Lyons Avenue/Dockweiler Drive Extension Project
Draft Environmental Impact Report

Lead Agency:
City of Santa Clarita
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1. EXECUTIVE SUMMARY

A. INTRODUCTION

(a) Purpose of the EIR

The purpose of this Draft Environmental Impact Report (Draft EIR) is to inform decision makers and the general public of the potential environmental impacts resulting from the proposed Dockweiler Drive Alignment Project ("Proposed Project").

The Proposed Project will require approval of certain discretionary actions by the City of Santa Clarita, and therefore, is subject to environmental review requirements under the California Environmental Quality Act (CEQA). For purposes of complying with CEQA, the City of Santa Clarita, located at 23920 Valencia Boulevard, CA 91355 is identified as the Lead Agency for the Proposed Project.

As described in Section 15121(a) and 15362 of the CEQA Guidelines, an environmental impact report is an informational document which will inform public agency decision-makers and the public of the significant environmental effects of a project, identify possible ways to mitigate any significant environmental effects, and identify and evaluate a reasonable range of alternatives to the project that have the potential to mitigate or avoid the project's potential significant environmental effects while feasibly accomplishing most of the project's basic purposes. Therefore, the intent of this Draft EIR is to focus the discussion on the Proposed Project's potential physical effects on the environment, which may be significant under the methodology and thresholds of significance identified within each Section of this Draft EIR. Where applicable, the Draft EIR recommends feasible mitigation measures that could potentially reduce or avoid significant environmental impacts.

This Draft EIR was prepared in accordance with Section 15151 of the CEQA Guidelines, which defines the standards for adequacy of an environmental impact report as follows:

> *An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a Project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.*

(b) Overview of the Proposed Project

Project Location

The Project Site is located in the City of Santa Clarita, California located about 35 miles north of Downtown Los Angeles. The Project Site is located at the intersection of Lyons Avenue and Railroad Avenue and extends eastward towards the General Plan alignment for Dockweiler Drive towards The Master's University and northwest towards the intersection of 12th Street and Arch Street. The Project Site also includes the closure of an at-grade crossing at the intersection of Railroad Avenue and 13th Street. The limits for the Lyons Avenue/Dockweiler Drive extension ("Project Site") are from Railroad Avenue on the west to the future Master's University Master Plan Dockweiler extension to the east.

Overview of the Environmental Setting

The Project Site is currently zoned for MXN (Mixed Use Neighborhood). The portion of the Project Site that crosses the UP/Metrolink Railroad line is zoned for PI (Public Institutional). The General Plan land use designation of the Project Site is Mixed Use Neighborhood (MXN). The General Plan states that areas with a MXN designation should be developed to create neighborhoods that combine residential uses with complementary commercial services, including retail and office uses. MXN zoned areas should be located in close proximity to public transit and provide roadway and trail linkages to adjacent development. The PI zoning designation identifies lands that are used for various types of public or/and community serving facilities owned and operated by public agencies, special districts, nonprofit organizations and other entities. Allowable uses include civic and governmental offices, public works yards, public or private schools, libraries, day care centers, airports, hospitals and supporting medical facilities, museums, fire stations, police stations, landfills, and prisons. The Project Site is also located in the Placerita Canyon Special Standards District (PCSSD) and is part of the North Newhall Area (NNA), which includes a Mixed Use Overlay Zone.

Overview of the Proposed Project

The Proposed Dockweiler Drive Alignment Project is a multi-phased capital improvement project being coordinated by the City of Santa Clarita and The Master's University to improve circulation and access to the Placerita Canyon and Newhall Communities. The proposed connection and extension of Lyons Avenue to Dockweiler Drive is identified in the Circulation Element of the City's General Plan as one of the primary east-west arterials through the City of Santa Clarita that would provide a through connection from Sierra Highway to Railroad Avenue.

The Proposed Project would extend Lyons Avenue from its existing terminus at Railroad Avenue, eastward to Dockweiler Drive to provide a T-intersection, and would extend northwest to connect with the intersection of Arch Street and 12th Street and southeast towards the General Plan alignment for Dockweiler Drive at The Master's University. The Proposed Project also includes the closure of an at-grade railroad crossing at the intersection of 13th Street and Railroad Avenue and the addition of a new at-grade railroad crossing at the intersection of Railroad Avenue and the proposed Lyons Avenue intersection. The Lyons Avenue/Dockweiler Drive extension would extend to the approved alignment of

Dockweiler Drive at The Master's University campus. In coordination with the proposed Railroad Bike Path project, the new Dockweiler Drive extension will result in creating a vital Complete Street link between the communities to the east of the railroad/ Newhall Creek (including The Master's University) and Old Town Newhall and Metrolink station.

A detailed description of the Proposed Project including specific street improvements is presented in Section 2.0 Proposed Project.

B. ENVIRONMENTAL REVIEW PROCESS

(a) Notice of Preparation/Scoping Meeting

In compliance with Section 15082 of the CEQA Guidelines, a Notice of Preparation (NOP) was prepared by the City of Santa Clarita and distributed to the State Clearinghouse, Office of Planning and Research, responsible agencies, and other interested parties on August 5, 2013. The NOP and Notice of a Public Scoping Meeting was circulated for public review and comments for a 30-day period beginning on August 5, 2013 and ending on September 3, 2013. Appendix A to this Draft EIR contains a copy of the NOP and written responses to the NOP, respectively.

The public scoping meeting was held on August 21, 2013, to obtain the public's initial views about environmental issues that should be evaluated in the Draft EIR in connection with the Proposed Project. City staff and representative technical consultants involved in the preparation of the EIR attended the scoping meeting. Comment letters were received by the following governmental agencies and organizations: (1) State of California, Governor's Office of Planning and Research (OPR), (2) California Native American Heritage Commission, (3) California Department of Fish and Wildlife; (4) California Public Utilities Commission (5) County of Los Angeles Chief Executive Office; (6) Los Angeles County Metropolitan Transportation Authority (Metro); (7) Southern California Gas Company, (8) the Southern California Regional Rail Authority (Metrolink). In addition to the responding governmental agencies, approximately 47 individuals provided written comments on the NOP. Appendix A to this Draft EIR contains the written comments provided to the City during the public scoping meeting, and the names of those in attendance at the scoping meeting who signed in requesting to be kept informed of the Project.

(b) Environmental Issues Analyzed in the Draft EIR

Based on a review of environmental issues by the City, the Initial Study, the responses to the NOP, and the input received at the public scoping meeting, this Draft EIR analyzes the following environmental issues:

- Aesthetics (Views, Light and Glare)
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Land Use and Planning
- Hydrology and Water Quality
- Noise
- Traffic and Transportation

A summary of the Proposed Project's environmental impacts, mitigation measures, and level of impact after mitigation is presented in Table 1-1, Summary of Environmental Impacts and Mitigation Measures, beginning on page 1-7.

(c) Alternatives to the Proposed Project

In compliance with Public Resources Code Section 21100 (4), and Sections 15121, 15126, and 15126.6 of the State CEQA Guidelines, the EIR evaluated a reasonable range of Project Alternatives. As discussed in greater detail in Section 6.0, Alternatives to the Project, the range of alternatives selected was based on the ability to feasibly attain most of the basic objectives of the proposed Project and the alternatives ability to avoid or substantially lessen any of the significant effects of the proposed Project. The Alternative Analysis includes the evaluation of a No Project Alternative (as mandated by CEQA), and two alternative alignments: Alignment Alternative 1 and Alignment Alternative 2.

Alignment Alternative 1 would include the proposed roadway alignment and associated infrastructure of a new at-grade crossing at Lyons Avenue and Railroad Avenue and a secondary east-west arterial roadway connecting Lyons Avenue to the approved alignment of Dockweiler Drive at the Master's University Campus that would connect Dockweiler Drive to a new five-leg intersection at the Arch Street/12th Street/Placerita Canyon intersection. This alignment is similar to the Proposed Project except that the 13th Street at-grade crossing would remain operational under this alternative as opposed to being closed.

Alignment Alternative 2 would involve the development of the proposed roadway alignment and associated infrastructure for Dockweiler Drive, as proposed, connecting Dockweiler Drive from the approved alignment at the Master's University Campus to the Arch Street/12th Street/Placerita Canyon intersection, but without the construction of a new at-grade crossing and connection from Lyons Avenue at Railroad Avenue.

As evaluated in Section 6.5, Environmentally Superior Alternative, Alternative 2 was identified as the environmentally superior alternative as it would feasibly attain most of the basic objectives of the proposed Project to provide an additional connection from the Old Town Newhall community to Dockweiler Drive as contemplated under the Circulation Element of the General Plan, and although it would not reduce or eliminate the proposed Project's significant and unavoidable short-term localized construction air quality and construction noise impacts, it would reduce impacts associated with air quality, biological resources, cultural resources, geology/soils, hydrology, construction noise, aesthetics and traffic. Specifically, Alternative 2 would retain the existing aesthetic conditions and views at the Lyons Avenue and Railroad Avenue intersection, would avoid ground disturbance within Newhall Creek, and would reduce the total combined number of railroad crossing events at 13th Street, Market Street, Newhall Avenue and Lyons Avenue. The total average daily traffic railroad crossings is anticipated to be lowest under the Alternative 2 alignment for both the 2019 and 2035 buildout years. In 2019, Alternative 2 would result in 820 fewer crossings than the proposed Project and 3,160 fewer crossings than Alternative 1. For Year 2035, the total average daily traffic railroad crossings under Alternative 2 would result in 6,230 fewer crossings than the proposed Project and 8,740 fewer crossings as compared to

Alternative 1. As such the Alternative 2 alignment would minimize railroad crossing events and would therefore be environmentally superior to the proposed Project.

(d) Environmental Review Process

The Draft EIR will be circulated for review and comment by the public and other interested parties, agencies, and organizations for a period of 60 days. After completion of the 60 day review period, a Final EIR will be prepared that responds to comments on the Draft EIR submitted during the review period and modifies the Draft EIR as required. Public hearings on the proposed Project will be held after completion of the Final EIR. The City will make the Final EIR available to agencies and the public prior to considering certification of the Final EIR. Notice of the time and location will be published prior to the public hearing date. All comments or questions about the Draft EIR should be addressed to:

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(e) Organization of the Draft EIR

The Draft EIR is organized into eight sections as follows:

Section 1 (Executive Summary): This section provides an introduction to the environmental review process and a summary of the proposed Project description, alternatives, environmental impacts, and mitigation measures.

Section 2 (Project Description): A complete description of the proposed Project including Project location, Project Site characteristics, Project characteristics, Project objectives, and required discretionary actions is presented.

Section 3 (Environmental Setting): An overview of the environmental setting of the proposed Project is provided including a description of existing and surrounding land uses, and a list of related projects.

Section 4 (Environmental Impact Analysis): The Environmental Impact Analysis section is the primary focus of this Draft EIR. Separate discussions are provided to address the potential environmental effects of the proposed Project. Each environmental issue contains a discussion of existing conditions, an assessment and discussion of the significance of impacts associated with the proposed Project, mitigation measures, cumulative impacts, and level of impact significance after mitigation.

Section 5 (General Impact Categories): This section provides a summary of significant and unavoidable impacts of the proposed Project, a summary of the impacts determined to be less than significant, a

discussion of potential growth inducing effects, and an explanation of the significant irreversible environmental changes.

Section 6 (Alternatives to the Project): This section includes an analysis of a range of reasonable alternatives to the proposed Project. The Alternative Analysis includes the following development scenarios: (a) No Project Alternative; (b) Alignment Alternative 1; (c) Alignment Alternative 2; and (d) an Environmentally Superior Alternative.

Section 7 (Preparers of the Draft EIR and Persons Consulted): This section presents a list of lead agency and consultant team members that contributed to the preparation of the Draft EIR.

Section 8 (Acronyms and Abbreviations): This section provides definitions for all of the acronyms and abbreviations used in this Draft EIR.

Table I-1
Summary of Environmental Impacts and Mitigation Measures

Environmental Impacts	Mitigation Measures		Level of Significance After Mitigation
Aesthetics			
Temporary Construction Impacts The Proposed Project's construction activities would involve grading, debris and soils stockpiles, building materials and construction equipment, all of which could occupy the field of view of passing motorists and pedestrians along Lyons Avenue, Railroad Avenue, Market Street, Rice Street, and the Arch Street/12th Street/Placerita Canyon intersection, and nearby residential properties on Aden Avenue. The existing visual character of the Project Site would temporarily change from construction-related activities during the duration of the construction period. This impact would be considered significant but temporary.	MM 4.1-1:	Construction equipment, debris, and stockpiled equipment shall be visually screened to effectively block the line-of-sight from the ground level of neighboring residential properties. Such barricades or enclosures shall be maintained in appearance throughout the construction period. Graffiti shall be removed immediately upon discovery.	Less Than Significant Impact.
Long Term Operational Impacts Upon completion of the Proposed Project, the aesthetic character of the Project Site and its immediate surroundings would be permanently altered. Views of the intersection at Lyons Avenue and Railroad Avenue will be altered to allow for the construction of a new SCRRA/UP railroad at-grade crossing east of Railroad Avenue and the addition of a new bridge crossing at Newhall Creek. Views of the intersection of Lyons Avenue and Railroad Avenue and the hillside on the southeast portion of the Project Site will be altered by grading for the proposed roadway alignment. Views of the Project Site at the intersection of Railroad Avenue and 13th Street will also be altered as a result of the closure of the at-grade railroad crossing. The extension of the proposed roadway is consistent with the City of Santa Clarita's General Plan and with the approved Master's University Master Plan. The roadway extension would be developed in accordance with the	MM 4.1-2:	The roadway median and contoured slopes along the roadway alignment shall be attractively landscaped and maintained in accordance with landscape plans to the satisfaction of the City Planning Department.	Less Than Significant Impact.

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
City's roadway standards and design guidelines. *Loss of Oak Trees* Two oak trees occur within the project limits and would be removed for project construction. The removal of or encroachment to oak trees as a result of project construction would be considered a significant impact under both the City of Santa Clarita and CEQA. Replacement oak trees would be planted in the number necessary to comply with the requirements stipulated in the Oak Tree Permit issued by the City. With approval of the required oak tree permits, and implementation of Mitigation Measure 4.3-7 in Section 4.3, Biological Resources, aesthetic impacts associated with the loss or pruning of any oak tree would be reduced to less than significant levels.	See mitigation measure 4.3-7, below.	Less Than Significant Impact.
Alteration of A Significant Ridgeline Construction of the proposed roadway alignment will permanently alter a significant ridgeline as designated in the City of Santa Clarita General Plan. The eastern segment of the Dockweiler alignment was previously approved under a separate project entitlement for The Master's University in 2009, which included a Ridgeline Alteration Permit for the eastern segment of this ridgeline. As part of the approved entitlements for The Master's College Plan in 2008, the extension of Dockweiler Drive east of the Project Site was found to result in the permanent and irreversible grading and re-contouring of the ridgeline. The grading limits of the proposed Project would retain the gradual elevation profile of the base of the ridgeline. Views of the altered portion of the ridgeline would be visible from limited points along the public rights-of-way along Market Street and Race Street to the south of the Project Site. As a project design feature the grading plan incorporates landform grading practices to blend the manufactured slopes and required drainage benches into the natural topography to the maximum extent feasible. Plant materials will be utilized to protect slopes from slippage and soil erosion and minimize the visual effects of	No mitigation measures are required.	Less Than Significant Impact.

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
grading and construction on a hillside area. With incorporation of the project design features to develop and improve a new roadway extension that is consistent with the City's roadway design standards, the Proposed Project would result in a less than significant impact with respect to the loss of an aesthetic natural feature. *Visual Character* No buildings or development is proposed on the Project Site that would block existing views or substantially degrade the visual character of the existing site. Upon completion, Dockweiler Drive will be improved as a pedestrian, equestrian and bicycle friendly roadway and provide multi-purpose, unpaved trails. These Project features would increase accessibility to scenic natural resources including Newhall Creek and surrounding ridgelines and mountains. Therefore, the Project would have a less than significant impact with respect to public scenic vistas.	No mitigation measures are required.	Less Than Significant Impact.
Roadway Light and Glare The Project would introduce nighttime lighting to the Project Area, which will include pole-mounted street lights at intersection, lighted bollards along Dockweiler Drive, flashing safety lighting for the proposed at-grade crossing, and would contribute to additional light and glare from headlights of vehicles utilizing the roadway. Lighting associated with the Proposed Project is not anticipated to substantially impact any surrounding sensitive uses. Overall, the Project would be expected to slightly increase ambient lighting in the area, but compliance with the design standards and requirements established in the Santa Clarita Municipal Code Section 17.50.05 would mitigate lighting impacts to a less than significant level.	No mitigation measures are required.	Less Than Significant Impact.
Air Quality *Construction* Construction of the Proposed Project would occur over an approximately 12-month timeframe and would involve clearing, grading, excavation, trenching, and asphalt paving. Construction would	No mitigation measures are required.	Less Than Significant Impact.

Environmental Impacts	Mitigation Measures		Level of Significance After Mitigation
require 4,990 cubic yards (cy) of cut, 2,760 cy of fill, and 2,230 cy of soil export associated with grading and excavation. Sources of emissions during construction include: stationary and mobile uses of construction equipment, construction vehicles (heavy-duty construction vehicles and worker vehicles), and energy use. Additionally, earthwork and construction activities would generate fugitive dust emissions. These construction-related emissions and their associated air quality impacts would be short-term in nature and limited only to the period when construction activity is actively taking place. The Proposed Project's construction emissions would be below SCAQMD's significance thresholds for all criteria pollutants. Therefore, the Proposed Project's regional construction air quality emissions would be less than significant.		No mitigation measures are required.	Less Than Significant Impact.
AQMP Consistency The Proposed Project would not exceed the AQMD's significance thresholds for regional construction emissions and thus would not increase the frequency or severity of existing air quality violations or cause or contribute to new air quality violations within the Basin. The Project is consistent with the AQMP and would not interfere with attainment of air quality levels identified in the AQMP. The Project would help reduce congestion and vehicles per miles travelled by providing sidewalks and bicycle lanes and by providing direct access from the residential area and Master's University area to the Jan Heidt Newhall Metrolink Station and Old Town Newhall. The Project encourages alternative modes of transportation other than motor vehicles and would be consistent with the goals and objectives of the AQMP to reduce vehicle emissions throughout the Basin.			
Localized Construction Emissions The Proposed Project would result in significant localized air emissions in close proximity to residential land uses within 100 meters of the Project Site on a temporary and intermittent basis during construction.	MM 4.2-1	Prior to grading permit issuance, the Project contractor shall develop a Construction Emission Management Plan to minimize construction-related emissions. The Construction Emission Management Plan shall require the use of Best Available Control Measures, as specified in Table 1 of SCAQMD's Rule 403. The Construction Emission Management Plan shall include the following additional elements:	Significant and Unavoidable Impact.

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
Localized NOx and CO emissions would be below the significance thresholds at all sensitive receptor locations. However, localized thresholds would be exceeded for PM_{10} and PM_{25} emissions at two locations: (1) the single family residential land uses located immediately north of the Project Site (within a proximity of 100 meters) and (2) the residential land uses within 100 meters south of the Project Site in the vicinity of Market Street and Race Street. Localized emissions would be below the stated thresholds for any land use located further than 100 meters from the Project Site. Therefore, localized air quality impacts resulting from construction activities would be considered significant.	a. Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. When wind speeds exceed 15 miles per hour the operators shall increase watering frequency. b. Active sites shall be watered at least three times daily during dry weather. c. Suspend grading and excavation activities during windy periods (i.e., surface winds in excess of 25 miles per hour). d. Suspend the use of all construction equipment during first-stage smog alerts. e. Application of non-toxic chemical soil stabilizers or apply water to form and maintain a crust on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days). f. Application of non-toxic binders to exposed areas after cut and fill operations and hydroseeded areas. g. Plant vegetative ground cover in disturbed areas as soon as possible and where feasible. h. Operate street sweepers that comply with SCAQMD Rules 1186 and 1186.1 on roads adjacent to the construction site so as to minimize dust emissions. Paved parking and staging areas shall be swept daily.	

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
	i. Scheduling truck deliveries to avoid peak hour traffic conditions, consolidating truck deliveries, and prohibiting truck idling in excess of 5 minutes. j. Reduce traffic speeds on all unpaved roads to 15 miles per hour or less. k. Pave or apply gravel on roads used to access the construction sites when possible. l. Minimize idling time either by shutting equipment when not in use or reducing the time of idling to 5 minutes as a maximum. m. Limit, to the extent feasible, the hours of operation of heavy-duty equipment and/or the amount of equipment in use. MM 4.2-2 All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. A copy of each unit's certified tier specification, BACT documentations, and CARB, SCAQMD, or ICAPCD operating permit shall be provided at the time of mobilization of each applicable unit of equipment.	

Environmental Impacts	Mitigation Measures		Level of Significance After Mitigation
	MM 4.2-3	An information sign shall be posted at the entrance to each construction site that identifies the permitted construction hours and provides a telephone number to call and receive information about the construction project or to report complaints regarding excessive fugitive dust generation. Any reasonable complaints shall be rectified within 24 hours of their receipt.	
	MM 4.2-4	The contractor shall utilize low-VOC content coatings and solvents that are consistent with applicable SCAQMD and ICAPCD rules and regulations.	
Operational Emissions Although the Proposed Project would not directly generate any new vehicle trips, the Proposed Project would result in changes to the traffic circulation in the vicinity and would alter the average daily traffic volumes and peak hour traffic volumes at local intersections. A CO hotspot analysis was conducted, and it was found that, under worst-case conditions, future CO concentrations at each intersection would not exceed the state 1-hour and 8-hour standards with or without the development of the Project. Therefore, no significant project-related impact would occur relative to future carbon monoxide concentrations. The Proposed Project would have a less than significant impact with respect to this criterion.		No mitigation measures are required.	Less Than Significant Impact.
Biological Resources *Habitat Modification* *(1) Vegetation* Site grading plans indicate that within the Project Site 2.32 acres of vegetation would be removed (100 percent of the vegetation resources present). Of the vegetation communities impacted Disturbed California	MM 4.3-1	The applicant shall retain a qualified biologist with a CDFG Scientific Collection Permit and Memorandum of Understanding	Less Than Significant Impact.

Environmental Impacts	Mitigation Measures		Level of Significance After Mitigation
Sagebrush-California Buckwheat Scrub is the dominant plant community present by area and approximately 0.63 acre of this habitat would be lost through site grading and project implementation. The loss of 2.32 acres of vegetation is considered adverse; although, due to the Site's disturbance history, its small size, the lack of sensitive plant communities, the lack of structure for wildlife, and high percentage of invasive and non-native plant species generally associated with disturbed areas, impacts associated with the loss of 2.32 acres of vegetation present on-site is considered less than significant. The only special-status plants observed during the field investigation were two coast live oaks. No other special-status plants are considered to have a high potential for occurrence within the Project Site. A permit is required for the encroachment into the Protected Zone. Native oak trees are protected under City of Santa Clarita Oak Tree Ordinance (Ordinance No. 89-10, passed by the City Council on April 25, 1989) and the City's Oak Tree Preservation and Protection Guidelines (adopted September 11, 1990). The removal of or encroachment to oak trees as a result of project construction would be considered a significant impact under both the City of Santa Clarita and CEQA. Replacement oak trees would be planted in the number necessary to comply with the requirements stipulated in the Oak Tree Permit issued by the City. With approval of the required oak tree permits, and implementation of Mitigation Measure 4.3-7, impacts upon the loss or pruning of any oak tree would be reduced to less than significant levels. *(2) Wildlife* It is expected that construction activity and grading operations of the Project Site would disturb and/or threaten the survival of common wildlife species present on-site. It is expected that species of low mobility, particularly small mammals, amphibians, and reptiles, would be lost during site preparation, grading, and construction. Site grading and project implementation would eliminate approximately 2.32 acres		to conduct preconstruction surveys for the silvery legless lizard within the Project Site and area. Should this species be located on the Project Site during preconstruction surveys all individuals shall be relocated, with the concurrence of the City and CDFW, to an approved site with suitable habitat. Surveys and relocation of silvery legless lizard may occur prior to construction; however, focused surveys must occur within 30 days prior to construction. Survey and relocation methods shall be approved by CDFW prior to commencement of grading. Active nests of native bird species are protected by the Migratory Bird Treaty Act (16 U.S.C.704) and the California Fish and Game Code (Section 3503). If activities associated with construction or grading are planned during the bird nesting/breeding season, generally January through March for early nesting birds (e.g., Coopers hawks or hummingbirds) and from mid-March through September for most bird species, the applicant shall have a qualified biologist conduct surveys for active nests. The project management shall endeavor to avoid the breeding season. In the event it is not feasible to avoid the nesting season, a qualified biologist shall perform weekly nesting bird surveys beginning 30 days prior to initiation of ground-disturbing activities, with the last survey conducted no more than three days	MM 4.3-2	Less Than Significant Impact.

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
of natural habitat present on-site, and would result in an incremental reduction in native wildlife species abundance and diversity. However, due to nearby urban development and the associated human disturbance, field investigations indicate wildlife diversity and abundance on the Project Site is relatively low. Most the species of mammals, birds, and reptiles observed on-site or thought to occur on-site are relatively common. Project implementation is not expected to cause current wildlife population of common species on or adjacent to the Project Site to drop below self-sustaining levels. Therefore, impacts to common wildlife species are not considered significant. Project-related activities associated with site preparation and construction could result in the direct loss of individuals of one special-status wildlife species (the silvery legless lizard) and of active nests or the abandonment of active nests by adult birds should grading occur during nesting season. The loss of a California species of special concern and active bird nests would be a considered significant without mitigation. Implementation of mitigation measures would reduce impacts to the silvery legless lizard and nesting birds to a less than significant level.		prior to the start of clearance/construction work. If ground-disturbing activities are delayed, additional preconstruction surveys shall be conducted so that no more than three days have elapsed between the survey and ground-disturbing activities. Surveys shall include examination of natural habitat for nesting birds. Several bird species such as killdeer and night hawks are known to nest on bare ground. Protected bird nests that are found within the construction zone shall be protected by a buffer deemed suitable by a qualified biologist, and verified by CDFW. Typically, a 300-foot buffer is required for most species and a 500-foot buffer for raptor species. Buffer areas shall be delineated with orange construction fencing or other exclusionary material that would inhibit access within the buffer zone. Installation of the exclusionary material delineating the buffer zone shall be verified by a qualified biologist prior to initiation of construction activities. The buffer zone shall remain intact and maintained while the nest is active (i.e., occupied or being constructed by the adults bird(s)) and until young birds have fledged and no continued use of the nest is observed, as determined by a qualified biologist. MM 4.3-3 Prior to project construction, the following is required to mitigate impacts to jurisdictional resources: a. Areas of impact proposed by the	

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
	project shall be calculated and permits for these proposed impacts shall be obtained (the discharge of fill into ACOE jurisdictional areas will require a permit pursuant to Section 404 of the Clean Water Act and a 401 Certification from the State Water Resources Control Board, and any modification to a streambed, [analysis states none is present], will require a streambed alteration agreement from CDFW pursuant to Section 1600 of the California Fish and Game Code). Both the streambed alteration agreement and the 401 and 404 permits will required specific mitigations for any impacts within their respective jurisdictions. b. Because the proposed bridge is a 'span' design, it does not require footings within the bed of the stream. However, plan designs do include approximately 450 feet of bank stabilization on both sides of the stream that would lie within CDFW, ACOE and Regional Water Quality Control Board jurisdiction. Since little vegetation exists within this drainage, it is uncertain what mitigation these regulatory agencies may require. c. The stream in the impacted area would not be conductive to re-vegetation as the area of the project is deeply incised with little existing vegetation and newly planted vegetation would	Less Than Significant Impact.
(3) Federally Protected Wetlands Based on field investigations, two CDFW jurisdictional features occur within the Project Site, the Newhall Creek and a small ephemeral drainage that is a tributary to Newhall Creek. There is also a small area of narrow-leaf willow thicket, which probably does not qualify as a Federally jurisdictional wetland. The Project would result in both temporary and permanent impacts to the areas of the Newhall Creek and its associated tributary and are classified as "riverine and related		

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
permanent water, with continuous flow at least seasonally." With the implementation of MM 4.3-3, impacts to jurisdictional resources would be reduced to a less than significant level.	likely be washed away with the next storm event. d. Mitigation can be completed off site. Because there is essentially no riparian vegetation being removed with implementation of this project, revegetation off site, in a location approved by the City and CDFW, would be accomplished at a 1:1 area ratio. e. Upon City and agency approval of a suitable location, a detailed restoration plan shall be prepared that provides a planting palette, planting methods, and irrigation plan (as appropriate). The plan will also include a 5-year monitoring effort to ensure success of the restoration effort. The monitoring plan will include monitoring methods, monitoring frequency, success criteria, and contingency actions should the success criteria not be met for any reason. Annual monitoring reports shall be provided to both CDFW and the City. MM 4.3-4 The following guidelines shall be implemented to minimize impacts on remaining biological resources on the site as a result of construction and grading activities and to ensure that potential impacts on these resources will remain less than significant. A City-approved biologist shall be retained by the applicant as a construction monitor to	

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
	ensure that incidental construction impacts on retained biological resources are avoided or minimized. Responsibilities of the construction monitor shall include the following: • Attend all pre-grading meetings to ensure that the timing and location of construction activities do not conflict with mitigation requirements. • Conduct meetings with the contractor and other key construction personnel, describing the importance of restricting work to within the project boundaries and outside of the preserved areas. The monitor shall also work with the contractor to determine the most appropriate staging/storage areas for equipment and materials. • Guide the contractor in marking/flagging the construction area limits, in accordance with the final approved grading plan. • Periodically and routinely visit the site during construction to coordinate and monitor compliance with the above provisions.	Less Than Significant Impact.
(4) Wildlife Movement and Corridors The Project Site is generally surrounded on three sides by development and road networks. However, Newhall Creek does extend through the Site and provides passage through developed areas between the Santa Clarita River and the Angeles National Forest to the southeast and is considered a part of a wildlife movement or migration corridor. To limit impacts to wildlife movement, four 25-foot wide and 8-foot deep openings in a concrete box bridge with 80-foot wide soft base and 2:1 protected side slopes is proposed where the proposed roadway extension crosses Newhall Creek. As designed, this bridge would not result in any barrier to wildlife movement and would serve to protect	The construction contractor shall install temporary erosion control measures to reduce impacts to and protect on site drainages from excess sedimentation, siltation, and erosion.	Less Than Significant Impact.

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
Newhall Creek as a functioning wildlife movement corridor. The project as proposed would not result in significant impacts to wildlife movement. *Construction Activity* Construction-related activities, particularly site clearing, grading, and the implementation of the road surface, could have adverse effects on plant and wildlife habitat, and together, would be considered a significant impact. Implementation of Mitigation Measure 4.3-4 would reduce these construction-related impacts to a less than significant level.	These measures shall consist of minimization of existing vegetation removal; the use of temporary soil covers, such as hydro-seeding with native species, mulch/binder and erosion control blankets to protect exposed soil from wind and rain erosion; and/or the installation of silt fencing, berms, and dikes to protect storm drain inlets and drainages. No changing of oil or other fluids, or discarding of any trash or other construction waste materials shall occur on the Project Site. Vehicles carrying supplies, such as concrete, shall not be allowed to empty, clean out, or otherwise place materials into natural areas on or immediately adjacent to the site. Any equipment or vehicles driven and/or operated within or adjacent to drainages shall be checked and maintained daily, to prevent leaks of materials that if introduced to water could be deleterious to aquatic life. No equipment maintenance shall be conducted within the drainage channels or within 50 feet of channels. (Fuel-powered vehicles and equipment shall not be left idling or operated beyond periods need to accomplish approved tasks.) Construction personnel shall be prohibited from entry into areas outside the designated construction area, except for necessary construction related activities, such as	

Environmental Impacts	Mitigation Measures		Level of Significance After Mitigation
		surveying. All such construction activities in or adjacent to remaining open space areas shall be coordinated with the project biologist. Standard dust control measures of the South Coast Air Quality Management District shall be implemented to reduce impacts on nearby plants and wildlife. This includes a variety of options to reduce dust including replacing ground cover in disturbed areas as quickly as possible, watering active sites regularly, and suspending all excavating and grading operations during periods of high winds. Upon completion of construction, the contractor shall be held responsible to restore any haul roads, access roads, or staging areas that are outside of approved grading limits. This restoration shall be done in consultation with the project biologist.
	MM 4.3-5	Any landscaping plan(s) associated with the project shall be reviewed by a qualified biologist or resource specialist, who shall recommend appropriate provisions to prevent invasive plant species from colonizing in natural areas. These provisions may include the following: (a) review and screening of proposed plant palette and planting plans to identify and avoid the use of invasive species; (b) weed removal during the initial planting of landscaped areas; and (c) the monitoring for and removal of weeds and other invasive plant species as part of	

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
	ongoing landscape maintenance activities. MM 4.3-6 All street lighting shall be downcast luminaries or directional lighting with light patterns directed away from natural areas. MM 4.3-7 Prior to issuance of a grading permit, an Oak tree report shall be prepared and approved. All oaks that will not be removed that are regulated under the City of Santa Clarita's Oak Tree Preservation and Protection Guidelines with driplines within 50 feet of land clearing (including brush clearing) or areas to be graded shall be enclosed in a temporary fenced zone for the duration of the clearing or grading activities. Fencing shall extend to the root protection zone (i.e., the area at least 15 feet from the trunk or 5 feet beyond the drip line, whichever distance is greater). No parking or storage of equipment, solvents, or chemicals that could adversely affect the trees shall be allowed within 25 feet of the trunk at any time. Removal of the fence shall occur only after the project arborist or qualified biologist confirms the health of preserved trees.	Less than Significant Impact.

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
Operation *(1) Increase in Populations of Non-Native Species* Non-native plants and wildlife are expected to increase on-site, because these species are more adapt to urban environments and can out-compete native species. Historical and ongoing development in the vicinity of the Project Site has already supported continual and ongoing increase and proliferation of non-native plant and wildlife species in the vicinity of the Project Site. Development of the Project is not expected to substantially increase the distribution of non-native plants and wildlife. With compliance to Mitigation Measure 4.3-5, Project impacts would be less than significant. *(2) Increased Light and Glare* It is anticipated that nighttime lighting would increase in areas adjacent to the Project Site, which can disturb breeding and foraging behavior, movement, and can potentially alter breeding cycles of birds, mammals, and nocturnal invertebrates. Because of surrounding development around the Project Site, nearby natural areas already receive some nighttime lighting. The Proposed Project would increase light and glare effects near to the Newhall Creek corridor. Implementation of Mitigation Measure 4.3-6 would decrease this impact to a less than significant level. *(3) Stormwater and Urban Runoff* It is expect that stormwater runoff would be limited to pavement runoff during periodic storm events. It is reasonable to assume runoff could substantially affect special-status species potentially occurring downstream from the Project Site (i.e. Newhall Creek), incrementally diminish habitat, and degrade the quality of the environment. With the compliance to City's standard stormwater requirements and required design criteria, impacts to Newhall Creek resulting from Stormwater runoff would be less than significant.		Less than Significant Impact. Less than Significant Impact.

Environmental Impacts	Mitigation Measures		Level of Significance After Mitigation
Cultural Resources			
Cultural and Historic Resources No cultural or historic habitable structures are located on-site, and as such, the Project would not have the potential to adversely impact any historic or cultural resources.		No mitigation measures are required.	Less than Significant Impact.
Archaeological Resources No known archeological sites are identified within the Project Site. While, portions of the Project Site are improved with roadways, the Project will consist of earthwork activities, such as grading and excavation, in areas that are currently undeveloped. Construction-related earthwork activities may result in the accidental discovery of prehistoric or historic archaeological resources or Native American burial sites. Implementation of Mitigation Measures 4.4-1 would reduce impacts to a less than significant level.	MM 4.4-1	In the event any archaeological materials are encountered during the course of Project development, all construction activity shall halt in the area of the find and the services of a qualified archaeologist shall be secured to assess the discovered material(s) and prepare a survey, study or report evaluating the significance of the materials encountered. The archaeologist's written assessment shall contain a detailed description of the materials encountered, and recommendations if necessary, for the preservation, conservation, or relocation of the resource. Project development activities may resume once copies of the archaeological survey, study or report are submitted to the satisfaction of the Planning Director and copies distributed to the SCCIC Department of Anthropology.	Less than Significant Impact.
Paleontological Resources The records search conducted by the Vertebrate Paleontology Department of the Natural History Museum of Los Angeles County yielded no known fossil localities within the Project Site. The closest	MM 4.4-2	In the event any suspected paleontological materials are encountered during the course of Project development, all construction activity shall halt in the area of the find and the services of a qualified paleontologist	Less than Significant Impact.

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
vertebrate fossil localities are from the Saugus Formation, located directly north of the Proposed Project Site. While it is possible that fossilized materials may be discovered during site preparation and construction, specifically grading and excavation activities, precautionary measures set forth in Mitigation Measure 4.4-2 would reduce any potential adverse impacts to paleontological resources to a less than significant level.		shall be secured to assess the discovered material(s) and prepare a survey, study or report evaluating the significance of the materials encountered. The paleontologist's written assessment shall contain a detailed description of the materials encountered, and recommendations if necessary, for the preservation, conservation, or relocation of the resource. Project development activities may resume once copies of the paleontological survey, study or report are submitted to the satisfaction of the Planning Director and copies distributed to the Los Angeles County Natural History Museum.	
Tribal Cultural Resources Based on a records search conducted through the South Central Coastal Information Center (SCCIC) (see Appendix E to this EIR), no archaeological sites have been identified within a ½-mile radius of the Project Site. As such, the Proposed Project would not have a direct impact upon known archaeological resources, including Native American tribal resources. However, a lack of surface evidence of archeological resources does not preclude their subsurface existence. As such, provisions for the identification and evaluation of accidentally discovered archeological resources would be implemented in accordance with mitigation measure 4.4-1. With the incorporation of mitigation measure 4.4-1, impacts upon tribal resources would be less than significant.		See MM 4.4-1, above.	Less than Significant Impact.
Geology/Soils The Project Site is underlain by Saugus Formation, Pacoima Formation, Quaternary alluvium and artificial fill and has historic high groundwater elevations greater than 50 feet in depth. The Project Site is	MM 4.5-1	The Proposed Project shall be designed and constructed in accordance with the City and State Building Codes and shall adhere to all modern earthquake standards, including the	Less Than Significant Impact.

Environmental Impacts	Mitigation Measures		Level of Significance After Mitigation
located in the State of California Seismic Hazard Zone map for the Newhall Quadrangle. Hazards related to seismic-related ground failures (including ground rupture and liquefaction) are considered low. All slopes should be evaluated by the Project Geotechnical engineer at the planning and design stages. The hillside area of the Project Site is designated on the State of California Seismic Hazard Zone Map to have earthquake-induced slope instability. No landslides have been mapped on the Project Site. Remedial measures will be required where ascending or descending cut slopes are not stable as determined by geologic or geotechnical stability analyses. The potential for earthquake-induced slope failures is considered low provided that future geologic and geotechnical evaluations and recommendations for slope stability is incorporated into design and construction. Additionally, specific recommendations for design and construction should be provided to address soil stability, including: hydro-compression, expansive soils, rippability, the handling of oversized material, soil corrosivity, shirking and bulking of materials, and the handling of the need for retaining wall. No oil wells have been drilled on or immediately adjacent to the Project Site. If any undocumented oil wells are encountered during future construction operations at the site, their location(s) should be surveyed and the current well conditions evaluated. Water wells have been drilled in the vicinity of the proposed road alignments. If one of these water well is within the proposed road alignment, or if a water well is encountered during future construction operations at the Project Site, the location should be surveyed and the potential impacts to well conditions should be evaluated. The implementation of Mitigation Measure 4.5-1 would insure that potential Project impacts would be reduced to a less than significant level.		recommendations provided in the Project's Geotechnical Report, which shall be reviewed by the Division of the City's Building and Safety Division. MM 4.5-2 Prior to the issuance of a grading permit, the Applicant shall provide grading plans to the City's Building and Safety Division for review and approval. Grading plans shall comply with the City's requirements for slope stability. Grading plans shall also comply with City requirements for stability under static and pseudo static loading conditions to mitigate risks associated with earthquake induced landslides.	

