management plan and the plan's 20-year projection), and include the assessment(s) in the EIR.

3.14.2.4 Project Impacts

In general, the project would be consistent with the goals, policies, and actions specified in Chapter 8 (the Public Facilities, Services, and Infrastructure Element) of the *City of Fontana General Plan* (October 21, 2003), which would reduce any project impacts related to the City's utilities and service systems infrastructure and service to a less-than-significant level.

Wastewater Treatment

The IEUA plans for, and would accommodate, the wastewater treatment needs of any project added to its service area that complies with the planning requirements of its governing local jurisdiction.¹¹⁶ The proposed project fully complies with the *City of Fontana General Plan* and other relevant City requirements, and so would have no impact on the ability of the IEUA to meet the RWQCB's wastewater treatment requirements, including those of the Waste Facility Discharge Permits under which the IEUA operates. Therefore, a less-than-significant impact would occur.

¹¹⁵ *City of Fontana General Plan*, October 21, 2001, Chapter 8, Public Facilities, Services and Infrastructure Element.

¹¹⁶ Inland Empire Utilities Agency (IEUA), Matthew Poeske, P.E. (Senior Associate, Planning Department, telephone conversation on February 17, 2004).

The current and planned IEUA wastewater treatment facilities are adequate to accommodate project-generated wastewater without causing significant environmental effects from constructing or expanding facilities. Therefore, a less-than-significant impact would occur.

Stormwater Drainage Facilities

Additional stormwater drainage facilities would be required because the project would increase the impermeable surface area of the site. The proposed project includes storm drain facilities (such as interim detention basins) to control stormwater drainage on and through the project site.

The project's interim detention basins would operate as such until the City's Master Planned Storm Drains and the County's flood control facilities have been constructed. The project would construct a portion of the Summit Avenue storm drain across its frontage on Summit Avenue. The City is designing and will construct the downstream reach, connecting to the County's Hawker-Crawford Channel and the freeway crossing, to service the project area.¹¹⁷ After its installation, the project's stormwater would flow west into the Summit Avenue storm drain, then into the County's Hawker-Crawford Channel on the west side of I-15, and so the project's additional stormwater drainage would be accommodated. The project's interim basins, which initially would serve a dual purpose as both a detention basin and public parkland, would then be retired, and dedicated entirely to parkland.

The project proponent must pay both the City's Master Storm Drain fee (based on the net acreage of the project) and the County's Flood Control fee (based on the gross acreage of the project), to offset and compensate for project impacts on the City's stormwater drainage facilities. The City also conditions development based on both safety and environmental considerations related to flooding, and the project would have no significant impact related to stormwater flow and drainage. The current and planned stormwater drainage facilities are adequate to accommodate project-generated stormflow without causing significant environmental effects from constructing or expanding facilities.¹¹⁸ Therefore, a less-than-significant impact would occur.

Water Supply¹¹⁹

Projected Water Usage. The factors used by the Fontana Water Company (FWC) to estimate water usage are:

- Single-Family Residential: 270 gallons per day (gpd) per unit
- Multifamily Residential: 270 gpd per unit
- Commercial Property: 3,000 gpd per (gross) acre; and
- Parkland: 4,000 gpd per (gross) acre.

Using these factors, the daily water usage of the proposed project would be a total of 391,200 gallons, calculated as follows:

- Single-Family Residential: 802 units multiplied by 270 gallons per day (gpd) per unit = 216,540 gpd;
- Multifamily Residential: 425 units multiplied by 270 gpd/unit = 114,750 gpd;
- Commercial Property: 117,600 square feet¹²⁰ multiplied by 100 gpd/1,000 sq. ft. = 11,760 gpd; and
- Parkland:¹²¹ 21.4 acres multiplied 2,250 gpd/acre = 48,150 gpd.

¹¹⁷ City of Fontana, Todd Miller (Associate Engineer, Engineering and Development Department), February 24, 2004; the City storm drain is anticipated to be constructed in five years or so.

¹¹⁸ *Ibid.*

¹¹⁹ UltraSystems Planning Factors.

¹²⁰ Assumes building coverage of 30% of the 9-acre PA 12.

Water Providers

*Fontana Water Company (FWC).*¹²² The Fontana Water Company, which would serve the southern portion of the project site, draws 90% of its water from groundwater supplies and has a total water supply capacity of about 105 million gpd (mgd). FWC stated that its water resources are ample to meet the anticipated water requirements of the project. FWC also stated that its water mains on streets bordering the project site are of sufficient size to meet the project's water demand, and that it can extend those mains to serve the project. FWC would design and install any additional required facilities, and the project proponent would pay negotiated costs.

*West Valley Water District (WVWD).*¹²³ WVWD, which would serve the northern portion of the project, stated that it can supply 3,500 gpd per acre to the project and that the project would have no impact on its ability to provide water service. The sources of the water supplied to the project would be groundwater, surface water from Lytle Creek, and the State Water Project. WVWD plans to install a 16-inch water main in Duncan Road, north of the project site. Therefore, a less-than-significant impact would occur.

Water Supply Assessments. In compliance with *CEQA Guideline* §15083.5, the City of Fontana requested (on January 28, 2004) the FWC and the WVWD to prepare water supply assessments for the proposed project, supporting their stated capabilities of supplying water to the project. These assessments are due to the City by April 26, 2004, and are required before the City approves the project.