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
Hydrology/Water Quality *Construction* During the construction phase, the typical pollutants that affect surface water quality are: sediment from soil erosion, petroleum products (gasoline, diesel, kerosene, oil and grease), hydrocarbons from asphalt paving, construction equipment leaks, paints and solvents, detergents, fertilizers, and pesticides. The Proposed Project would be required to prepare and implement a SWPPP prior to earthwork activities that will use best management practices and erosion control measures to prevent pollution in stormwater discharge. All Project construction activities would comply with the City's grading permit regulations, which require the implementation of grading and dust control measures, including a wet weather erosion control plan if construction occurs during rainy season, as well as inspections to ensure that sedimentation and erosion is minimized. Therefore, through compliance with NPDES requirements and City grading regulations, the Project's construction impacts related to water quality would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality. Construction-related impacts to hydrology and water quality would therefore be less than significant.	No mitigation measures are required.	Less Than Significant Impact.
Operation Once the Project has been constructed, urban runoff could include the aforementioned contaminants, trace metals, landscape maintenance debris, dry product spills, and "nuisance flows" from landscape irrigation during the dry-season. In accordance with NPDES requirements, the Project Applicant would be required to have a Project-specific SUSMP in place during the operational life of the Project to address the management of runoff from the proposed roadway extension. The SUSMP would include site design, source control, low-impact development, and best management practices. Therefore, during the Project's operation implementation of the storm	No mitigation measures are required.	Less Than Significant Impact.

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
water quality plan would reduce water quality impacts to less than significant. *Inundation and Flooding* A post-Project hydraulic model was analyzed to understand the impacts of inundation and flooding. The result of the post-Project hydraulic model indicate that the proposed bridge and channel improvements can accommodate the Capital Flood and will not create any flood hazard for the adjacent railroad and proposed street improvements Riprap and vegetation linings are recommended for the high and moderate shear zones, respectively. Impacts associated with inundation and flooding would be less than significant.	No mitigation measures are required.	Less Than Significant Impact.
Land Use/Planning Implementation of the Proposed Project would not disrupt or physically divide an established community. Monument signage would properly guide traffic and identify the entrance to the Placerita Canyon community as a residential community with no through access. Additionally, the Project will provide increased pedestrian and vehicular access in the area. The Proposed Project would not conflict with any applicable land use plans, policies, or regulations, including: the Regional Transportation Plan / Sustainable Communities Strategy, City of Santa Clarita Municipal Code, City of Santa Clarita General Plan (including the Circulation Element), the Placerita Canyon Special Standards District and North Newhall Area, Old Town Newhall Specific Plan, and the Compass Blueprint Concept Plan. The Proposed Project would require the approval of an Oak Tree Permit and Hillside Review Permit at such time as development occurs or when funding of roadway construction becomes available. These entitlements will be obtained at such time as the proposed alignment is	No mitigation measures are required.	Less Than Significant Impact.

Environmental Impacts	Mitigation Measures		Level of Significance After Mitigation
approved and roadway funding is available to implement the Project. With procurement of the required Oak Tree Permit and Hillside Review Permits, land use impacts would be less than significant. As such, Project implementation would create a less than significant impact with regards to land use and planning.			
Noise *Construction Noise* Construction of the Proposed Project would require the use of heavy equipment for ground clearing, site grading, and roadway construction. Several pieces of construction equipment operating simultaneously would generate a noise level of approximately 94.6 dBA. The estimated construction noise levels impacting sensitive receptors are expected to exceed the City's daytime noise standards for residential uses (see Table 4.8-3). The construction noise levels would therefore constitute a significant impact. *Construction Groundborne Vibration* Site clearing and grading activities would not occur within 100 feet of any occupied residential structure within the Project area. The nearest homes to the north on Aden Avenue would be exposed to vibration levels in the range of 69 VdB, which is below the dividing line between barely perceptible and distinctly perceptible levels for many people. Construction activities that would occur within 300 feet of a residential zone would be limited to the hours of 7:00 A.M. through 7:00 P.M. Monday through Friday and 8:00 A.M. through 6:00 P.M. on Saturday. Therefore, vibration impacts would not occur during recognized sleep hours for residences. The Proposed Project would not generate vibration levels in excess of the 80 VdB threshold at any residences and/or buildings where people normally sleep. Thus, the Proposed Project's potential impact upon exposing persons to excessive groundborne vibration or groundborne noise levels would be less than	4.8-1.	Pursuant to Section 11.44.080 of the City's Noise Ordinance, no construction work shall occur within 300 feet of occupied residences except between the hours of 7:00 AM and 7:00 PM Monday through Friday, and between 8:00 AM and 6:00 PM on Saturday. No construction work shall occur on Sunday, New Year's Day, Independence Day, Thanksgiving Day, Christmas Day, Memorial Day, and Labor Day.	Significant and Unavoidable
	4.8-2	The construction schedule (including the various types of activities that would be occurring throughout the duration of construction phases, anticipated truck routes, and the potential for noise impacts along local roadways from construction-related vehicles) shall be prominently posted on-site during construction stages. When construction activities are anticipated to occur within 200 feet of residences, notice of the construction schedule shall be mailed to such residences two weeks prior to commencement of activity.	
	4.8-3	The phone number of the job superintendent shall be clearly posted at all construction entrances to allow for surrounding owners and residents to contact the job superintendent. If the job superintendent	

Environmental Impacts	Mitigation Measures		Level of Significance After Mitigation
significant.		receives a complaint, the superintendent shall investigate, take appropriate corrective actions, and report the action taken to the reporting party. Contract specifications shall be included in the Project's construction document.	
	4.8-4	All internal combustion engine construction equipment shall be properly muffled or equipped with other noise attenuating devices capable of achieving a sound attenuation of at least 3 dB(A) at 50 feet of distance. Such equipment shall also be in good working condition.	
		4.8-5. As feasible, construction activities shall use specially quieted equipment, such as electric air compressors and similar power tools, rather than diesel equipment.	
	4.8-6	Construction staging areas shall be located away from sensitive land uses, particularly away from single-family residences near Dockweiler Drive's current western terminus, single-family residences near Deputy Jake Drive's western cul-de-sac, single-family residences near Market Street and Race Street, and existing on-site dormitories.	
	4.8-7	Construction and grading activities shall be scheduled in such a way so as to avoid operating several pieces of equipment simultaneously, which causes high noise levels.	
	4.8-8	Construction activities whose specific location on the site may be flexible (e.g., operation of compressors and generators, cement mixing, general truck idling) shall be	

Environmental Impacts	Mitigation Measures		Level of Significance After Mitigation
		conducted as far as possible from the nearest noise-sensitive land uses, particularly away from single-family residences.	
	4.8-9	Temporary construction noise barriers of sufficient height shall be erected in such a way so as to disrupt line-of-sight between the active construction noise sources and any residences within 500 feet of the Project Site.	
Operational – Roadway Noise Impacts			
The Proposed Project is anticipated to alter roadway traffic volumes as the Proposed Project would create a new roadway segment connecting Lyons Avenue to Dockweiler Drive. Locations in the vicinity of the Project Site could experience slight changes in noise levels as a result of the change in traffic patterns. The changes in future noise levels along the study-area roadway segments in the project vicinity are for the Proposed Project's near term (Year 2019) impacts would increase local noise levels by a maximum of 2.7 dBA CNEL (at the location of Dockweiler Drive (between Sierra Highway and Valle del Oro). This increase would be inaudible/imperceptible to most people and would not exceed the identified thresholds of significance. At all other roadway segments, the resulting noise levels are anticipated to decrease. As such the Proposed Project's potential to generate a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project would be less than significant.		No mitigation measures are required.	Less Than Significant
The Future (2019) With Project noise levels on the new roadway segment from Lyons Avenue to Valle del Oro are expected to be 63.3 dBA (CNEL) within 50 feet of the centerline of the roadway. The resulting noise levels at the three identified sensitive receptors would be below 52.9 dBA. Thus, the anticipated with project noise levels at all off-site receptor locations would be within the "normally acceptable" range of noise for residential areas. Therefore, the			

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
Proposed Project's noise impacts would be less than significant. *Operational Noise Levels – Railroad Crossing Bells* The closure of the existing at-grade railroad crossing at 13th Street would reduce the railroad warning signal bell levels in the vicinity of 13th Street and Railroad Avenue as the railroad crossing warning signal devices would be removed at this location and installed at a new at-grade crossing at Lyons Avenue and Railroad Avenue. The relocation of the existing railroad crossing signal at 13th Street and Railroad Avenue approximately 1,150 feet south to the Lyons Avenue and Railroad Avenue crossing would not result in a noticeable change to the ambient noise levels during train events. Noise impacts from at-grade warning signals would be less than significant.	No mitigation measures are required.	Less Than Significant
Transportation/Circulation The Traffic Report analyzed sixteen intersections for existing year conditions (2014), opening year conditions (2019), and future year conditions (2035). Potential Project traffic impacts were found for opening year conditions and future year conditions. With the incorporation of the mitigation measures, potential traffic impacts associated with the Proposed Project would be reduced to a less than significant level.	***Year 2019 Project Mitigation Measures*** MM 4.9-1 Dockweiler Drive extension: Construct to full Secondary Highway Pavement width, from Aden Avenue to west of Valle Del Oro, providing two lanes eastbound (uphill) and one lane westbound (downhill), as necessary. May be striped for parking lane on both sides of roadway in interim condition. Class II Bike lanes and Pedestrian Sidewalks to be provided. MM 4.9-2 Railroad Avenue (North-South) and Lyons Avenue (East-West): Construct the railroad crossing and improve the intersection. The intersection improvements will include widening the northbound direction to accommodate an additional left turn lane and convert a through lane to a shared through-right lane and southbound direction to	Less Than Significant Impact.

Environmental Impacts	Mitigation Measures		Level of Significance After Mitigation
		accommodate and additional left turn lane and convert the right turn lane to a shared through-right turn lane. The north and southbound directions will include two left turn lanes, a through lane, and a shared through-right turn lane. The eastbound direction will provide a left turn lane, a through lane, and a shared through-right turn lane. The westbound direction will provide a left turn lane, two through lanes and a right turn lane.	
	MM 4.9-3	Arch Street (north leg) / Dockweiler Drive (south leg) / 12th Street (east and west legs) / Placerita Canyon Road (southeast leg): Convert intersection to a 5-leg all way stop controlled intersection including Dockweiler Drive as the 5th leg. Arch Street will include a shared left-through-right lane accommodating left turning movements to the west leg (12th Street) and Placerita Canyon Road. Dockweiler Drive will include a shared left-through right lane accommodating right turning movements to Placerita Canyon Road and the west leg (12th Street). The east leg (12th Street) will include a shared left- through-right lane accommodating left turning movements to Placerita Canyon Road and Dockweiler Drive. The west leg (12th Street) will include a shared left-through-right lane accommodating right turning movements to Dockweiler Drive and Placerita Canyon Road. Placerita Canyon Road will include a shared left-right lane accommodating left	

Environmental Impacts	Mitigation Measures		Level of Significance After Mitigation
		turning movements to Dockweiler Drive and west leg (12th Street) and right turning movements to the east leg (12th Street) and Arch Street.	
	MM 4.9-4	Lyons Avenue (North-South) and Dockweiler Drive (East-West): Extend Lyons Avenue to intersect with Dockweiler Drive as a signalized T-intersection. The northbound direction will include two left turn lanes and a through lane. The southbound direction will include a through and two right turn lanes. The eastbound direction will include a left turn lane and two right turn lanes.	
	MM 4.9-5	Railroad Avenue (North-South) and 13th Street (East-West): The railroad crossing to be closed. The intersection modifications include removing the northbound right turn lane and southbound left turn lane and restricting the eastbound through movement. The northbound direction will include a left turn lane and two through lanes. The southbound direction will include a through lane and a shared through-right turn lane. The eastbound direction will include a shared left-right turn lane.	
		Year 2019 Regional Mitigation Measures	
	MM 4.9-6	Sierra Highway (North-South) and SR-14 Freeway Southbound Ramps (East-West): The intersection modifications include installing a traffic signal and widening the	

Environmental Impacts	Mitigation Measures		Level of Significance After Mitigation
		southbound direct to provide an additional left turn lane. The northbound direction will include a through lane, and a shared through-right turn lane. The southbound direction will include two left turn lanes, and two through lanes. The eastbound direction will include a left turn lane and a right turn lane.	
	MM 4.9-7	Sierra Highway (North-South) and Placerita Canyon Road (East-West): The intersection modifications include lane modifications to provide an exclusive right turn westbound lane and right turn northbound lane. The northbound direction will include a left turn lane, two through lanes, and a right turn lane. The south and eastbound directions will include a left turn lane, a through lane, and a shared through-right turn lane. The westbound direction will include a left turn lane, a through lane, and a right turn lane.	
	MM 4.9-8	SR-14 Freeway Northbound Ramps (North-South) and Placerita Canyon Road (East-West): The intersection modifications include installing a traffic signal. The northbound direction will include a left turn lane and a right turn lane. The east and westbound directions will include two through lanes.	
	MM 4.9-9	SR-14 Freeway Southbound Ramps (North-South) and Newhall Avenue (East-West): The intersection modifications include converting the east and southbound right turn lanes to free right turns and signalizing the	

Environmental Impacts	Mitigation Measures		Level of Significance After Mitigation
		intersection. The eastbound direction will include two through lanes and a free right turn lane. The southbound direction will include a shared through-left turn lane and a free right turn lane. The westbound direction will include a left turn lane and two through lanes.	
	MM 4.9-10	Newhall Avenue (North-South) and Lyons Avenue (East-West): The intersection modifications include converting the eastbound through-right lane to a right turn lane. The northbound direction will include two left turn lanes and a shared through-right lane. The southbound direction will include a left turn lane and a shared through-right lane. The east and westbound directions will include a left turn lane, two through lanes, and a right turn lane.	
		Year 2035 Project Mitigation Measures	
	MM 4.9-11	Valle Del Oro (North-South) and Dockweiler Drive (East-West): Install a traffic signal. The intersection modifications include signalizing the intersection and widening the east and west bound direction to accommodate an additional through lane and widening the northbound direction to accommodate an exclusive right turn lane. The northbound direction will include a shared left-through lane and a right turn lane. The southbound direction will include a shared left-through-right turn lane. The east and westbound directions will include a left	

Environmental Impacts	Mitigation Measures		Level of Significance After Mitigation
		turn lane, a through, and a shared through-right turn lane.	
		Year 2035 Regional Mitigation Measures	
	MM 4.9-12	Sierra Highway (North-South) and Placerita Canyon Road (East-West): The Intersection modifications include widening to accommodate lane modifications to all approaches. Widen the northbound direction to accommodate an additional through lane. Widen the east and southbound directions to accommodate two additional through lanes and restripe the shared through-right lane to a right turn only lane. Widen the westbound direction to accommodate two additional through lanes. The north, east, south, and westbound direction will include a left turn lane, three through lanes, and a right turn lane.	
	MM 4.9-13	Sierra Highway (North-South) and Newhall Avenue (East-West): Intersection modifications include converting the northbound through-right turn lane to a through lane and widening to accommodate a free right turn. The northbound direction will include two left turn lanes, two through lanes, and a free right turn. The southbound direction will include a left turn lane, two through lanes, and a shared through-right turn lane. The east and westbound directions will include two left turn lane, three through lanes, and a right turn lane.	

Environmental Impacts	Mitigation Measures		Level of Significance After Mitigation
	MM 4.9-14	Main Street (north leg) / Newhall Avenue (south leg) / Newhall Avenue (west leg): The intersection modifications include widening the northbound direction to accommodate a left turn lane and the eastbound direction to accommodate a right turn lane. Newhall Avenue (south leg) will include a left turn lane and a shared left-through lane. Main Street will include a shared right-through lane. Newhall Avenue (east leg) will include a shared left-right lane and a right turn lane.	
Source: A detailed discussion of each of the topics summarized above is presented in Sections 4.1 through 4.9 of this Draft EIR.			

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2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION

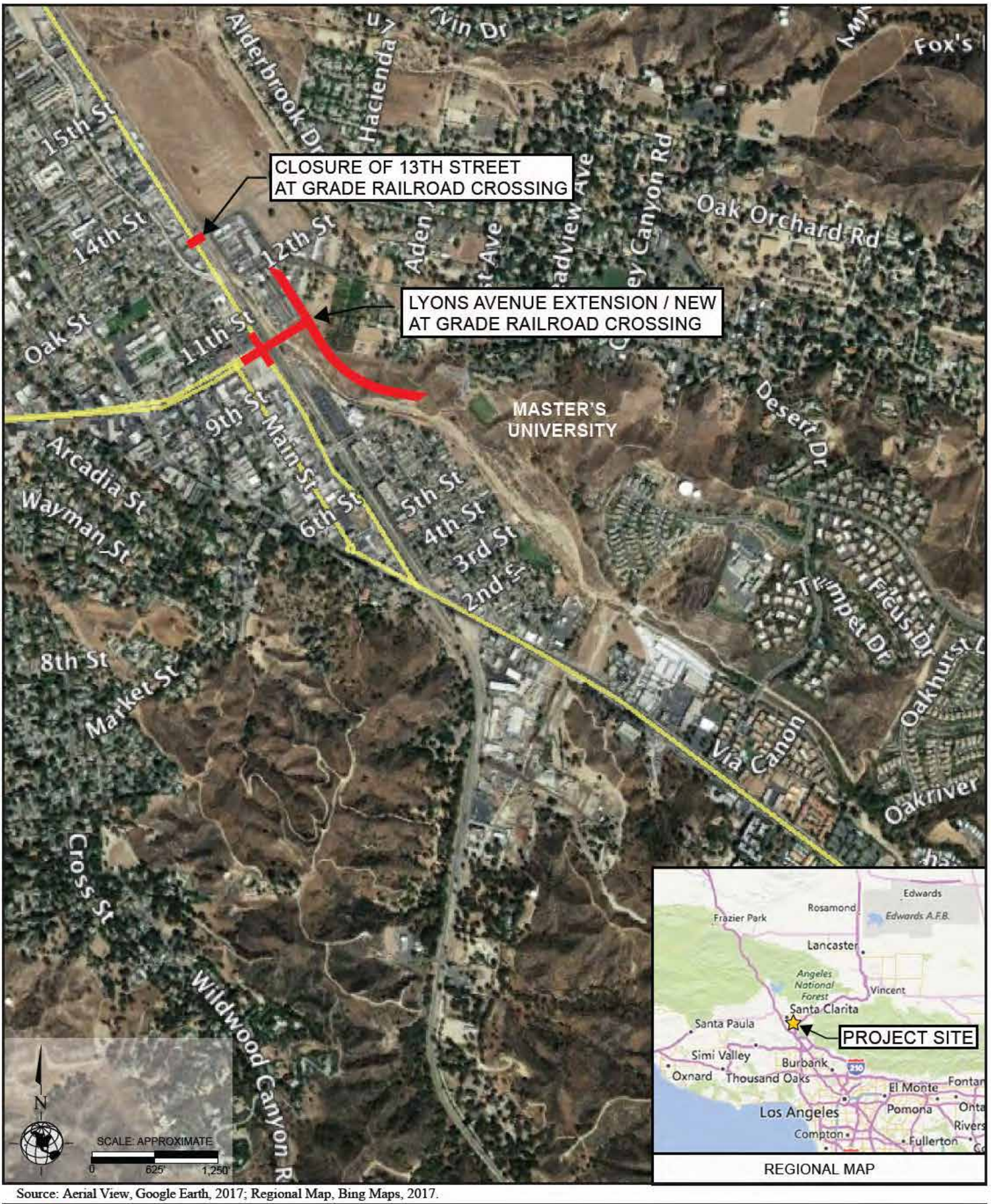
The Project Site is located in the City of Santa Clarita, California, about 35 miles north of Downtown Los Angeles. The Project Site is more specifically located in the Newhall community of the City of Santa Clarita at the intersection of Lyons Avenue and Railroad Avenue and extends eastward towards the General Plan alignment for Dockweiler Drive towards The Master's University and northwest towards the intersection of 12th Street and Arch Street. The limits for the Lyons Avenue/Dockweiler Drive extension ("Project Site") are from Railroad Avenue on the west to the future Master's University Master Plan Dockweiler extension to the east (see Figure 2-1, Project Location Map).

Regional Access

Regional access to the Project Site is provided from the State Route 14 Freeway to the east and the Golden State/Santa Ana Freeway (I-5) Freeway to the west. SR-14 is located 1.9 miles southeast of the Project Site via Railroad Avenue and Newhall Avenue. The I-5 Freeway is located 2.1 miles west of the Project Site via Lyons Avenue. The SR-14 and I-5 Freeways run in a north-south direction and provides connections to the Ronald Reagan (CA-118) freeway, the San Diego (I-405) freeway, and the Foothill (I-210) freeway to south of the Project Site.

Local Access

The following roadways provide local access to the Project Site: Dockweiler Drive is designated as an east-west secondary highway and consists of one and two lanes of travel in each direction. Lyons Avenue is an east-west major roadway that provides three lanes of travel in each direction and provides access from the project area to I-5. Newhall Avenue is a north-south secondary highway from Lyons Avenue to Railroad Avenue with one lane of travel in each direction. From Railroad Avenue to SR-14, Newhall Avenue is designated as a major highway with three northbound lanes and three southbound lanes south of Railroad Avenue. Placerita Canyon Road, west of SR-14 is an east-west local street with one lane of travel provided in each direction. Through traffic access on Placerita Canyon Road is restricted with a gate entrance west of Sierra Highway. Placerita Canyon Road is currently the primary connection to The Master's University and residential neighborhood to the north. Railroad Avenue is a north-south secondary highway from Lyons Avenue to Newhall Avenue. This roadway provides two lanes of travel in each direction and limited parking throughout the project area. 13th Street is an east-west unimproved local roadway with one lane of travel in each direction and provides a connection to Placerita Canyon Road.



Source: Aerial View, Google Earth, 2017; Regional Map, Bing Maps, 2017.

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Figure 2-1
Project Location Map

Transit Services

The existing Union Pacific/Metrolink rail line currently extends through the City, and is shared by both freight (Union Pacific) and passenger (Metrolink Antelope Valley line) trains. The nearest Metrolink train station to the Project Site is the Jan Heidt Newhall station located at Railroad Avenue and Market Street, approximately 0.25 mile south of Lyons Avenue. The Newhall station provides passenger service southbound to Los Angeles and northbound to Lancaster. The Newhall station also provides connections to the City's local bus lines 1, 2, 4, 5, 6, 14 and 757. Additionally, the City's Bicycle Master Plan is proposing a Class I Bike Path and Class II Bike Lane in the immediate vicinity of the Project Site, which will improve bicycle and pedestrian circulation.

2.2 ENVIRONMENTAL SETTING

The Project Site consists of improved segments of Railroad Avenue and Lyons Avenue roadways and undeveloped land to the east extending towards The Master's University and Arch Street. The west end of the Project Site encompasses portions of Newhall Creek and traverses a storage yard, utilized by Los Angeles County Department of Public Works, and private properties. The portion of the Project Site that includes the intersection of Railroad Avenue and 13th Street is developed with existing road surface and an at-grade crossing. The UP/Metrolink Railroad line crosses the Project Site east of the intersection of Railroad Avenue and Lyons Avenue and at the intersection of Railroad Avenue and 13th Street. The proposed road alignments are located on the alluvial flood plain and hillside areas adjacent to Newhall Creek. The Project Site is covered with light to moderate growth of natural grasses and chaparral. Elevations at the Project Site range from approximately 1255 feet to 1370 feet above mean sea level. The current conditions of the Project Site at Railroad Avenue and Lyons Avenue are depicted in Figures 2-2 and 2-3 (Views 1 through 8). The current conditions of the Project Site at Railroad Avenue and 13th Street are depicted in Figures 2-4 (Views 9 through 12).

Placerita Canyon Community

The Project Site is located immediately southwest of the Placerita Canyon community. The City of Santa Clarita's General Plan (General Plan) describes the Placerita Canyon community as a rural, equestrian-oriented residential area, which is located northeast of Old Town Newhall. East of SR-14, Placerita Canyon is predominantly undeveloped with much of the land contained in the Angeles National Forest. Placerita Canyon is home to The Master's University, a private four-year liberal arts institution, and the Placerita Canyon Nature Center. The General Plan states that planning issues in Placerita Canyon include; accommodating expansion plans for The Master's University; upgrading non-compliant older structures; extending sewer lines to serve existing uses throughout the area to protect groundwater quality; providing flood control and drainage improvements; providing additional vehicular access, possibly through extension of Dockweiler Drive; and opportunities for future development of the 100-acre site located at the westerly entrance of Placerita Canyon. In addition, development in the area must comply with the City's Special Standards District to maintain the rural community character desired by residents.

View 1: From the northwest corner of Railroad Avenue and 12th Street looking southeast towards the Project Site.

View 2: From the north side of Lyons Avenue looking east towards the Project Site.

View 3: From the west side of Railroad Avenue looking east at the Project Site (Photo: 2014).

View 4: From the Project Site looking northwest (Photo: 2014).

Source: Parker Environmental Consultants, 2016

PARKER ENVIRONMENTAL CONSULTANTS

Figure 2-2
Photographs of the Project Site at Lyons Avenue
Views 1 through 4

View 5: From the north side of Lyons Avenue looking northeast at the Project Site.

View 6: From the Project Site looking southwest towards Lyons Avenue (Photo: 2014).

View 7: From the northside of 13th Street looking southeast (Photo: 2014).

View 8: From the south side of 13th Street looking northwest at the Project Site (Photo: 2014).

Source: Parker Environmental Consultants, 2016

PARKER ENVIRONMENTAL CONSULTANTS

Figure 2-3
Photographs of the Project Site at Lyons Avenue
Views 5 through 8

View 9: From the east side of Railroad Avenue Street looking east at the Project Site.

View 10: From the north side of 13th Street looking south at the Project Site.

View 11: From 13th Street looking west towards the Project Site.

View 12: From the north side of 13th Street looking southeast at the Project Site.

Source: Parker Environmental Consultants, 2016

PARKER ENVIRONMENTAL CONSULTANTS

Figure 2-4
Photographs of the Project Site at 13th Street
Views 9 through 12

Old Town Newhall Community

The Project Site is located immediately east and south of Old Town Newhall. As described in the Old Town Newhall Specific Plan (Specific Plan), Newhall was the earliest permanent settlement in the Santa Clarita Valley. Access to Old Town Newhall is provided by three commercial arterial corridors, which include, Railroad Avenue, Lyons Avenue and Newhall Avenue. Old Town Newhall is composed of two neighborhoods, which are separated from one another by the railroad and Downtown, a 15-block Downtown area and the three existing commercial arterial corridors. Old Town Newhall is characterized by commercial uses along Main Street and Lyons Avenue and multi-family and single-family residential uses north and south of Lyons Avenue. William S. Hart Park, Newhall Creek and a number of historic buildings add to the character of the community. The General Plan states that planning issues for Newhall include the implementation of the Specific Plan through redevelopment efforts, creating a mixed use, transit-oriented, pedestrian-friendly, live-work-play environment, the future extension of Dockweiler Drive to Lyons Avenue, the future expansion of The Master's University campus, and providing any needed drainage infrastructure improvements.

The Master's University and Dockweiler Drive Extension

The Master's University is a private four-year liberal arts college located in the Placerita Canyon and Newhall community of Santa Clarita. The Master's University was founded in 1927 in downtown Los Angeles and moved to Placerita Canyon in 1961. The Master's University offers undergraduate degrees in 13 majors from nearly 60 areas of study, and three Master of Arts degrees in biblical counseling, biblical studies, and education. The Master's University campus is approximately 100 acres in size and has a population of over 1,000 students.

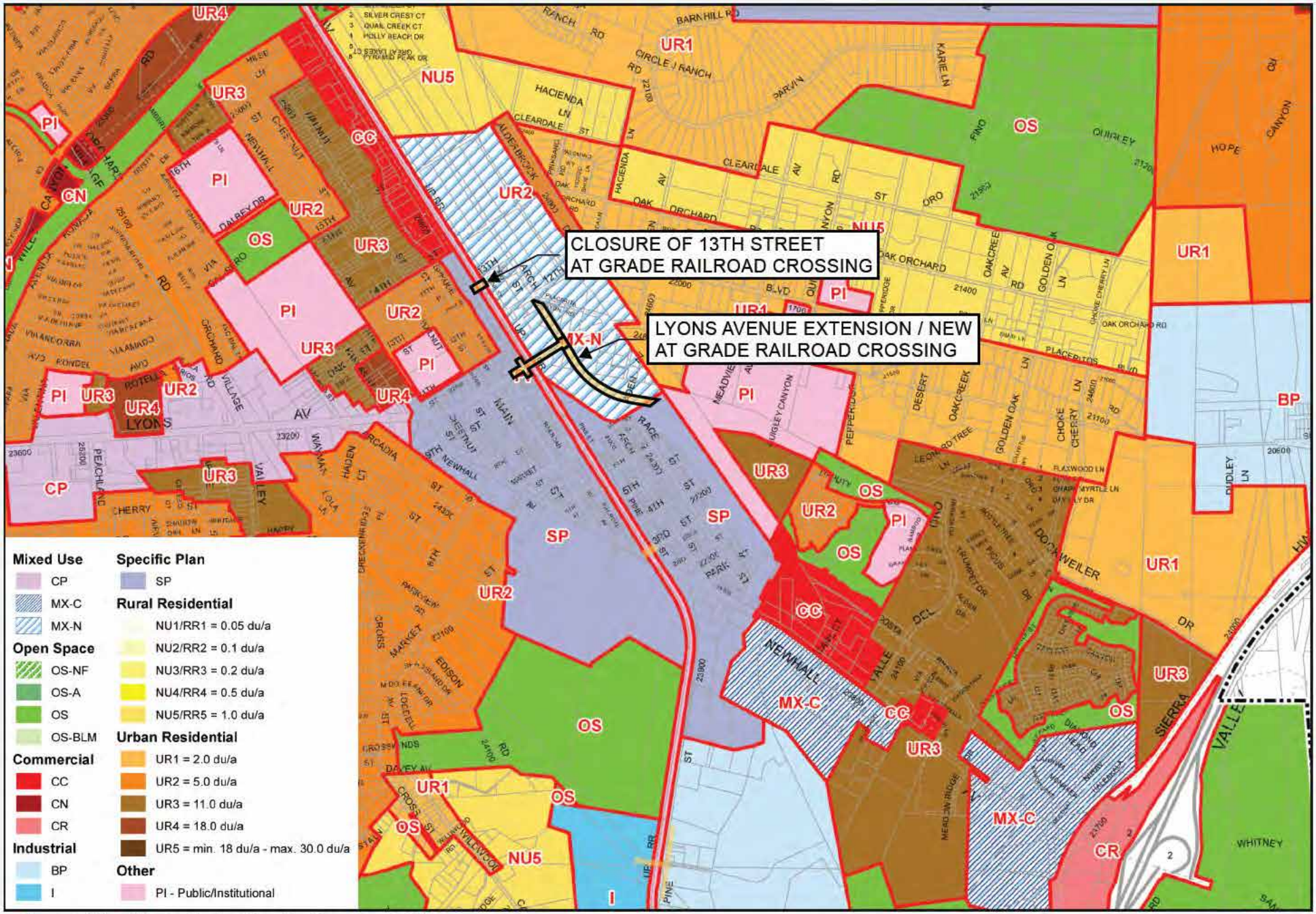
The Master's University Master Plan (Master Plan) was approved in 2009 and was designed to guide campus growth over the next ten years. The Master Plan ensures development is consistent with the goals, objectives, principles and policies of stakeholders including the City of Santa Clarita and local community. Key features of the Master Plan include the expansion and addition of educational facilities and dormitories and the construction of a new auditorium.

In order to accommodate the future expansion of the campus, the Master Plan includes the proposed extension of Dockweiler Drive from its current terminus near Valle Del Oro, through The Master's University property south of the main campus, to the western boundary of The Master's University property. The extension of Dockweiler Drive is a critical east-west link that would provide a through connection from Sierra Highway to Lyons Avenue. The extension would also relocate the main entry to The Master's University from Placerita Canyon Road and redirect traffic from Placerita Canyon Road onto Dockweiler Drive.

2.3 ZONING AND LAND USE DESIGNATIONS

Pursuant to the Santa Clarita Municipal Code (SCMC), the portion of the Project Site located at 13th Street and Railroad Avenue and Lyons Avenue and Railroad Avenue is currently zoned for MXN (Mixed Use Neighborhood). The portion of the Project Site that crosses the UP/Metrolink Railroad line is zoned for PI (Public Institutional). The General Plan land use designation of the Project Site is Mixed Use Neighborhood (MXN). The General Plan states that areas with a MXN designation should be developed to create neighborhoods that combine residential uses with complementary commercial services, including retail and office uses. MXN zoned areas should be located in close proximity to public transit and provide roadway and trail linkages to adjacent development (See Figure 2-5, Zoning and Land Use Map of Project Site and Surrounding Area). The PI zoning designation identifies lands that are used for various types of public or/and community serving facilities owned and operated by public agencies, special districts, nonprofit organizations and other entities. Allowable uses include civic and governmental offices, public works yards, public or private schools, libraries, day care centers, airports, hospitals and supporting medical facilities, museums, fire stations, police stations, landfills, and prisons.

The proposed street improvements within the right-of-way along Railroad Avenue at 13th Street and Lyons Avenue are within the Old Town Newhall Specific Plan area (See Figure 2-6, Old Town Newhall Specific Plan). The Specific Plan encourages mixed-use and transit-oriented development in the historic community of Newhall, in order to promote new investment, spur economic development, and create new residential opportunities in this area. While the public right-of-way does not fall within a specific zone classification, the properties adjacent to the Project Site boundaries along Lyons Avenue are designated as Urban Center (UC) by the Specific Plan. The UC zone is applied to the central portions of the downtown area appropriate for a wide range of land uses in buildings averaging 2.5 stories in height, with ground floor uses including retail, offices, and restaurants, and upper floors accommodating offices or residential. Lodging, restaurant, entertainment, and civic uses are also encouraged. The properties fronting the right-of-way adjacent to the Project Site along west side of Railroad Avenue at 13th Street are designated as Corridor (C). The Corridor designation is slated for more automobile-oriented commercial uses. These areas would be developed to allow “automobile-related development in a way that is consistent with and complimentary to the adjacent Downtown development.” Specifically, buildings would be closer to the street with pedestrian considerations applied to transition to the more literal pedestrian environment of the Downtown. Buildings are envisioned as one to two stories tall with little or no housing.



Source: City of Santa Clarita, Planning Department, 2016

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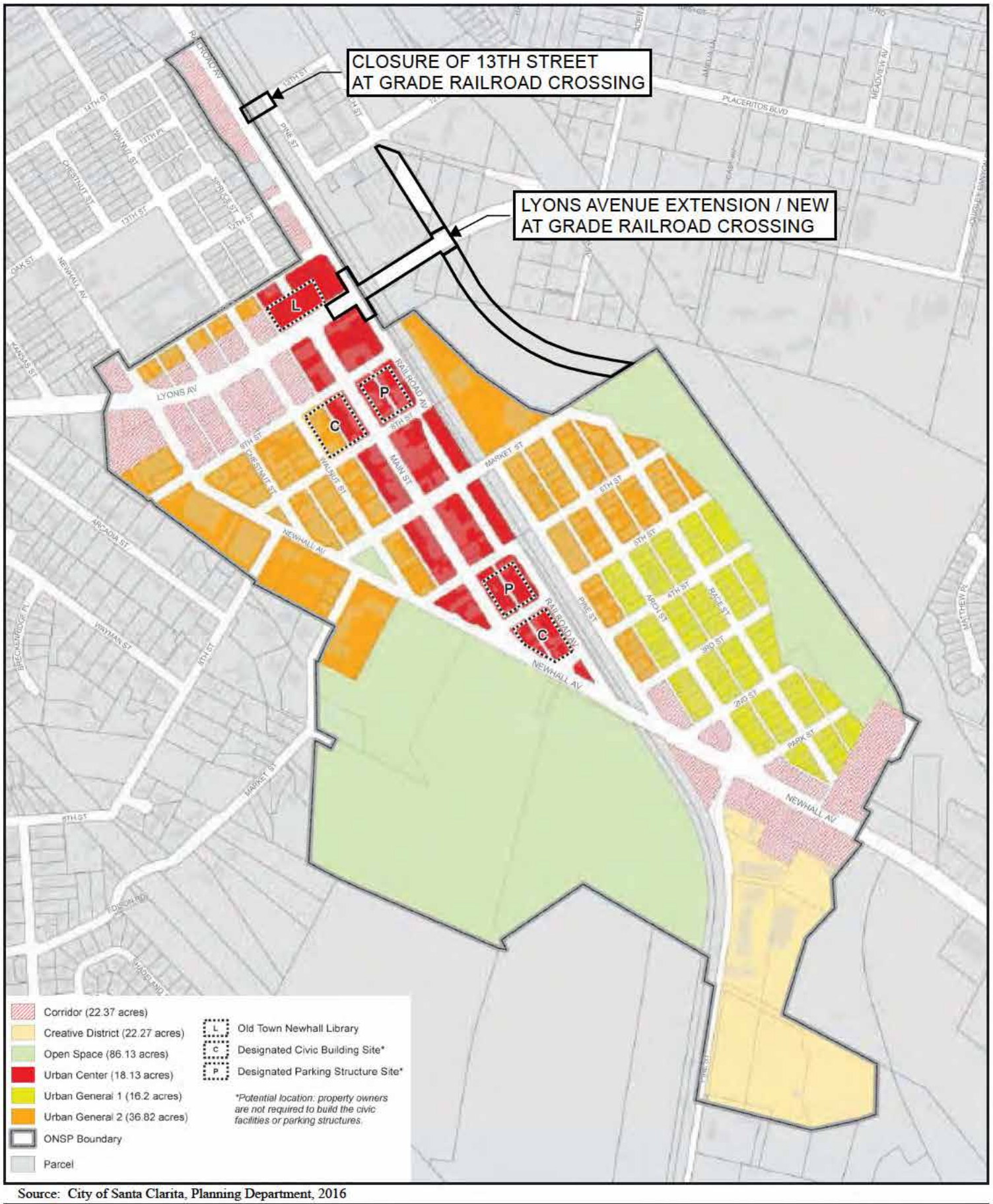
Figure 2-5
Zoning and Land Use Map of Project Site and Surrounding Area



Source: City of Santa Clarita, Planning Department, 2016

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Figure 2-6
Old Town Newhall Specific Plan

The Project Site is also located in the Placerita Canyon Special Standards District (PCSSD) and is part of the North Newhall Area (NNA), which includes a Mixed Use Overlay Zone. Chapter 17.39, Section 020, of the Santa Clarita Municipal Code (SCMC) establishes the PCSSD design standards in order to protect, preserve and enhance the secluded, rural and equestrian character of the Placerita Canyon community. Additionally, the PCSSD serves to help mitigate the cumulative impacts of development and ensure reasonable access to public riding and hiking trails. The North Newhall Area was established in order to stimulate development and redevelopment activities in the area north of Old Town Newhall. The SCMC establishes guidelines for the NNA to ensure that it provides buffering, transitional densities and protection for the existing developed areas and not intrude in or change the character of Placerita Canyon. Additionally, a Mixed Use Overlay Zone was adopted to encourage a mix of residential, commercial, employment, and institutional uses along the Newhall Avenue and Lyons Avenue corridors. The Mixed Use Overlay Zone serves to revitalize older commercial corridors, increase opportunities for infill housing, and encourage development that creates pedestrian-oriented neighborhoods.