Impact. No construction of new or expanded water facilities is expected to be required by either of the water utilities service the project area, and both companies have sufficient water supplies available to serve the project from existing entitlements and resources.¹²⁴ Therefore, a less-than-significant impact would occur.

Wastewater Treatment Capacity

Wastewater generated by the residential development would primarily be sewage from residences and businesses.

Wastewater from Residences. The residential portion of the project (1,227 “expanded dwelling units” [EDUs]), based on the City’s average wastewater generation rate of 270 gallons per day (gpd) per EDU, would generate 331,290 gpd.

Wastewater from Businesses. For the commercial portion of the project (9 acres), the amount of wastewater generated is estimated to be equal to the amount of water consumed. Therefore, the proposed commercial portion of the project would generate 11,760 gpd of wastewater.

Wastewater from Parks. The vast majority of the water consumed at recreational parks is due to irrigation. Therefore, it is assumed the on-site parks would generate 250 gpd of wastewater.

Wastewater from Project. Accordingly, the proposed project would generate an estimated 343,300 gpd of wastewater flow. Compared to the current wastewater flow handled by the IEUA (57.8 mgd), the proposed project’s wastewater would be an increase of 0.6%; compared to IEUA’s current capacity (66.2 mgd), the project’s increase would be 0.5%. With the IEUA’s planned growth by 2012/2-13 to handle

¹²¹ Parkland area of 22.3 acres was calculated by subtracting the residential acres (202.3), commercial acres (9), and Knox Avenue acres (4.5) from the total project acreage of 238.1.

¹²² FWC, Michael McGraw (Manager), letter dated December 22, 2003, and telephone conversation on January 2, 2004.

¹²³ WVWD, Lon Tsai (Chief Engineer) letter dated December 23, 2003, and telephone conversation on January 8, 2004.

¹²⁴ FWC, letter from Michael McGraw (Manager), December 22, 2003, and telephone conversation on January 2, 2004; and WVWD, letter from Lon Tsai (Chief Engineer), December 23, 2003 and telephone conversation on January 8, 2004.

71.9 mgd of flow and to have a capacity of 83.2 mgd, the project's proportional increase would be even less—0.05% and 0.04%, respectively.¹²⁵

Impact of Project. The amount of wastewater that the project would add to the IEUA wastewater treatment system would be negligible. The IEUA has stated that its system capacity is adequate to meet the project's wastewater demands, provided that the project is consistent with the City of Fontana's growth forecast. Both the City of Fontana General Plan and the City's zoning designations assume that the project site will be developed, and the Citrus Heights North Specific Plan has been designed to be consistent with the City requirements and expectations for the buildout of northern Fontana. Therefore, the impact of the proposed project on the wastewater system would be less-than-significant.

Landfill Capacity

The project would generate typical household and landscaping solid waste, although compliance with the City's recycling requirements would greatly limit its volume. In addition, as the City nears its goal of recycling 50% of its solid waste (compared to 42% in 2003), the amount of disposed waste generated by project residents would decline.

The amount of residential disposed waste generated by the project (at buildout) is estimated to be 3,159 tons per year,¹²⁶ which represents an increase of about 3.1% over the City's estimated 2003 residential disposed waste (95,595 tons). The proposed commercial uses are estimated to generate approximately 107 tons per year (117,600 sq. ft. x 5 lbs/day/1,000 sq. ft.).

The project would generate solid waste and incrementally reduce the life expectancy of the Mid-Valley Sanitary Landfill, which is planned to continue operating for 30 more years. However, the project-generated volume would be a fraction of the current amount of waste received by the landfill (375,397 tons per year), and an even smaller fraction of the landfill's permitted capacity (2,737,500 tons per year). The project's additional waste would not be a significant impact on the landfill operations.

In addition, Burrtec Waste Industries would not need to construct new facilities or expand existing facilities to service the proposed project.¹²⁷ Therefore, a less-than-significant impact would occur.

Other Utilities

Cable Television Service.¹²⁸ Adelphia has adequate capacity to provide cable television connections and service to the project site; and would extend service lines to the project from its infrastructure that feeds from I-15 east along Summit Avenue. In addition, all wires would be installed underground to prevent a visual impact, in accordance with the utility policies of the General Plan. The project would have no significant environmental impact related to cable television services.

Electricity.¹²⁹ SCE's power generating capacity for the area is sufficient to accommodate future growth in Fontana, so the project would have no significant environmental impact related to electricity supply and service.

Natural Gas.¹³⁰ The Southern California Gas Company (SCGC) would extend service lines from its nearest existing gas lines, which are 2-inch gas mains about 1 mile south of the project site. These gas

¹²⁵ IEAU data are from the *IEAU Ten-Year Capital Improvement Program, Fiscal Year 2002/03 for Fiscal Period 2003/04 Through 20012/13* (Table 1), June 16, 2003, accessed on December 10, 2003, at <http://www.ieua.org>.

¹²⁶ Calculated as (4,822 residents) multiplied by (3.59 lb/day/resident) multiplied by (365 days/yr) divided by (2,000 lb/ton).

¹²⁷ Burrtec, e-mail (via Debbie), February 26, 2004.

¹²⁸ Adelphia, e-mail message from Lerone Hearn (Lead Construction Technician), January 12, 2004.

¹²⁹ Southern California Edison, Amanda Renteria (Planning Administrative Assistant), March 4, 2004; and SCE website (www.sce.com/sc3/006_about_sce), accessed March 4, 2004.

mains are along the south side of Curtis Avenue, and run for about 0.1 mile just west of Knox Avenue and for about 0.2 mile between Cooper Avenue and Catawba Avenue. Service and availability would be under the jurisdiction of the California Public Utilities Commission, and subject to conditions of supply and regulatory agencies. There are currently no known conditions that would affect construction of a gas main or service line extension (such as hazardous wastes).

Gas supplies and service are adequate and expandable to meet any foreseeable future development, and the City would coordinate with SCGC to ensure seamless provision of service. The project would have no significant environmental impact related to natural gas supply and service.

Telephone Service. SBC has adequate capacity to serve its service area within the project without creating any environmental impact; the primary feed would be from Summit Avenue and Citrus Avenue, and the specific telephone line paths into the project would depend upon the phasing of the project.¹³¹ Verizon would provide service to residents within its franchise area, and would absorb the cost of augmenting its network to accommodate the growth.¹³²

The project proponent would provide the normal infrastructure required for telephone service, such as manholes and conduit structures. The City would coordinate with SBC and Verizon to ensure seamless provision of service, and the project would have no significant impact related to telephone facilities and service. In addition, all wires would be installed underground to prevent a visual impact, in accordance with the General Plan. Therefore, a less-than-significant impact would occur.

3.14.3 Cumulative Impacts

The proposed project would require extending utilities and service systems into a new area and result in a potentially significant impact. However, the residential development of northern Fontana has been anticipated by these utility companies, which have already incorporated into their long-range plans the extension of service to the expanding population of land development projects in Fontana. These related projects in the area would contribute to cumulative impacts on utilities and service systems. However, the providers of these utilities and services have verified their ability to serve the proposed project, and are aware of and planning to accommodate the related projects as well. In addition, the Storm Drain Control Fee paid to the City of Fontana by the project proponent would mitigate the project's cumulative impacts to be less-than-significant, pursuant to §15130(a)(3) of the *State CEQA Guidelines*. Therefore, the cumulative significant impacts of the proposed project would be mitigable to less than significant.

3.14.4 Mitigation Measures

The proposed project would require extending utilities and service systems into a new area and result in a potentially significant impact. The following mitigation measure is required to reduce project impacts to less than significant:

PS-1 The developer will pay all City of Fontana development impact fees to the City before issuance of a building permit to pay the developer's share of the increased cost of public services such as stormwater drainage facilities.

The City would collect applicable development impact fees at the time of building permit issuance, and, pursuant to §15130(a)(3) of the *State CEQA Guidelines*, these fees would mitigate the project's direct and

¹³⁰ SCGC, letter from Rogelio Rawlins, Technical Services Supervisor, December 17, 2003; and *City of Fontana General Plan*, October 21, 2001, p. 8-23.

¹³¹ SBC, letter from Brian Snowden, OSP Engineer, December 15, 2003.

¹³² Verizon, letter from Frank Angustain (Engineer), January 13, 2004.

cumulative impacts on public services to less than significant. The City policy is to withhold building permits until it has verified that all project development impact fees have been paid.

3.14.5 Level of Significance After Mitigation

The proposed project would not result in a significant impact on utilities and service systems.

4—OTHER CEQA CONSIDERATIONS

Other CEQA considerations are significant environmental effects that cannot be avoided if the proposed project were implemented (*State CEQA Guidelines*, Section 15126.2(b)), and significant irreversible environmental changes that would be caused by the project (*State CEQA Guidelines*, Section 15126.2(c)).

4.1 UNAVOIDABLE SIGNIFICANT ENVIRONMENTAL EFFECTS

Unavoidable adverse impacts are those project environmental impacts that, even after implementation of mitigation measures, could not be feasibly reduced to below the threshold of significance.

For this project, implementation of the proposed project would have adverse significant impacts on three aspects of air quality that would be unavoidable, as described below. All other potentially significant project impacts would be mitigable to less-than-significant impacts.

4.1.1 Air Quality—Short-Term Project Construction

Incorporation of mitigation measures would reduce the short-term construction emissions to less-than-significant levels for all criteria pollutants except for NO_x emission during Phase 3, which would slightly exceed the significance threshold on the days when most simultaneous activities would occur. During Phase 3, the NO_x emissions would remain significant and the impact on air quality would be unavoidable.

4.1.2 Air Quality—Long-Term Project Operation

Emission increases during the operation of the proposed project would exceed the SCAQMD's significance thresholds of 55 pounds per day and 10 tons per year for ROGs and NO_x, respectively, in 2010. Although mitigation measures would be applied, they would not be sufficient to reduce the project emissions to below the significance thresholds. Operational emissions of ROGs and NO_x would result in an unavoidable, significant impact on air quality.

4.1.3 Air Quality—Cumulative

The cumulative emissions of the proposed project and related projects would exceed applicable SCAQMD thresholds for all criteria pollutants, and there are no feasible mitigation measures to reduce the environmental impact. These cumulative emissions would result in an unavoidable significant adverse impact on air quality.