2.4 SURROUNDING LAND USES

The portion of the Project Site to the east of the intersection of Railroad Avenue and Lyons Avenue (across Newhall Creek), is bounded the Old Town Newhall Library and commercial uses to the west, across Railroad Avenue (See Figure 2-7, View 1, 2 and 3), commercial and industrial uses to the north (See Figure 2-7, View 4), the Newhall Metrolink Station to the south (See Figure 2-7, View 5), residential properties to the east and a landscape nursery to the east and southeast. Photographs of existing surrounding land uses at Railroad Avenue and Lyons Avenue are depicted in Figure 2-7, Photographs of Surrounding Land Uses at Lyons Avenue.

Photographs of existing surrounding land uses at Railroad Avenue and 13th Street are depicted in Figures 2-8. The portion of the Project Site to the east of the intersection of Railroad Avenue and 13th Street is bounded by one-story commercial buildings to the west, across Railroad Avenue (See Figure 2-8, View 6 and 7), industrial and commercial uses to the east (See Figure 2-8, View 8 and 9), undeveloped land to the north (See Figure 2-8, View 10), and Newhall Creek to the south.

Properties to the north of the aforementioned portions of the Project Site are zoned MX-N with a General Plan land use designation of Mixed Use - Neighborhood. Properties to the south of this portion of the Project Site are zoned SP with a General Plan land use designation of Specific Plan. Properties to the east of this portion of the Project Site are zoned UR1, UR3 and PI, with a General Plan land use designation of Urban Residential One, Urban Residential Three and Public Institutional, respectively. Properties to the west, across Railroad Avenue are zoned SP with a General Plan land use designation of Specific Plan.

View 1: From the east side of Railroad Avenue looking south.

View 2: From the east side of Railroad Avenue looking northwest towards Lyons Avenue.

View 3: From the east side of Railroad Avenue looking northwest.

View 4: From the west side Railroad Avenue looking east.

View 5: From the Project Site looking south towards the Newhall Metrolink Station (Photo: 2014).

Source: Parker Environmental Consultants, 2016

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Figure 2-7
Photographs of Surrounding Land Uses at Lyons Avenue
Views 1 through 5

View 6: From the northeast corner of Railroad Avenue and 13th Street looking south.

View 7: From the northeast corner of Railroad Avenue and 13th Street looking northwest.

View 8: From the north side of 13th Street looking southeast.

View 9: From the west side of Railroad Avenue looking southeast.

View 10: From the east side of Railroad Avenue looking east.

Project Site Boundary # Photograph Locations

Source: Parker Environmental Consultants, 2016

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Figure 2-8
Photographs of Surrounding Land Uses at 13th Street
Views 6 through 10

2.5 PROJECT CHARACTERISTICS

The proposed Lyons Avenue/Dockweiler Drive Extension Project ("Proposed Project") is a multi-phased project being coordinated by the City of Santa Clarita and The Master's University to improve circulation and access to the Placerita Canyon and Newhall Communities. The Lyons Avenue/Dockweiler Drive extension is proposed to be one of the primary east-west arterials through the City of Santa Clarita that would provide a through connection from Sierra Highway to Railroad Avenue.

The Proposed Project includes the extension of Lyons Avenue from Railroad Avenue southeast to the proposed connection with Dockweiler Drive, the addition of a new at-grade railroad crossing east of the Railroad Avenue and Lyons Avenue intersection, and the extension of Dockweiler Drive from the approved alignment of Dockweiler Drive at The Master's University site (The Master's University extension of Dockweiler Drive through The Master's University property was evaluated under a separate EIR[1]), and northwest to connect with the intersection of Arch Street and 12th Street. The Proposed Project would extend Lyons Avenue from its existing terminus at Railroad Avenue, eastward to Dockweiler Drive to provide a T-intersection at Dockweiler Drive. The Proposed Site Plan is depicted in Figure 2-9.

In coordination with the proposed Railroad Bike Path project, the new Dockweiler Drive extension will result in creating a vital Complete Street link between the communities to the east of the railroad/ Newhall Creek (including the Master's University) and Old Town Newhall and Metrolink station.

The Proposed Project also includes the closure of an at-grade railroad crossing at the intersection of 13th Street and Railroad Avenue. The intersection at 13th Street would be modified, removing the northbound right turn lane and southbound left turn lane and restricting the eastbound through movement. The Proposed Site Plan for the at-grade railroad closure at 13th Street and Railroad Avenue is depicted in Figure 2-10.

[1] *The Master's College Master Plan Draft EIR, dated July 2008, and Final EIR, dated October 2008. SCH No. 2004021002.*

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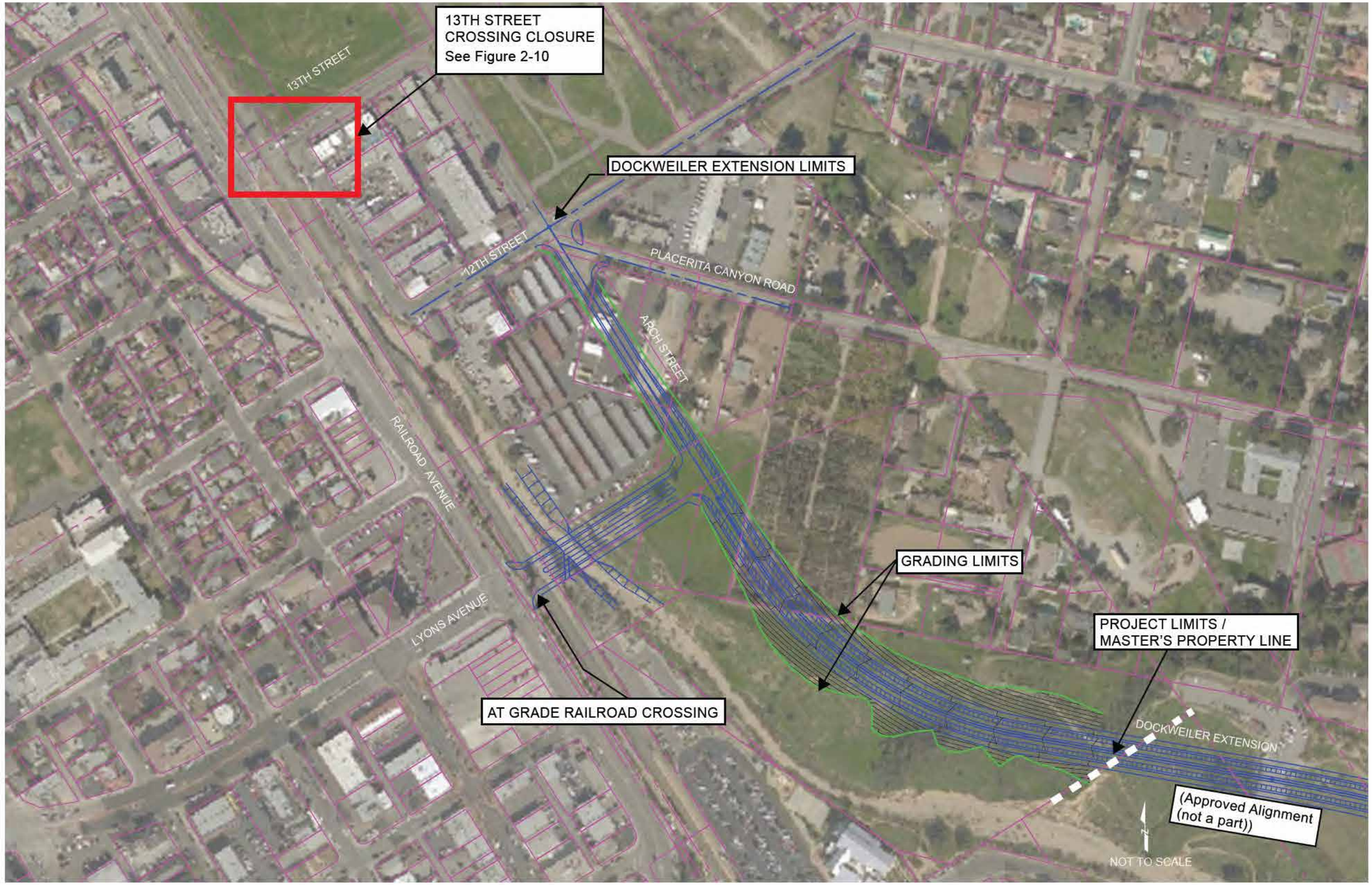

Source: David Evans and Associates, May 2017.

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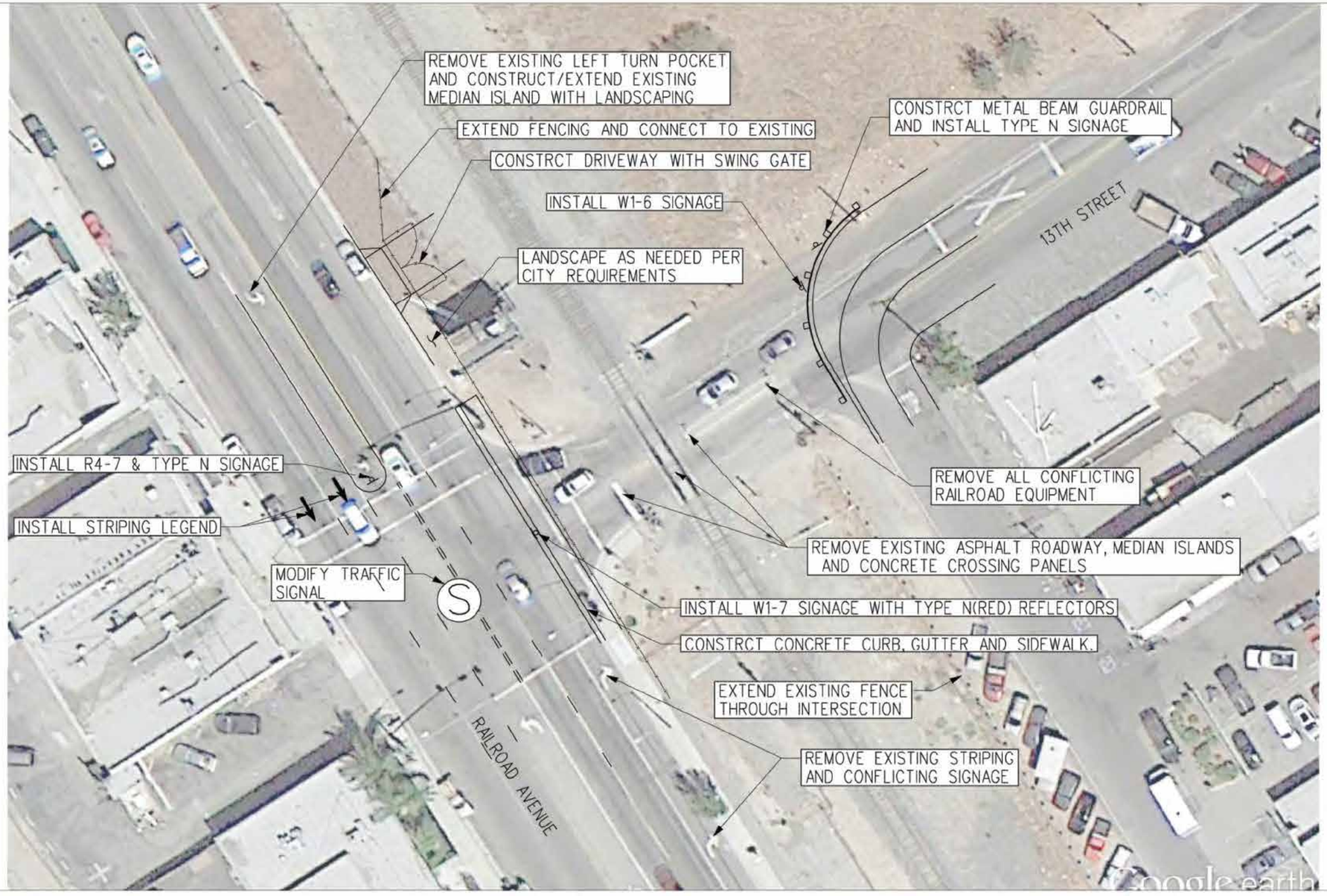
Figure 2-9
Proposed Site Plan at Lyons Avenue



•REMOVE ALL CONFLICTING SIGNING AND STRIPING
•MODIFY TRAFFIC SIGNAL EQUIPMENT/CONTROLLER/TIMING/ TO REFLECT T-INTERSECTION

20' 10' 0 20' 40'
GRAPHIC SCALE: 1" = 20'

Source: Patterson & Associates, Inc., June 2015

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Figure 2-10
13th Street Crossing Closure

Design Features

The Proposed Project will include re-profiling the intersection of Lyons Avenue and Railroad Avenue to allow the construction of a new SCRRA/UP railroad at-grade crossing east of Railroad Avenue. The proposed at-grade crossing at Lyons Avenue will improve traffic movements and circulation. Roadway construction will include a new bridge crossing over Newhall Creek and would necessitate embankment protection on both sides of the creek. The Newhall Creek improvements will be designed in accordance with current regulatory and State permitting agencies.

Street improvements would include:

- Installation of a new traffic signal at Lyons and Railroad Avenues;
- Installation of intersection improvements at the Arch Street/12th Street/Placerita Canyon and proposed Dockweiler Drive alignment. For purposes of this analysis, the following three intersection configurations were evaluated as potential design options:
    - A 5-way intersection configuration as shown in Figure 2.11: Option A – 5-Legged Intersection.
    - A traffic circle as shown in Figure 2.12: Option B, Traffic Circle.
    - A 3-legged intersection as shown in Figure 2.13: Option C, 3-Legged Intersection.

- Street widening for Lyons and Railroad Avenues;
- Installation of raised median island on both streets;
- New signing, striping and legends such as monument signage to properly identify the entrance to the Placerita Canyon community as a residential community with no through access.

Railroad improvements would include:

- New railroad signal house;
- Crossing Panels;
- Advance Preemption and railroad signal design;
- Pedestrian gates (4);
- Railroad related signing, striping and legends;
- Blank out sign for northbound traffic making right turn into the eastbound Lyons Avenue;
- New fencing for railroad;
- New driveway to access railroad property for maintenance;
- New vehicular gates (6);
- New railroad loops.

The proposed alignment and roadway extension is part of the City's General Plan and consistent with the goals of the Old Town Newhall Specific Plan, Santa Clarita Valley Consolidated Traffic Model (SCVCTM), and the Compass Blueprint Plan. The extension of the proposed roadway (Lyons Avenue) is designated as a Secondary Highway per the City of Santa Clarita's General Plan. This roadway extension

Source: David Evans & Associates Inc., May 2017.

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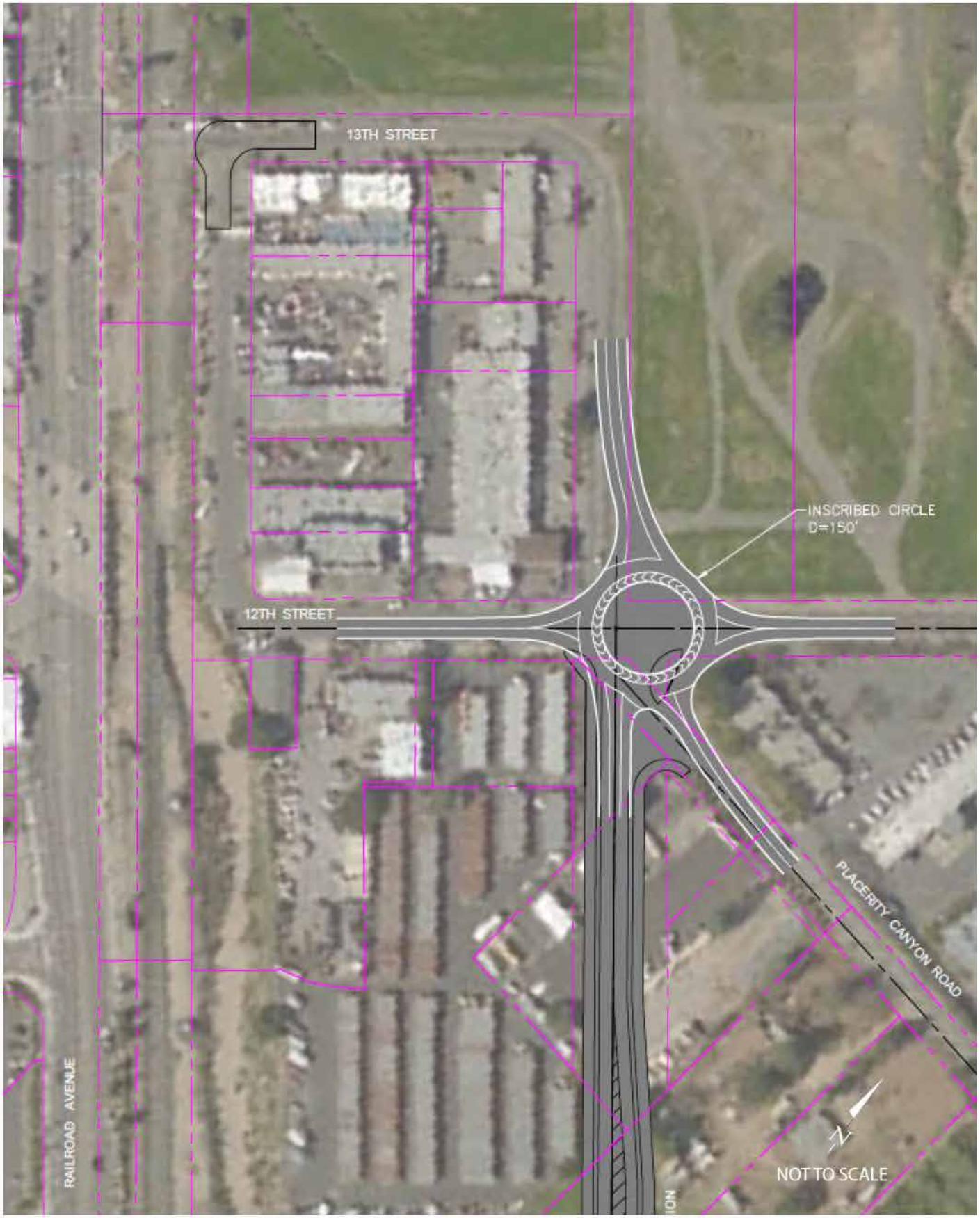
Figure 2-11
Option A - 5 Legged Intersection



Source: David Evans & Associates Inc., May 2017.

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Figure 2-12
Option B - Traffic Circle

Source: David Evans & Associates Inc., May 2017.

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Figure 2-13
Option C - 3 Legged Intersection

is consistent with the approved Master's University Master Plan, in which Dockweiler Drive was re-designated as a 4-lane Secondary Highway. The proposed roadway from the Arch Street/12th Street/Placerita Canyon/Dockweiler Drive intersection to the future intersection of Lyons Avenue and Dockweiler Drive will be a two-lane facility with a 13-foot landscaped parkway/sidewalk on each side. The proposed roadway from the Lyons Avenue and Dockweiler Drive intersection to the Master's University property line will be a 2-lane facility with a 12-foot raised landscaped median, and 13-foot parkway/sidewalk on each side. The median lanes will be 12 feet wide and the parking lanes 9 feet wide with a 6-foot bike lane. The parking lanes will be capable of being converted into a travel lane to create an ultimate 4-lane facility in compliance with the City's General Plan. The typical right-of-way (R/W) width will be 92 feet.

The Proposed Project would also include the closure of an at-grade crossing at the intersection of Railroad Avenue and 13th Street.

Street improvements at the 13th Street and Railroad Avenue at-grade railroad crossing intersection are illustrated in Figure 2.10, 13th Street Crossing Closure and would include:

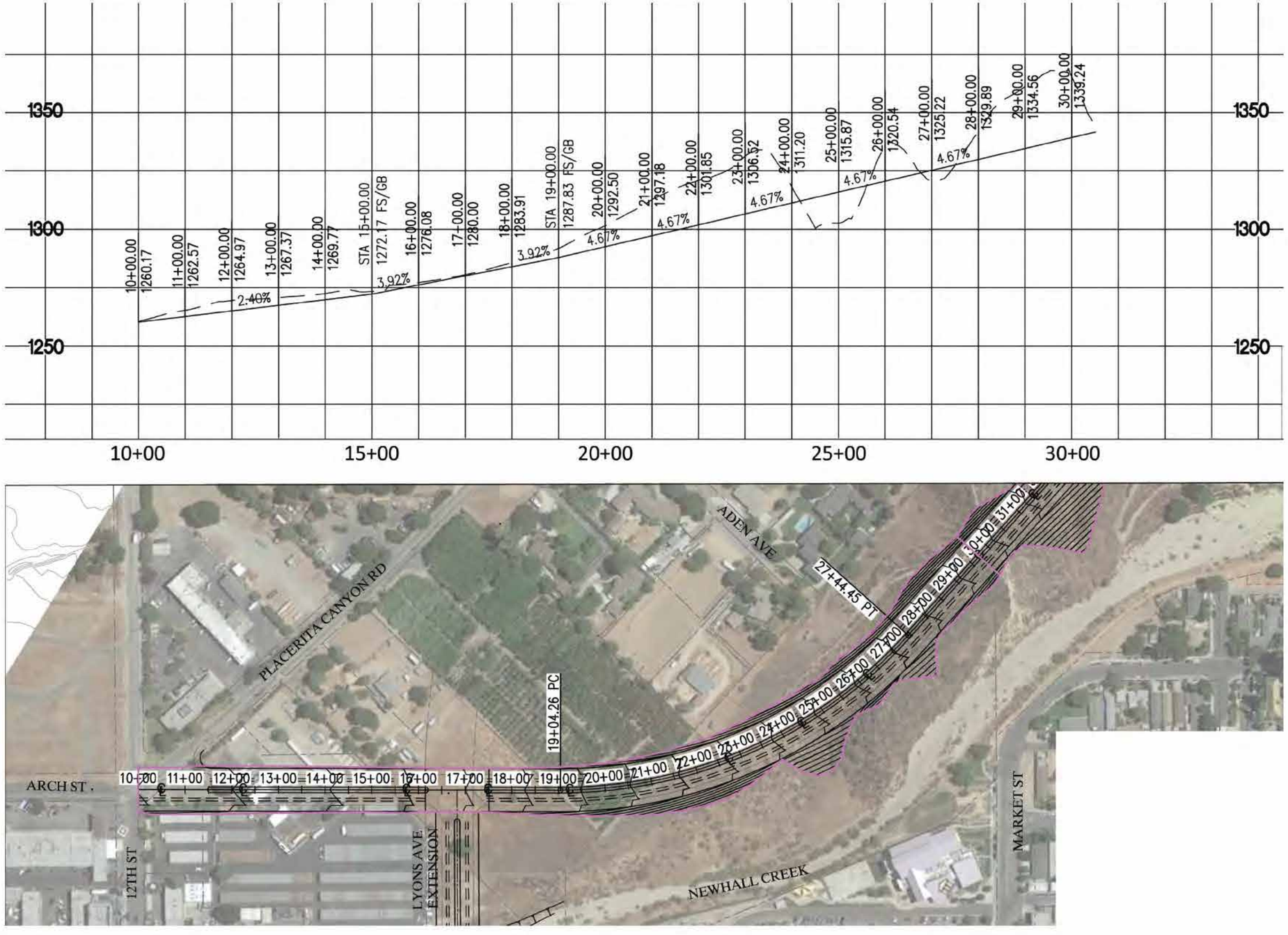
- Modify existing traffic signal for a T-intersection operation
- Street construction with new curb and gutter and related striping, signing, and legends
- New landscaping along 13th Street near railroad property
- Modify signing, striping and legends on 13th Street and Railroad Avenue to reflect new intersection and new design for 13th Street

Railroad improvements associated with the closure of the 13th Street at-grade crossing would include:

- Remove railroad signal house and modify railroad signal interference with the traffic signal
- Remove crossing panels
- Modify railroad signal and related work
- Remove railroad related signing, striping and legends
- Remove all railroad related signals in coordination with City's traffic signal
- New fencing for railroad
- New driveway to access railroad property for maintenance

Construction

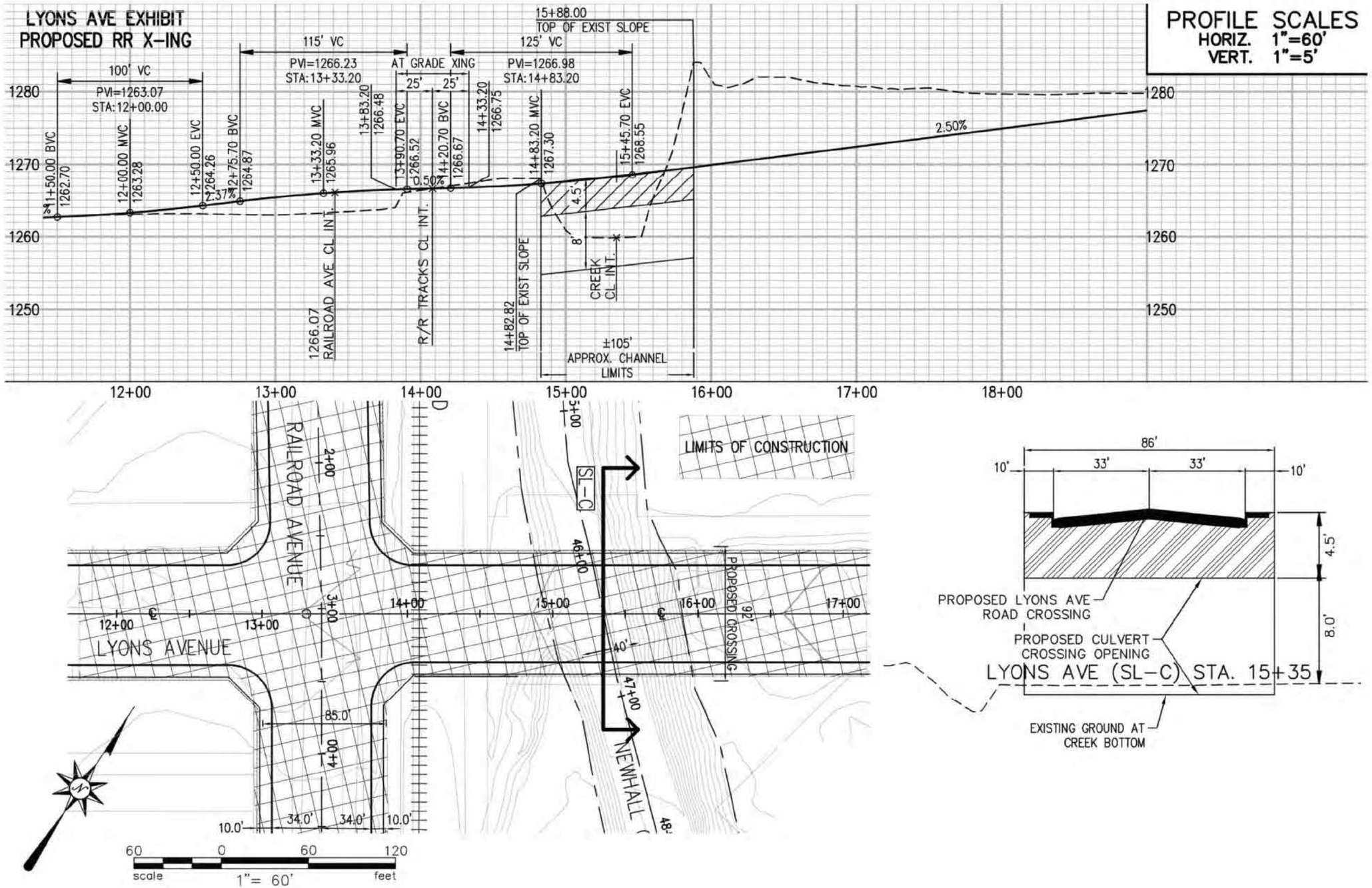
The construction of the Proposed Project east of Railroad Avenue will join existing roadways in the Placerita Canyon and Newhall communities. Connection points are proposed at the Arch Street/12th Street intersection, Railroad Avenue and Lyons Avenue, and the proposed Dockweiler Drive extension at The Master's University. See Figures 2.11 through 2.13 for the three optional design configurations for the Arch Street/12th Street/Placerita Canyon/Dockweiler Drive intersection. The extent of grading and contour of the proposed roadway extension is illustrated in Figure 2-14, Proposed Dockweiler Drive Alignment and Grading Plan Profile. Cross section illustrations of the grading plan profile at the Lyons Avenue railroad at-grade crossing and Newhall Creek overcrossing are shown in Figure 2-15, Proposed



Source: David Evans & Associates, Inc.

PARKER ENVIRONMENTAL CONSULTANTS

Figure 2-14
Proposed Dockweiler Drive Alignment and Grading Plan Profile



Source: David Evans & Associates, Inc.

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Figure 2-15
Proposed Grading Plan Profile and Cross Section of the Railroad Crossing at Lyons Avenue

Grading Plan Profile and Cross Section of the Railroad Crossing at Lyons Avenue. Figure 2.16 depicts the proposed grading plan profile and cross sections of the railroad crossing at Lyons Avenue and Railroad Avenue, as well as the intersection and at the Newhall Creek overcrossing. Additionally, Figure 2-17 depicts the proposed street widening improvements at Lyons Avenue and Railroad Avenue.

Construction activities are expected to commence at such time as funding becomes available and all applicable permits are obtained by the CPUC. The earliest expected date to begin construction is July 2018. Grading is expected to last approximately eight months. Trenching for drainage and utilities is expected to occur over a six-month timeframe, followed by roadway construction and paving being completed in the final three months of construction

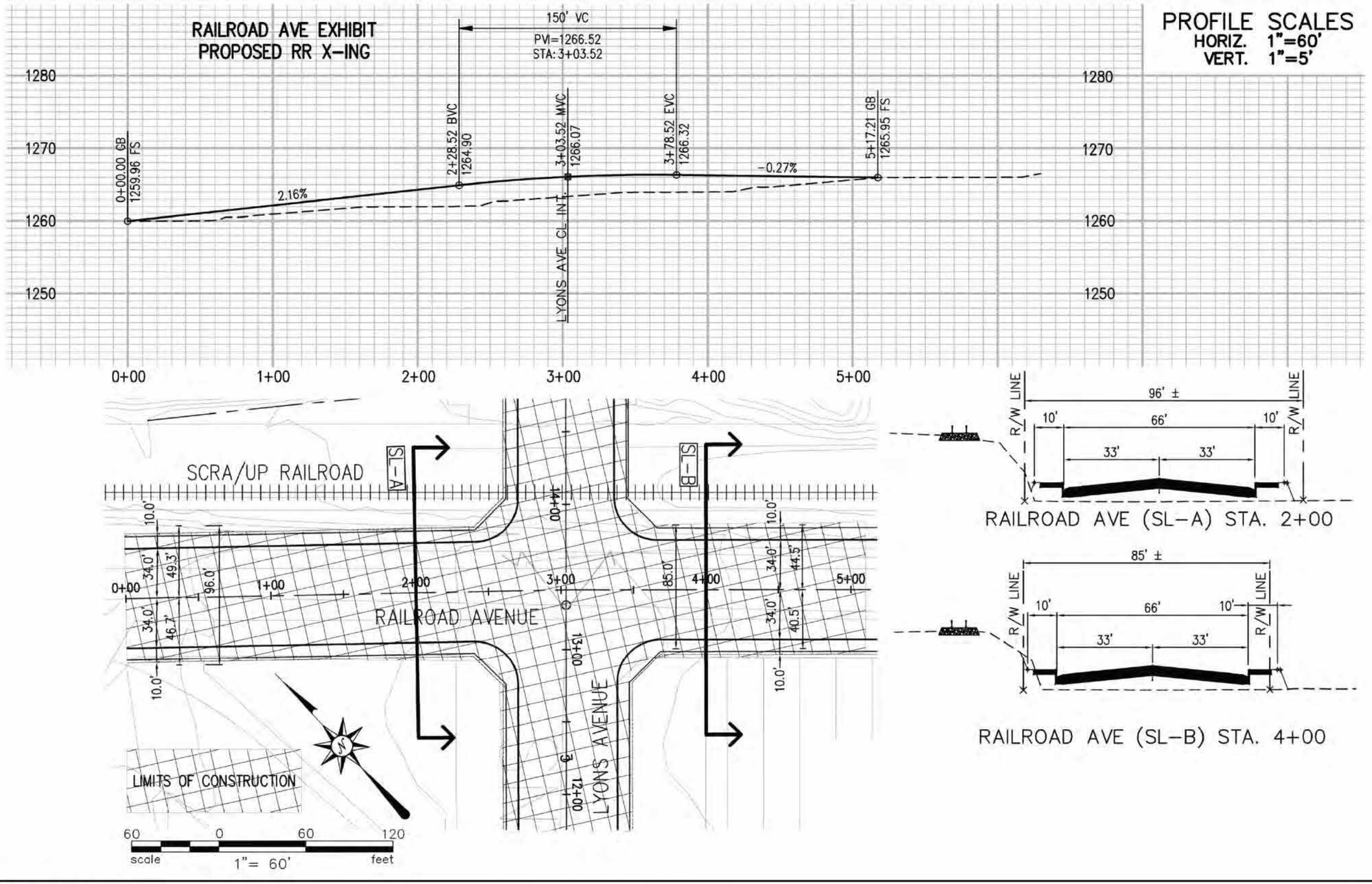
Property Acquisition and/or Easements

Implementation of the Proposed Project may require the potential acquisition of easements over public and private properties that are adjacent to the proposed alignment. Figure 2-18, Dockweiler Drive Study Area – Adjacent Properties Map, identifies properties in the project area that are located within or adjacent to the proposed alignment. Table 2.1, below, identifies a total of 19 of the 29 properties identified within the study area would be affected by easements and or acquisitions.

Table 2-1
Potential Property Acquisition and/or Easements

Map ID	Parcel Number	Acreage	Site Address	(Private or Public)
10	2834-009-038	0.2760	24639 Arch Street	Private
12	2833-012-020	0.3410	No Site Address	Private
13	2834-010-043	4.0460	No Site Address	Private
14	2833-005-017	0.7320	No Site Address	Private
15	2831-026-917	0.4680	No Site Address	Public
16	2831-026-909	0.8020	No Site Address	Public
17	2833-005-024	3.3730	No Site Address	Private
18	2833-005-904	0.2830	No Site Address	Public
19	2833-001-990	3.4360	22235 Placerita Cyn. Rd.	Public
20	2833-005-008	0.4550	No Site Address	Private
21	2833-005-902	0.1520	No Site Address	Public
22	2833-005-903	0.4900	22234 Placerita Cyn. Rd.	Public
23	2833-005-014	1.0830	22216 Placerita Cyn. Rd.	Private
24	2831-026-918	0.0710	No Site Address	Public
25	2833-005-020	0.9110	No Site Address	Private
26	2833-005-013	0.5700	No Site Address	Private
27	2833-005-012	0.8880	No Site Address	Private
28	2833-004-097	3.2500	No Site Address	Private
29	2833-014-904	11.0090	No Site Address	Public

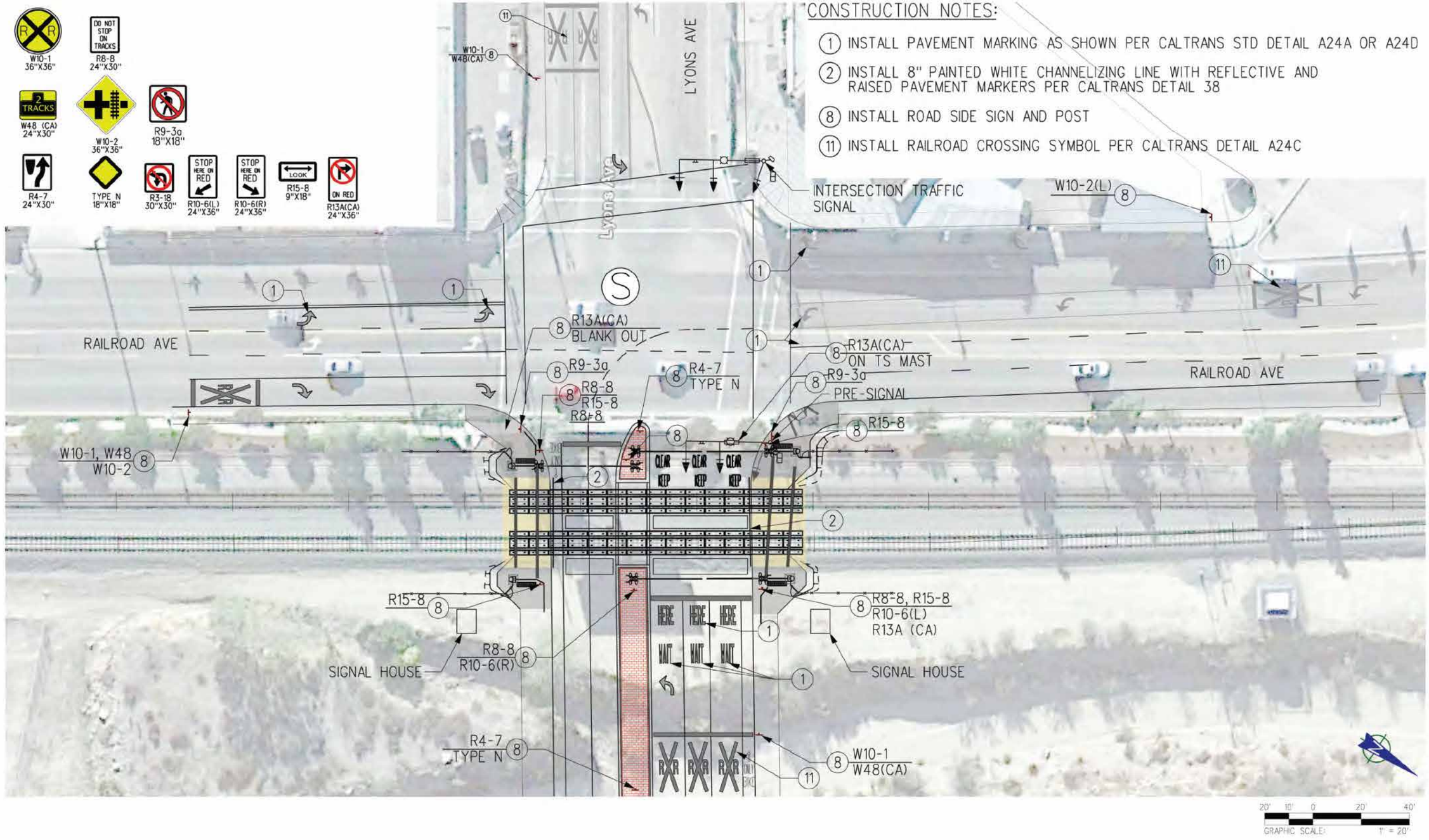
See Figure 2-17, Dockweiler Drive Study Area – Adjacent Properties Map.



Source: David Evans & Associates, Inc.