4.2 IRREVERSIBLE ENVIRONMENTAL CHANGES AND IRRETRIEVABLE COMMITMENTS

In the short term, construction of the proposed project and associated infrastructure would entail an irretrievable commitment of labor, capital, materials, and fuel. The principal nonrenewable (or slowly renewable) resources used would be sand and gravel, asphalt, lumber and other forest products, petrochemical construction materials, metals, fossil fuels, and water. In the long term, the level of

resource commitment for continued operation of the project and its infrastructure, compared to the initial outlay to construct the project, would be minimal. It is expected that if sometime in the future, should the land use change and the proposed project is no longer needed, that materials used in the construction, such as lumber, plumbing and electrical fixtures, etc., may be recovered and recycled for other use.

5—GROWTH-INDUCING IMPACTS

This section evaluates the potential for the proposed project to affect economic or population growth, or the development of additional land in the surrounding environment (*State CEQA Guidelines*, Section 15126 (d)). To assess the potential for growth-inducing impacts, the project characteristics that might encourage and facilitate activities that, individually or cumulatively, could affect the environment must be evaluated. Such growth-inducing project impacts may be direct or indirect.

5.1 DIRECT GROWTH-INDUCING IMPACTS

Direct growth-inducing impacts occur when the development of a project:

- Directly induces population growth or the construction of additional developments in the same area as the proposed project, thereby triggering related growth impacts; or
- Adds infrastructure that would remove physical obstacles to population growth and so would facilitate further land development and construction in the area; these types of infrastructure projects (such as building a new road into an undeveloped area or expanding a wastewater treatment plant) cannot be considered in isolation from the development they trigger.

The development of the proposed project would directly induce population growth by adding 802 single-family residences, 425 multifamily residences, and a 9-acre neighborhood commercial center. The availability of new housing would attract new residents and would (at most) increase the population of both the City of Fontana and the County of San Bernardino by approximately 4,822 persons.¹

The proposed project would result in the widening of Summit Avenue and the project's stormwater runoff would exceed the capacity of the existing drainage facilities until the City of Fontana's Master Drainage Plan culvert in Summit Avenue is constructed (probably in about five years). These infrastructure improvements would occur with or without the proposed project.² Therefore, the proposed project would not remove physical obstacles to population growth.

5.2 INDIRECT GROWTH-INDUCING IMPACTS

Projects that indirectly induce growth are those that might catalyze future unrelated development in the project area.

The proposed project would extend major infrastructure (including a roadway and trunk water and sewer lines) into an undeveloped area. Although such infrastructure would be constructed to directly serve the project, it could also induce future development by making it easier and less costly to further extend the infrastructure into the contiguous undeveloped land around the project site. However, the project would not in itself induce such indirect growth because the City of Fontana has planned and zoned the northern

¹ This estimated project population is based on the current average household size in the City of 3.93 persons per single-family household and 3.19 persons per multifamily household; *City of Fontana General Plan*, October 21, 2003, Chapter 3, Land Use Element, p. 3-27.

² City of Fontana, Todd Miller (Engineering and Development Department), February 24, 2004.

Fontana area to be built out as an urbanized area, and the project is a planned component of logical, orderly, and compact outward growth from the contiguous urban areas on the south.³

5.3 LEVEL OF IMPACT

The magnitude of direct or indirect project impacts that would potentially induce growth associated with the proposed project would not exceed the levels planned for in the *City of Fontana General Plan*, which contains estimated growth projections⁴ that accommodate the scale of this project. Therefore, the proposed project is consistent with the City's future development plans for the area, and no growth-inducing impact would thus occur.

³ *City of Fontana General Plan*, October 21, 2003, Chapter 3, Land Use Element, Figure 3-4, p. 3-23.

⁴ *Ibid.*, Table 3-2, p. 3-25.

6—ALTERNATIVES ANALYSIS

6.1 CEQA REQUIREMENTS

Reasonable Range of Feasible Alternatives. In accordance with Section 15126.6 of the State CEQA Guidelines, EIRs are required to include a discussion of alternatives to the proposed action. In Section 15126.6 (a) the Guidelines state:

An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. An EIR is not required to consider alternatives which are infeasible. The Lead Agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.

Consideration of Significant Effects. Section 15126.6(b) states:

Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede, to some degree, the attainment of the project objectives, or would be more costly.

Selection Process. Section 15126.6(c) describes the selection process for a range of reasonable alternatives:

The range of potential alternatives to the Proposed Project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. The EIR should briefly describe the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination. Additional information, explaining the choice of alternatives may be included in the administrative record. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts.

Sufficient Information. As required under Section 15126.6(d) of the State CEQA Guidelines:

The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the Proposed Project. The major characteristics and significant environmental effects of each alternative will be compared with that of the Proposed Project. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the effects in addition to those that would be caused by the project as proposed, the

significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed.

Environmentally Superior Alternative. The Environmentally Superior Alternative is identified from among the Project Alternatives and the proposed project. An alternative that is environmentally superior would result in the fewest or least significant environmental impacts and would achieve most of the objectives of the planning activity.

6.2 RATIONALE FOR SELECTING PROJECT ALTERNATIVES

Based on the Lead Agency's independent analysis of the project and comments received following the release of the Initial Study (IS) and Notice of Preparation (NOP), the City of Fontana formulated and considered the following range of potential project alternatives:

- Alternatives that could fulfill applicable CEQA requirements;
- Alternatives that could attain most of the project's basic objectives; and
- Alternatives that could reduce or avoid any significant or potentially significant adverse environmental effects of the project.

The purpose of this Section 6 is to discuss feasible alternatives and to evaluate the ability of each alternative to reduce or avoid potentially significant adverse environmental impacts, yet achieve the basic project objectives. See Section 3 (Environmental Analysis) for a detailed discussion of each type of potential environmental impact of implementing the proposed project.

The analysis of alternatives includes the assumption that all applicable mitigation measures associated with the proposed project would be implemented with the appropriate alternatives. However, applicable mitigation measures might be scaled to reduce or avoid the potential impacts of the alternative under consideration, and might not precisely match those identified for the proposed project.

6.3 PROJECT GOAL AND OBJECTIVES

The 211.9-acre *Citrus Heights North Specific Plan* project is a proposed master-planned community that would integrate residential, recreational, neighborhood commercial, and circulation improvements in the northern portion of City of Fontana. The community of 802 single-family homes and 425 multifamily residences would enhance the image of the City through strong design themes. The Specific Plan incorporates design guidelines and development standards to guide architecture and landscape design to create a cohesive community identity, while providing flexibility to accommodate future market demands.

Goal: The goal of the proposed project is:

- To set forth in the specific plan a comprehensive project development plan.

Objectives: To attain this goal, the proposed project has the following objectives:

- To provide a high-end residential community with a complementary mix of housing types that will contribute to the range of existing housing choices in north Fontana;
- To provide a convenient "walking-distance" neighborhood commercial center with retail businesses;

- To create a unique and distinctive residential community identity and character through control of project design elements such as architecture, landscaping, walls, signage, private streets, pocket parks, and access-controlled (gated) entries;
- To implement a plan that is sensitive to the surrounding environment and aesthetically pleasing; and
- To provide infrastructure systems to support the project and contribute to Fontana's roadway and circulation system improvements, including the installation of streetscape landscaping along the project's frontage.

6.4 ALTERNATIVES EXAMINED

The following alternatives have been identified and analyzed in this Draft EIR by the Lead Agency: No-Project, Reduced Project, and Alternative Site Design.

6.4.1 No Project

6.4.1.1 *Definition and Description*

The no-project analysis must discuss the “no-build” alternative, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans, site zoning, and general plan designations, and consistent with available infrastructure and community services. When the project is an individual development project on an identifiable location, the no-project alternative should also compare the environmental effects resulting from future predictable uses of the land. Consequently, there are two types of no-project alternatives.

No-Project—No-Build Alternative

Under the No-Project—No-Build Alternative, the proposed project for the *Citrus Heights North Specific Plan* would not be constructed and the project site would remain vacant and undeveloped. Most of northern Fontana (and most of the proposed project site) is designated Residential Planned Community (R-PC), which allows both single-family and multifamily dwellings at a maximum density of 6.4 dwelling units per acre.¹ A 9-acre parcel in the southeastern corner of the project site is zoned Community Commercial (C-C) with a Local Activity Center overlay, which allows nonresidential uses with a 0.1-to-1.0 floor area ratio (FAR).²

No-Project—Reasonably Foreseeable Future Use of the Site Alternative

Under this alternative, although the proposed project for the *Citrus Heights North Specific Plan* would not be constructed, it is reasonably foreseeable that residential and commercial improvements would occur on the site, consistent with the existing *General Plan* zoning designations.

6.4.1.2 *Impact Evaluation*

Land Use and Planning

Under the No-Project—No-Build Alternative, the proposed project would not be constructed. The project site would remain vacant and undeveloped. The City would not adopt the *Citrus Heights North Specific Plan*.

¹ *City of Fontana General Plan*, October 21, 2003, Chapter 3, Land Use Element, Figure 3-4, p. 3-23.

² *Ibid.*

Plan. The project would not attain the proposed project's objectives as identified in Sections 2.1 and 6.3 because the site would remain vacant and undeveloped.

Under the No-Project—Reasonably Foreseeable Future Use of the Site Alternative, development of residential areas would not necessarily be accomplished in the same order as the *Citrus Heights North Specific Plan* phasing. Each of the several property parcels could be developed piecemeal, without the integrative and coordinated approach of an overall master plan. In this scenario, infrastructure extension would still be necessary, but might not be coordinated under a master plan for the development for the entire area. Thus, sizing of water and sewer lines could be inadequate for ultimate development potential. The objectives of the *Specific Plan* in creating a distinctive community identity and character would not be achieved.

Aesthetics

The proposed project would provide a more aesthetically pleasing residential community, with its comprehensive planning characterized by a unified design and architectural theme as compared with the two No-Project Alternatives. However, the No-Project—No-Build Alternative would generate less light and glare than the proposed project because the project site would remain vacant and undeveloped. Without the aesthetic control of the proposed project's unified design theme (including a uniform lighting plan), the No-Project—Reasonably Foreseeable Future Use of the Site Alternative could have more light and glare spillage onto the surrounding community. Neither of the two No-Project Alternatives nor the proposed project would substantially alter the existing viewshed at the project site or adversely affect a scenic vista. Both impacts would be less than significant.

Unlike the proposed project, neither of the No-Project Alternatives would enhance the City of Fontana's image through a strong architectural design theme that would achieve a unique project identity and residential community character.