PARKER ENVIRONMENTAL CONSULTANTS

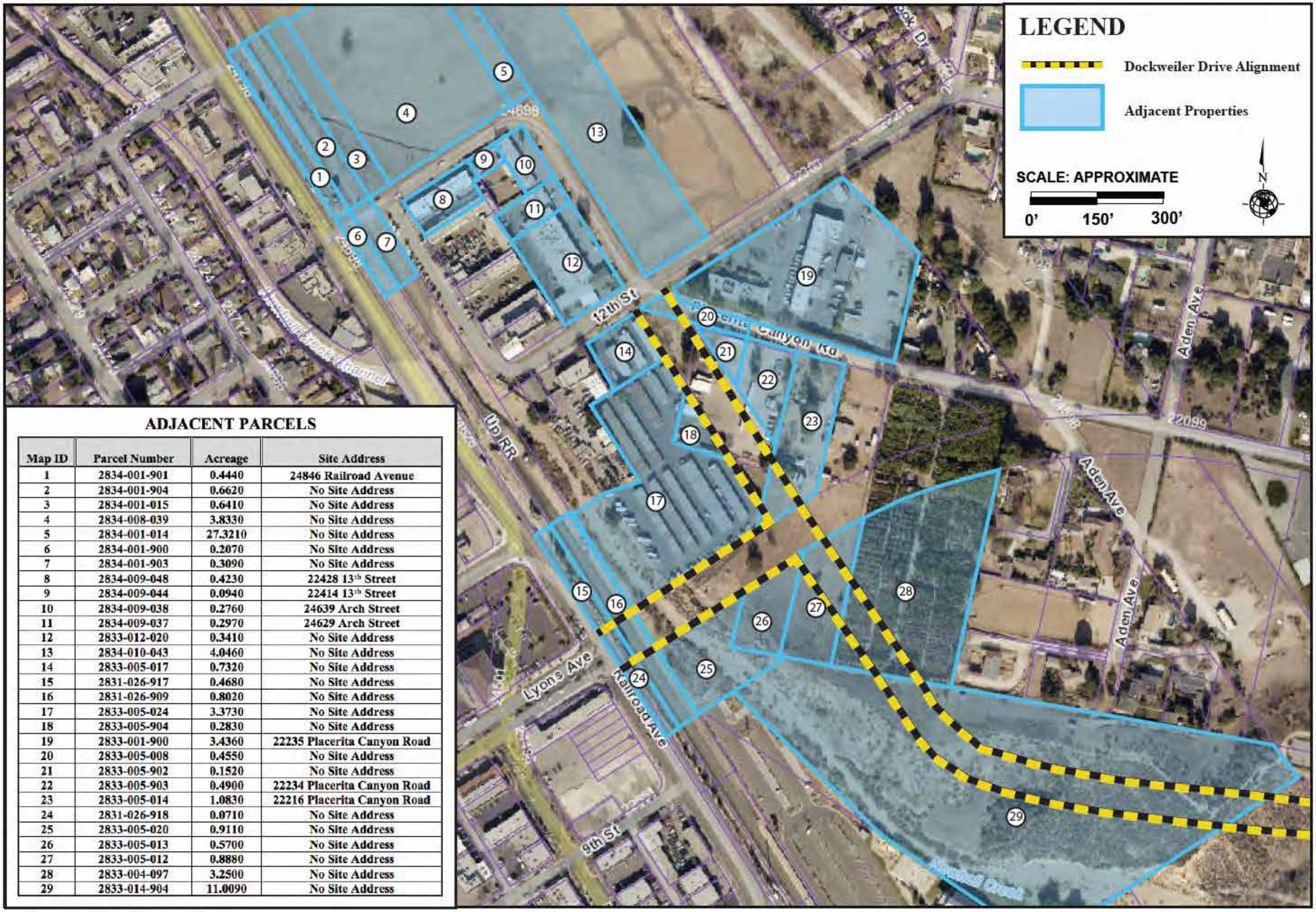
Figure 2-16
Proposed Grading Plan Profile and Cross Section of the Railroad Crossing at Railroad Avenue



Source: Patterson and Associates, June 2015

PARKER ENVIRONMENTAL CONSULTANTS

Figure 2-17
Lyons Avenue Street Widening - Proposed New Crossing



ADJACENT PARCELS

Map ID	Parcel Number	Acreage	Site Address
1	2834-001-901	0.4440	24846 Railroad Avenue
2	2834-001-904	0.6620	No Site Address
3	2834-001-015	0.6410	No Site Address
4	2834-008-039	3.8330	No Site Address
5	2834-001-014	27.3210	No Site Address
6	2834-001-900	0.2070	No Site Address
7	2834-001-903	0.3090	No Site Address
8	2834-009-048	0.4230	22428 13th Street
9	2834-009-044	0.0940	22414 13th Street
10	2834-009-038	0.2760	24639 Arch Street
11	2834-009-037	0.2970	24629 Arch Street
12	2833-012-020	0.3410	No Site Address
13	2834-010-043	4.0460	No Site Address
14	2833-005-017	0.7320	No Site Address
15	2831-026-917	0.4680	No Site Address
16	2831-026-909	0.8020	No Site Address
17	2833-005-024	3.3730	No Site Address
18	2833-005-904	0.2830	No Site Address
19	2833-001-900	3.4360	22235 Placerita Canyon Road
20	2833-005-008	0.4550	No Site Address
21	2833-005-902	0.1520	No Site Address
22	2833-005-903	0.4900	22234 Placerita Canyon Road
23	2833-005-014	1.0830	22216 Placerita Canyon Road
24	2831-026-918	0.0710	No Site Address
25	2833-005-020	0.9110	No Site Address
26	2833-005-013	0.5700	No Site Address
27	2833-005-012	0.8880	No Site Address
28	2833-004-097	3.2500	No Site Address
29	2833-014-904	11.0090	No Site Address

Source: City of Santa Clarita.

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ENVIRONMENTAL CONSULTANTS

Figure 2-18
Dockweiler Drive Study Area - Adjacent Properties Map

2.6 PROJECT OBJECTIVES

The purpose of the proposed project is to achieve CPUC approval of an at-grade rail crossing at the current terminus of Lyons Avenue and the Southern Pacific Railroad line and extend a through roadway connection from Lyons Avenue to Dockweiler Drive. The Applicant's stated objectives for the proposed project are as follows:

- Implementation of the goals of the Circulation Element of the Santa Clarita General Plan, including the crossing at Lyons Avenue and the extension of Lyons Avenue/Dockweiler Drive;
- Improve roadway level of service and circulation network;
  Provide a safe and efficient at-grade rail crossing that meets the standards of the California Public Utilities Commission (CPUC);
- Provide sufficient information for CPUC application and approval of the proposed crossing;
- Improve pedestrian and vehicle railroad safety by eliminating an existing substandard at-grade rail crossing at 13th Street and replacing it with a more advanced and enhanced at-grade rail crossing at Lyons Avenue;
- Reduce vehicle miles traveled by creating a more direct route for motorists, eliminating circuitous driving patterns.
- Provide greater connectivity between Old Town Newhall, Placerita Canyon, The Master's University and the residents that live along Dockweiler Drive;
- Provide an economic stimulus to Old Town Newhall with enhanced connectivity to the Old Town Newhall area; and
- Provide an enhanced gateway to Placerita Canyon.

2.7 DISCRETIONARY APPROVALS

Lead Agency

Under CEQA, the public agency that has the principal responsibility for carrying out or approving a proposed project is referred to as the "Lead Agency" (State CEQA Guidelines Section 15367). For purposes of the Dockweiler Drive Alignment Project, the City of Santa Clarita is identified as both the project proponent ("Applicant") and Lead Agency.

The proposed project would be part of the City's Capital Improvement Program. The City Council is the City's decision-making body and is responsible for approving projects to be built within City limits. Prior to approving the Proposed Project, the City Council must certify that (1) this EIR has been reviewed and considered; (2) the EIR has adequately analyzed the potential impacts of the proposed project; (3) it has been completed in compliance with CEQA, the State CEQA Guidelines, and the City's Environmental Guidelines; and (4) it reflects the independent judgment of the City Council.

The Proposed Project would also require the approval of an Oak Tree Permit and Hillside Review Permit at such time as development occurs or when funding of roadway construction becomes available. In order to allow for the proposed development to occur, the Proposed Project would require an Oak Tree Permit and a Hillside Review Permit. Depending on the approval of the Proposed Project or one of the Project Alternatives evaluated within the scope of the EIR, the oak tree permit would be required to determine the

oak tree impacts at the time of project development. The Hillside Review Permit would permit the grading necessary to construct the roadway. These entitlements will be obtained at such time as the proposed alignment is approved and roadway funding is available to implement the Project. Because it is not known at this time when the project would be funded or built and permits expire after two years, it was determined to be more cost effective to wait until such time as construction of the roadway is imminent to secure permits for the project.

Additional ministerial actions, such as grading permits, would be required by the City prior to actual grading and construction of the proposed roadway extension.

Responsible Agencies

Public agencies other than the Lead Agency, that have discretionary approval power or regulatory oversight over the proposed project or project activities are considered "Responsible Agencies" (State CEQA Guidelines Section 15381). If the City approves the Proposed Project, subsequent implementation of various project components could require discretionary approval authority from the following responsible agencies:

- California Public Utilities Commission (CPUC);
- Southern California Rail Authority;
- Los Angeles County Metropolitan Transportation Authority (LACMTA);
- California Department of Fish and Wildlife (CDFW);
- California Regional Water Quality Control Board (RWQCB);
- Los Angeles County Fire Department (LACFD):
- Los Angeles County Department of Public Works (LAPW)
- South Coast Air Quality Management District (SCAQMD);
- U.S. Fish and Wildlife Service (USFWS); and
- U.S. Army Corps of Engineers (USACE).

3. OVERVIEW OF ENVIRONMENTAL SETTING

3.1 INTRODUCTION

This section provides an overview of the Project Site's regional and local setting and describes the basis for the discussion of cumulative impacts addressed in Section 4, Environmental Impact Analysis. More detailed information on the environmental setting as it relates to each of the environmental issues analyzed in the scope of this EIR are included in Sections 4.1 through 4.9, respectively.

3.2 ENVIRONMENTAL SETTING

Regional Setting

The Project Site is located in Los Angeles County within the City of Santa Clarita. Regional access to the Project Site is provided by State Route 14 Freeway (SR-14), located east of the Project Site, and Golden State/Santa Ana Freeway (I-5), located west of the Project Site.

Local Setting

The Project Site is located at the intersection of Lyons Avenue and Railroad Avenue and extends eastward towards the General Plan alignment for Dockweiler Drive at The Master's University, and northwest towards the intersection of Arch Street and 12th Street. The Project Site also includes the closure of an at-grade crossing at the intersection of Railroad Avenue and 13th Street. The limits for the Lyons Avenue/Dockweiler Drive extension are from Railroad Avenue on the west to the future Master's University Master Plan Dockweiler extension to the east.

Surrounding Land Uses

The Project Site is located immediately southwest of the Placerita Canyon community and east of the Old Town Newhall community. The portion of the Project Site to the east of the intersection of Railroad Avenue and Lyons Avenue is bounded by commercial and industrial uses to the north, a landscape nursery to the south east, the Newhall Metrolink Station to the south and the Old Town Newhall Library and commercial uses to the west, across Railroad Avenue. The portion of the Project Site to the east of the intersection of Railroad Avenue is bounded by undeveloped land to the north, commercial and industrial uses to the east, Newhall Creek to the south and one-story commercial buildings to the west, across Railroad Avenue.

Project Site

The existing Project Site consists of improved segments of Railroad Avenue and Lyons Avenue roadways and undeveloped land to the east extending towards Dockweiler Drive. The west end of the Project Site encompasses portions of Newhall Creek. The portion of the Project Site that includes the intersection of Railroad Avenue and 13th Street is developed with existing road surface and an at-grade crossing. The

Union Pacific/Metrolink Railroad line crosses the Project Site at the intersection of Railroad Avenue and Lyons Avenue at the intersection of Railroad Avenue and 13th Street.

Aesthetics/Views

Views within the vicinity of the Project Site are characterized by the natural and built environment surrounding the area. The existing viewsheds in the project area are defined primarily by commercial land uses in Old Town Newhall, to the west across Railroad Avenue, and views of the Santa Susana Mountains to the south and west, the San Gabriel Mountains to the southeast and Sierra Pelona Mountains to the north. Viewsheds from the Project Site of the Placerita Canyon residential community and The Master's University are largely blocked by steep undeveloped terrain and a ridgeline to the east and southeast. Viewsheds to the north of the Project Site include relatively flat undeveloped open space followed by smaller hills and ridgelines in the background.

Portions of the Project Site are visible from the Old Town Newhall area from Lyons Avenue and along Railroad Avenue and from several residential properties within Placerita Canyon near Aden Avenue. The Project Site is visible from The Master's University, the Metrolink Station and recreation trails, located south and southeast of the Project Site. The Project site is also visible from portions of Market Street, south of the Project Site.

Air Quality

The Project Site is located within the South Coast Air Basin (Basin). The Basin includes all of Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside Counties. The regional climate within the Basin is considered semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. The air quality within the Basin is primarily influenced by a wide range of emissions sources (e.g., dense population centers, heavy vehicular traffic, and industries) and meteorology.

The South Coast Air Quality Management District (SCAQMD) is the agency principally responsible for comprehensive air pollution control in the Basin. The SCAQMD divides the Basin into 38 source receptor areas (SRAs) in which 38 monitoring stations track the various concentrations of air pollutants in the region. The Project Site is located within SRA 13, which covers the Santa Clarita Valley. SCAQMD air quality monitoring Station No. 090 is located at 22224 Placerita Canyon Road and is located within the boundaries of the Project Site's northern alignment of Dockweiler Drive extending to Arch Street. This station currently monitors emission levels of CO, NO_2, O_3, PM_{10}, $PM_{2\,5}$, and VOC. The Basin in in attainment for CO. From 2010 to 2013, the ambient air quality levels within SRA 13 exceeded the state standard for O_3 by a total of 124 days; measured NO_2 concentrations were within the state standards for all four years; and PM_{10} emissions exceeded the state standard only one day in the four year reporting history.

Biological Resources

The analysis presented in the Biological Resources section is based on the Biological Resources Assessment, Jurisdictional Delineation and Impact Assessment, Dockweiler Road Extension Project,

Santa Clarita, California, prepared by Impact Sciences, Inc., dated April 2015 ("Biological Assessment"). The Biological Assessment is provided in Appendix D of this Draft EIR.

Vegetation Communities

Eight vegetation communities occur on the Project Site, which includes: California Sagebrush-California Buckwheat Scrub, Disturbed California Sagebrush- California Buckwheat Scrub, Scale Broom–Mulefat scrub, Scalebroom Scrub, Active Channel, Exotic Trees, Developed/ Ornamental Landscaping, and Cleared. Site grading plans indicate that within the Project Site 2.32 acres of vegetation would be removed (100 percent of the vegetation resources present). Of the vegetation communities impacted Disturbed California Sagebrush-California Buckwheat Scrub is the dominant plant community present by area and approximately 0.63 acre of this habitat would be lost through site grading and project implementation.

Wildlife

Wildlife diversity on the Project Site is relatively low. The only reptile observed on site was the side-blotched lizard (*Uta stansburiana*). Tracks, scat, burrows, and other signs observed indicate the presence of California ground squirrel (*Spermophilus beecheyi*) and Botta's pocket gopher (*Thomomys bottae*). Common bird species recorded during the field surveys included mourning dove (*Zenaida macroura*), American crow (*Corvus brachyrhynchos*), California towhee (*Melozone crissalis*), house finch (*Haemorhous mexicanus*), and Say's phoebe (*Sayornis saya*). All of these species are relatively tolerant of human encroachment. Several additional avian species are expected to occur on site seasonally. Small rodents including Botta's pocket gopher (*Thomomys bottae*) and deer mouse (*Peromyscus maniculatus*) are likely present and evidence of California ground squirrel (*Otospermophilus beecheyi*) and evidence of coyote (*Canis latrans*) were observed.

Wildlife Movement

Newhall Creek does provide, a connection between the Santa Clara River and the Angeles National Forest to the southeast. Although, much of the length of the creek occurs adjacent to dense development and wildlife activity is expected to be somewhat limited, Newhall Creek is considered part of a wildlife movement or migration corridor that connects larger areas of natural open space.

Special-Status Plant and Animal Resources

The only special-status plants observed during the field investigations were two coast live oaks. No other special-status plants are considered to have a high potential for occurrence within the Project Site. Native oak trees are protected under City of Santa Clarita Oak Tree Ordinance (Ordinance No. 89-10, passed by the City Council on April 25, 1989). A permit is required for encroachment into the Protected Zone, defined as 5 feet outside the dripline and further defined as extending no less than 15 feet outward from the trunk of an oak tree.

No special-status wildlife species were directly observed during field investigations conducted on the Project Site or area. Although Newhall Creek traverses the Project Site, it is considered a seasonal

drainage, and it is apparent within the Project Site, when flows do occur, they are rapid enough to scour the channel. The Silvery legless lizard (*Anniella pulchra pulchra*), is a small lizard is often mistaken for a snake or worm since, as it has no limbs. This special-status reptile is considered to have a moderate potential to occur on site. The Silvery legless lizard spends most of its life below surface soils. It is most commonly found in and around the roots of trees and shrubs, often beneath leaf litter where its prey is most abundant. This species is rarely observed unless one actively seeks it out. Though apparently very dry at the surface, some of areas within the Project Site may have sub-surface soils with the moisture content necessary to support this species. Therefore the Silvery legless lizard is considered to have a moderate potential for occurrence on the proposed Project Site.

Jurisdictional Waters, Streambed, and Riparian Resources

Based on field investigations, a small area of narrow-leaf willow thicket (300 square feet or 0.007 acre) is present. According to the wetland definition at the State level, narrow-leaf willow thicket present on-site would not meet the criteria of wetland as defined by the State of California. While narrow-leaf willow is a hydrophyte, there is no evidence of continuous or recurrent saturation of the upper substrate and no evidence of anaerobic conditions are present.

Two jurisdictional features do occur within the Project Site and area. Newhall Creek and a small ephemeral drainage that is a tributary to Newhall Creek occur on the Project Site and fall under the jurisdiction of the CDFW. Although these jurisdictional features do not support riparian vegetation or sensitive wetland resources, Newhall Creek does support features that lie within the jurisdiction of CDFW.

Cultural Resources

Although portions of the Project Site are improved with roadways, the Project will include earthwork activities in areas that are currently undeveloped. As such, it is likely that the Proposed Project's earthwork activities may result in the accidental discovery of prehistoric or historic archaeological resources that may be located within the Project limits. The Cultural Resources section addresses the Proposed Project's potential to result in significant impacts upon cultural resources, including archaeological, paleontological and historic resources. On September 20, 2013, the South Central Coastal Information Center and the Vertebrate Paleontology Department at the Natural History Museum of Los Angeles County were contacted to provide expertise on cultural, archeological, and paleontological resources within the Project Site. With respect to cultural, archaeological, and paleontological resources, the analysis is based on feedback from the South Central Coastal Information Center (SCCIC), dated October 2, 2013, and from The Vertebrate Paleontology Department at the Natural History Museum of Los Angeles County, dated October 18, 2013 (See Appendix E of this Draft EIR).

Geology and Soils

The majority of the Geotechnical analysis is based on the *Geologic and Geotechnical Report EIR-Level Review Of Road Alignments For Dockweiler Road and Lyons Avenue (The "Geotechnical Report")* prepared by Allan E. Seward Engineering Geology, Inc., dated October 17, 2014 (See Appendix F of this

Draft EIR). As discussed in the Geotechnical Report and Section 4.5 of the Draft EIR, the proposed road alignments are located on the alluvial flood plain and hillside areas adjacent to Newhall Creek. The majority of the proposed road alignment for Lyons Avenue traverses undeveloped land, except for areas where artificial fill and railroad ballast have been placed to elevate and support the existing railroad double tracks. Dumped fill with abundant blocks of asphalt and concrete and other miscellaneous debris has been placed on the southwest bank of Newhall Creek, just northeast of the proposed at-grade railroad crossing. The proposed road alignment of Dockweiler Drive also traverses undeveloped land and a storage yard utilized by Los Angeles County Department of Public Works. The Project Site is covered with light to moderate growth of natural grasses and chaparral. Elevations at the site range from approximately 1255 to 1370 feet above mean sea level.

Regional Geologic Conditions

The Project Site is located within the central part of the Transverse Ranges geomorphic province of southern California, in the eastern portion of the Ventura Basin. The Ventura Basin has been tectonically down-warped in the geologic past to produce a large-scale synclinal structure in which a thick sequence of Cenozoic sediments has accumulated. In the vicinity of the proposed road alignments, much of the hillside area along the northeastern margin of Newhall Creek consists of bedrock of the Quaternary-age Pacoima Formation (Qp). The relatively flat flood plain southwest of Newhall Creek is underlain by sub-horizontal alluvium deposited (Qal). The Pacoima Formation and alluvial deposits are underlain by bedrock of the Plio-Pleistocene, nonmarine Saugus Formation (TQs). No faults or folds have been identified at the Project Site on the referenced published geologic map of the area.

Seismic Considerations

The Project Site lies within the seismically active southern California region. Earthquake-related hazards typically include ground rupture, ground shaking, and ground failure. Review of the Alquist-Priolo Earthquake Fault Zone Map for the Newhall Quadrangle, the Seismic Safety Element of the L.A. County General Plan, and the published Geologic Maps indicates that no active or potentially active faults traverse the Project Site. Review of the site topography and the aerial photographs did not reveal any lineaments or other indicators suggestive of faulting at the site. The nearest known active fault is the San Gabriel Fault, which is 3.7 km from the Project Site at its nearest point. Based on these distances, the probability of fault-related ground rupture at the Project Site is considered to be very low.

Ground Failure

Review of the referenced published geologic maps indicates that no landslides have been mapped at or adjacent to the Project Site. Review of aerial photographs lack geomorphic features that would indicate prior landslide movement. The majority of the Project Site is underlain by bedrock materials that are not susceptible to liquefaction. The alluvial soils present at the Project Site are not designated on the State of California Seismic Hazard Zone Map for the Newhall Quadrangle as a zone in which investigation of potentially liquefiable materials is required. The depth to historic high ground water at the site is greater than 50 feet. Based on the preceding factors, the potential for liquefaction and associated seismic settlements and lateral spreading is therefore considered very low.

Hydrology/Water Quality

The Hydrology and Water Quality section is heavily based on the findings and conclusions as presented in the following technical report, *Hydraulic and Scour Analysis Newhall Creek at Proposed Dockweiler Road Bridge, Newhall, California*, prepared by Rivertech, Inc., dated February 2015 ("Hydraulic Report"), which is provided in Appendix G of this Draft EIR. The existing Project Site is generally pervious. The Project Site consists of improved segments of Railroad Avenue and Lyons Avenue roadways and undeveloped land to the east extending towards The Master's University and Arch Street. The west end of the Project Site encompasses portions of Newhall Creek and traverses a storage yard utilized by Los Angeles County Department of Public Works.

Groundwater

Review of historic ground water data from the Seismic Hazard Map for the Newhall Quadrangle, Water-Resources Investigation using Analog Model Techniques in the Saugus-Newhall Area, and LACFCD water well records indicates that historic high ground water levels are between 75 and 100 feet below the existing surface at the Project Site. In addition, ground water was not encountered in subsurface explorations to a depth of 50 feet in the alluvium for the adjacent Old Town Newhall Library. However, temporary perched ground water conditions may exist below Newhall Creek following periods of significant rainfall and runoff. A low potential exists for temporary, perched ground water conditions to develop within the bedrock of the Pacoima formation. Perched ground water can contribute to slope instability in natural slopes and cut slopes. To prevent build-up of water, subdrains are typically recommended in canyon areas in which fill will be placed and back drains for slopes that are to be constructed as Stability Fills or Buttress Fills. Due to the historic high ground water elevations and the elevated nature of portions of the road alignment, ground water is not expected to significantly affect the Proposed Project, provided the proposed grading is evaluated from a geotechnical standpoint during the design stage and the geotechnical recommendations are implemented during construction. [1]

Inundation and Flooding

The western portion of the roadway extension that crosses Newhall Creek, is located in a "Zone A", as indicated in the National Flood Insurance Rate Map for Los Angeles County, which indicates a special flood hazard area that is subject to inundation by the 1% annual chance flood (100-year flood).[2] As concluded in the Hydraulic Report, the existing Newhall Creek Channel does not have the capacity to convey the FIS 100-year and the Capital Flood flow rates. As a result, the 100-year model results show that a significant percentage of the flow spill out the main channel and flood the railroad, entering the Railroad Avenue.

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[1] *Geologic and Geotechnical Report EIR-Level Review Of Road Alignments For Dockweiler Road and Lyons Avenue, prepared by Allan E. Seward Engineering Geology, Inc., dated October 17, 2014. See Appendix E of this Draft EIR.*

[2] *Federal Emergency Management Agency, National Flood Insurance Program, Flood Insurance Rate Mao, Los Angeles County, California and Incorporated Areas, Map Number 06037C0820F, September 26, 2008.*

Land Use and Planning

The existing Project Site consists of improved segments of Railroad Avenue and Lyons Avenue roadways and undeveloped land to the east extending towards Dockweiler Drive. The west end of the Project Site encompasses portions of Newhall Creek. The portion of the Project Site that includes the intersection of Railroad Avenue and 13th Street is developed with existing road surface and an at grade crossing. The UP/Metrolink Railroad line crosses the Project Site east of the intersection of Railroad Avenue and Lyons Avenue Railroad and at the intersection of Railroad Avenue and 13th Street.

The portion of the Project Site to the east of the intersection of Railroad Avenue and Lyons Avenue is bounded by an industrial and commercial uses to the north, a landscape nursery to the south east, the Newhall Metrolink Station to the south and the Old Town Newhall Library and commercial uses to the west, across Railroad Avenue. The portion of the Project Site to the east of the intersection of Railroad Avenue is bounded by undeveloped land to the north, industrial and commercial uses to the east, Newhall Creek to the south and one-story commercial buildings to the west, across Railroad Avenue. Properties to the north of the Project Site are zoned MXN. Properties to the south of the Project Site are zoned Specific Plan (SP). Properties to the east of the Project Site are zoned Urban Residential 1 (UR1), Urban Residential 3 (UR3) and Public Institutional (PI). Properties to the west, across Railroad Avenue are zoned SP.

The General Plan land use designation of the Project Site is Mixed Use Neighborhood (MXN). The General Plan states that areas with a MXN designation should be developed to create neighborhoods that combine residential uses with complementary commercial services, including retail and office uses. MXN zoned areas should be located in close proximity to public transit and provide roadway and trail linkages to adjacent development. The Project Site is located adjacent to the Old Town Newhall Specific Plan area, the Placerita Canyon Special Standards District (PCSSD), and is part of the North Newhall Area (NNA), which includes a Mixed-Use Overlay Zone. In addition, the Project Site is located in the City's Compass Blueprint Concept Plan (Concept Plan) area, which is a conceptual land use and circulation plan that guides development in the Newhall community north of Old Town Newhall and east of Railroad Avenue. Regional plans to which development must conform include the Southern California Association of Government's (SCAG) Regional Comprehensive Plan Guide (RCPG) and the South Coast Air Quality Management District's (SCAQMD) Air Quality Management Plan (AQMP).

The City has identified the extension of Lyons Avenue to Dockweiler Drive, across the existing Metrolink line, as one of five key transportation projects. The extension of Dockweiler Drive is identified in the Circulation Element as a major new roadway. The alignment is part of the City's current General Plan and consistent with the goals of the Specific Plan, Santa Clarita Valley Consolidated Traffic Model (SCVCTM), and the Concept Plan. The extension would provide a connection from Railroad Avenue to Sierra Highway. Construction of the extension would include a new four-lane highway, connecting Dockweiler Drive from Railroad Avenue to Leonard Tree Lane.

Noise

Ambient noise levels within the Project Area range from 56.6 dBA Leq at the residential roadway on Aden Avenue to 72.3 to 76.3 dBA along Railroad Avenue at 13th Street and Lyons Avenue. Noise measurements recorded at Aden Avenue represent typical residential area noise volumes and were influenced by residential activities such as a residential construction remodel, barking dogs, a delivery truck and an airplane flying overhead. Noise levels along Railroad Avenue were slightly higher (72.3 to 76.3 dBA L_{eq}), and were attributable to the roadway volumes.

Existing roadway noise levels for selected roadway segments in the vicinity of the Project Site were modeled based on average daily traffic volumes and the roadway noise prediction modeling methodology of the Federal Highway Administration (FHWA) Highway Noise Prediction Model (FHWA-RD-77-108). The modeling data is provided in Appendix I to this Draft EIR. The traffic volumes for each roadway segment are provided in the project Traffic Study (see Appendix I to this Draft EIR). The estimated average 24-hour hour community noise equivalent noise levels (CNEL) for the selected roadway segments are within a range of 64.5 to 75.3 dBA under existing roadway conditions.

Transportation and Circulation

The traffic analysis is based on the Traffic Study titled, *Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA*, prepared by David Evans & Associates, Inc. dated May 2, 2016. The scope and methodology of this analysis was determined in conjunction with the City of Santa Clarita. The complete Traffic Study is included in Appendix H to this Draft EIR. The extension of Lyons Avenue to Dockweiler Drive across the existing Metrolink line has been identified by the City as one of five key transportation projects. The alignment is part of the City's General Plan and consistent with the goals of the Old Town Newhall Specific Plan, Santa Clarita Valley Consolidated Traffic Model (SCVCTM), and the Compass Blueprint Plan.

Regional Access

Sierra Highway and the SR-14 (Antelope Valley) Freeway provide a boundary for the study area along the eastern side. Through traffic access on Placerita Canyon Road is restricted with a gate entrance west of Sierra Highway. Placerita Canyon Road currently is the primary connection to the Master's University and residents to the north. Newhall Avenue on the southern boundary of the study area provides a direct connection for cross valley traffic and connects Sierra Highway and Railroad Avenue. The UP/Metrolink Railroad line restricts access to the west with three existing at-grade railroad crossings located at 13th Street, Market Street, and Newhall Avenue.

Existing Street System

Dockweiler Drive is designated as an east-west Secondary Highway from Sierra Highway to Railroad Avenue on the City of Santa Clarita Circulation Map Joint Highway Plan. The existing portion of Dockweiler Drive consists of one and two lanes in each direction with a landscaped median and limited parking throughout the study area. Dockweiler Drive is used as the primary access to single- and multi-family residences.

State Route 14 Freeway (SR 14) provides regional access within the study area. The freeway is a four-lane (two in each direction) facility with interchange access at Placerita Canyon Road and Newhall Avenue.

Lyons Avenue is designated as an east-west major highway east of Railroad Avenue and Secondary Highway west of Railroad Avenue on the City of Santa Clarita Circulation Map Joint Highway Plan. Three lanes in each direction are provided with traffic signals and left turn channelization at major intersections.

Newhall Avenue is designated as a north-south secondary highway from Lyons Avenue to Railroad Avenue with one lane in each direction. From Railroad Avenue to SR-14, Newhall Avenue is designated as a major highway with three northbound lanes and three southbound lanes south of Railroad Avenue. Newhall Avenue roadway designation is identified on the City of Santa Clarita Circulation Map Joint Highway Plan.

Railroad Avenue (formerly San Fernando Road) is a north-south major highway from Magic Mountain Parkway to Lyons Avenue and a secondary highway from Lyons Avenue to Newhall Avenue. This roadway provides two lanes in each direction and limited parking throughout the study area. Railroad Avenue roadway designation is identified on the City of Santa Clarita Circulation Map Joint Highway Plan.

Sierra Highway is an old alignment of SR-14 from Los Angeles to Mojave. It is designated as a north-south major highway on the City of Santa Clarita Map Joint Highway Plan. It is a four lane (two in each direction) with traffic signals and left turn channelization at major intersections.

Placerita Canyon Road is an east-west local roadway. This roadway provides a gate at the eastern entrance. The gate provides restrictive access to residents of the Placenta Canyon neighborhood.

13th Street is an east-west unimproved local roadway. This roadway provides access to The Master's University and the Placenta Canyon neighborhood via its intersection with Railroad Avenue. One lane is provided in each direction.

Existing Transit Service

The Santa Clarita Valley's circulation system is a comprehensive transportation network of roadways, multi-use trails, bicycle paths, bus transit, and commuter rail. This network provides mobility options to Santa Clarita Valley residents and businesses. A major component in the development of the Santa Clarita Valley is the inclusion of alternative travel modes and support facilities. These facilities include efficiency and capacity of existing systems, by promoting mixed-use development near transit facilities. Bicycle lanes and accessibility of bike paths are a fundamental component to a comprehensive transportation network.

Existing Peak Hour Levels of Service

The level-of-service (LOS) is based on the average delay of vehicles at the intersections. Table 4.9-2, of Section 4.9, Transportation and Traffic, provides the LOS thresholds for roundabout intersections per the

HCM 2010 methodology. The City of Santa Clarita preferred maximum acceptable level of service on arterial roads is LOS E. The City of Santa Clarita desired maximum acceptable level of service on residential neighborhood roads is LOS C or better. Under existing conditions, most intersections are operating at LOS E or better. There are two intersections that are currently operating at LOS F, they are: Sierra Highway and SR-14 Southbound Ramps and SR-14 Southbound Ramps and Newhall Avenue.

3.3 CUMULATIVE PROJECTS

CEQA requires that Environmental Impact Reports analyze "cumulative impacts," defined in CEQA Guidelines Section 15355 as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." In addition, CEQA Guidelines Section 15130 indicates that the analysis of cumulative impacts need not be as in-depth as what is performed relative to the proposed project, but instead is to "be guided by the standards of practicality and reasonableness." The cumulative impacts analysis considers the anticipated impacts of the Proposed Project along with reasonably foreseeable growth. According to CEQA Guidelines Section 15130(b)(1), reasonably foreseeable growth may be based on:[3]

- A list of past, present, and probable future projects producing related or cumulative impacts; and/or

- A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental planning document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact.

Cumulative study areas are defined based on an analysis of the geographical scope relevant to each particular environmental issue. Therefore, the cumulative study area and the applicable related projects for each individual environmental impact may vary. For example, a cumulative visual impact generally could only affect the area within the view of a project site, while a cumulative air quality impact could affect the entire South Coast Air Basin.

City of Santa Clarita - Projections for Population and Households

For purposes of the cumulative impact analysis, this Draft EIR references the City of Santa Clarita General Plan "One Valley One Vision," which provides a summary of growth projections for the Santa Clarita Valley. The Future Year 2035 traffic volumes were provided by the City of Santa Clarita using the Santa Clarita Valley Consolidated Traffic Model (SCVCTM) for the Buildout Year. Other Area Projects anticipated to be constructed by Year 2035 have been incorporated into the SCVCTM, and account for expected growth. The buildout includes construction of future roadways including Magic Mountain Parkway from Railroad Avenue to Via Princessa, and Via Princessa between Claibourne Lane and Sheldon Avenue, and Santa Clarita Parkway. The future buildout SCVTM model also includes the proposed conceptual development of the North Newhall Area.

[3] *Clarification based on Communities for a Better Environment v. California Resources Agency, 2002.*

With respect to growth projections for the Santa Clarita Valley, the Land Use elements notes that the projections generated from the traffic analysis zone (TAZ) analysis represent staff's best efforts to achieve a realistic vision of actual build-out potential for the planning area. In preparing the One Valley One Vision land use projections, staff acknowledged that portions of the planning area are already largely developed, and that the City's General Plan and the County's Area Plan are not based on a "clean slate" of vacant, undeveloped land. Existing uses and development patterns must be recognized in planning for projects and development of new uses. The methodology used by staff to develop these detailed demographic projections is discussed in further detail in the City's General Plan Land Use Element.

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4. ENVIRONMENTAL IMPACT ANALYSIS
1. AESTHETICS

4.1.1 INTRODUCTION

This section evaluates the potential impacts of the Proposed Project on aesthetics, views and vistas, visual character, and light and glare in the Project area. Aesthetics generally refers to visual resources and the quality of what can be seen, or overall visual perception of the environment, and may include such characteristics as building height and mass, development density and design, building condition (i.e., blight), ambient lighting and illumination, vegetation/landscaping, natural landforms, and open space. Views and vistas refer to visual access and obstruction of prominent visual features, including valued visual landmarks and panoramic vistas. Visual character may be defined by the different elements of natural features such as topography, geologic features, water features, or natural vegetation, or urban features such as land use patterns and density, urban form and design, building mass, and any historic resources within the locale. The analysis of light and glare impacts addresses the effects of nighttime illumination and daytime glare on adjacent land uses.

4.1.2 ENVIRONMENTAL SETTING

Existing Visual Characteristics and Views

The existing visual character of the project area is largely defined by a mix of natural and built features within the environment. The natural environment surrounding the Project Site at Lyons Avenue and Railroad Avenue, and the portion of the Project Site at Railroad Avenue and 13th Street, is composed of hillsides and ridgelines with diverse topography, open space, the Newhall Creek in the foreground, and scenic mountains and ridgelines in the background. The aesthetic features that characterize the project area includes the rural, equestrian-oriented residential community of Placerita Canyon, located east of the Project Site, and Old Town Newhall, located west of the Project Site, which is primarily developed with commercial retail land uses along Main Street and Lyons Avenue and multi-family and single-family residential uses north and south of Lyons Avenue. The Newhall Library is a prominent public building and architectural feature located on the north side of Lyons Avenue just to the west of the Project Site.

Views of the Project Site

The Project Site consists of improved roadway segments of Railroad Avenue and Lyons Avenue and undeveloped land with moderate to steep topography to the east extending towards Dockweiler Drive. The most prominent natural feature in the vicinity of Project Site is Newhall Creek and the southern ridgeline of Placerita Canyon. Newhall Creek, which has a north-south orientation within the area of the Project Site, is a prominent natural feature, but is predominately concealed from view by topography, the elevated railroad right of way, and natural vegetation. The east-west trending ridgeline located to the immediate south of the Project Site, which is identified in the City's General Plan as a significant ridgeline, extends from The Master's University upper campus parking lot at its highest point and gradually declines in elevation westward towards the Project Site. The location of the ridgeline relative to

the grading footprint of the proposed roadway alignment is identified in Figure 4.1-1, Significant Ridgelines. Within the confines of the Project Site, the elevation of the ridgeline is 1,280 feet above mean sea level (msl) at the approximate toe of the ridgeline to 1,339 msl at the western limit of the alignment where it connects to The Master's University segment of the future Dockweiler alignment. It should be noted that the eastern segment of the Dockweiler alignment was previously approved under a separate project entitlement for The Master's University in 2009, which included a Ridgeline Alteration Permit for the eastern segment of this ridgeline.[1]

With respect to natural scenic resources, two coast live oaks have been identified within this portion of the Project Site. (See Section 4.3 Biological Resources and Appendix D of this Draft EIR). Native oak trees are recognized as a visual aesthetic and natural resource protected under City of Santa Clarita Oak Tree Ordinance (Ordinance No. 89-10, passed by the City Council on April 25, 1989)and the City's Oak Tree Preservation and Protection Guidelines (adopted September 11, 1990). The City of Santa Clarita requires that all potential impacts to oak trees be preceded by an application to the City that includes a detailed oak tree report and that loss of or damage to protected oaks be mitigated at a minimum 2:1 ratio.

The Project Site is prominently visible from the Old Town Newhall area from Lyons Avenue and along Railroad Avenue (See Views 1 and 2 of Figure 4.1-2) and from several residential properties within Placerita Canyon near Aden Avenue and is intermittently visible from The Master's University, the Metrolink Station, recreation trails, located south and southeast of the Project Site, and from portions of Market Street, south of the Project Site (See Views 3 and 4 of Figure 4.1-2).