Air Quality

Both the No-Project—Reasonably Foreseeable Future Use of the Site Alternative and the proposed project would increase air pollutant emissions in the project vicinity, during both construction and operational phases of the project. Under the No-Project—Reasonably Foreseeable Future Use of the Site Alternative, the parcel-by-parcel development would have less impact during construction than the phased development of the *Citrus Heights North Specific Plan*; and the impact from mobile air emissions would also be less. In considering the same types of development of the project area as a whole, the cumulative impacts could be significant and the same types of mitigation applicable to the proposed project would be required for the No-Project—Reasonably Foreseeable Future Use project.

Biological Resources

Two species—the San Bernardino kangaroo rat and the coastal California gnatcatcher—are considered to potentially occur because the project site is near habitat that is designated as critical habitat for the gnatcatcher and proposed as critical habitat for the kangaroo rat. This habitat (in particular, Riversidian alluvial fan sage scrub [RAFSS]), is found in a 1,573-acre area north of Summit Avenue, between Citrus Avenue and Sierra Avenue, and is generally northeast of the project site. The No-Project/No-Build Alternative would have no environmental impact because it would leave the project site vacant and undeveloped. The No-Project—Reasonably Foreseeable Future Use of the Site Alternative would potentially result in similar impacts as the Proposed Project. The City of Fontana is planning to implement a Multiple Species Habitat Conservation Plan (MSHCP), which will include the project site; upon future implementation of the MSHCP, the project would mitigate any effects on biological resources in conformance with the MSHCP requirements.

Cultural Resources

Under the No-Project—No-Build Alternative, there would be no significant impact on cultural resources. The project reconnaissance survey for cultural resources found no evidence of any historic, archaeological, or paleontological resources currently on the project site, and neither the proposed project nor the No-Project—Reasonably Foreseeable Future Use of the Site Alternative and would be expected to cause any impact on such resources. During project grading and construction, either of these project alternatives could possibly incur an environmental impact by uncovering archaeological resources; however, in such a case, standard mitigation procedures would be undertaken to minimize any such impact and reduce the impact to less than significant.

Geology and Soils

The relative absence of problematic geologic and soils conditions on the site and in the project vicinity indicates that the site has a very low potential to either cause, or be subject to, the occurrence of a significant adverse impact related to geology or soils, regardless whether the proposed project, the No-Project—No-Build Alternative, or the No-Project—Reasonable Foreseeable Future Use of the Site Alternative were to be implemented.

Hazards and Hazardous Materials

There is no evidence of any recognized hazardous environmental condition or hazardous materials on the project site, or of any hazard to the public from the routine transport, use, or disposal of such materials. Whether the proposed project, the No-Project—No-Build Alternative, or the No-Project—Reasonably Foreseeable Future Use of the Site Alternative were selected, no significant adverse impact related to hazards or hazardous materials is expected to occur.

Hydrology and Water Quality

Both the proposed project and the No-Project—Reasonably Foreseeable Future Use of the Site Alternative would increase the amount of impervious surfaces. Both impacts would be less than significant or less than significant after mitigation. The No-Project—No-Build Alternative (with the site remaining vacant) would not increase the amount of impervious surfaces on the project site as the site would remain vacant.

Noise

Both the proposed project and the No-Project—Reasonably Foreseeable Future Use of the Site Alternative (residential development) would result in increased noise levels, during both construction and operational phases. The proposed project would be potentially significant during the short-term construction phase; the No-Project—Reasonably Foreseeable Future Use of the Site Alternative would likely extend the construction phase, thus reducing short-term construction noise impacts to acceptable levels. The No-Project—No-Build Alternative (with the site remaining vacant) would not result in increased noise levels.

Population and Housing

The *Citrus Heights North Specific Plan* is consistent with the *City of Fontana General Plan* and current zoning designations. Although population growth would occur as a result of implementing the residential portion of the proposed project, such growth is in accordance with the long-range comprehensive planning to implement the City's standards for orderly growth and ultimate buildout in northern Fontana. The proposed project would not displace substantial numbers of people or existing houses. The proposed project would provide a wide range of housing to meet the needs of Fontana residents, from single-family homes on lots varying between 4,200 and 10,000 square feet, to multifamily dwelling units. The No-Project—No-Build Alternative (with the site remaining vacant) would not be consistent with the long-

range comprehensive planning goals of the City, and the No-Project—Reasonably Foreseeable Future Use of the Site Alternative would have the same impact as the proposed project.

Public Services

The City charges various impact fees to project developers to mitigate project impacts by offsetting the costs of providing certain public services and facilities to the project's additional residents, residences, and businesses. These impact fees are required as part of the City's project approval process, and are intended to be used to improve and expand the City's infrastructure to accommodate the increased demand on City services and facilities. No nonmitigable significant adverse impacts are expected to occur on public schools, police protection, fire protection, libraries, or healthcare facilities because of the proposed project. The No-Project—No-Build Alternative would not require additional public services, nor would it generate impact fees. The No-Project—Reasonable Foreseeable Future Use of the Site Alternative would have the same impact on public services as the proposed project.

Recreation

The project would not demolish or remove any existing park facilities, either on or adjacent to the site. However, the project is anticipated to increase the population of Fontana, which would increase the use of existing parks and other recreational facilities and/or increase the demand for new such facilities. The City requires that the project proponent pay a Park Fee, based on the size and nature of the project or as negotiated with the City, to mitigate project impacts by offsetting and compensating for impacts on the City's parks staff, services, and facilities. Therefore, the project's potential impacts related to parks would be mitigable. No nonmitigable significant, adverse impacts are expected to occur related to the City's parkland acreage standards, deterioration of existing parks and recreational facilities, or the construction or expansion of recreational facilities. The No-Project—No-Build Alternative would not require additional recreational facilities, nor would it generate impact fees. The No-Project—Reasonable Foreseeable Future Use of the Site Alternative would have the same impact as the proposed project.