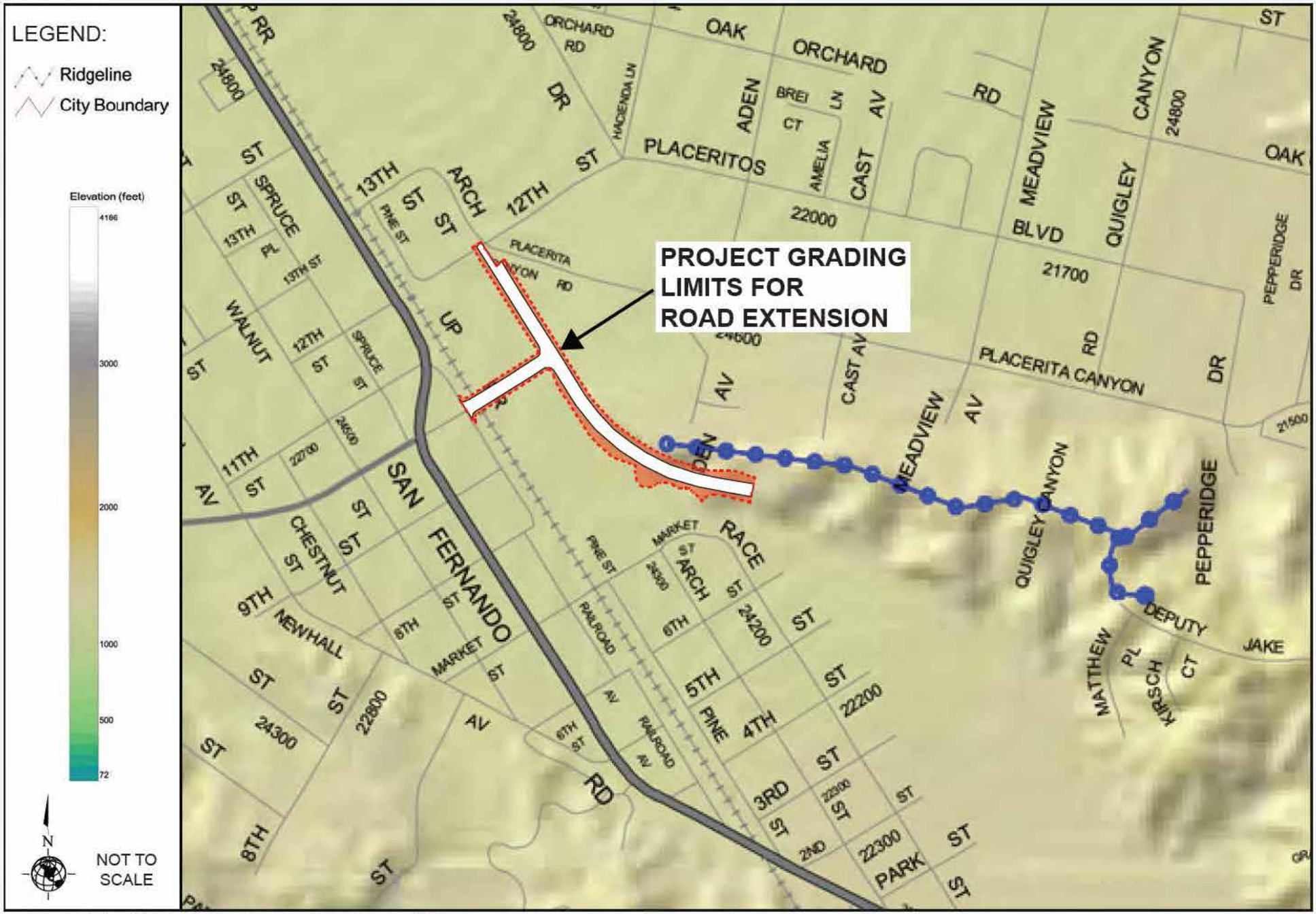
Proximately visible at the terminus of Lyons Avenue is an outdoor advertising billboard. (See View 1 in Figure 4.1-2). The billboard signage is approximately 10 feet by 30 feet in area and is mounted on a monopole approximately 20-25 feet above grade. The sign is illuminated during evening hours. The eastern sidewalk along Railroad Avenue is landscaped and separated from the elevated railroad right-of-way easement by a chain link fence (See Figure 4.1-2, View 2).

The Project Site is visible from Market Street to the south and the surface parking lot of the Jan Heidt Metrolink Station. From this vantage, the ridgeline and natural open space vegetation on the east side of Newhall Creek is proximately visible in the background. Views of the Project Site from this vantage point are depicted in Figure 4.2-2, Views 3 and 4.

Views of Surrounding Properties

The Project Site is located immediately southwest of the Placerita Canyon community and east of the Old Town Newhall community. Land uses in the vicinity of the Project Site include commercial and industrial uses to the north fronting 13th Street, 12th Street, and Arch Street, a landscape nursery to the south east,

[1] *The Master's College Master Plan Project Master Case No. 04-496: Master Plan 07-001, General Plan Amendment 04-009, Zone Change 04-006, Tentative Tract Map 66503, Conditional Use Permit 04-031, Ridgeline Alteration Permit 07-001, Hillside Review 04-010, Oak Tree Permit 04-050 Environmental Impact Report, SCH No. 2006101171.*



Source: City of Santa Clarita, Planning Department, 2006

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Figure 4.1-1
Significant Ridgelines

View 1: From the north side of Lyons Avenue looking southeast towards the proposed roadway alignment.

View 2: From the west side of Railroad Avenue looking southeast towards the proposed roadway alignment.

View 3: From the north side of Market Street looking northwest towards the proposed roadway alignment (Photo: 2014).

View 4: From the north side of Market Street looking north towards the proposed roadway alignment (Photo 2014).

View 5: From the west side of Railroad Avenue looking east.

Project Site Boundary # Photograph Locations

Source: Parker Environmental Consultants, 2016

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Figure 4.1-2
Existing Views of the Project Site
Views 1 through 5

View 6: From Newhall Creek within the proposed alignment looking northwest.

View 7: From Newhall Creek within the proposed alignment looking southeast.

View 8: From the Railroad Avenue at the terminus of Lyons Avenue looking southwest down Lyons Avenue.

View 9: From 13th Street east of the railroad tracks looking west.

View 10: From 13th Street east of the railroad tracks looking north.

Project Site Boundary # Photograph Locations

Source: Parker Environmental Consultants, 2016

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Figure 4.1-3
Existing Views From the Project Site
Views 6 through 10

the Newhall Metrolink Station to the south (across Newhall Creek) and the Old Town Newhall Library and commercial uses to the west, across Railroad Avenue. Newhall Creek, which has a north-south orientation within the area of the Project Site, is a prominent natural feature, but is predominately concealed from view by topography, the elevated railroad right of way, and natural vegetation. Views of surrounding land uses from the Project Site are depicted in Figure 4.1-3, Existing Views from the Project Site, Views 6 through 10.

Existing Viewsheds

The existing viewsheds in the project area along Railroad Avenue are defined primarily by commercial land uses in Old Town Newhall, to the west across Railroad Avenue, and background views of the Santa Susana Mountains to the south and west, the San Gabriel Mountains to the southeast and Sierra Pelona Mountains to the north. Viewsheds from the Project Site of the Placerita Canyon residential community and The Master's University are largely blocked by steep undeveloped terrain and a ridgeline to the east and southeast. Viewsheds to the north of the Project Site include relatively flat undeveloped vacant land followed by south-facing hills and ridgelines in the background.

North Facing Views Towards Sierra Pelona Mountains and Ridgelines

Views facing north of the Project Site, east of the intersection of Railroad Avenue and Lyons Avenue and the at-grade railroad crossing at the intersection of Railroad Avenue and 13th Street are characterized by ridgelines and hillsides and the Sierra Pelona Mountains in the background. Views looking north from the Project Site are depicted in Figure 4.1-3, View 9 and 10.

South Facing Views Towards San Gabriel Mountains

As depicted in Figure 4.1-2, View 2, the San Gabriel Mountains are visible from the Project Site to the southeast. The Metrolink station is also visible from the Project Site. Views looking south from the Project Site are largely blocked by the existing ridgeline to the southeast of the Project Site.

West Facing Views Towards Old Town Newhall

Old Town Newhall is visible from the Project Site at the intersection of Railroad Avenue and Lyons Avenue. Additionally, portions of Old Town Newhall are visible from the southeastern portion of the Project Site as the topography becomes steeper in elevation. As seen in View 8 of Figure 4.1-3, the Old Town Newhall Library and a mix of commercial uses along Lyons Avenue and Railroad Avenue are visible from the Project Site. The Santa Susana Mountains are visible in the background.

Existing Light and Glare Conditions

Sources of nighttime illumination in the project area include streetlights, architectural and security lighting, indoor building illumination (light emanating from the interior of structures which passes through windows), and automobile headlights, which is largely a result of the commercial uses fronting

Railroad Avenue, west of the Project Site. Light and glare from Old Town Newhall is largely blocked from land uses to the east by the steep terrain and hillsides east of Railroad Avenue.

Regulatory Setting

Aesthetics is addressed in various sections of the City of Santa Clarita's General Plan and Municipal Code. Each element of the General Plan contains goals, objectives, and policies to map out the development approach for the City. General aesthetic appearance goals, policies, and objectives are discussed below in the General Plan Conservation and Open Space Element and Municipal Code's Hillside Development Ordinance.

General Plan Conservation and Open Space Element

The Conservation and Open Space Element establish a framework to ensure preservation of an open space greenbelt around large portions of the Santa Clarita Valley, in addition to preserving water quality, historic and cultural resources, scenic views, and providing recreational facilities to enhance the quality of life for residents. Preservation of scenic and accessible open spaces around the urbanized portions of the Valley, and between neighborhoods and districts, contributes to community character and the distinctive sense of place. The Conservation and Open Space Element includes goals, objectives and policies for the following resources: soils and geological resources; water, including water supply, quality and conservation; biological resources; cultural and historical resources; air quality, energy conservation and climate change; parks, recreation, and trails; and open space conservation.

Hillside Development Ordinance

Section 17.51.080 of the Santa Clarita Municipal Code establishes the Hillside Development Ordinance in order to regulate the development and alteration of hillside areas, to minimize the adverse effects of hillside development and to provide for the safety and welfare of the citizens of the City of Santa Clarita while allowing for the reasonable development of hillside areas. The Hillside Development Ordinance includes the following objectives:

1. Provide hillside development standards to maximize the positive impacts of site design, grading, landscape architecture and building architecture, and provide development consistent with the goals and policies of the General Plan.

2. Maintain the essential natural characteristics of the area such as major landforms, vegetation and wildlife communities, hydrologic features, scenic qualities and open space that contribute to a sense of place.

3. Retain the integrity of predominant off-site and on-site views in hillside areas in order to maintain the identity, image and environmental quality of the City.

Projects with slopes that average 10% or greater qualify for hillside plan review. As the Proposed Project encompasses slopes of 10% or greater, the Proposed Project is subject to the provisions of this Ordinance.

Oak Trees

The City of Santa Clarita recognizes indigenous oak trees for their significant historical, aesthetic and environmental value. Native oak trees are protected under City of Santa Clarita Oak Tree Ordinance (Ordinance No. 89-10, passed by the City Council on April 25, 1989) and the City's Oak Tree Preservation and Protection Guidelines (adopted September 11, 1990). As discussed in further detail in Section 4.3 Biological Resources, the City of Santa Clarita requires that all potential impacts to oak trees be preceded by an application to the City that includes a detailed oak tree report and that loss of or damage to protected oaks be mitigated at a minimum 2:1 ratio.

Based upon the development and grading footprint of the proposed project as depicted in Figure 2.9, Proposed Site Plan at Lyons Avenue, it has been determined that the 2 oak trees that occur within the project limits would be required to be removed for project construction. The removal of or encroachment to oak trees as a result of project construction would be considered a significant impact under both the City of Santa Clarita and CEQA. Replacement oak trees would be planted in the number necessary to comply with the requirements stipulated in the Oak Tree Permit issued by the City. With approval of the required oak tree permits, and implementation of Mitigation Measure 4.3-7 in Section 4.3, Biological Resources, aesthetic impacts associated with the loss or pruning of any oak tree would be reduced to less than significant levels.

Scenic Highways

The Project Site is bounded by Lyons Avenue and Railroad Avenue to the west, 13th Street to north, and the proposed extension of the Dockweiler Drive realignment to the east. None of these roadways are designated as scenic highways. Furthermore, no historic or archaeological resources have been identified within the Project Site (See Section 4.4 Cultural Resources).

Beautification Master Plan

The Santa Clarita Beautification Master Plan contains Citywide design guidelines as well as specific guidelines tailored to maintain the aesthetic character of the communities of Canyon Country, Newhall, Saugus, and Valencia. The Beautification Master Plan addresses concepts for streetscape design, landscape enhancement, gateways, and monumentation and signage, on both a regional and a community scale. The Master Plan strives to maintain the identity of individual communities while unifying the entire City through design. The Beautification Plan identifies a goal of providing landscaped medians within major arterial roadways in order to provide aesthetic appeal, control vehicle circulation, calm traffic, and provide area for directional and traffic signs. The Beautification Plan identifies Lyons Avenue and Railroad Avenue as targeted areas for landscape median enhancement.

4.1.3 ENVIRONMENTAL IMPACTS

Thresholds of Significance

In accordance with Appendix G to the State CEQA Guidelines, a project would have a significant impact on the environment if it would:

(a) Result in a substantial adverse effect on a scenic vista; or

(b) Substantially damages scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway; or

(c) Substantially degrades the existing visual character or quality of the site and its surroundings; or

(d) Creates a new source of substantial light or glare which would affect day or nighttime views in the area.

Project Impacts

Temporary Construction Impacts

Existing views and aesthetic character of the Project Site and surrounding area would be adversely impacted by grading, stockpiles of debris and soil, building materials and construction equipment, all of which could occupy the field of view of passing motorists, pedestrians and nearby residents. Portions of the construction site would be visible from the residential properties on Aden Avenue and from passing motorists on Lyons Avenue, Railroad Avenue, Newhall Avenue, Market and Race Streets, and the Arch Street/12th Street/Placerita Canyon intersection. Thus, the existing visual character of the Project Site would be adversely impacted throughout the duration of the construction period. This impact would be considered significant but temporary. Additionally, construction impacts would be reduced to less than significant levels with the implementation of mitigation measure 4.1-1, which would require the contractor to erect screening materials such as fences or other closures to effectively block the line of sight of unsightly stockpiles of construction debris and soil, and construction equipment from neighboring residential properties.

Long Term Operational Impacts

Upon completion of the Proposed Project the aesthetic character of the Project Site and its immediate surroundings would be permanently altered. The proposed roadway alignment and associated infrastructure would include street widening for Lyons and Railroad Avenue, new at-grade crossing and a secondary east-west arterial roadway connecting Lyons Avenue to the proposed Dockweiler Drive extension, which would connect Dockweiler Drive to a new five-leg intersection or traffic circle at the Arch Street/12th Street/Placerita Canyon intersection. The Proposed Project also includes the closure of the at-grade crossing at the intersection of 13th Street and Railroad Avenue.

Scenic Vistas

Roadway Extension at Lyons Avenue and Railroad Avenue

Views of the intersection at Lyons Avenue and Railroad Avenue will be altered, as the Proposed Project includes street widening and re-profiling the intersection of Lyons Avenue and Railroad Avenue to allow the construction of a new SCRRA/UP railroad at-grade crossing east of Railroad Avenue and the addition of a new bridge crossing Newhall Creek. As illustrated in the visual simulation renderings depicted in Figure 4.1-4, Old Town Newhall, Railroad Avenue & Lyons Avenue Visual Simulation, and Figure 4.1-5, Race Street/5th Street Terminus Visual Simulation, views of the intersection of Lyons Avenue and Railroad Avenue and the hillside on the southeast portion of the Project Site will be altered by grading for the proposed roadway alignment.

Views of the Project Site at the intersection of Railroad Avenue and 13th Street will also be altered as a result of the closure of the at-grade railroad crossing. The Grading Plan and Grading Plan Profile for the roadway extension from Lyons Avenue are shown in Section 2.0, Project Description, Figures 15 and 16, respectively. Additionally, the proposed street widening of Lyons Avenue is depicted in Figure 2-17 in Section 2.0, Project Description.

The extension of the proposed roadway (Lyons Avenue) is designated as a Secondary Highway in the City of Santa Clarita's General Plan. This designation is also consistent with the approved Master's University Master Plan, in which Dockweiler Drive was re-designated as a 4-lane Secondary Highway. The roadway extension would be developed in accordance with the City's roadway standards and design guidelines to ensure the graded hillsides, medians, and walkways are landscaped in a manner that maintains the visual aesthetic quality and character of the City's roadway infrastructure. A visual simulation of the proposed Dockweiler Drive Extension just south of the proposed intersection of Arch Street, 12th Street, Placerita Canyon Road and proposed Dockweiler Drive is depicted in Figure 4.1-6. A shown in Figure 4.1-6, the proposed roadway will be a 2-lane facility with a 13-foot parkway on each side. With respect to scenic vistas within the project vicinity, impacts would be reduced to a less than significant impact with implementation of mitigation measure 4.1-2, which would ensure that the roadway median and contoured slopes along the roadway alignment are attractively landscaped and maintained in accordance with landscape plans to the satisfaction of the City Planning Department.

Closure of at-grade crossing at 13th Street and Railroad Avenue

Views of the Project Site at 13th Street and Railroad would be improved as the existing traffic signal for a T-intersection operation would be modified so that traffic to and from 13th Street to Railroad Avenue is closed and the at-grade crossing would be removed. New striping, signage and landscaping would be provided along 13th Street. The railroad crossing closure at 13th Street is depicted in Figure 2-10, 13th Street Crossing Closure. No adverse impacts with respect to views of or from the Project Site would occur as a result of the at-grade crossing at 13th Street.

BEFORE - LYONS AVENUE LOOKING NORTHEAST

AFTER - LYONS AVENUE LOOKING NORTHTEAST

Source: David Evans & Associates, Inc., May 2017.

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Figure 4.1-4
Old Town Newhall, Railroad Avenue & Lyons Avenue
Visual Simulation

BEFORE - LOOKING NORTH & NORTHEAST

AFTER - LOOKING NORTH & NORTHEAST

Source: David Evans & Associates, Inc., May 2017.

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Figure 4.1-5
Race Street / 5th Street Terminus
Visual Simulation

BEFORE - LOOKING SOUTH

AFTER - LOOKING SOUTH

ENLARGEMENT - LYONS AVENUE

Source: David Evans & Associates, Inc., May 2017.

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Figure 4.1-6
Placerita Canyon / 12th Street / Arch Street
Visual Simulation

Alteration of A Significant Ridgeline

Construction of the proposed roadway alignment will permanently alter a significant ridgeline as designated in the City of Santa Clarita General Plan. However, as noted above, the eastern segment of the Dockweiler alignment was previously approved under a separate project entitlement for The Master's University in 2009, which included a Ridgeline Alteration Permit for the eastern segment of this ridgeline.[2] As part of the approved entitlements for The Master's College Master Plan in 2008, the extension of Dockweiler Drive east of the Project Site was found to result in the permanent and irreversible grading and re-contouring of the ridgeline. As shown in Figure 4.1-1, the grading limits of the Proposed Project would retain the gradual elevation profile of the base of the ridgeline. Limited views of the altered portion of the ridgeline would be visible from limited points along the public rights-of-way along Market Street and Race Street to the south of the Project Site. (See Figure 4.1-5, Race Street/5th Street terminus Visual Simulation.) However, as noted in the visual simulation, much of the alteration of the existing ridgeline is within the Master's University property, which was approved and authorized under a separate entitlement and evaluated in a prior environmental impact report. As a project design feature the grading plan incorporates landform grading practices to blend the manufactured slopes and required drainage benches into the natural topography to the maximum extent feasible. Plant materials will be utilized to protect slopes from slippage and soil erosion and minimize the visual effects of grading and construction on a hillside area. With incorporation of the project design features to develop and improve a new roadway extension that is consistent with the City's roadway design standards, the Proposed Project would result in a less than significant impact with respect to the loss of an aesthetic natural feature.

Visual Character

The roadway portion of the Project Site from Lyons Avenue consists of largely undeveloped land that is surrounded by residential, commercial and industrial development. No buildings or development is proposed on the Project Site that would block existing views or substantially degrade the visual character of the existing site. Upon completion, Dockweiler Drive will be improved as a pedestrian, equestrian and bicycle friendly roadway, providing wide sidewalks, Class II bike lanes on each side, and a multi-purpose trail on the east side. Class II bike routes will provide a striped lane for one-way bike travel and will be marked with signs and pavement striping. Multi-purpose trails are to be unpaved and will be available for equestrian, hiking, and mountain bike use. These project features would increase accessibility to scenic natural resources including the Newhall Creek and surrounding ridgelines and mountains.

Additionally, the closure of the at-grade crossing at 13th Street would not create an adverse impact with respect to visual character in the project area. Therefore the Proposed Project would have a less than significant impact with respect to public scenic vistas.

[2] *Ibid.*

Roadway Light and Glare

Ambient nighttime lighting on the Project Site and in the vicinity is generated by sources that include streetlights, automobile headlights, and indoor/outdoor building lighting. The Project would introduce nighttime lighting to the Project Area, which will include pole-mounted streetlights at intersections, lighted bollards along Dockweiler Drive, flashing safety lighting for the proposed at-grade crossing, and would contribute to additional light and glare from the headlights of vehicles utilizing the roadway. Lighting associated with the Proposed Project uses is not anticipated to substantially impact any surrounding sensitive uses as the street lights would be installed with downward directional fixtures and would not create light trespass onto any adjacent properties. Light emanating from the Proposed Project would be a relatively low-level indirect source of light illuminating the roadway and pedestrian walkways and would not adversely impact other properties in the immediate area. Additionally, the steep terrain and orientation of the southeastern potion of the Project Site at the road extension from Lyons Avenue would shield vehicle headlights, signage lighting and street lights from impacting the residential properties within the Placerita Canyon community to the east and along Market and Race Streets to the west. Overall, the Proposed Project would be expected to slightly increase ambient lighting in the area, but compliance with the design standards and requirements established in the Santa Clarita Municipal Code Section 17.51.050 would mitigate lighting impacts to a less than significant level.

4.1.4 CUMULATIVE IMPACTS

The Proposed Project will involve the grading and re-contouring the lower portion of a significant ridgeline for which a Ridgeline Alteration Permit has already been issued for the eastern segment of Dockweiler Drive, that was approved as part of the City's adopted Circulation Element of the General Plan and the approved land use entitlements under The Master's University Master Plan. While the Proposed Project would involve grading and re-contouring of a significant ridgeline, the Proposed Project is consistent with the General Plan and the previously approved Ridgeline Alteration Permit authorized under The Master's University Master Plan (*Master Case No. 04-496 and associated Ridgeline Alteration Permit 07-001*). Therefore, the Proposed Project would result in a less than significant cumulative aesthetic impact.

4.1.5 MITIGATION MEASURES

The following mitigation measures are recommended to ensure that less-than-significant impacts to visual resources would occur:

4.1-1 Construction equipment, debris, and stockpiled equipment shall be visually screened to effectively block the line-of-sight from the ground level of neighboring residential properties. Such barricades or enclosures shall be maintained in appearance throughout the construction period. Graffiti shall be removed immediately upon discovery.

4.1-2 The roadway median and contoured slopes along the roadway alignment shall be attractively landscaped and maintained in accordance with landscape plans to the satisfaction of the City Planning Department.

4.1.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The Proposed Project would result in temporary adverse impacts to the aesthetic character of the Project Site and its surroundings during the construction period. Such impacts would be reduced to less than significant levels with the implementation of mitigation measure 4.1-1, above, which would require the contractor to erect screening materials such as fences or other closures to effectively block the line of sight of unsightly stockpiles of construction debris and soil, and construction equipment from neighboring residential properties. With mitigation, temporary aesthetic impacts would be reduced to less than significant levels.

With the incorporation of mitigation measures, impacts upon aesthetics, including scenic vistas and visual character would be less than significant.

4. ENVIRONMENTAL IMPACT ANALYSIS
2. AIR QUALITY

4.2.1 INTRODUCTION

This section examines the degree to which the Proposed Project may result in significant environmental impacts with respect to air quality, including short-term construction emissions occurring from activities such as site grading and haul truck trips, and long-term effects related to the changes in the roadway and vehicular circulation system. The analysis contained herein focuses on air pollution from two perspectives: maximum daily emissions and pollutant concentrations. As used in this study, the term "emissions" refers to the quantity of pollutant measured in pounds per day (ppd). The term "concentrations" refers to the amount of pollutant material per volumetric unit of air as measured in parts per million (ppm), parts per billion (ppb), or micrograms per cubic meter (μg/m3).

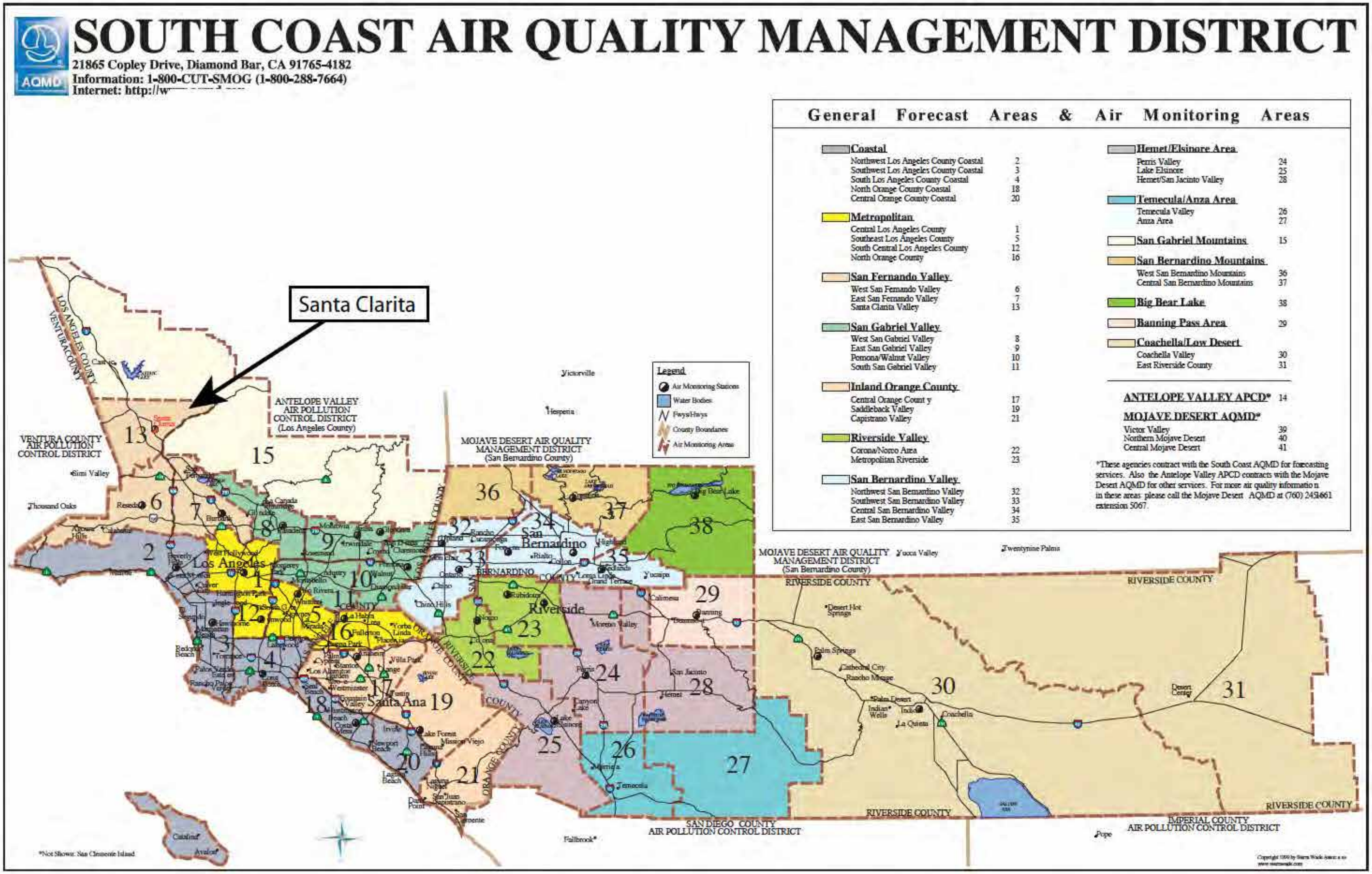
Documents used in the preparation of this section include, but are not limited to, the South Coast Air Quality Management District's (SCAQMD) CEQA Air Quality Handbook (1993), the 2016 Air Quality Management Plan (AQMP), the Air Quality Element of the City of Santa Clarita General Plan, and other applicable federal and state regulations and guidelines.

4.2.2 ENVIRONMENTAL SETTING

The Project Site is located within the South Coast Air Basin (Basin). As shown in Figure 4.2-1, SCAQMD Air Basin and SRA Location Map, on page 4.2-2, the Basin includes all of Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside Counties. The City of Santa Clarita is located within source receptor area (SRA) 13. The regional climate within the Basin is considered semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. The air quality within the Basin is primarily influenced by a wide range of emissions sources (*e.g.*, dense population centers, heavy vehicular traffic, and industries) and meteorology.

Air Pollutants

Air pollutant emissions within the Basin are generated by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at an identified location and are usually associated with manufacturing and industry. Examples of point sources include boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and produce many small emissions. Examples of area sources include residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and consumer products such as lighter fluid and hair spray. Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft,



Source: South Coast Air Quality Management District.

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Figure 4.2-1
SCAQMD Air Basin and Source Receptor Areas

ships, trains, race cars, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment, such as when fine dust particles are pulled off the ground surface and suspended in the air during high winds.

Both the federal and state governments have established ambient air quality standards for outdoor concentrations of various pollutants in order to protect public health and welfare. These pollutants are referred to as "criteria air pollutants" as a result of the specific standards, or criteria, that have been adopted for them. The national and state standards have been set at levels considered safe to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly with a margin of safety; and to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

The criteria air pollutants that are most relevant to current air quality planning and regulation in the Basin include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), respirable particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), sulfur dioxide (SO_2), and lead (Pb). In addition, toxic air contaminants (TACs) are of concern in the Basin. The characteristics of each of these pollutants are briefly described below.

- *O_3* is a highly reactive and unstable gas that is formed when reactive organic gases (ROGs) and nitrogen oxides (NO_x), both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. O_3 concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.

- *CO* is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest on winter mornings, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike O_3, motor vehicles operating at slow speeds are the primary source of CO in the Basin. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.

- *PM_{10}* and *$PM_{2.5}$* consist of extremely small, suspended particles or droplets 10 microns and 2.5 microns or smaller in diameter, respectively. Some sources of particulate matter, like pollen and windstorms, are naturally occurring. However, in populated areas, most particulate matter is caused by road dust, diesel soot, combustion products, abrasion of tires and brakes, and construction activities.

- *NO_2* is a nitrogen oxide compound that is produced by the combustion of fossil fuels, such as in internal combustion engines (both gasoline and diesel powered), as well as point sources, especially power plants. Of the seven types of NO_x compounds, NO_2 is the most abundant in the atmosphere. Because ambient concentrations of NO_2 are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO_2 than those indicated by regional monitors.

- *SO_2* is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO_2 oxidizes in the atmosphere, it forms sulfates (SO_4). Collectively, these pollutants are referred to as sulfur oxides (SO_x).

- *Pb* occurs in the atmosphere as particulate matter. The combustion of leaded gasoline is the primary source of airborne Pb in the Basin. The use of leaded gasoline is no longer permitted for on-road motor vehicles, so the majority of such combustion emissions are associated with off-road vehicles such as racecars. However, because leaded gasoline was emitted in large amounts from vehicles when leaded gasoline was used for on-road motor vehicles, Pb is present in many urban soils and can be re-suspended in the air. Other sources of Pb include the manufacturing and recycling of batteries, paint, ink, ceramics, ammunition, and the use of secondary lead smelters.

- *TACs* refer to a diverse group of air pollutants that are capable of causing chronic (i.e., of long duration) and acute (i.e., severe but of short duration) adverse effects on human health. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. TACs are different than "criteria" pollutants in that ambient air quality standards have not been established for them, largely because there are hundreds of air toxics and their effects on health tend to be felt on a local rather than regional scale.

Health Effects of Criteria Pollutants

The health effects of the criteria pollutants (i.e., O_3, CO, PM_{10} and $PM_{2.5}$, NO_2, SO_2, and Pb) and TACs are described below.[1] In addition, a list of the harmful effects of each criteria pollutant is provided in Table 4.2-1, Summary of Health Effects of Criteria Pollutants.

Ozone (O_3)

Individuals exercising outdoors, children and people with preexisting lung disease such as asthma and chronic pulmonary lung disease are considered to be the most susceptible sub-groups for ozone effects. Short-term exposures (lasting for a few hours) to ozone at levels typically observed in Southern California

[1] *The descriptions of the health effects of the criteria pollutants are taken from Appendix C (Health Effects of Ambient Air Pollutants) of the SCAQMD's "Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning" document.*

Table 4.2-1
Summary of Health Effects of Criteria Pollutants

Pollutants	Primary Health and Welfare Effects
Ozone (O_3)	• Aggravation of respiratory and cardiovascular diseases • Reduced lung function • Increased cough and chest discomfort
Carbon Monoxide (CO)	• Aggravation of some heart disease (angina) • Reduced tolerance for exercise • Impairment of mental function • Impairment of fetal development • Death at high levels of exposure
Particulate Matter and Fine Particulate Matter (PM_{10} and $PM_{2.5}$)	• Reduced lung function • Aggravation of respiratory and cardio-respiratory diseases • Increases in mortality rate • Reduced lung function growth in children
Nitrogen Dioxide (NO_2)	• Aggravation of respiratory illness
Sulfur Dioxide (SO_2)	• Aggravation of respiratory diseases (asthma, emphysema) • Reduced lung function
Lead (Pb)	• Behavioral and hearing disabilities in children • Nervous system impairment

Source: SCAQMD, Guidance Document for Air Quality Issues in General Plans and Local Planning, 2005.

can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Elevated ozone levels are also associated with increased school absences. In recent years, a correlation between elevated ambient ozone levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple sports and live in high ozone communities. Ozone exposure under exercising conditions is known to increase the severity of the above mentioned observed responses. Animal studies suggest that exposures to a combination of pollutants that include ozone may be more toxic than exposure to ozone alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.

Carbon Monoxide (CO)

Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of worsening oxygen supply to the heart.

Inhaled CO has no direct toxic effect on the lungs, but exerts its effect on tissues by interfering with oxygen transport by competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include patients with diseases involving heart and blood vessels, fetuses, and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes.

Reduction in birth weight and impaired neurobehavioral development has been observed in animals chronically exposed to CO resulting in COHb levels similar to those observed in smokers. Recent studies have found increased risks for adverse birth outcomes with exposure to elevated CO levels. These include pre-term births and heart abnormalities. Additional research is needed to confirm these results.

Particulate Matter (PM_{10} and $PM_{2.5}$)

A consistent correlation between elevated ambient particulate matter (PM_{10} and $PM_{2.5}$) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks, and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life-span, and lung cancer.

Daily fluctuations in fine particulate matter concentration levels have also been related to hospital admissions for acute respiratory conditions in children, school and kindergarten absences, a decrease in respiratory lung volumes in normal children, and increased medication use in children and adults with asthma. Recent studies show that lung function growth in children is reduced with long-term exposure to particulate matter.

The elderly, people with pre-existing respiratory or cardiovascular disease, and children appear to be more susceptible to the effects of PM_{10} and $PM_{2.5}$.

Nitrogen Dioxide (NO_2)

Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposures to NO_2 at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO_2 in healthy individuals. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups.

In animals, exposure to levels of NO_2 considerably higher than ambient concentrations results in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of ozone exposure increases when animals are exposed to a combination of O_3 and NO_2.

Sulfur Dioxide (SO_2)

A few minutes of exposure to low levels of SO_2 can result in airway constriction in some asthmatics, all of whom are sensitive to its effects. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, are observed after acute exposure to SO_2. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO_2.

Animal studies suggest that despite SO_2 being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract.

Some population-based studies indicate that the mortality and morbidity effects associated with fine particulate matter show a similar association with ambient SO_2 levels. In these studies, efforts to separate the effects of SO_2 from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically or whether one pollutant alone is the predominant factor.

Sulfates (SO_4)

Most of the health effects associated with fine particulate matter and SO_2 at ambient levels are also associated with SO_4. Thus, both mortality and morbidity effects have been observed with an increase in ambient SO_4 concentrations. However, efforts to separate the effects of SO_4 from the effects of other pollutants generally have not been successful.

Clinical studies of asthmatics exposed to sulfuric acid suggest that adolescent asthmatics are possibly a subgroup susceptible to acid aerosol exposure. Animal studies suggest that acidic particles such as sulfuric acid aerosol and ammonium bisulfate are more toxic than non-acidic particles like ammonium sulfate. Whether the effects are attributable to acidity or to particles remains unresolved.

Lead

Fetuses, infants, and children are more sensitive than others to the adverse effects of lead exposure. Exposure to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence levels. In adults, increased lead levels are associated with increased blood pressure.

Lead poisoning can cause anemia, lethargy, seizures, and death. It appears that there are no direct effects of lead on the respiratory system. Lead can be stored in the bone from early-age environmental exposure, and elevated blood lead levels can occur due to the breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland), and osteoporosis (breakdown of bony tissue). Fetuses and breast-fed babies can be exposed to higher levels of lead because of previous environmental lead exposure of their mothers.

Toxic Air Contaminants (TACs)

TACs are a broad class of compounds known to cause or contribute to cancer or non-cancer health effects such as birth defects, genetic damage, and other adverse health effects. Adverse effects from TACs may be both chronic and acute on human health. Acute health effects are attributable to sudden exposure to high quantities of air toxics. These effects include nausea, skin irritation, respiratory illness, and, in some cases, death. Chronic health effects can result from low-dose, long-term exposure from routine releases of air toxics. The effect of major concern for this type of exposure is cancer, which typically requires a period of 10 to 30 years after exposure to develop.

TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., benzene near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level.

Diesel exhaust, which is comprised of a complex mixture of gases, vapors, and fine particles, is the predominant TAC in urban air and is estimated to represent about two-thirds of the cancer risk from TACs (based on the statewide average). This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified by the CARB as TACs, and are listed as carcinogens either under California's Proposition 65 or under the federal Hazardous Air Pollutants programs. The United States Environmental Protection Agency (U.S. EPA) has adopted Ultra Low Sulfur Diesel (ULSD) fuel standards to reduce diesel particulate matter. As of December 10, 2010, only ULSD fuel is available for highway use nationwide. In California, which was an early adopter of ULSD fuel and engine technologies, 100 percent of the diesel fuel sold – downstream from refineries, up to and including fuel terminals that store diesel fuel – has been ULSD fuel since July 15, 2006.

Multiple Air Toxics Exposure Study

In May 2015, the SCAQMD published the MATES IV, Multiple Air Toxics Exposure Study (the "MATES IV Study"), which provides a comprehensive regional air toxics study for the entire South Coast Air Basin. The MATES IV Study is an update to previous air toxics studies in the Basin and is part of the SCAQMD Governing Board Environmental Justice Initiative. It consists of a one-year monitoring study, an updated air toxic emissions inventory, as well as updates to monitored and modeled exposures and risk estimated from air toxics. The objective of the Study is to update the characterization of ambient air toxic concentrations and potential exposures to air toxics in the Basin.