Transportation and Traffic

Both the No-Project—Reasonably Foreseeable Future Use of the Site Alternative and the proposed project would increase traffic congestion in the project vicinity, during both the construction and operational phases. Both impacts would be less than significant or less than significant after mitigation. The No-Project—No-Build Alternative (with the site remaining vacant) would not increase traffic congestion.

In the year 2025, both the proposed project and the Project—Reasonably Foreseeable Future Use of the Site Alternative would operate at a satisfactory level at the Congestion Management Plan's level of service standard (E) with mitigation measures at certain intersections and freeway mainline segments. The No-Project—No-Build Alternative would have a satisfactory level of service without mitigation under existing condition of no development on the project site.

Utilities and Service Systems

The proposed project would be consistent with the goals, policies, and actions specified in the *City of Fontana General Plan*, and the potential impact on the City's utilities and service systems infrastructure and service would be less than significant, or significant but mitigable by payment of City development impact fees. These impacts include no or less-than-significant impacts related to wastewater treatment requirements, wastewater treatment facilities, stormwater drainage facilities, water supply, water treatment capacity, landfill capacity, solid waste regulations, community litter, and other utilities. The No-Project—No-Build Alternative would not require additional utility and service systems. The No-Project—Reasonable Foreseeable Future Use of the Site Alternative would have the same impact as the proposed project.

6.4.1.3 Conclusion

The environmental impacts associated with the No-Project—No-Build Alternative would result in the least environmental impacts, but this alternative would not satisfy the project objectives. The No-Project—Reasonably Foreseeable Future Use of the Site Alternative with future residential and neighborhood commercial development would also result in similar or less environmental impact as the proposed project, but also fails to address all the project objectives of the *Citrus Heights North Specific Plan*.

6.4.2 Reduced-Project Alternative

6.4.2.1 Definition and Description

An EIR considers a reduced-project alternative to determine whether such an alternative could reduce or avoid the project's significant or potentially significant adverse environmental effects. The Reduced-Project Alternative would consist of a housing development and small neighborhood commercial center on the same 211.9-acre project site, consistent with the existing *City of Fontana General Plan* zoning designations, but with a lower residential and commercial density than that of the proposed project.

6.4.2.2 Impact Evaluation

Specific Plan Objectives

This alternative would not comply with the *Citrus Heights North Specific Plan*. Implementation of the Reduced-Project Alternative would not achieve, to the same extent as the proposed project, the density and mix of housing and commercial uses as the proposed project.

Land Use and Planning

The land use impacts with the Reduced-Project Alternative would be similar to those of the proposed project, as the land would still be used for residential and neighborhood commercial purposes. However, it would not develop the land to its maximum residential and commercial potential, as the City intends, as expressed by the *General Plan*'s zoning designations and planned buildup in northern Fontana.

Aesthetics

Constructing a Reduced-Project Alternative residential and commercial retail development on the proposed project site would result in aesthetic impacts in the project area that would have a similar, although reduced, impact as compared to those for the proposed project.

Air Quality

Construction-related air emissions such as fugitive dust and construction equipment pollutant emissions would be less than those for the proposed project because there would be less construction activity. Daily operational emissions would also be lower. Construction- and operation-related air emissions such as project-induced vehicle emissions would be less than those for the proposed project because the Reduced Project would attract less vehicular traffic. However, long-term operational emissions are expected to remain potentially significant (see Table 3.3-7), particularly reactive organic gases (ROGs), in which the air source emissions without the project would potentially exceed the significance threshold. Cumulative impacts would also remain potentially significant (see Table 3.3-9) for all criteria pollutants, even with the removal of the *Citrus Heights North Specific Plan* as one of the projects; the cumulative impacts were analyzed for eight combined projects. Therefore, although the Reduced-Project Alternative would reduce some air quality impacts, long-term and cumulative impacts would still remain potentially significant and adverse, no matter how low the residential density.

Biological Resources

The biological impacts would be similar to those of the proposed project, as there are currently no sensitive biological resources that would be impacted. The City of Fontana is planning to implement a Multiple Species Habitat Conservation Plan (MSHCP), which will include the project site; upon future implementation of the MSHCP, the project would mitigate any effects on biological resources in conformance with the MSHCP requirements.

Cultural Resources

The cultural impacts would be similar to the proposed project, as there are currently no sensitive historic, archaeological, or paleontological resources that could be impacted. During project grading and construction, this project alternative could possibly incur an environmental impact by uncovering archaeological resources; however, in such a case, standard mitigation procedures would be undertaken to minimize any such impact and reduce the impact to less than significant.

Geology and Soils

The geological and soils impacts would be similar to the proposed project, as the site has a very low potential to either cause, or be subject to, the occurrence of a significant adverse impact related to geology or soils.

Hazard and Hazardous Materials

The hazard and hazardous materials impact would be similar to the proposed project. If the Reduced-Project Alternative were selected, no significant adverse impact related to hazards or hazardous materials is expected to occur.

Hydrology and Water Quality

The hydrology and water quality impacts associated with a Reduced-Project Alternative would be less than those for the proposed project site because the amount of impervious surface would be less.

Noise

Constructing a Reduced-Project Alternative residential and commercial retail development on the proposed project site would result in noise impacts in the project area that would be similar, although reduced, as compared to those for the proposed project.

Population and Housing

The Reduced-Project Alternative would not be consistent with the long-range comprehensive planning goals of the City, as it is inconsistent with the growth intended by the *General Plan* zoning designations and the City's planned buildup in northern Fontana.

Public Services

The project is not expected to have any significant adverse impacts on public schools, police protection, fire protection, libraries, or healthcare facilities that cannot be mitigable by payment of development impact fees to the City. The Reduced-Project Alternative would require lower levels of additional services.

Recreation

The Reduced-Project Alternative is anticipated to increase the population of Fontana, which would increase the use of existing parks and other recreational facilities and/or increase the demand for new such facilities. Compared to the proposed project, this alternative would require lower-levels of additional recreation facilities.

Transportation and Traffic

The impacts on traffic and circulation patterns in the project area would be similar to those of the proposed project. There could be less project-related vehicular traffic with the Reduced-Project Alternative, but the overall traffic conditions and traffic patterns on the surrounding street system would remain similar under either alternative.

Utilities and Public Services

The proposed project would be consistent with the goals, policies, and actions specified in the *City of Fontana General Plan*, and the potential significant impact on the City's utilities and service systems infrastructure and service would be mitigable to less than significant by payment to the City of developer impact fees. The Reduced-Project Alternative would require lower-levels of utility and other public services.

6.4.2.3 Conclusion

The Reduced-Project Alternative would generally result in reduced environmental effects compared with those of the proposed project. However, the Reduced-Project Alternative would not achieve (to the same extent as the proposed project) the density and mix of housing as the proposed project. Nor would this alternative develop the land to its maximum potential as planned and intended by the City, as expressed in the *General Plan* zoning designations and planned buildup in northern Fontana. The Reduced-Project Alternative would still result in potentially significant, adverse air quality impacts that cannot be mitigated to levels of insignificance.

6.4.3 Alternative Site Design

6.4.3.1 Description

As with the Reduced-Project Alternative, an EIR considers an alternative site design to determine whether such an alternative design could reduce or avoid the project's significant or potentially significant adverse environmental effects. The Alternative Site Design Alternative would consist of a housing development that would be consistent with the existing *General Plan* designation of R-PC, but at a different location than the site of the proposed project.

6.4.3.2 Impact Evaluation

The environmental impacts of the Alternative Site Design are similar to those of the No-Project—Reasonable Foreseeable Future Use of the Site Alternative, so are generally considered in the impact discussions in Section 6.4.1.2.

6.4.3.3 Conclusion

The environmental impacts of the Alternative Site Design would result in similar environmental impacts as the proposed project, and would not reduce the potentially significant, adverse environmental impacts compared to those of the proposed project. This alternative also fails to address all the project objectives of the *Citrus Heights North Specific Plan*.

6.5 ALTERNATIVES ELIMINATED FROM FURTHER CONSIDERATION

The *State CEQA Guidelines* require that an EIR state why it has rejected one or more project alternatives. A preliminary rationale for rejecting an alternative is presented, where applicable, in this Section 6.5. If

the City of Fontana ultimately rejects any or all project alternatives, the rationale for the rejection will also be presented in the Findings of Fact that are required to be made before EIR Certification and before any action, regarding the project, is taken by the Fontana City Council.

For the reasons given below, the Lead Agency rejected the following three alternatives: No-Project Alternative, Reduced-Project Alternative, and Alternative Site Design.

6.5.1 No Project

This alternative would result in no significant impacts associated with a physical change in the environment because the construction of the residential development with neighborhood retail and recreational amenities would not occur, and the project site would remain vacant. With this alternative, the vacant site would not satisfy any of the project's objectives. Although the No-Project—No-Build Alternative would be an environmentally superior alternative, this alternative would fail to address any of the project objectives, as stated in the *Citrus Heights North Specific Plan*. The No-Project—Reasonably Foreseeable Future Use of the Site would result in impacts similar to those of the proposed project, and would fail to meet some of the project objectives.

6.5.2 Reduced Project

The Reduced-Project Alternative would not fully meet the project objectives. This alternative would result in environmental effects that would be generally reduced from those of the proposed project. However, this alternative would still result in potentially significant, adverse air quality impacts that could not be reduced to levels of insignificance.

6.5.3 Alternative Site Design

The Alternative Site Design would not fully meet the project objectives and its environmental impacts would be similar to those of the proposed project.

6.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

As discussed in Section 6.8, each project alternative has a different combination of potential environmental effects that are similar to, greater than, or less than the proposed project. Based on the minimization or avoidance of physical environmental impacts, the No-Project Alternative would be environmentally superior to the proposed project. However, the *State CEQA Guidelines* require that, if the environmentally superior alternative is the No-Project Alternative, "the EIR shall also identify an environmentally superior alternative among the other alternatives."

Therefore, in terms of physical effects on the environment, the environmentally superior alternative is the Reduced-Project Alternative, which provides the same or fewer impacts on the environment than the proposed project. Although this alternative is the environmentally superior alternative, it would not fully meet the project objectives.

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