The MATES IV Study concluded that average risks throughout the Basin are dramatically reduced from previous studies. Generally, the risk from air toxics is lower near the coastline and increases inland, with higher risks concentrated near large diesel sources (e.g., freeways, airports, and ports). The average carcinogenic risk Basin-wide is about 420 cases per million over a 70-year duration. This compares to about 1,400 per million in the MATES II Study, and about 1,200 per million in the MATES III Study. For comparison purposes, Table 4.2-2, Modeled Air Toxics Risk Comparisons Using the CAMx Model, below, shows the estimated population weighted risk across the Basin for the MATES III and MATES IV periods. The population weighted risk was about 57% lower compared to the MATES III period (2005).[2]

The MATES-IV interactive map, published on the SCAQMD's web site, provides model-calculated cancer risks over the Basin on a 2 km by 2 km grid overlay. Based on this geo-referenced database, TAC-related cancer risk in the Newhall area is estimated at approximately 334 per million, which is below the average Basin-wide estimate of 420 per million.

[2] *SCAQMD, Final Draft Report, Multiple Air Toxics Exposure Study IV Model Estimated Carcinogenic Risk, at page ES-3.*

Table 4.2-2
Modeled Air Toxics Risk Comparisons Using the CAMx Model

	MATES IV	MATES III	Change
Population weighted risk (per million)	367	853	-57%

Source: SCAQMD, Final Draft Report, Multiple Air Toxics Exposure Study IV Model Estimated Carcinogenic Risk, at Table ES-2.

Regulatory Setting

Air quality within the Basin is addressed through the efforts of various federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. At the federal level air quality is governed by the Federal Clean Air Act (CAA). The CAA is administered by the U.S. EPA. In California, air quality is also governed by more stringent regulations under the California Clean Air Act (CCAA). The CCAA is administered by the CARB at the state level and by the Air Quality Management Districts at the regional and local levels. The agencies responsible for improving the air quality within the Basin are discussed below.

Federal Standards

The U.S. Environmental Protection Agency (U.S. EPA)

The U.S. EPA is responsible for setting and enforcing the federal ambient air quality standards for atmospheric pollutants. It regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. The U.S. EPA also has jurisdiction over emissions sources outside state waters (outer continental shelf) and establishes various emissions standards for vehicles sold in states other than California.

As part of its enforcement responsibilities, the U.S. EPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan (SIP). The SIP is a plan for each state which identifies how that state will attain and/or maintain the primary and secondary National Ambient Air Quality Standards (NAAQS) set forth in section 109 of the CAA. These plans are developed through a public process, formally adopted by the state, and submitted by the Governor's designee to the U.S. EPA. The CAA requires the U.S. EPA to review each plan and any plan revisions and to approve the plan or plan revisions if consistent with the CAA.

State Standards

California Air Resources Board (CARB)

The CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this

capacity, the CARB conducts research, sets California Ambient Air Quality Standards, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. The CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hair spray, aerosol paints, and lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. In some cases, the state standards are more restrictive than the federal standards established under the CAA. Table, 4.2-3, Ambient Air Quality Standards, above, identifies the applicable state ambient air quality standards alongside the federal standards for comparison.

Measurements of ambient concentrations of the criteria pollutants are used by the U.S. EPA and the CARB to assess and classify the air quality of each air basin, county, or, in some cases, a specific urbanized area. The classification is determined by comparing actual monitoring data with national and state standards. If a pollutant concentration in an area is lower than the standard, the area is classified as being in "attainment." If the pollutant exceeds the standard, the area is classified as a "non-attainment" area. If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated "unclassified."

Off-road diesel vehicles, which include construction equipment, are also regulated by the CARB for both in-use (existing) and new engines. Four sets of standards implemented by the CARB for new off-road diesel engines, known as Tiers. Tier 1 standards began in 1996. Tiers 2 and 3 were adopted in 2000 and were more stringent than the Tier 1 standards. Tier 2 and Tier 3 standards were completely phased in by 2006 and 2008, respectively. Tier 4 standards became effective in 2011. Tier 4 emission standards will reduce particulate matter and NO_X emissions of late model cars to 90 percent below current levels.

Since off-road vehicles that are used in construction and other related industries can last 30 years or longer, most of those that are in service today are still part of an older fleet that do not have emission controls. On July 26, 2007, the CARB approved a regulation, the "In-Use Off-Road Diesel Fueled Fleets Regulation" to reduce emissions from existing (in-use) off-road diesel vehicles that are used in construction and other industries. This regulation became effective on June 15, 2008, and sets an anti-idling limit of five minutes for all off-road vehicles 25 horsepower and up. It also establishes emission rates targets for the off-road vehicles that decline over time to accelerate turnover to newer, cleaner engines and require exhaust retrofits to meet these targets. Revised in October 2016, the regulation enforced off-road restrictions on fleets adding vehicles with older tier engines, and started enforcing beginning July 1, 2014. By each annual compliance deadline, a fleet must demonstrate that it has either met the fleet average target for that year, or has completed the Best Available Control Technology requirements (BACT). Large fleets have compliance deadlines each year from 2014 through 2023, medium fleets each year from 2017 through 2023, and small fleets each year from 2019 through 2028.

Table 4.2-3
Ambient Air Quality Standards

Air Pollutant	Averaging Time	CAAQS		NAAQS	
		State Standard	Attainment Status	Federal Standard	Attainment Status
O_3	1 Hour	0.09 ppm	Non-attainment	--	Non-attainment
	8 Hour	0.07 ppm		0.070 ppm [a]	
CO	1 Hour	20.0 ppm	Attainment	35.0 ppm	Attainment
	8 Hour	9.0 ppm		9.0 ppm	
NO_2	1 Hour	0.18 ppm	Attainment	0.10 ppm	Attainment
	Annual	0.030 ppm		0.053 ppm	
SO_2 [b]	1 Hour	0.25 ppm	Attainment	0.075 ppm	Attainment
	24 Hour	0.04 ppm		0.14 ppm	
Pb	30 Day	1.5 µg/m^3	Attainment	--	Attainment
	Calendar Quarter Year	--		1.5 µg/m^3	
	Rolling 3-Month Average	--		0.15 µg/m^3	
PM_{10}	24 Hour	50 µg/m^3	Non-attainment	150 µg/m^3	Attainment
	Annual	20 µg/m^3		--	
$PM_{2.5}$	24 Hour	--	Non-attainment	35 µg/m^3	Non-attainment
	Annual	12 µg/m^3		12 µg/m^3 [c]	

Notes:

[a] *On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.75 to 0.70 ppm.*

[b] *As of June 2010, the USEPA has established an hourly air quality standard for sulfur dioxide and revoked the previous 24-hour air quality standard. With these changes, the USEPA expects to identify or designate areas not meeting the new standard by June 2012.*

[c] *The national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m^3 to 12 µg/m^3 effective December 14, 2012.*

Sources: CARB, Ambient Air Quality Standards, May 4, 2016, website: http://www.arb.ca.gov/research/aaqs/aaqs2.pdf, accessed May 2016, CARB: State Area Designation Maps, current as of December 2015 (state and national), website: http://www.arb.ca.gov/desig/adm/adm.htm, accessed May 2016.

Regional Standards

Southern California Association of Governments (SCAG)

The Southern California Association of Governments (SCAG) is a council of governments for Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. SCAG is a regional planning agency and forum for regional issues relating to transportation, the economy and community development, and the environment.

Although SCAG is not an air quality management agency, it is responsible for developing transportation, land use, and energy conservation measures that affect air quality. SCAG's 2008 Regional Comprehensive Plan (2008 RCP) provides growth forecasts that are used in the development of air quality-related land use and transportation control strategies by the SCAQMD. The 2008 RCP is a framework for decision-making for local governments, assisting them in meeting federal and state mandates for growth management, mobility, and environmental standards, while maintaining consistency with regional goals regarding growth and changes through the year 2035, and beyond. The 2008 RCP is

laid out much like a General Plan and organizes recommended policies into nine chapters; land use, open space and habitat, water, energy, air quality, solid waste, transportation, security and emergency preparedness, economy and education. The 2008 RCP is closely tied to the 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), which is summarized below.

The 2016-2040 RTP/SCS, adopted on April 7, 2016, is the culmination of a multi-year effort involving stakeholders from across the SCAG Region. The 2016-2040 RTP/SCS provides a blueprint for improving quality of life for residents by providing more choices for where they will live, work, and play, and how they will move around. The 2016-2040 RTP/SCS encourages strategic transportation investments that add appropriate capacity and improve critical road conditions in the region. Improved placemaking and strategic transportation investments would help to improve air quality. Based on the regional growth projections in the 2016-2040 RTP/SCS, in 2012, the City of Santa Clarita had an estimated population of approximately 202,000 persons, approximately 67,300 residences, and 73,500 jobs. By the year 2040, SCAG forecasts the City of Santa Clarita will increase to 262,200 persons (an approximate 30% increase from the year 2012), approximately 90,300 residences (an approximate 34% increase from the year 2012), and approximately 95,900 jobs (an approximate 30% increase since year 2012) citywide. These growth projections form the basis for the strategies identified in the SCAQMD's 2016 Air Quality Management Plan (AQMP).

South Coast Air Quality Management District (SCAQMD)

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the Basin. To that end, the SCAQMD, a regional agency, works directly with SCAG, county transportation commissions and local governments, and cooperates actively with state and federal government agencies. The SCAQMD develops air quality related rules and regulations, establishes permitting requirements, inspects emissions sources, and provides regulatory enforcement through such measures as educational programs or fines, when necessary.

The SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources to meet federal and state ambient air quality standards. SCAQMD has responded to this requirement by preparing a series of AQMPs. The most recent AQMP was adopted by the Governing Board of the South Coast Air Quality Management District (SCAQMD) on March 3, 2017 ("2016 AQMP"). The 2016 AQMP represents a thorough analysis of existing and potential regulatory control options, includes available, proven, and cost-effective strategies, and seeks to achieve multiple goals in partnership with other entities promoting reductions in greenhouse gasses and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. The 2016 AQMP recognizes the critical importance of working with other agencies to develop funding and incentives that encourage the accelerated transition to cleaner vehicles, and the modernization of buildings and industrial facilities to cleaner technologies in a manner that benefits not only air quality, but also local businesses and the regional economy. In addition, the Southern California Association of Governments (SCAG) recently approved their 2016 RTP/SCS that include transportation programs, measures, and strategies generally designed to reduce vehicle miles traveled (VMT), which are contained within baseline emissions inventory in the 2016 AQMP. The transportation strategy and transportation control measures (TCMs),

included as part of the 2016 AQMP and SIP for the South Coast Air Basin, are based on SCAG's 2016 RTP/SCS and Federal Transportation Improvement Program (FTIP). For purposes of assessing a project's consistency with the AQMP, projects that are consistent with the growth forecast projections of employment and population forecasts identified in the RTP/SCS are considered consistent with the AQMP, since the growth projections contained in the RTP/SCS form the basis of the land use and transportation control portions of the AQMP.

The future air quality levels projected in the 2016 AQMP are based on several assumptions. For example, the SCAQMD assumes that general new development within the Basin will occur in accordance with population growth and transportation projections identified by SCAG's 2016-2040 RTP/SCS. The 2016 AQMP also assumes that general development projects will include feasible strategies (i.e., mitigation measures) to reduce emissions generated during construction and operation in accordance with SCAQMD and local jurisdiction regulations, which are designed to address air quality impacts and pollution control measures. The 2016 AQMP incorporates new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling. General development projects would be affected in the form of any applicable rules and regulations – if any – that are adopted as a result of the 2016 AQMP. While economic growth for the region is desirable, it presents a challenge to air quality improvement efforts since the projected growth could offset the impressive progress made in reducing VOC, NOx, and PM2.5 emissions through adopted regulations. Meeting the U.S. EPA's current and more-stringent future air quality standards will require the continuation of emission reduction efforts from all levels of government.

In addition to the AQMP, the SCAQMD has prepared the *CEQA Air Quality Handbook* (1993) to assist lead agencies, as well as consultants, project proponents, and other interested parties, in evaluating potential air quality impacts of projects and plans proposed in the Basin. The AQMD is in the process of developing an *"Air Quality Analysis Guidance Handbook"* to replace the CEQA Air Quality Handbook approved by the AQMD Governing Board in 1993.

Among the SCAQMD rules applicable to the Proposed Project are Rule 403 (Fugitive Dust), Rule 1108 (Cutback Asphalt) and Rule 1108.1 (Emulsified Asphalt), and Rule 1120 (Asphalt Pavement Heaters). Rule 403 requires the use of stringent best available control measures to minimize PM_{10} emissions during grading and construction activities. Rules 1108 and 1108.1 would limit the VOC content of asphalt materials. Rule 1120 would place restrictions on the use of asphalt pavement surface heaters and asphalt heater-remixers for the purpose of maintaining, reconditioning, reconstructing, or removing asphalt pavement. Additional details regarding these rules are presented below.

- **Rule 403 (Fugitive Dust):** This rule requires fugitive dust sources to implement Best Available Control Measures for all sources and all forms of visible particulate matter are prohibited from crossing any property line. SCAQMD Rule 403 is intended to reduce PM_{10} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust (see also Rule 1186).

- **Rule 1108 (Cutback Asphalt):** This rule restricts the use of any cutback asphalt containing more than 0.5 percent by volume of organic compounds which evaporate at 260 °C (500 °F) or lower. Rule 1108 is intended to reduce VOC emissions from the application of asphalt.
- **Rule 1108.1 (Emulsified Asphalt):** This rule restricts the use of any emulsified asphalt containing organic compounds which evaporate at 260 °C (500 °F) or lower. Rule 1108.1 is intended to reduce VOC emissions from the application of asphalt.
- **Rule 1120 (Asphalt Pavement Heaters):** This rule restricts the use of asphalt pavement surface heaters or asphalt heater remixer for the purpose of maintaining, reconditioning, reconstructing or removing asphalt pavement. This rule is intended to reduce smoke and emissions which contain sulfur, VOCs, and other TACs.

Local Regulations

Local governments, such as the City of Santa Clarita, share the responsibility to implement or facilitate some of the control measures of the AQMP. These governments have the authority to reduce air pollution through local policies and land use decision-making authority. Specifically, local governments are responsible for the mitigation of emissions resulting from land use decisions and for the implementation of transportation control measures as outlined in the AQMP. The AQMP assigns local governments certain responsibilities to assist the SoCAB in meeting air quality goals and policies. In general, the first step towards assigning a local government's responsibility is accomplished by identifying the air quality goals, policies, and implementation measures in its general plan. The City of Santa Clarita has done this through its proposed General Plan Conservation and Open Space Element.

Through capital improvement programs, local governments can fund infrastructure that contributes to improved air quality, by requiring such improvements as bus turnouts, energy-efficient streetlights and synchronized traffic signals.[3] In accordance with the CEQA requirements and the CEQA review process, local governments assess air quality impacts, require mitigation of potential air quality impacts by conditioning discretionary permits, and monitor and enforce implementation of such mitigation.

Ambient Air Quality Conditions

Existing Regional Air Quality

Ambient air quality is determined primarily by the type and amount of pollutants emitted into the atmosphere, as well as the size, topography, and meteorological conditions of a geographic area. The Air Basin has low mixing heights and light winds, which help to accumulate air pollutants. The most current average daily emissions inventory for the entire Basin and the Los Angeles County portion of the Basin is summarized in Table 4.2-4, 2012 Estimated Annual Average Emissions.[4] As shown, exhaust emissions from mobile sources generate the majority of ROG, CO, NO_x, and SO_x emissions in the Basin and the Los Angeles County portion of the Basin. Area-wide sources generate the most airborne particulates (i.e., PM_{10} and $PM_{2.5}$) in both the Basin and Los Angeles County.

[3] *South Coast Air Quality Management District, CEQA Air Quality Handbook, (1993) 2-2.*
[4] *The estimated regional annual average emissions for 2013 through 2014 have not yet been published.*

Table 4.2-4
2012 Estimated Annual Average Emissions

Emissions Source	2012 Emissions in Tons per Day [a]					
	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
South Coast Air Basin						
Stationary (Point) Sources	104.3	48.5	55.2	10.1	20.8	13.6
Area-wide Sources	122.4	21.8	102.2	1.0	96.1	32.4
Mobile Sources	239.8	441.8	2,114.4	6.6	36.7	22.4
Natural (non-anthropogenic) Sources	164.5	4.4	301.1	2.3	30.1	25.5
Total Emissions	630.9	516.5	2,572.9	20.0	183.7	94.0
Los Angeles County - South Coast Air Basin						
Stationary (Point) Sources	68.27	40.88	42.21	9.26	22.74	12.05
Area-wide Sources	75.30	13.34	47.46	0.47	55.64	18.34
Mobile Sources	143.73	300.79	1,316.89	6.5	22.87	14.26
Total Emissions	287.29	355.0	1,406.57	16.22	101.25	44.66

Note: Data for 2013 through 2016 have not yet been published.
Sources: California Air Resources Board, Almanac Emission Projection Data (published in 2013), website: http://www.arb.ca.gov/ei/emissiondata.htm, accessed May 2016.

Existing Local Air Quality

The SCAQMD divides the Basin into 38 source receptor areas (SRAs) in which 38 monitoring stations track the various concentrations of air pollutants in the region. As shown in Figure 4.1.1, SCAQMD Air Basin and SRA Location Map, the Project Site is located within SRA 13, which covers the Santa Clarita Valley. SCAQMD air quality monitoring Station No. 090 is located at 22224 Placerita Canyon Road and is located within the boundaries of the Project Site's northern alignment of Dockweiler Drive extending to Arch Street. This station currently monitors emission levels of CO, NO_2, O_3, PM_{10}, $PM_{2.5}$, and VOC, Table 4.2-5, Summary of Ambient Air Quality in the Project Vicinity, identifies the national and state ambient air quality standards for the relevant air pollutants, along with the ambient pollutant concentrations that were measured for SRA 13 at the SCAQMD Station No. 090 from 2010 to 2013.[5]

[5] *The most current air quality data available pertaining to ambient pollutant concentrations over a three-year period provided by the SCAQMD is from 2010 to 2013.*

Table 4.2-5
Summary of Ambient Air Quality in the Project Vicinity

Air Pollutants Monitored Within SRA 13 Santa Clarita Valley Area	Year			
	2012	2013	2014	2015
O_3				
Maximum 1-hour concentration measured	0.134 ppm	0.134 ppm	0.137 ppm	0.126 ppm
Number of days exceeding national 0.12 ppm 1-hour standard (old)	6	2	2	1
Number of days exceeding State 0.09 ppm 1-hour standard	45	30	32	23
Maximum 8-hour concentration measured	0.112 ppm	0.104 ppm	0.110 ppm	0.108 ppm
Number of days exceeding national 0.075 ppm 8-hour standard (revised 8-hour ozone standard effective May 27, 2008)	57	40	45	37
Number of days exceeding State 0.07 ppm 8-hour standard	81	58	65	52
CO				
Maximum 1-hour concentration measured	--	--	3.0 ppm	1.2 ppm
Maximum 8-hour concentration measured	1.1 ppm	0.8 ppm	1.2 ppm	0.9 ppm
NO_2				
Maximum 1-hour concentration measured	66.1 ppb	65.4 ppb	57.7 ppb	64.6 ppb
Annual average	13.6 ppb	14.4 ppb	12.7 ppb	11.8 ppb
Does measured annual average exceed national 53.4 ppb annual average standard?	No	No	No	No
Does measured annual average exceed State 30 ppb annual average standard?	No	No	No	No
PM_{10}				
Maximum 24-hour concentration measured	37 $\mu g/m^3$	43 $\mu g/m^3$	47 $\mu g/m^3$	41 $\mu g/m^3$
Number of days exceeding national 150 $\mu g/m^3$ 24-hour standard	0	0	0	0
Number of days exceeding State 50 $\mu g/m^3$ 24-hour standard	0	0	0	0
Annual Arithmetic Mean (AAM)	19.6 $\mu g/m^3$	21.6 $\mu g/m^3$	23.2 $\mu g/m^3$	18.4 $\mu g/m^3$
Does measured AAM exceed State 20 $\mu g/m^3$ AAM standard?	No	Yes	Yes	No

Notes: ppm = parts by volume per million molecules of air; ppb = parts per billion per billion molecules of air; $\mu g/m^3$=micrograms per cubic meter.
Ambient air quality data for the year 2016 have not been published.
Source: SCAQMD, Historical Data by Year, website: http://www.aqmd.gov/home/library/air-quality-data-studies/historical-data-by-year, accessed June 2017.

Localized Carbon Monoxide Emissions

The SCAQMD recommends the use of CALINE4, a dispersion model for predicting CO concentrations, as the preferred method of estimating localized pollutant concentrations at sensitive receptors near congested roadways and intersections. For this analysis, localized CO concentrations were calculated based on a simplified CALINE4 screening procedure developed by the Bay Area Air Quality Management District and widely accepted by the SCAQMD for CEQA based analyses. The simplified procedure is intended as a screening analysis, which identifies a potential CO hotspot. This methodology assumes worst-case conditions and provides a screening of maximum, worst-case CO concentrations. The emission factors used in the analysis are from the latest CARB Emission Factors (EMFAC) model, EMFAC2011.

SCAQMD recommends an evaluation of potential localized CO impacts when volume to capacity (V/C) ratios are increased by two percent or more at intersections with a level of service (LOS) of C or worse, or when LOS changes from an A, B, or C to a D or worse. As shown in the Project Traffic Study, this criteria was met at 10 intersections under the Future With Project scenario, and 6 intersections under the Existing With Project scenario. Thus, existing CO concentrations have been estimated for all 10 corresponding intersections. The results of the existing CO concentration calculations are presented in Table 4.2-6, Existing (2015) Localized Carbon Monoxide Concentrations, for representative receptors located distances of 25 and 50 feet from each roadway. These sensitive receptor locations were selected because they represent locations where a person may be living or working for one to eight or more hours at a time. The national 1-hour CO ambient air quality standard is 35.0 ppm, and the State 1-hour CO ambient air quality standard is 20.0 ppm. The 8-hour national and State standards for localized CO concentrations are 9.0 ppm. As shown in Table 4.2-6, existing CO concentration levels at the study intersections currently do not exceed the national and State 1-hour and 8-hour CO standards.

Table 4.2-6
Existing Carbon Monoxide Concentrations

Intersection	Localized CO Concentrations					
	Roadway Edge		25 Feet		Exceed Standard?	
	1-Hour	8-Hour	1-Hour	8-Hour	1-Hour	8-Hour
1. Sierra Highway and SR-14 Southbound Ramps	3.4	1.8	2.9	1.4	No	No
2. Sierra Highway and Placerita Canyon Road	3.2	1.7	2.8	1.4	No	No
4. Sierra Highway and Dockweiler Drive	3.4	1.8	2.8	1.4	No	No
5. SR-14 Southbound Ramps and Newhall Avenue	3.6	1.9	3.0	1.5	No	No
6. Sierra Highway and Newhall Avenue	3.7	2.0	3.2	1.6	No	No
8. Valle Del Oro and Dockweiler Drive	2.4	1.1	2.2	1.0	No	No
11. Newhall Avenue and Lyons Avenue	2.7	1.2	2.4	1.0	No	No
12. Railroad Avenue and Lyons Avenue	3.5	1.9	3.0	1.5	No	No
15. Main Street and Newhall Avenue	3.5	1.8	2.8	1.4	No	No
16. Arch Street and 12th Street/Placerita Cyn Road	2.4	1.1	2.2	1.0	No	No

Source: Traffic data from David Evans & Associates Inc., Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA, May 2, 2016. See Appendix C for Air Quality Calculation Worksheets.

Sensitive Receptors

Local governments have a responsibility for determining land use compatibility in the case of sensitive receptors. For the purposes of a CEQA analysis, the SCAQMD considers a sensitive receptor to be a receptor such as residence, hospital, convalescent facility were it is possible that an individual could remain for 24 hours.[6] The SCAQMD has also defined the term sensitive receptor to include private homes, condominiums, apartments, and living quarters, schools, preschools, daycare centers, and health facilities such as hospitals or retirement and nursing homes, long term care hospitals, hospices, prisons, and dormitories or similar live-in housing.[7] According to the CEQA Air Quality Handbook (1993), ¼-

[6] *SCAQMD, Final Localized Significance Threshold Methodology, June 2003, Revised July 2008. (at p. 3-2)*

[7] *SCAQMD, Rule 1470 –Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines, amended May 4, 2012.*

mile is the distance which the SCAQMD uses in evaluating impacts upon sensitive receptors.[8] The following land uses have been identified as sensitive receptors within ¼ mile of the Project Site the Project area:

1) Single-family homes in Placerita Canyon on Aden Avenue (between Placeritos Boulevard and the Project Site), Placerita Canyon Road (between Arch Street and Meadview Avenue), Placeritos Boulevard (between Arch Street and Aden Avenue), Hacienda Lane (south of Oak Orchard Road), and Alderbrook Drive (south of Oak Orchard Road);
2) The Master's University Dormitory housing;
3) Single- and multi-family residential homes north of 4th Street and east of Railroad Avenue;
4) Single- and multi-family residential homes northwest of the Project Site generally bounded by Railroad Avenue to the east, 15th Street to the north, Newhall Street to the east, and 11th Street to the south; and
5) Newhall Elementary School.

A radius map identifying these sensitive receptors in proximity to the Project Site is presented in Figure 4.2-2, Air Quality Sensitive Receptor Map.

4.2.3 ENVIRONMENTAL IMPACTS

Thresholds of Significance

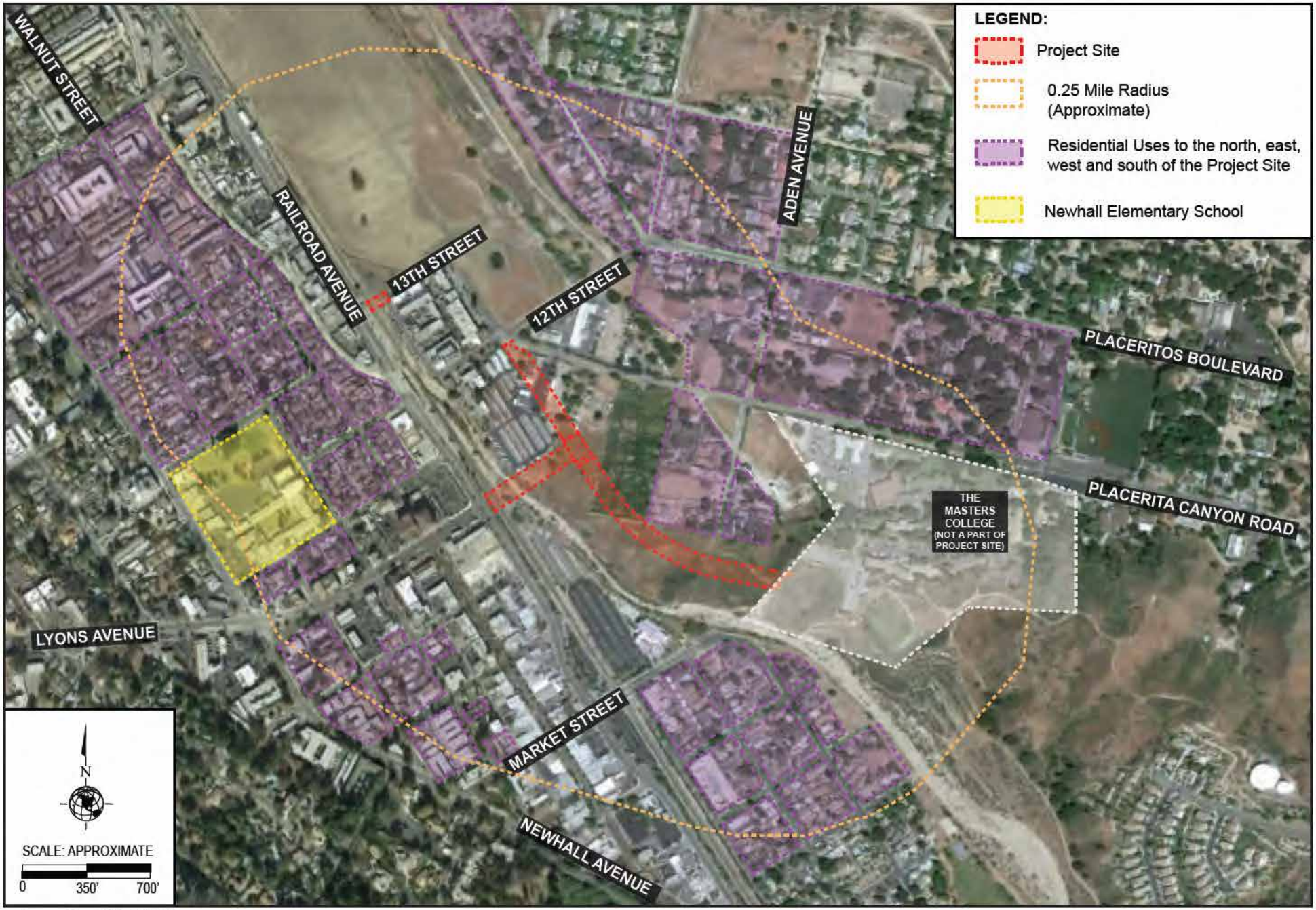
Appendix G of the State CEQA Guidelines

In accordance with guidance provided in Appendix G to the state CEQA Guidelines, the Project would have a significant impact on air quality if it would cause any of the following to occur:

(a) Conflict with or obstruct implementation of the applicable air quality plan;

(b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

[8] *SCAQMD, CEQA Air Quality Handbook (1993) (at pgs. 5-1, 5-7)*



Source: Google Earth, 2015

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Figure 4.2-2
Air Quality Sensitive Receptors Location Map

(c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including release in emissions which exceed quantitative thresholds for ozone precursors);

(d) Expose sensitive receptors to substantial pollutant concentrations; or

(e) Create objectionable odors affecting a substantial number of people.

Consistency with the Applicable AQMP

Violation of Standards or Substantial Contribution to Air Quality Violations

As the agency principally responsible for comprehensive air pollution control in the Basin, the SCAQMD recommends that projects should be evaluated in terms of air pollution control thresholds established by the SCAQMD and published in the CEQA *Air Quality Handbook*. These thresholds were developed by the SCAQMD to provide quantifiable levels to which projects can be compared. The most current significance thresholds are shown in Table 4.2-7, SCAQMD Air Quality Significance Thresholds.

The SCAQMD has adopted criteria for consistency with regional plans and the regional AQMP in its CEQA Air Quality Handbook. Specifically, the indicators of consistency are:

1) whether the project would increase the frequency or severity of existing air quality violations or cause or contribute to new air quality violations; and

2) whether the project would exceed the assumptions utilized in preparing the AQMP.

According to the guidance set forth in SCAQMD CEQA Air Quality Handbook, the consistency criteria for the first criterion pertains to pollutant concentrations rather than to total regional emissions. As such, an analysis of the Proposed Project's pollutant emissions relative to localized pollutant concentrations is used as the basis for evaluating Project consistency with the first criterion.

With regard to the second criterion, projects that are consistent with the regional population, housing, and employment forecasts identified by SCAG are considered to be consistent with the AQMP growth projections, since the forecast assumptions by SCAG forms the basis of the land use and transportation control portions of the AQMP. The Proposed Project does not include the development of any residential uses. Furthermore, because the Proposed Project consists of building out a roadway segment that was previously adopted as part of the City's Circulation Element of the General Plan, the Proposed Project would not be considered growth-inducing. Therefore, this criterion is not applicable to the Proposed Project.

Table 4.2-7
SCAQMD Air Quality Significance Thresholds

Mass Daily Thresholds [a]		
Pollutant	**Construction [b]**	**Operation [c]**
NOx	100 pounds/day	55 pounds/day
VOC	75 pounds/day	55 pounds/day
PM_{10}	150 pounds/day	150 pounds/day
$PM_{2.5}$	55 pounds/day	55 pounds/day
SO_x	150 pounds/day	150 pounds/day
CO	550 pounds/day	550 pounds/day
Pb	3 pounds/day	3 pounds/day
Toxic Air Contaminants and Odor Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
GHG	10,000 MT/yr CO2eq for industrial facilities	
Ambient Air Quality for Criteria Pollutants [d]		
NO_2 1-hour average annual arithmetic mean	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) and 0.534 ppm (federal)	
PM_{10} 24-hour average annual average	10.4 µg/m^3 (construction)[e] & 2.5 µg/m^3 (operation) 1.0 µg/m^3	
$PM_{2.5}$ 24-hour average	10.4 µg/m^3 (construction)[e] & 2.5 µg/m^3 (operation)	
SO_2 1-hour average 24-hour average	0.25 ppm (state) & 0.075 ppm federal – (99th percentile) 0.04 µg/m^3 (State)	
Sulfate 24-hour average	25 µg/m^3 (state)	
CO 1-hour average 8-hour average	SCAQMD is in attainment; project is significant if it causes or Contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)	
Lead 30-day Average Rolling 3-Month Average	1.5 µg/m^3 (state) 0.15 µg/m^3 (federal)	

Notes: ppm = parts per million by volume; µg/m^3 = micrograms per cubic meter

[a] *Source: SCAQMD CEQA Handbook (SCAQMD, 1993).*

[b] *Construction thresholds apply to both the South Coast Air Basin and Coachella Valley (Salton Sea and Mojave Desert Air Basins).*

[c] *For Coachella Valley, the mass daily thresholds for operation are the same as the construction thresholds.*

[d] *Ambient air quality thresholds for criteria pollutants based on SCQMD Rule 1303, Table A-2 unless otherwise stated.*

[e] *Ambient air quality threshold based on SCAQMD Rule 403.*

Source: SCAQMD Air Quality Significance Thresholds, Revision March 2015.

Cumulatively Considerable Net Increase of Criteria Pollutants

The SCAQMD's *CEQA Air Quality Handbook* identifies several methods to determine the cumulative significance of land use projects (i.e., whether the contribution of a project is cumulatively considerable). However, the SCAQMD no longer recommends the use of these methodologies. Instead, the SCAQMD recommends that any construction-related emissions and operational emissions from individual development projects that exceed the project-specific mass daily emissions thresholds identified above also be considered cumulatively considerable.[9] The SCAQMD neither recommends quantified analyses of the emissions generated by a set of cumulative development projects nor provides thresholds of significance to be used to assess the impacts associated with these emissions.

CO Hotspot Concentrations

The SCAQMD recommends that impacts to sensitive receptors be considered significant when a project generates localized pollutant concentrations of NO_2, CO, PM_{10}, or $PM_{2.5}$ at sensitive receptors near a Project Site that exceed the localized pollutant concentration thresholds or when a project's traffic causes CO concentrations at sensitive receptors located near congested intersections to exceed the national or state ambient air quality standards. The roadway CO thresholds would also apply to the contribution of emissions associated with cumulative development.

Localized Significance Thresholds

To assess localized impacts, SCAQMD developed mass-based localized significance thresholds (LSTs) that determine the amount of pounds of emissions per day that can be generated by a project that would cause or contribute to adverse localized air quality impacts. These localized thresholds, which are found in the mass rate look-up tables in the "Final Localized Significance Threshold Methodology" guidance document prepared by the SCAQMD,[10] apply to projects that are less than or equal to five acres in size and are only applicable to the following criteria pollutants: NO_x, CO, PM_{10}, and $PM_{2.5}$. LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standards, and are developed based on the ambient concentrations of that pollutant for each SRA. In terms of NO_x emissions, the two principal species of this pollutant are nitric oxide (NO) and NO_2, with the vast majority (95 percent) of the NO_x emissions being comprised of NO. However, because adverse health effects are associated with NO_2, the analysis of localized air quality impacts associated with NO_x emissions is focused on NO_2 levels. NO is converted to NO_2 by several processes, the two most important of which are (1) the reaction of NO with ozone, and (2) the photochemical reaction of NO with hydrocarbons. When modeling NO_2 emissions from combustion sources, the SCAQMD assumes that the conversion of NO to NO_2 is complete at a distance of 5,000 meters from the source. For PM_{10} LSTs, the thresholds were derived based on

[9] *White Paper on Regulatory Options for Addressing Cumulative Impacts from Air Pollution Emissions, SCAQMD Board Meeting, September 5, 2003, Agenda No. 29, Appendix D, p. D-3.*

[10] *SCAQMD, Final Localized Significance Threshold Methodology, June 2003, Revised July 2008.*

requirements in SCAQMD Rule 403 — Fugitive Dust. For $PM_{2.5}$ LSTs, the thresholds were derived based on a general ratio of $PM_{2.5}$ to PM_{10} for both fugitive dust and combustion emissions.

Exposure to Objectionable Odors

A significant impact may occur if objectionable odors occur that would adversely impact sensitive receptors. Odors are typically associated with industrial projects involving the use of chemicals, solvents, petroleum products, and other strong-smelling elements used in manufacturing processes, as well as sewage treatment facilities and landfills.

Project Impacts

Construction

Construction of the Proposed Project would occur over an approximate 12-month timeframe and would involve clearing, grading, excavation, trenching, and asphalt paving. Construction would require 4,990 cubic yards (cy) of cut, 2,760 cy of fill, and 2,230 cy of soil export associated with grading and excavation. During construction, on-site stationary sources, heavy-duty construction vehicles, construction worker vehicles, and energy use would generate emissions. Additionally, grading, excavation, and other construction activities on the Project Site would generate fugitive dust emissions. Construction activities and their associated air quality impacts would be short-term in nature and limited only to the period when construction activity is actively taking place on the Project Site. The Project Site is approximately 5 acres in size and consists of natural land area. For purposes of this analysis it is assumed that a maximum of approximately 2 acres would be disturbed on a daily basis during the development of the Proposed Project. Clearing and grubbing of the area is expected to begin in December of 2019 and last through the end of 2020.

Construction emission calculations were obtained from the Roadway Construction Emissions Model, Version 7.1.5.1, which was developed by the Sacramento Metropolitan Air Quality Management District (SMAQMD). The Roadway Construction Emissions Model is used to assess the emissions from linear construction projects, such as roadways and incorporates factors from California Air Resource Board's (CARB's) EMFAC2011 on-road vehicle emissions model and CARB's OFFROAD2011 off-road vehicle emissions model. Both EMFAC2011 and OFFROAD2011 contain the most up-to-date emission factors for on-road and off-road vehicles. Emission calculations and air quality modeling data is provided in Appendix C, Air Quality Worksheets. The emission calculations assume the use of standard construction practices, such as compliance with SCAQMD Rule 403 (Fugitive Dust), to minimize the generation of fugitive dust. Compliance with Rule 403 is mandatory for all construction projects. In the Road Construction Emissions Model, Version 7.1.5.1, the emission calculations take into account compliance with Rule 403 by incorporating watering of the site during construction.

Table 4.2-8, Estimated Construction Emissions, identifies the maximum daily emissions for each pollutant during each phase of project construction. As shown in Table 4.2-8, the Proposed Project's construction emissions would be below the SCAQMD's significance thresholds for all criteria pollutants. Therefore, the Proposed Project's regional construction air quality emissions would be less than significant.

Table 4.2-8
Estimated Peak Daily Construction Emissions

Emissions Source	Emissions in Pounds per Day				
	ROG	NO_x	CO	PM_{10}	$PM_{2.5}$
Grubbing/Land Clearing	1.5	15.1	12.0	20.7	4.8
Grading/Excavation	8.6	92.8	56.7	24.2	7.9
Drainage/Utilities/Sub-Grade	6.2	58.9	39.1	23.0	6.9
Paving	1.6	13.4	12.4	0.8	0.7
Total Emissions	***8.6***	***92.8***	***56.7***	***24.2***	***7.9***
SCAQMD Thresholds	75.00	100.00	550.00	150.00	55.00
Significant Impact?	No	No	No	No	No

Source: Road Construction Emissions Model, Version 7.1.5.1. Sacramento Air Quality Management District, updated 12/11/13. Calculation sheets are provided in Appendix C to this EIR.

AQMP Consistency

As noted above, the Proposed Project would not exceed the AQMD's significance thresholds for regional construction emissions and thus would not increase the frequency or severity of existing air quality violations or cause or contribute to new air quality violations within the Basin. The 2016 AQMP was prepared to accommodate growth, to reduce the high levels of pollutants within the area under the jurisdiction of SCAQMD, to return clean air to the region, and to minimize the impact on the economy. Projects that are considered consistent with the AQMP would not interfere with attainment because this growth is included in the projections utilized in the formulation of the AQMP. Therefore, projects, uses, and activities that are consistent with the applicable assumptions used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed the SCAQMD's recommended daily emissions thresholds.

The Proposed Project would complete a segment of an approved Secondary Highway of the Circulation Element of the General Plan which would improve traffic conditions associated with the future buildout of the Santa Clarita Valley. Reductions in congestion and vehicle miles travelled (VMT) will also occur from the addition of bicycle and pedestrian facilities. Class II bicycle lanes and 8 foot sidewalks will be constructed on both sides of the road resulting in reduced trip lengths from the current circuitous route and provide direct access from the residential and Master's University area to the Jan Heidt Newhall Metrolink Station and Old Town Newhall. These project features would also serve to provide alternative modes of transportation other than motor vehicles and would be consistent with the goals and objectives of the AQMP to reduce vehicle emissions throughout the Basin.

Consistency with the City of Santa Clarita Air Quality Element

Local jurisdictions, including the City, have the authority and responsibility to reduce air pollution through its police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions.

The City's Air Quality Element describes the local and regional setting, conditions and environment, which affect the air quality in the Valley. A detailed analysis of the consistency of the Proposed Project with relevant policies in the City's Air Quality Element is presented in Table 4.2-9, Project Consistency with Applicable Policies of the City's General Plan Air Quality Element. As shown in Table 4.2-9, the Project would be consistent with the applicable goals, objectives, and policies set forth in the City's Air Quality Element.[11] Therefore, impacts related to consistency with the applicable air quality policies in the General Plan would be less than significant.

Table 4.2-9
Project Consistency with Applicable Policies of the City's General Plan Air Quality Element

Policy	Consistency Analysis
Policy 5.1: Develop and implement traffic flow improvements in order to reduce congestion, conserve energy, and improve air quality.	**Consistent.** As discussed in Section 4.9 Transportation and Traffic, the Project's traffic would be mitigated to the maximum extent feasible through the implementation of mitigation measures 4.9-1 through 4.9-14, which all implement modifications in traffic signals and circulation aimed at reducing congestion in the Project area and in the region. The Proposed Project would reduce "cross valley" trip lengths and travel times, which would overall decrease vehicle related pollutants and thereby improve health and air quality. Therefore, the Proposed Project would be consistent with this policy.
Policy 5.2: Promote synchronization of traffic lights to reduce emissions from delays.	**Consistent:** As previously discussed, the Proposed Project's mitigation measures listed in Section 4.9 Transportation and Traffic would modify circulation and traffic signals in the Project area in order to reduce delays at intersections. Thus, the improvements in the local streets and traffic signals would be consistent with this policy.
Policy 5.3: Maintain adequate levels of service on roadways and at intersections to reduce emissions from delays.	**Consistent:** As shown in Tables 4.9-6 and 4.9-7 in the Transportation and Traffic section, lane modifications and traffic signal mitigation measures would improve the LOS on roadways with existing LOS E or LOS F. The mitigation measures would reduce delays at intersections with unacceptable levels of service and would reduce potential Project impacts. Thus, the Proposed Project would be consistent with this policy.
Policy 5.4: Provide Class One bike trails to increase capacity of on-street travel lanes.	**Consistent.** Potential bike lane connects are proposed from Dockweiler Drive to connect the Proposed Class I Bike path along Railroad Avenue. The design of the Proposed Project would encourage patrons to walk and bike to and from the Project Site, which would promote the use of bicycle transportation as an alternative to the vehicle. Thus, the Proposed Project would be consistent with this policy.
Policy 7.1: Encourage the use of low-polluting building and construction methods and materials.	**Consistent.** The Proposed Project would comply with SCAQMD Rule – Fugitive 403 – Fugitive Dust which would reduce any construction-related emissions as stated in mitigation measure 4.2-1. Additionally, mitigation

[11] *While the City's General Plan Air Quality Element has additional policies that are not listed in Table 4.2-9, many policies are directly applicable to the City operations rather than individual development projects in the private sector.*

Table 4.2-9
Project Consistency with Applicable Policies of the City's General Plan Air Quality Element

	measure 4.2-3 limits the type of off-road diesel powered equipment allowed for the Project's construction. The Proposed Project would also implement mitigation measure 4.2-4 which requires the use of low-VOC materials during the construction phase. Among the SCAQMD rules applicable to the Proposed Project are Rule 403 (Fugitive Dust), Rule 1108 (Cutback Asphalt) and Rule 1108.1 (Emulsified Asphalt), and Rule 1120 (Asphalt Pavement Heaters). Rule 403 requires the use of stringent best available control measures to minimize PM_{10} emissions during grading and construction activities. Rules 1108 and 1108.1 would limit the VOC content of asphalt materials. Rule 1120 would place restrictions on the use of asphalt pavement surface heaters and asphalt heater-remixers for the purpose of maintaining, reconditioning, reconstructing, or removing asphalt pavement. Therefore, with implementation of the mitigation measures listed below, the Proposed Project would be consistent with this policy.
Policy 13.1: Implement measures to reduce particulate emissions from paved and unpaved roads, parking lots, road and building construction, and manufacturing sites.	**Consistent.** Construction activities associated with the Project would be required to comply with SCAQMD Rule 403—Fugitive Dust, which requires appropriate dust control measures to be implemented during each phase of development. (See Mitigation Measure 4.2-1). Consequently, particulate emissions at the Project Site during construction of the Proposed Project would be minimized. The Proposed Project would not utilize any unpaved roads for access. During the earthwork phases of construction, the Project Site would be watered to suppress dust emissions as required through SCAQMD Rule 403. Additionally, as stated above, Rules 1108 and 1108.1 would limit the VOC content of asphalt materials. Rule 1120 would place restrictions on the use of asphalt pavement surface heaters and asphalt heater-remixers for the purpose of maintaining, reconditioning, reconstructing, or removing asphalt pavement. Therefore, the Proposed Project would be consistent with this policy.
Source: Policies applicable to the Project were derived from the City's General Plan Air Quality Element, Amended May 23, 2000; Project consistency analysis by Parker Environmental Consultants, 2016.	

Localized Construction Emissions

The Proposed Project would result in significant localized air emissions in close proximity to residential land uses within 100 meters of the Project Site on a temporary and intermittent basis during construction. The daily on-site construction emissions generated by the Project were analyzed against the SCAQMD's localized significance thresholds for the specified criteria pollutants to determine whether the Proposed Project's on-site construction emissions would cause or contribute to adverse localized air quality resulting in impacts to sensitive receptors. For purposes of estimating on-site construction emissions, Roadway Construction Emissions Model, Version 7.1.5.1, was used to estimate only the on-site emissions (*e.g.*,

excluding factors associated with off-site hauling and worker commuting emissions). Under this scenario, the localized air quality impacts were then compared to the SCAQMD's localized significance thresholds screening criteria for a 2-acre site, as it is anticipated that no more than 2 acres would be disturbed at the same time. The specific thresholds of significance for the sensitive receptors identified in Figure 4.2-2, Air Quality Sensitive Receptor Map, were derived from the Localized Significance Threshold's Appendix C mass look up rates, based on their location relative to the Proposed Project's grading footprint.

As shown in Table 4.2-10, localized NO_X and CO emissions would be below the significance thresholds at all sensitive receptor locations. However, localized thresholds would be exceeded for PM_{10} and $PM_{2.5}$ emissions at two locations: (1) the single family residential land uses located immediately north of the Project Site on Aden Avenue (within a proximity of 100 meters of the edge of the Project Site) and (2) the residential land uses within 100 meters south of the Project Site in the vicinity of Market Street and Race Street. Localized emissions would be below the stated thresholds for any land use located further than 100 meters from the Project Site. Therefore, localized air quality impacts resulting from construction activities would be considered significant.

Operational Emissions

Although the Proposed Project would not directly generate any new vehicle trips, the Proposed Project would result in changes to the traffic circulation in the vicinity and would alter the average daily traffic volumes and peak hour traffic volumes at local intersections. As such, a CO hotspot analysis was conducted for selected study intersections meeting the evaluation criteria discussed above utilizing the simplified CALINE4 screening model developed by the Bay Area Air Quality Management District (BAAQMD). The simplified model is intended as a screening analysis that identifies a potential CO hotspot. If a hotspot is identified, the complete CALINE4 model is then utilized to determine precisely the CO concentrations predicted at the intersections in question. This methodology assumes worst-case conditions (i.e., wind direction is parallel to the primary roadway and 90 degrees to the secondary road, wind speed of less than 1 meter per second and extreme atmospheric stability) and provides a screening of maximum, worst-case, CO concentrations. This model is utilized to predict existing and future CO concentrations 0 feet from the intersections in the study area based on projected traffic volumes from these intersections contained in the project traffic study. Interim year 2019 with-project conditions CO concentrations were calculated for peak hour traffic volumes for those intersections that are anticipated to operate at LOS D or worse, based on the traffic analysis for the project (See Section 4.9, Transportation and Traffic). Background (existing) ambient CO concentrations were also factored into the analysis. The results of these CO Hotspot concentration calculations are presented in Table 4.2-11, Existing Conditions Plus Project (2019) Carbon Monoxide Concentrations. As shown in Table 4.2-11, the screening calculations predict that, under worst-case conditions, future CO concentrations at each intersection would not exceed the state 1-hour and 8-hour standards with or without the development of the Proposed Project. As a result, no significant Project-related impacts would occur relative to future carbon monoxide concentrations. Therefore, the Proposed Project would have a less than significant impact with respect to this criterion.

Table 4.2-10
Localized On-Site Peak Daily Construction Emissions

Construction Activity	Distance From Project Site [c]	Total On-Site Emissions (Pounds per Day)							
		NO_x [b]		CO		PM_{10}		$PM_{2.5}$	
		88.1 lbs./day		52.6 lbs./day		24 lbs./day		7.8 lbs./day	
		[A] [a]	[B]	[A] [a]	[B]	[A] [a]	[B]	[A] [a]	[B]
1.Single-family homes in Placerita Canyon	40 m	163	No	877	No	6	**Yes**	4	**Yes**
2.Residential uses south of the Project Site	75 m	159	No	1,256	No	19	**Yes**	5	**Yes**
3.The Master's University Campus	150 m	172	No	1,787	No	32	No	9	No
4.Residential uses northwest of the Project Site	110 m	172	No	1,787	No	32	No	9	No
5.Newhall Elementary School	225 m	204	No	3,108	No	59	No	20	No

Explanation of Columns:

[A] LST: Localized Thresholds of Significance: Localized thresholds are expressed in terms of lbs./day.

[B] Significant Impact? Yes or No.

[a] *The localized thresholds for all receptors are based on the specified receptor distance and the mass look up rates identified in Appendix C of the Final Localized Significance Threshold Methodology (Revised July 2008) for SRA 13 (Santa Clarita Valley).*

[b] *The localized thresholds listed for NO_x in this table take into consideration the gradual conversion of NO_x to NO_2, and are provided in the mass rate look-up tables in the Final Localized Significance Threshold Methodology document. The analysis of localized air quality impacts associated with NO_x emissions is focused on NO_2 levels as they are associated with adverse health effects.*

[c] *Distances from the Project Site to the sensitive receptors are expressed in meters.*

Calculation sheets are provided in Appendix C to this EIR.

4.2.4 CUMULATIVE IMPACTS

Regional Emissions

Cumulative air quality impacts from construction and operation of the Proposed Project are based on SCAQMD guidelines, and are analyzed in a manner similar to Project-specific air quality impacts. Pursuant to the study methodology identified in the SCAQMD's CEQA Air Quality Handbook, projects that are within the project-level emission thresholds identified above should be considered less than significant on a cumulative basis. Individual development projects that generate construction or operational emissions that exceed the SCAQMD recommended daily thresholds for project-specific impacts would be considered to cause or contribute to a cumulatively considerable increase in emissions for those pollutants for which the Basin is in non-attainment. Thus, as discussed in the Section above, because the construction-related emissions associated with the Proposed Project would not exceed the SCAQMD's recommended thresholds, the Proposed Project's construction emissions would not be cumulatively considerable. Therefore, cumulative air quality impacts would be less than significant.

The Proposed Project would not generate any operational source emissions and thus would not contribute to cumulative emissions within the Basin. Therefore operational impacts would be less than significant on a cumulative basis.

Table 4.2-11
Existing Conditions Plus Project (2019) Carbon Monoxide Concentrations

Intersection	Localized CO Concentrations					
	Roadway Edge		25 Feet		Exceed Standard?	
	1-Hour	8-Hour	1-Hour	8-Hour	1-Hour	8-Hour
1. Sierra Highway and SR-14 Southbound Ramps	2.8	1.4	2.5	1.2	No	No
2. Sierra Highway and Placerita Canyon Road	2.9	1.4	2.6	1.2	No	No
4. Sierra Highway and Dockweiler Drive	2.7	1.3	2.4	1.1	No	No
5. SR-14 Southbound Ramps and Newhall Avenue	3.4	1.8	2.9	1.4	No	No
6. Sierra Highway and Newhall Avenue	3.1	1.5	2.7	1.3	No	No
8. Valle Del Oro and Dockweiler Drive	2.3	1.0	2.2	0.9	No	No
11. Newhall Avenue and Lyons Avenue	2.5	1.1	2.4	1.0	No	No
12. Railroad Avenue and Lyons Avenue	2.8	1.3	2.5	1.2	No	No
15. Main Street and Newhall Avenue	2.9	1.4	2.5	1.2	No	No
16. Arch Street and 12th Street/Placerita Cyn Road	2.2	1.0	2.1	0.9	No	No

Source: Traffic data from David Evans & Associates, Inc., Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA, May 2, 2016. See Appendix C for Air Quality Calculation Worksheets.

Localized Emissions

To assess the Proposed Project's cumulative contribution to CO concentrations, CO concentrations resulting from Future Year 2035 With-Project conditions were calculated for peak hour traffic volumes for those intersections that are anticipated to operate at LOS D or worse, based on the traffic analysis for the project (See Section 4.9, Transportation and Traffic). The results of these CO Hotspot concentration calculations are presented in Table 4.2-12, Future Conditions Plus Project (2035) Carbon Monoxide Concentrations. As shown in Table 4.2-12, the screening calculations predict that, under worst-case conditions, future cumulative CO concentrations at each intersection would not exceed the state 1-hour and 8-hour standards with or without the development of the Proposed Project. As a result, no significant cumulative impacts would occur relative to future carbon monoxide concentrations. Therefore, the Proposed Project would have a less than significant impact with respect to this criterion.

Table 4.2-12
Future Conditions Plus Project (2035) Carbon Monoxide Concentrations

Intersection	Localized CO Concentrations					
	Roadway Edge		25 Feet		Exceed Standard?	
	1-Hour	8-Hour	1-Hour	8-Hour	1-Hour	8-Hour
1. Sierra Highway and SR-14 Southbound Ramps	2.8	1.4	2.5	1.2	No	No
2. Sierra Highway and Placerita Canyon Road	3.1	1.6	2.8	1.3	No	No
4. Sierra Highway and Dockweiler Drive	3.1	1.5	2.6	1.3	No	No
5. SR-14 Southbound Ramps and Newhall Avenue	3.0	1.5	2.7	1.3	No	No
6. Sierra Highway and Newhall Avenue	3.0	1.5	2.7	1.3	No	No
8. Valle Del Oro and Dockweiler Drive	2.6	1.2	2.4	1.1	No	No
11. Newhall Avenue and Lyons Avenue	2.6	1.2	2.4	1.0	No	No
12. Railroad Avenue and Lyons Avenue	2.7	1.3	2.5	1.1	No	No
15. Main Street and Newhall Avenue	2.8	1.3	2.4	1.1	No	No
16. Arch Street and 12th Street/Placerita Cyn Road	2.3	1.0	2.2	0.9	No	No

Source: Traffic data from David Evans & Associates, Inc., Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA, August 8, 2017. See Appendix C for Air Quality Calculation Worksheets.

4.2.5 MITIGATION MEASURES

The following mitigation measures are recommended to ensure that the Proposed Project is constructed in compliance with the AQMD's Rule 403 for fugitive dust:

4.2-1 Prior to grading permit issuance, the Project contractor shall develop a Construction Emission Management Plan to minimize construction-related emissions. The Construction Emission Management Plan shall require the use of Best Available Control Measures, as specified in Table 1 of SCAQMD's Rule 403. The Construction Emission Management Plan shall include the following additional elements:

a. Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. When wind speeds exceed 15 miles per hour the operators shall increase watering frequency.

b. Active sites shall be watered at least three times daily during dry weather.

c. Suspend grading and excavation activities during windy periods (i.e., surface winds in excess of 25 miles per hour).

d. Suspend the use of all construction equipment during first-stage smog alerts.

e. Application of non-toxic chemical soil stabilizers or apply water to form and maintain a crust on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).

f. Application of non-toxic binders to exposed areas after cut and fill operations and hydroseeded areas.

g. Plant vegetative ground cover in disturbed areas as soon as possible and where feasible.

h. Operate street sweepers that comply with SCAQMD Rules 1186 and 1186.1 on roads adjacent to the construction site so as to minimize dust emissions. Paved parking and staging areas shall be swept daily.

i. Scheduling truck deliveries to avoid peak hour traffic conditions, consolidating truck deliveries, and prohibiting truck idling in excess of 5 minutes.

j. Reduce traffic speeds on all unpaved roads to 15 miles per hour or less.

k. Pave or apply gravel on roads used to access the construction sites when possible.

l. Minimize idling time either by shutting equipment when not in use or reducing the time of idling to 5 minutes as a maximum.

m. Limit, to the extent feasible, the hours of operation of heavy-duty equipment and/or the amount of equipment in use.

4.2-2 All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. A copy of each unit's certified tier specification, BACT documentations, and CARB, SCAQMD, or ICAPCD operating permit shall be provided at the time of mobilization of each applicable unit of equipment.

4.2-3 An information sign shall be posted at the entrance to each construction site that identifies the permitted construction hours and provides a telephone number to call and receive information about the construction project or to report complaints regarding excessive fugitive dust generation. Any reasonable complaints shall be rectified within 24 hours of their receipt.

4.2-4 The contractor shall utilize low-VOC content coatings and solvents that are consistent with applicable SCAQMD and ICAPCD rules and regulations.

4.2.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The Proposed Project would result in less-than-significant impacts associated with regional construction and operational air quality emissions. Localized emissions of PM_{10} and $PM_{2.5}$, however, would be significant and unavoidable.

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4. ENVIRONMENTAL IMPACT ANALYSIS
3. BIOLOGICAL RESOURCES

4.3.1 INTRODUCTION

The following section addresses the Proposed Project's potential to result in significant impacts upon biological resources, including vegetation and wildlife resources. The analysis presented below is based on the Biological Resources Assessment, Jurisdictional Delineation and Impact Assessment, Dockweiler Road Extension Project, Santa Clarita, California, prepared by Impact Sciences, Inc., dated April 2015 ("Biological Assessment"). The Biological Assessment is provided in Appendix D of this Draft EIR.

4.3.2 ENVIRONMENTAL SETTING

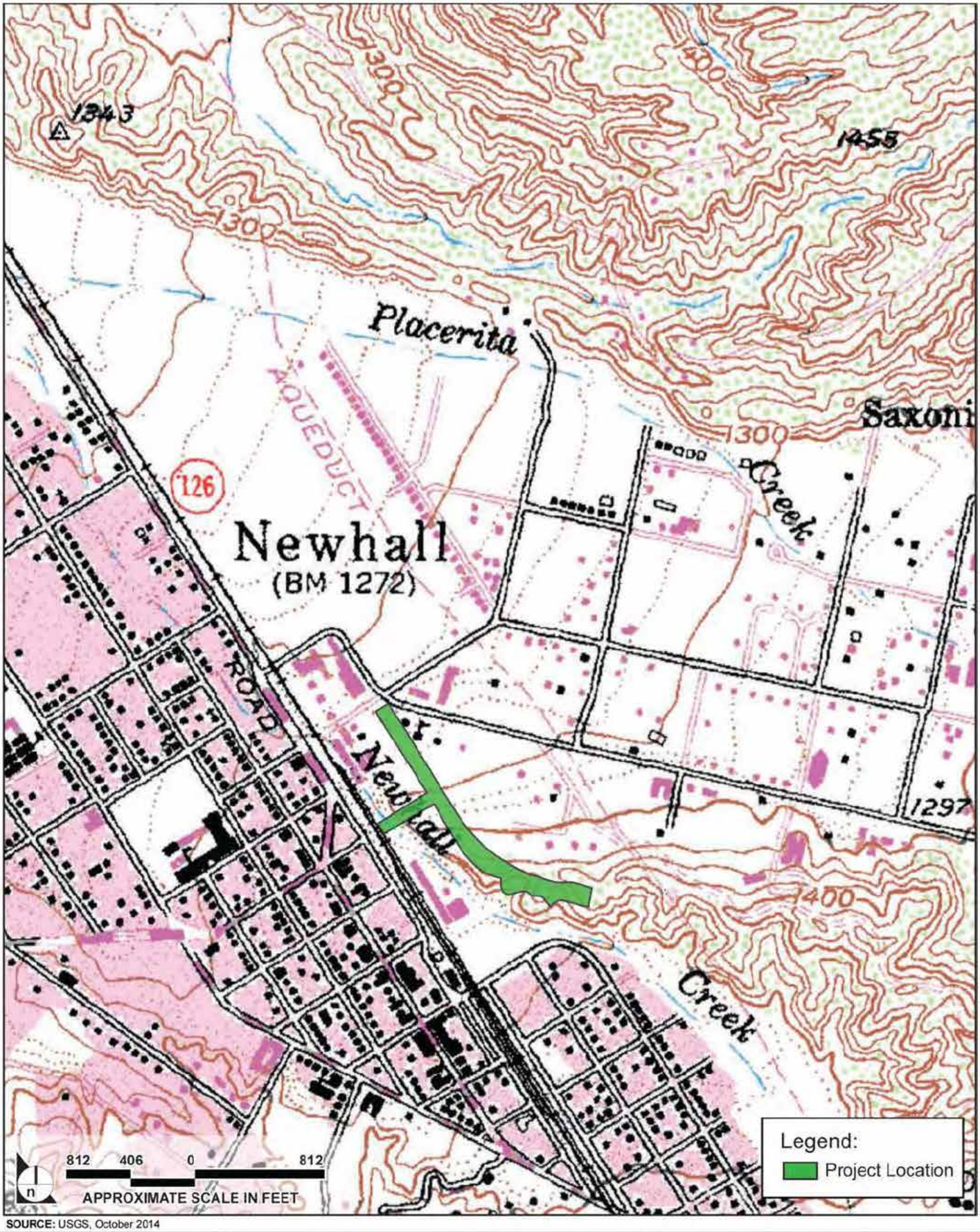
Description of the Study Area

The Project Site is located at the intersection of Lyons Avenue and Railroad Avenue and extends eastward towards the General Plan alignment for Dockweiler Drive towards The Master's University and northwest towards the intersection of 12th Street and Arch Street. The Project Site also includes related infrastructure improvements that will include the closure of an at-grade crossing at the intersection of Railroad Avenue and 13th Street.

Due to the irregular shape of the Proposed Project, several terms are used to describe the Project Site in the Biological Assessment. "Project Site" is defined as the disturbance area associated with the Proposed Project inclusive of the road right-of-way and adjacent areas disturbed by grading. "Project Area" includes the Project Site as well as a 200-foot buffer occurring on either side of the grading limit line. The "Project Region" includes the Newhall, California US Geologic Survey (USGS) 7.5-minute quadrangle, in which the Project Site is located, as well as the following eight surrounding quadrangles: Mint Canyon, Green Valley, Warm Springs Mountain, Whitaker Peak, Val Verde, Santa Susana, Oat Mountain and San Fernando.

Elevations on the Project Site range from approximately 1,260 to 1,285 feet and the Project Site totals approximately 6.67 acres. Approximately 2 acres of this area is already paved or otherwise developed. Figure 4.3-1, Project Location Map, depicts the Project Site location and topography.

Existing land uses in the vicinity of the Project Site include railroad tracks and a train station to the south, industrial and commercial development to the southwest, west, and northwest and north. Rural residential land uses occur to the northeast and undeveloped open space occurs east of the Project Site.



SOURCE: USGS, October 2014

Source: Impact Sciences, Inc., April 2015

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Figure 4.3-1
Project Location Map

Literature Search

The literature search conducted in the Biological Assessment indicated several special-status plant and wildlife species have been recorded from the Project Region. Only observed species and those with a moderate to high potential of occurrence on the Project Site or area are described in the Biological Assessment. However, all species defined within a 9-quad search, including the Project Site, are presented, and analyzed in the Special Status Species Tables (See Appendices A and B of the Biological Assessment).

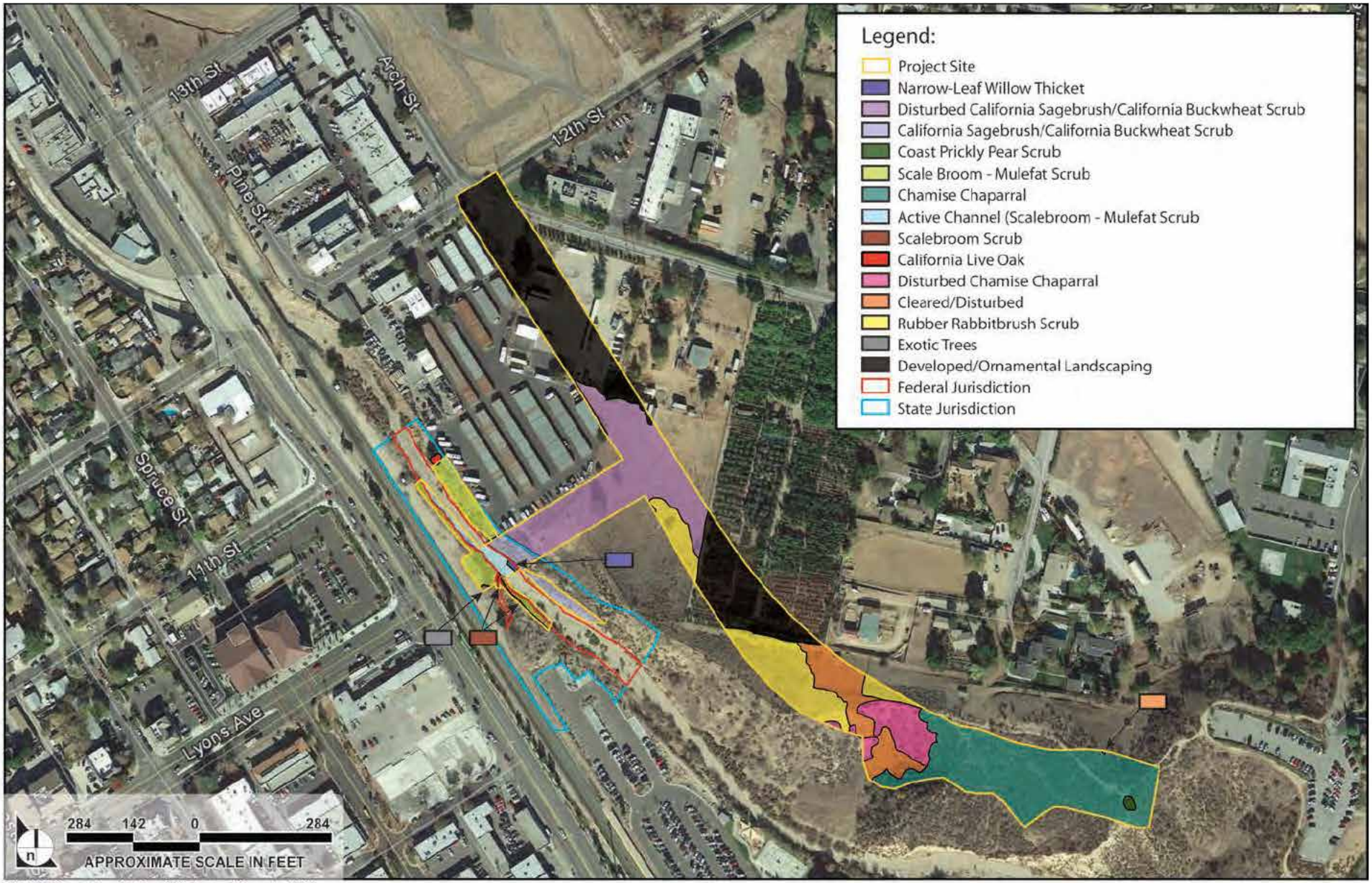
Special status species include species listed as Endangered, Threatened, or Rare under the federal or state Endangered Species Acts, Candidate Species for listing as Endangered or Threatened, California Fully Protected Species, and, pursuant to State CEQA Guidelines Section 15380(d), all other species tracked by the California Natural Diversity Database (CNDDB) which are considered by the California Department of Fish and Wildlife (CDFW) to be those species of greatest conservation concern. Plant species with a California Rare Plant Rank (Rank) of 1 (plants presumed extinct in California, or Rare, Threatened, or Endangered in California and elsewhere), Rank 2 (plants that are Rare, Threatened, or Endangered in California but more common elsewhere), or Rank 4 (plants of limited distribution in California) are included in this definition. Plant species with a Rare Plant Rank of 3 (plants for which insufficient information is available to determine their status) are not included in this definition. Species tracked by the CNDDB are listed in CDFW's lists of Special Plants and Special Animals.

Field Surveys

On June 17, July 17, and October 10, 2013, on-site field surveys were conducted by Impact Sciences biologists to delineate jurisdictional resources, inventory wildlife and plants, and map vegetation associations that occur within the project site and area. The entire project area was traversed along meandering transects. Vegetation associations were mapped in the field using aerial photographs and direct observation. For the jurisdictional delineation, features within the project area were assessed for indicators of stream, riparian, or wetland functions. Plant taxonomy used in the delineation followed the current flora of California.

Vegetation Communities

Seven distinct native vegetation communities were identified within the Project Site. In descending order of prevalence, these include chamise chaparral, rubber rabbitbrush scrub, scale broom/mulefat scrub, California sagebrush/California buckwheat scrub, scale broom scrub, coast prickly pear scrub, and narrow-leaf willow thicket. Developed and disturbed areas were also mapped, and include developed/ornamental landscaping, cleared/disturbed areas, exotic trees, and components of the native plant communities listed above. Each of these vegetation communities is shown in Figure 4.3-2, Vegetation Communities, and described below.



SOURCE: Google Inc., October 2014, Imagery December 2013

Source: Impact Sciences, Inc., 2015

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Figure 4.3-2
Vegetation Communities

Chamise Chaparral (*Adenostoma fasciculatum*) Alliance (1.64 acres): This is the dominant native vegetation association within the Project Site. This community is dominated by chamise along with gray California buckwheat (*Eriogonum fasciculatum* var. *polifolium),* occasional chaparral yucca (*Hesperoyucca whipplei*). This alliance dominates the southeastern portion of the Project Site and includes a small pocket of coast prickly pear cactus scrub (*Opuntia littoralis*).

Disturbed Chamise Chaparral (0.32 acre): An area of Disturbed Chamise Chaparral Alliance also occurs in the southeastern portion of the Project Site, adjacent to cleared/disturbed areas.

Rubber Rabbitbrush (*Ericameria nauseosa*) Scrub Alliance (0.74 acre): This Alliance is dominated by rubber rabbitbrush, along with occasional big sagebrush (*Artemisia tridentata*) and California buckwheat (*Eriogonum fasciculatum*) and occurs in three areas of the Project Site. Rubber rabbitbrush is a fast-growing shrub that develops quickly after disturbance.

Scalebroom–Mulefat Scrub (*Lepidospartum squamatum–Baccharis salicifolia* Shrubland Alliance) (0.43 acre): Scalebroom-mulefat scrub occurs on the banks (0.32 acre) and in the active channel of Newhall Creek (0.11 acre). Dominant plants present within this alliance include scalebroom and mulefat, occurring together in densities ranging from 10 percent to 40 percent cover. Figure 4.3-2 illustrates the separation, but for the purposes of this discussion, it is considered one habitat. Vegetation is sparse within the Newhall Creek channel. The most common species include scalebroom and mulefat, together resulting in less than 10 percent cover. With the exception of a small cluster of narrow-leaf willow (described below), the creek channel is characterized as a scoured sandy streambed.

California Sagebrush-California Buckwheat Scrub (A*rtemisia californica-Eriogonum fasciculatum* Shrubland Alliance) (0.18 acre): The area identified as California Sagebrush-California Buckwheat Scrub supports approximately 80 percent native cover where it occurs on a south-facing slope above Newhall Creek in the southwestern portion of the Project Site. Sawyer and Keeler-Wolf describe this plant community as *Artemisia californica-Eriogonum fasciculatum* Shrubland Alliance since the dominant shrub is California sagebrush and the codominant shrub is California buckwheat. Other shrubs present include chamise (*Adenostoma fasciculatum*), black sage (*Salvia mellifera*), non-native grasses and forbs such as wild oats (*Avena sp*.), and brome (e.g., *Bromus sp*.).

Disturbed California Sagebrush-California Buckwheat Scrub (1.28 acres): An additional area of disturbed California Sagebrush-California Buckwheat Scrub occurs near the center of the Project Site. This community has undergone disturbance in the recent past, evidenced by the sparse nature of the vegetation and influx of non-native species. Remnants of California sagebrush and California buckwheat remain, though the area is now co-dominated by non-native grasses and forbs including summer mustard (*Hirschfeldia incana*), tree tobacco (*Nicotiana glauca*) and yellow star thistle (*Centaurea solstitialis*). The weedy native cocklebur (*Xanthium strumarium*) is also present.

Scalebroom Scrub (*Lepidospartum squamatum* Shrubland Alliance) (0.02 acre): Areas dominated by scalebroom are present on both sides of Newhall Creek in the south-western portion of the Project Site

within a relatively flat area. This community includes a few scattered mulefat and big sagebrush (*Artemisia tridentata*) shrubs.

Coast Prickly Pear Scrub - *Opuntia littoralis* Shrubland Alliance (0.015 acre): One small patch of coast prickly pear is found in the extreme southeast extent of the property, surrounded entirely by chamise chaparral.

Narrow-Leaf (Sandbar) Willow Thickets - *Salix exigua* Shrubland Alliance (0.007 acre): Narrow-leaf willows occur in a small stand (25 feet x 12 feet) within the alignment of the proposed bridge. While this species is a wetland indicator, other wetland indicators are absent. The vegetation occurs on the opposite side of Newhall Creek from the ephemeral tributary, and likely receives periodic dry-season runoff from streets to the west.

Coast Live Oak (0.008 acre): Two coast live oak trees (*Quercus agrifolia*) occur within the Proposed Project area along with one blue elderberry (*Sambucus nigra ssp. caerulea*).

Developed/Ornamental Landscaping (1.98 acre): These areas support structures, pavement, or non-native ornamental landscaping associated with development. This is the second largest vegetation association within the Project Site. Two small clusters of non-native locust trees (*Robinia sp.*) are situated within the Project Site, between the railroad tracks and Newhall Creek in the southern portion of the Project Site, and occupy approximately 178 square feet (0.004 acre). These exotic (non-native) either volunteered or where planted. This species is considered undesirable because of its tendency to invade natural areas where it may out-compete native plants.

Cleared/Disturbed Areas (0.46 acre): This area occurs in several small locations generally in the southern portion of the Project Site. These areas are nearly devoid of vegetation, supporting mostly open bare soil.

Wildlife

During the surveys conducted for the Biological Assessment weather was warm and clear, providing conditions suitable for high wildlife activity. However, due to the relatively small size of the Project Site and area, combined with the presence of nearby urban development and the associated human disturbance, wildlife diversity on the Project Site is relatively low. The only reptile observed on site was side-blotched lizard (*Uta stansburiana*). Tracks, scat, burrows, and other sign observed indicate the presence of California ground squirrel (*Spermophilus beecheyi*) and Botta's pocket gopher (*Thomomys bottae*). Common bird species recorded during the field surveys included mourning dove (*Zenaida macroura*), American crow (*Corvus brachyrhynchos*), California towhee (*Melozone crissalis*), house finch (*Haemorhous mexicanus*), and Say's phoebe (*Sayornis saya*). All of these species are relatively tolerant of human encroachment. Several additional avian species are expected to occur on site seasonally. Small rodents including Botta's pocket gopher (*Thomomys bottae*) and deer mouse (*Peromyscus maniculatus*) are likely present and evidence of California ground squirrel (*Otospermophilus beecheyi*) and evidence of coyote (*Canis latrans*) were observed.

Wildlife Movement

Habitat used by wildlife as a movement corridor generally link large areas of open space that are otherwise separated by rugged terrain, changes in vegetation, human disturbance, or the encroachment of urban development. The fragmentation of natural habitat creates isolated 'islands' of vegetation that may not individually provide sufficient area to accommodate sustainable populations and can adversely impact genetic and species diversity. Corridors mitigate the effects of this fragmentation by: (1) allowing animals to move between remaining habitats, which allows depleted populations to be replenished and promotes genetic exchange with separate populations; (2) provide escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fire, flood, or disease) will result in population or species extinction; and (3) serving as travel paths for animals that require larger home ranges to meet their normal requirements of food, water and cover.

The Project Site is generally surrounded on three sides by development, including road networks. However, Newhall Creek provides a passage through the developed areas between the Santa Clara River and the Angeles National Forest to the southeast.

Stream corridors in general are considered important movement corridors for wildlife, because they provide water, food, and often cover by riparian vegetation for protection from predators. On and near the Project Site Newhall Creek does not flow year-round. Riparian vegetation on the Project Site is limited to sparse shrubs, and steep banks on the Project Site also limit available cover. However, Newhall Creek does provide, as stated above, a connection between the Santa Clara River and the Angeles National Forest to the southeast. Although, much of the length of the creek occurs adjacent to dense development and wildlife activity is expected to be somewhat limited, Newhall Creek is considered part of a wildlife movement or migration corridor that connects larger areas of natural open space.

Special-Status Plant and Animal Resources

Based upon review of the California Natural Diversity Database (CNDDB) database for special-status plant species of the Newhall, CA and eight adjacent quadrangles, 37 special-status plant and 39 special-status animal species have been reported from the region.

The potential for special-status species to occur on the Project Site is based on the proximity of the Project Site to previously recorded occurrences in the CNDDB database, habitat requirements of each species, evaluation of on-site vegetation and habitat quality, topography, elevation, soils, surrounding land uses, and geographic ranges of special-status plant and wildlife species known to occur in the region. Potential special-status plant species that may occur on project site is summarized in Appendix A of the Biological Assessment, Special-Status Plant Species Recorded from the Project Region. Likewise, special status wildlife species recorded in the region that may occur on the Project Site are summarized in Appendix B of the Biological Assessment, Special-Status Wildlife Species Recorded from the Project Region. The occurrence potential described in Appendices A and B are classified according to the following:

Not Expected: There is no suitable habitat present on the proposed project site (i.e., habitats on the proposed project site are clearly unsuitable for the species requirements [e.g., foraging, breeding, cover, substrate, elevation hydrology, plant community, disturbance regime, etc.]). The species has an extremely low probability of being found on the proposed project site and no further surveys are required.

Low Potential: Either significantly limited quantity and/or quality of suitable habitat is present on the proposed project site (i.e., not enough area of the habitat is present to support the species, few of the habitat components meeting the species requirements are present and/or the majority of habitat on the proposed project site is unsuitable or of very low quality). There are no or few recent known records of occurrence in the near vicinity of the proposed project site. The species has a low probability of being found on the proposed project site and no further surveys are required.

Moderate Potential: Some suitable habitat is present on the proposed project site (i.e., some of the habitat components meeting the species requirements are present and/or the quantity the habitat on the proposed project site is marginal). Additionally, there are known records of occurrences in the region of the proposed project site, but not necessarily in the immediate vicinity. The species has a moderate probability of being found on the proposed project site and additional surveys may be required.

High Potential: Suitable quantity and quality of habitat is present on the proposed project site (i.e., all habitat components meeting the species requirements are present and/or habitat(s) on the proposed project site is highly suitable or of high quality). Additionally, there are recent known records of occurrences in the vicinity of the proposed project site. Species having a high probability of being found on the proposed project site may require additional surveys to fully determine presence/absence.

Present: Species was observed on the proposed project site during surveys associated with this report or by other persons.

Special-Status Plants

Based on habitat conditions and the small size of Project Site, only general botanical surveys were conducted on the Project Site and area. Focused rare plant surveys were performed adjacent to and east of the Project Site. The only special-status plants observed during the field investigations were two coast live oaks. No other special-status plants are considered to have a high potential for occurrence within the Project Site.

Native oak trees are protected under City of Santa Clarita Oak Tree Ordinance (Ordinance No. 89-10, passed by the City Council on April 25, 1989) and the City's Oak Tree Preservation and Protection Guidelines (adopted September 11, 1990). The City of Santa Clarita's Oak Tree Preservation ordinance (Unified Development Code §17.51.040) requires the preservation of all healthy oak trees and that

removal, cutting, pruning, relocation, damage, or encroachment into the protected zone of any oak trees measuring 6 inches or larger in circumference (DBH, diameter at breast height) on public or private property can only be done in accordance with a valid oak tree permit issued by the City.

Special-Status Wildlife

No special-status wildlife species were directly observed during field investigations conducted on the Project Site or area. Although Newhall Creek traverses the Project Site, it is considered a seasonal drainage, and it is apparent within the Project Site, when flows do occur, they are rapid enough to scour the channel. Therefore, none of the special-status fish defined in Appendix B of the Biological Assessment are expected to occur on site, with the possible exception of a potential temporary presence after storm events. Likewise, aquatic conditions are not suitable for special-status amphibians defined in Appendix B of the Biological Assessment. In most areas of the Project Site the banks of Newhall Creek are too severe for amphibians to traverse. As such, they too are expected to have no more than a low potential for occurrence. Some of the more highly motile species such as birds and bats may briefly and infrequently occur on site to forage. However, there is no on-site habitat of a size or quality that could reasonably support a sustainable resident population of any of the special-status wildlife species identified in Appendix B of the Biological Assessment. Notwithstanding, one special-status reptile is considered to have a moderate potential to occur on site.

Silvery legless lizard (*Anniella pulchra pulchra*), California Species of Special Concern. This small lizard is often mistaken for a snake or worm since, as it has no limbs. Silvery legless lizard spends most of its life below surface soils where it forages on insects and larvae. It is most commonly found in and around the roots of trees and shrubs, often beneath leaf litter where its prey is most abundant. Moisture is a key ingredient in its habitat requirement. Silvery legless lizards will dig deeper into the soils to reach the correct moisture level. As such, this species is rarely observed unless one actively seeks it out. Though apparently very dry at the surface, some of areas within the Project Site may have sub-surface soils with the moisture content necessary to support this species. Therefore silvery legless lizard is considered to have a moderate potential for occurrence on the proposed Project Site.

Jurisdictional Waters, Streambed, and Riparian Resources

The portion of Newhall Creek present on the proposed Project Site is under the jurisdictional authority of federal and state regulatory agencies. Impacts to “Waters,” streambeds and adjacent riparian vegetation, as defined in the regulations cited below, typically require authorizations from these agencies. Regulatory agencies and the limits of their jurisdiction are discussed below.

Regulatory Setting

Federal Regulations

U.S. Army Corps of Engineers (ACOE)

Federal regulations of "Waters of the United States" stem from Section 10 of the Federal Rivers and Harbors Act of 1899, enacted to regulate activities within navigable waters. In 1972, the federal Clean Water Act was passed. This act regulates discharges into Waters of the United States and Section 404 of this act regulates activities including fills placed into wetlands that are adjacent to navigable waters.

Waters of the United States are defined in 33 CFR 328.3(a) as:

- All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide.
- All interstate waters including interstate wetlands.
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters.
- Waters that are or could be used by interstate or foreign travelers for recreational or other purposes.
- Waters from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- Waters that are used or could be used for industrial purpose by industries in interstate commerce.
- All impoundments of waters otherwise defined as Waters of the US under the definition.
- The territorial seas.
- Tributaries of Waters of the US.
- Wetlands adjacent to Waters of the US.

USACE jurisdiction in non-tidal waters typically extends to the ordinary high water mark (OHWM). The OHWM for intermittent streams, for example, can be determined by "the fluctuations of water as indicated by physical characteristics such as clear, natural lines impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" (33 CFR 328.3(e)). In arid areas of the southwest, the OHWM may occur at a lower level than where the typical physical indicators are present, due to unusually high flows not occurring on a typical annual cycle (Allen, et al. 2001). Most impacts to areas delineated as Waters of the United States, if determined to be jurisdictional by the USACE, require a project to obtain approval under the authority of the Clean Water Act and its implementing regulations.

State Regulations

California Department of Fish and Wildlife (CDFW)

The State of California regulates water resources under Sections 1600 to 1619 of the Fish and Game Code of California. Section 1602 mandates that:

> *An entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake or dispose of debris, waste, or other material where it may pass into any river stream, or lake.*

Unless certain requirements are met, CDFW considers most natural drainages to be streambeds unless it can be demonstrated otherwise. Streambeds are defined in the California Code of Regulations Title 14, Chapter 1, Section 1.72 as follows:

> *A stream is a body of water that flows at least periodically or intermittently through a bed or channel having banks and that support fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation.*

CDFW jurisdiction includes ephemeral, intermittent, and perennial watercourses, and is often extended to the limit of riparian habitats that are located contiguous to the water resource that function as part of the watercourse system. In this analysis, the area generally corresponding to the limit of riparian habitats located contiguous to the water resource is referred to as the "resource line." Section 2785(e) of the Fish and Game Code of California states:

> *Riparian habitat means lands which contain habitat which grows close to and which depends on soil moisture from a nearby freshwater source.*

Local Regulations

Regional Water Quality Control Board

Section 401 of the Federal Clean Water Act authorizes the State of California to certify federal permits and licenses. The state's implementing regulations to conduct certifications are codified under the California Code of Regulations Title 23 Waters, Sections 3830–3869. Projects qualifying for an ACOE Section 404 Permit must submit materials for review to the appropriate Regional Water Quality Control Board (RWQCB) and request a Section 401 Certification. Much of the same information (project description, potential impacts, and mitigation measures) necessary to apply for ACOE Section 404 and Fish and Game Code Section 1603 Permits is required for the Section 401 Certification.

Direct and indirect impacts on wetland and riparian areas may also be subject to the jurisdiction of several additional state and federal agencies, including the Los Angeles RWQCB.

Source: Impact Sciences, Inc., April 2015

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Figure 4.3-3
Vegetation Types and Jurisdiction Limits

Delineation Results

A delineation of regulatory agency jurisdictional limits was performed in September 2013. A map illustrating the vegetation and jurisdictional features in the survey area is depicted in Figure 4.3-3. Two jurisdictional features are defined within the Project Site, area and region:

1. **Newhall Creek.** Upstream of its confluence with Placerita Creek and the south fork of the Santa Clara River. This creek is mapped by the USGS as a "blue-line" intermittent stream. On and near the Project Site the direction of flow is from southeast to northwest. Banks of the creek are nearly vertical, with the south bank containing artificial fill (pieces of concrete and asphalt). Railroad tracks and Railroad Avenue are situated to the west, beyond the top of the bank. Areas immediately east of the creek are vacant except for an industrial yard northeast of the proposed bridge location. No surface water was present during the April survey and sparse vegetation cover within the channel indicates frequent scour during the rainy season. Therefore, this wetland feature on the Project Site is best described as an intermittent riverine, relatively permanent water ("RPW") that has seasonal continuous flow, is a tributary to the Santa Clara River which flows into the Pacific Ocean, and can be defined as a traditionally navigable water (TNW).

   On the Project Site, vegetation and surface features indicate that seasonal flows migrate across the entire channel, which averages 35 feet in width at the base (Federal jurisdiction). The distance between the tops of the banks (limits of State jurisdiction) average approximately 100 feet. No indicators of prolonged water saturation or ponding, such as surface mud cracks, were observed on-site during the field survey.

2. **Un-named ephemeral tributary to Newhall Creek.** This narrow tributary is about 3.5 feet in width at its base (Federal jurisdiction) and is entirely within State jurisdiction over Newhall Creek. It is assumed that flow from this tributary enters the project area from a culvert underneath the railroad tracks and Railroad Avenue (this could not be confirmed during the survey due to presence of a homeless camp at the presumed culvert location). The distinct bed and bank structure of this feature, and regional topography, indicate this tributary is more than a "gully" resulting from localized erosion. Wetland indicators are absent from this feature.

Appendix C of the Biological Assessment provides details regarding the vegetation occurring within the delineation survey boundaries. Of the vegetation identified in this area, only narrow-leaf willow thicket is a wetland indicator (Salix exigua – Facultative Wet). However, it is concluded that this thicket is probably not a jurisdictional wetland at the Federal or State level.

Wetland Determination

Federal

Hydrology and soils present in the Project Site and area (floodplains/gravel bars and sand) are naturally problematic for wetland delineation. The following paragraphs include excerpts (in italics) from the Arid

West supplement of the wetland determination procedure for problematic sites where soils may meet the definition of a hydric soil but do not exhibit typical indicators. Our observations are described for each step of the procedure.

1. *Verify that one or more indicators of hyrophytic vegetation are present or that the vegetation is disturbed or problematic.* If so, proceed to step 2.

   Site observations: Narrow-leaf willow has an indicator ranking for the Arid West of Facultative Wetland. Therefore, it can be concluded hydrophytic vegetation is present.

2. *Verify that at least one primary or two secondary indicators of wetland hydrology are present or that indicators are absent due to disturbance or other factors. If so, proceed to step 3. If indicators of hydrophytic vegetation and/or wetland hydrology are absent, then the area is probably no-wetland and no further analysis is required.*

   Site observations: No other primary indicators of wetland hydrology are present. Only one secondary indicator of wetland hydrology (dominance of Facultative Wet vegetation) is present.

Based on this information, and the observation that redoximorphic soil features are sparse and, where present, are faintly expressed, it can be concluded that the willow thicket (300 square feet or 0.007 acre) is probably not a Federally jurisdictional wetland. Unfortunately, the Arid West procedure does not allow for a more definitive conclusion.

State

According to the wetland definition at the State level, it is concluded that the narrow-leaf willow thicket would not meet the definition of wetland. While narrow-leaf willow is a hydrophyte, there is no evidence of continuous or recurrent saturation of the upper substrate and no evidence of anaerobic conditions are present.

Non-Wetland Jurisdiction

The proposed bridge will impact Newhall Creek in a section of the creek that is classified as “riverine and relatively permanent water, with continuous flow at least seasonally”. The bridge may also impact a narrow, ephemeral tributary to Newhall Creek. The extent of permanent and temporary construction impacts need to be known in order to provide a more precise analysis of impacts.

4.3.3 ENVIRONMENTAL IMPACTS

Methodology

Direct impacts of a proposed project on biological resources typically involve the loss, modification, or disturbance of natural habitat (i.e., plant communities or other naturally occurring areas) which in turn, directly and indirectly affect plant and wildlife species dependent on that habitat. The significance of

potential impacts on biological resource is determined by an evaluation of the overall biological value of a habitat area in comparison with significance threshold criteria that are described below. The relative value of each of the plant communities present on site is measured by such factors as disturbance history, biological diversity, importance to particular plant and wildlife species, uniqueness or sensitivity status, as well as the surrounding environment and the presence of special-status resources. The significance of impacts with respect to direct impacts on individuals or populations of plant and animal species takes into consideration the number of individual plants or animals potentially affected, how common or uncommon the species is both on the Project Site and from a regional perspective, and the sensitivity status if the species is considered special status by resource agencies. These factors are evaluated based on the results of on-site biological surveys and studies, results of literature and database reviews, and established and recognized ecological and biodiversity theories and assumptions.

CEQA Guidelines Thresholds of Significance

According to Checklist Questions IV(a) through V(f) in Appendix G of the State CEQA Guidelines, a project may have a significant environmental impact 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 CDFW or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFW or 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 impede 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.

Project Impacts

Habitat Modification

Vegetation

As described above, and depicted in Figure 4.3-2, eight vegetation communities occur on the Project Site that include: California Sagebrush-California Buckwheat Scrub, Disturbed California Sagebrush-California Buckwheat Scrub, Scale Broom–Mulefat scrub, Scalebroom Scrub, Active Channel, Exotic Trees, Developed/ Ornamental Landscaping, and Cleared. Site grading plans indicate that within the Project Site 2.32 acres of vegetation would be removed (100 percent of the vegetation resources present).

Of the vegetation communities impacted Disturbed California Sagebrush-California Buckwheat Scrub is the dominant plant community present by area and approximately 0.63 acre of this habitat would be lost through site grading and project implementation.

Due to its proximity to adjacent developed areas, the Project Site has been subject to historic disturbances. Combined with its small size (2.32 acres), invasive plant species observed on the Project Site (e.g. mustard, tree tobacco, cocklebur, yellow star thistle) indicate a high percentage of plants that are generally associated with ruderal or highly disturbed places.

As concluded in the Biological Assessment, the loss of 2.32 acres of vegetation on the Project Site is considered adverse. However, due to the disturbance history, its small size, the lack of sensitive plant communities, the lack of structure for wildlife, and high percentage of invasive and non-native plant species generally associated with disturbed areas, impacts associated with the loss of 2.32 acres of vegetation present on-site is considered less than significant.

Special-Status Plants

As discussed above, the only special-status plants observed during the field investigations were two coast live oaks. No other special-status plants are considered to have a high potential for occurrence within the Project Site. Native oak trees are protected under City of Santa Clarita Oak Tree Ordinance (Ordinance No. 89-10, passed by the City Council on April 25, 1989) and the City's Oak Tree Preservation and Protection Guidelines (adopted September 11, 1990). A permit is required for encroachment into the Protected Zone, defined as 5 feet outside the dripline and further defined as extending no less than 15 feet outward from the trunk of an oak tree. The City of Santa Clarita requires that all potential impacts to oak trees be preceded by an application to the City that includes a detailed oak tree report and that loss of or damage to protected oaks be mitigated at a minimum 2:1 ratio.

Based upon the development and grading footprint of the proposed project as depicted in Figure 2.9, Proposed Site Plan at Lyons Avenue, it has been determined that the 2 oak trees that occur within the project limits would be required to be removed for project construction. The removal of or encroachment to oak trees as a result of project construction would be considered a significant impact under both the City of Santa Clarita and CEQA. Replacement oak trees would be planted in the number necessary to comply with the requirements stipulated in the Oak Tree Permit issued by the City. With approval of the required oak tree permits, and implementation of Mitigation Measure 4.3-7, impacts upon the loss or pruning of any oak tree would be reduced to less than significant levels.

Wildlife

Common Wildlife

Construction activity and grading operations of the Proposed Project would disturb and/or threaten the survival of common wildlife species present. Some species would be expected to relocate to other areas of similar habitat within the local area. However, wildlife that emigrate to off-site areas are vulnerable to mortality by predation, potential conflicts with people and cars, and unsuccessful competition for food

and territory. It is expected that species of low mobility (particularly small mammals, amphibians, and reptiles) would be lost during site preparation, grading and construction.

Site grading and project implementation would eliminate approximately 2.32 acres of natural habitat present on-site, and would result in an incremental reduction in native wildlife species abundance and diversity. However, due to nearby urban development and the associated human disturbance, field investigations indicate wildlife diversity and abundance on the Project Site is relatively low. The only reptile observed on site was side-blotched lizard (*Uta stansburiana*). Tracks, scat, burrows, and other sign observed indicate the presence of California ground squirrel (*Spermophilus beecheyi*) and Botta's pocket gopher (*Thomomys bottae*). Small rodents including deer mouse (*Peromyscus maniculatus*) are likely also present and evidence of coyote (*Canis latrans*) was observed. Common bird species recorded during the field surveys included mourning dove (*Zenaida macroura*), American crow (*Corvus brachyrhynchos*), California towhee (*Melozone crissalis*), house finch (*Haemorhous mexicanus*), and Say's phoebe (*Sayornis saya*). All of these species are relatively tolerant of human encroachment. Several additional avian species are expected to occur on site seasonally. Because of the relatively common occurrence of these wildlife species that would be displaced or lost, project implementation is not expected to cause a current wildlife population on or adjacent to the Project Site to drop below self-sustaining levels. Therefore, impacts to common wildlife species is not considered significant.

Special-Status Wildlife

An assessment of biological resources present on the Project Site determined that one special-status wildlife species has a moderate potential to occur within the Project Site and could be directly impact through project implementation.

Silvery legless lizard is a California species of special concern. On the Project Site, some limited habitat suitable for this species is present in the sandier terraces of Newhall Creek and possibly within the areas of scrub habitat north of the creek.

This species is almost completely fossorial (i.e., occurring beneath the surface) and is dependent upon moisture levels in the soils where they live. During dry periods they will burrow deeper to find the necessary levels of moisture. As such, silvery legless lizard can be difficult to find, especially in dry seasons or years. Although sands within the Newhall Creek bed may currently be suitable for silvery legless lizard, they are unlikely to occur within the creek itself as it periodically supports storm flows and would scour any away legless lizards that could be seeking refuge. Therefore, the only suitable habitat remaining is a small area above the ordinary high water mark, north of the creek. This area may support individual species of silvery legless lizard, but is not likely to support a sustainable population.

The grading plan indicates the areas north of the Project Site would be disturbed during grading and project construction. Although it can be concluded that bridge construction associated with the Proposed Project would not impact populations of silvery legless lizard, disturbances associated with grading and implementation of the road extension may impact individuals of this California species of special concern. Therefore, impacts are considered significant without mitigation.

Additionally, most native bird species when nesting, are protected by the Migratory Bird Treaty Act and the California Fish and Game Code, which prohibit the take (defined as destroy, harm, harass, etc.) of bird nests with eggs or young. Project-related activities associated with site preparation and construction could result in the direct loss of active nests or the abandonment of active nests by adult birds should grading occur during the nesting season. The loss of active bird nests would be in conflict with the Migratory Bird Treaty Act and the California Fish and Game Code. As such, impacts to active nests are a significant impact without mitigation. Without mitigation, the Proposed Project could result in potentially significant impacts to silvery legless lizard and active nesting birds. Implementation of Mitigation Measures 4.3-1 and 4.3-2 would reduce impacts to silvery legless lizard and nesting birds to a less than significant level.

Federally Protected Wetlands

Based on field investigations, a small area of narrow-leaf willow thicket (300 square feet or 0.007 acre) is present. Where it occurs on-site, redoximorphic soil features are sparse and faintly expressed and as such the narrow-leaf willow thicket present on the Project Site is probably not a Federally jurisdictional wetland. Further, according to the wetland definition at the State level, narrow-leaf willow thicket present on-site would not meet the criteria of wetland as defined by the State of California. While narrow-leaf willow is a hydrophyte, there is no evidence of continuous or recurrent saturation of the upper substrate and no evidence of anaerobic conditions are present.

Two jurisdictional features do occur within the Project Site and area. Newhall Creek and a small ephemeral drainage that is a tributary to Newhall Creek occur on the Project Site and fall under the jurisdiction of the CDFW. Although these jurisdictional features do not support riparian vegetation or sensitive wetland resources, Newhall Creek does support features that lie within the jurisdiction of CDFW.

As discussed above, the proposed bridge and associated infrastructure would result in both temporary and permanent impacts to areas of the Newhall Creek and its associated tributary and are classified as “riverine and relatively permanent water, with continuous flow at least seasonally” and as such are under CDFW jurisdiction. Without consultation with, and a formal agreement with CDFW, such impacts would be in violation of the Fish and Game Code and, are considered a significant impact. Without mitigation, the project would result in potentially significant impacts to CDFW jurisdictional resources (i.e. Newhall Creek and its associated tributary). Mitigation Measure 4.3-3 would reduce impacts to jurisdictional resources to a less than significant level.

Wildlife Movement and Corridors

The Project Site is generally surrounded on three sides by development and road networks. However, Newhall Creek does extend through the site and provides a passage through developed areas between the Santa Clara River and the Angeles National Forest to the southeast.

Stream corridors in general are considered important movement corridors for wildlife, because they provide water, food, and often cover by riparian vegetation for protection from predators. On and near the

proposed Project Site Newhall Creek does not flow year-round. Vegetation on the Project Site is limited to sparse shrubs, and steep banks on the Project Site limit cover. However, Newhall Creek does provide, as stated above, a connection between the Santa Clara River and the Angeles National Forest. Though much of the length of the creek occurs adjacent to dense development and wildlife activity is expected to be somewhat limited, Newhall Creek is considered part of a wildlife movement or migration corridor that connects larger areas of natural open space.

To limit impacts to wildlife movement, four 25-foot wide and 8-foot deep openings in a concrete box bridge with 80-foot wide soft base and 2:1 protected side slopes is proposed where the proposed roadway extension crosses Newhall Creek. As designed, this bridge would not result in any barrier to wildlife movement and would serve to protect Newhall Creek as a functioning wildlife movement corridor. The project as proposed would not result in significant impacts to wildlife movement.

Construction Activity

Project construction (particularly site clearing and grading operations and implementation of the road surface) would have the potential to impact surrounding areas including adjacent plant communities and plant and animal species. Specifically, these impacts can include displacement and disturbance of wildlife, which could result in possible nest or den abandonment during the breeding season, siltation and erosion into drainages, excessive dust accumulation on vegetation that could result in the degradation or loss of some plant species, and soil compaction. Construction-related activities could have adverse effects on plant and wildlife habitat, and together, would be considered a significant impact. Implementation of Mitigation Measure 4.3-4 would reduce these construction-related impacts to less a less than significant level.

Operation

Increase in Populations of Non-Native Species

Subsequent to project completion, the number of non-native plant and wildlife species occurring in the vicinity of the roadway alignment would be expected to increase. These species are more adapted to urban environments could potentially displace native species because of their ability to compete more effectively for resources. Non-native plants tend to be more adaptable to urban or disturbed settings and can out-compete native plants for available resources.

However, observations indicate historical and ongoing development in the vicinity of the Project Site have already supported continual and ongoing increases and proliferation of non-native plant and wildlife species populations in the area adjacent to the Project Site. Consequently, the Proposed Project is not expected to substantially increase the distribution of non-native plants and wildlife in adjacent open space areas situated to the east. Therefore, impacts to the remaining natural areas as a result of potential increases in non-native plants and wildlife resulting from project implementation are expected to be less than significant, given compliance with Mitigation Measure 4.3-5.

Increased Light and Glare

It is logical to assume that nighttime headlamp illumination would increase in areas adjacent to the Project Site. Nighttime light can disturb breeding and foraging behavior and can potentially alter breeding cycles of birds, mammals, and nocturnal invertebrates. Headlamp illumination could deter some animal species, especially the larger mammals, from using Newhall Creek as a wildlife movement corridor. If uncontrolled, such light could adversely impact the composition and behavior of the animal species that occur in these areas. The Project Site is currently surrounded on three sides by development, and much of the Project Site and nearby natural area already receives some nighttime illumination from the adjacent urban areas. However, the Proposed Project would increase light and glare effects proximal to the Newhall Creek corridor. Mitigation Measure 4.3-6 would decrease this impact to less than significant.

Stormwater and Urban Runoff

It is expected that stormwater runoff would be limited to pavement runoff during periodic storm events. Runoff from paved surfaces can increase eutrophication, deplete oxygen levels, increase long-term buildup of toxic compounds and heavy metals, and other adverse effects to biological resources associated with aquatic systems. Although this impact is not quantifiable, it is reasonable to assume runoff could substantially affect special-status species potentially occurring downstream from the Project Site and incrementally diminish habitat values for fish, wildlife, or plants, and degrade the quality of the environment. As described above, any runoff that flows into the Newhall Creek could result in increased eutrophication, depleted oxygen levels, long-term build-up of toxic compounds and heavy metals downstream as Newhall Creek connects to the Santa Clara River. Although potentially significant, the City's standard stormwater requirements are specifically designed to minimize these effects. Therefore, with implementation of the required design criteria, impacts to Newhall Creek resulting from Stormwater runoff would be less than significant.

4.3.4 CUMULATIVE IMPACTS

As discussed above, the development of the Project Site would potentially result in impacts to biological resources if left unmitigated. The outlined mitigation measures would reduce those impacts to a less than significant level. There are no proposed developments in the immediate vicinity of the site. The only exception to this would be The Masters University project situated to the east, which is currently being evaluated. However, the impacts from both The Masters University project (which are being evaluated within a separate EIR) and the Dockweiler Road extension that is the subject of this analysis have been previously evaluated as part of the City's General Plan. The extension of Dockweiler Road would not be growth inducing as this project is consistent with the City's General Plan for this area. Therefore, development associated with the proposed project and other development in the vicinity of the Project Site in the City Santa Clarita, would not result in a significant cumulative impact related to biological resources.

4.3.5 MITIGATION MEASURES

With incorporation of the following Mitigation Measures, impacts associated with the Proposed Project would be mitigated to a less than significant level. The Mitigation Measures are defined below:

4.3-1 The applicant shall retain a qualified biologist with a CDFG Scientific Collection Permit and Memorandum of Understanding to conduct preconstruction surveys for the silvery legless lizard within the Project Site and area. Should this species be located on the Project Site during preconstruction surveys all individuals shall be relocated, with the concurrence of the City and CDFW, to an approved site with suitable habitat. Surveys and relocation of silvery legless lizard may occur prior to construction; however, focused surveys must occur within 30 days prior to construction. Survey and relocation methods shall be approved by CDFW prior to commencement of grading.

4.3-2 Active nests of native bird species are protected by the Migratory Bird Treaty Act (16 U.S.C. 704) and the California Fish and Game Code (Section 3503). If activities associated with construction or grading are planned during the bird nesting/breeding season, generally January through March for early nesting birds (e.g., Coopers hawks or hummingbirds) and from mid-March through September for most bird species, the applicant shall have a qualified biologist conduct surveys for active nests. The project management shall endeavor to avoid the breeding season.

In the event it is not feasible to avoid the nesting season, a qualified biologist shall perform weekly nesting bird surveys beginning 30 days prior to initiation of ground-disturbing activities, with the last survey conducted no more than three days prior to the start of clearance/construction work. If ground-disturbing activities are delayed, additional pre-construction surveys shall be conducted so that no more than three days have elapsed between the survey and ground-disturbing activities.

Surveys shall include examination of natural habitat for nesting birds. Several bird species such as killdeer and night hawks are known to nest on bare ground. Protected bird nests that are found within the construction zone shall be protected by a buffer deemed suitable by a qualified biologist, and verified by CDFW. Typically, a 300-foot buffer is required for most species and a 500-foot buffer for raptor species. Buffer areas shall be delineated with orange construction fencing or other exclusionary material that would inhibit access within the buffer zone. Installation of the exclusionary material delineating the buffer zone shall be verified by a qualified biologist prior to initiation of construction activities. The buffer zone shall remain intact and maintained while the nest is active (i.e., occupied or being constructed by the adults bird(s)) and until young birds have fledged and no continued use of the nest is observed, as determined by a qualified biologist.

4.3-3 Prior to project construction, the following is required to mitigate impacts to jurisdictional resources:

a. Areas of impact proposed by the project shall be calculated and permits for these proposed impacts shall be obtained (the discharge of fill into ACOE jurisdictional areas will require a permit pursuant to Section 404 of the Clean Water Act and a 401 Certification from the State Water Resources Control Board, and any modification to a streambed, [analysis states none is present], will require a streambed alteration agreement from CDFW pursuant to Section 1600 of the California Fish and Game Code). Both the streambed alteration agreement and the 401 and 404 permits will required specific mitigations for any impacts within their respective jurisdictions.

b. Because the proposed bridge is a 'span' design, it does not require footings within the bed of the stream. However, plan designs do include approximately 450 feet of bank stabilization on both sides of the stream that would lie within CDFW, ACOE and Regional Water Quality Control Board jurisdiction. Since little vegetation exists within this drainage, it is uncertain what mitigation these regulatory agencies may require.

c. The stream in the impacted area would not be conductive to re-vegetation as the area of the project is deeply incised with little existing vegetation and newly planted vegetation would likely be washed away with the next storm event.

d. Mitigation can be completed off site. Because there is essentially no riparian vegetation being removed with implementation of this project, revegetation off site, in a location approved by the City and CDFW, would be accomplished at a 1:1 area ratio.

e. Upon City and agency approval of a suitable location, a detailed restoration plan shall be prepared that provides a planting palette, planting methods, and irrigation plan (as appropriate). The plan will also include a 5-year monitoring effort to ensure success of the restoration effort. The monitoring plan will include monitoring methods, monitoring frequency, success criteria, and contingency actions should the success criteria not be met for any reason. Annual monitoring reports shall be provided to both CDFW and the City.

4.3-4 The following guidelines shall be implemented to minimize impacts on remaining biological resources on the site as a result of construction and grading activities and to ensure that potential impacts on these resources will remain less than significant.

A City-approved biologist shall be retained by the applicant as a construction monitor to ensure that incidental construction impacts on retained biological resources are avoided or minimized. Responsibilities of the construction monitor shall include the following:

- Attend all pre-grading meetings to ensure that the timing and location of construction activities do not conflict with mitigation requirements.
- Conduct meetings with the contractor and other key construction personnel, describing the importance of restricting work to within the project boundaries and

outside of the preserved areas. The monitor shall also work with the contractor to determine the most appropriate staging/storage areas for equipment and materials.

- Guide the contractor in marking/flagging the construction area limits, in accordance with the final approved grading plan.
- Periodically and routinely visit the site during construction to coordinate and monitor compliance with the above provisions.

The construction contractor shall install temporary erosion control measures to reduce impacts to and protect on site drainages from excess sedimentation, siltation, and erosion. These measures shall consist of minimization of existing vegetation removal; the use of temporary soil covers, such as hydro-seeding with native species, mulch/binder and erosion control blankets to protect exposed soil from wind and rain erosion; and/or the installation of silt fencing, berms, and dikes to protect storm drain inlets and drainages.

No changing of oil or other fluids, or discarding of any trash or other construction waste materials shall occur on the Project Site. Vehicles carrying supplies, such as concrete, shall not be allowed to empty, clean out, or otherwise place materials into natural areas on or immediately adjacent to the site.

Any equipment or vehicles driven and/or operated within or adjacent to drainages shall be checked and maintained daily, to prevent leaks of materials that if introduced to water could be deleterious to aquatic life. No equipment maintenance shall be conducted within the drainage channels or within 50 feet of channels. (Fuel-powered vehicles and equipment shall not be left idling or operated beyond periods need to accomplish approved tasks.)

Construction personnel shall be prohibited from entry into areas outside the designated construction area, except for necessary construction related activities, such as surveying. All such construction activities in or adjacent to remaining open space areas shall be coordinated with the project biologist.

Standard dust control measures of the South Coast Air Quality Management District shall be implemented to reduce impacts on nearby plants and wildlife. This includes a variety of options to reduce dust including replacing ground cover in disturbed areas as quickly as possible, watering active sites regularly, and suspending all excavating and grading operations during periods of high winds.

Upon completion of construction, the contractor shall be held responsible to restore any haul roads, access roads, or staging areas that are outside of approved grading limits. This restoration shall be done in consultation with the project biologist.

4.3-5 Any landscaping plan(s) associated with the project shall be reviewed by a qualified biologist or resource specialist, who shall recommend appropriate provisions to prevent invasive plant species from colonizing in natural areas. These provisions may include the following: (a)

review and screening of proposed plant palette and planting plans to identify and avoid the use of invasive species; (b) weed removal during the initial planting of landscaped areas; and (c) the monitoring for and removal of weeds and other invasive plant species as part of ongoing landscape maintenance activities.

4.3-6 All street lighting shall be downcast luminaries or directional lighting with light patterns directed away from natural areas.

4.3-7 Prior to issuance of a grading permit, an Oak tree report shall be prepared and approved. All oaks that will not be removed that are regulated under the City of Santa Clarita's Oak Tree Preservation and Protection Guidelines with driplines within 50 feet of land clearing (including brush clearing) or areas to be graded shall be enclosed in a temporary fenced zone for the duration of the clearing or grading activities. Fencing shall extend to the root protection zone (i.e., the area at least 15 feet from the trunk or 5 feet beyond the drip line, whichever distance is greater). No parking or storage of equipment, solvents, or chemicals that could adversely affect the trees shall be allowed within 25 feet of the trunk at any time. Removal of the fence shall occur only after the project arborist or qualified biologist confirms the health of preserved trees.

4.3.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the incorporation of mitigation measures, impacts upon biological resources, including vegetation and wildlife resources would be less than significant.

4. ENVIRONMENTAL IMPACT ANALYSIS
4. CULTURAL RESOURCES

4.4.1 INTRODUCTION

The following section addresses the proposed Project's potential to result in significant impacts upon cultural resources, including archaeological, paleontological and historic resources. On September 20, 2013, the South Central Coastal Information Center (SCCIC) and the Vertebrate Paleontology Department at the Natural History Museum of Los Angeles County were contacted to conduct a records search for cultural resources within the Project Site at the intersection of Lyons Avenue and Railroad Avenue and extends eastward towards the General Plan alignment for Dockweiler Drive towards The Master's University and northwest towards the intersection of 12th Street and Arch Street and immediate Project vicinity. The analysis presented below is based on the record search results provided from the SCCIC, dated October 2, 2013, and written correspondence from The Vertebrate Paleontology Department at the Natural History Museum of Los Angeles County, dated October 18, 2013. Correspondences from both agencies are included in Appendix E to this Draft EIR.

4.4.2 ENVIRONMENTAL SETTING

Description of the Study Area

The Project Site is located at the intersection of Lyons Avenue and Railroad Avenue and extends eastward towards the General Plan alignment for Dockweiler Drive towards The Master's University and northwest towards the intersection of 12th Street and Arch Street. The Project Site also includes the closure of an at-grade crossing at the intersection of Railroad Avenue and 13th Street.

The portion of the Project Site that extends eastward towards the General Plan alignment for Dockweiler Drive towards The Master's University is located in an area of primarily undeveloped land within the city limits of Santa Clarita. The vicinity consists of the single-family residential community of Placerita Canyon and The Masters University campus to the northeast, and the Newhall community (e.g. Old Town Newhall) including commercial and residential land uses to the west. The Project Site encompasses Newhall Creek which flows through the Project Site from northwest to southeast. The Project Site also encompasses a section of the active railroad tracks owned by the Southern California Regional Rail Authority (SCRRA) and the Union Pacific Railroad (UPRR). The SCRRA/UPRR rail tracks run parallel to Railroad Avenue and are perpendicular to Lyons Avenue.

As discussed in the *Downtown Newhall Historic Survey and Specific Plan Impact Analysis*, "the buildings in the Downtown Newhall Specific Plan area lack the historic coherence and architectural cohesion necessary to form a historic district."[1] The City of Santa Clarita General Plan and the One Valley One Vision Plan, acknowledges that the City of Santa Clarita is working to maintain the remaining character within Old Town Newhall and many buildings are City Points of Historical Interest.

[1] *Palmer, Christine, Downtown Newhall Historic Survey And Specific Plan Impact Analysis, (2005) at page 11.*

Paleontological Conditions

Surficial deposits in most of the portion of the Project Site that extends eastward towards the General Plan alignment for Dockweiler Drive towards The Master's University consists of younger Quaternary gravels and sands associated with Newhall Creek that borders on the south and west and the Placerita Creek that flows through the Project Area. Both of these drainages flow into the Santa Clara River just to the northwest of the Proposed Project area. Generally, significant vertebrate fossils are not contained in such recent deposits. However, it is possible that fossils may have been carried to the Project Site area from surrounding hillsides and further upstream. The older deposits to the north of the Project Site may contain fossils. In the more elevated terrain in the southeastern portion of the Proposed Project area there are dissected older Quaternary fluvial and fan deposits as well as exposures of the terrestrial Pliocene Saugus Formation. These deposits may also occur at depth in the Proposed Project area.

There are no fossil vertebrate localities nearby from the younger Quaternary alluvial deposits. The closest vertebrate fossil localities documented are from the Saugus Formation, or possibly the older Quaternary sediments, which are directly north of the Proposed Project. The fossils recorded were of a camel, *Camelidae*, and a horse *Equus* (LACM 6803-6804).

Archaeological and Cultural Conditions

No archaeological sites were identified on the portion of the Project Site that extends eastward towards the General Plan alignment for Dockweiler Drive towards The Master's University or within a ½-mile radius of the Project Site. Two isolates were identified within a ½-mile radius of the Project Site, and no isolates are identified within the Project Site. An isolate is an artifact found occurring by itself and is not indicative of an archaeological site.

Fourteen historic structures were identified on SCCIC maps within a ½-mile radius of the Project Site and no historic structures were identified within the Project Site. The California Point of Historical Interest (SPHI) and California Historical Landmarks (SHL), both within the Office of Historic Preservation within the Department of Parks and Recreation, list no historical structures or landmarks within the Project search radius or within the Project Site boundaries. Additionally, the California Register of Historical Resources (CAL REG) and the National Register of Historical Places (NRHP) list no properties within the Project search radius or within the Project Site boundaries. A list of the historical structures identified within the Project search radius can be found with the SCCIC response letter in Appendix E.

Historic Setting

There is little documentation about the specific cultural history of the Project area, including the ethnographic history of the native groups. The Tataviam tribe began occupying the Santa Clara River Valley around A.D. 450 and primarily lived in the upper reaches of the Santa Clara River and northward to the southern part of Antelope Valley and the San Gabriel Mountains. The Tataviam tribe was Uto-

Aztecan speakers of Shoshonean descent.[2] Prior to the Tataviam habitation in the Santa Clara River Valley, archaeological discoveries suggest that humans may have occupied the entire Los Angeles region in excess of 20,000 years.[3]

Archaeological studies indicate that the Tataviam have similar patterns and ritual practices to the neighboring Chumash and Gabrielino/Tongva groups. The Gabrielino/Tongva were generally located to the south and the Chumash were generally located to the east of the Tataviam. Tataviam village sites with known names were located at San Francisquito, Piru, Camulos, Castaic Reservoir, Piru Creek, Elizabeth Lake, and in the Newhall environs.[4] The three societies were primarily hunter and gatherer societies and hunted small game and lived in small villages and camps around water sources. The hunter and gatherer groups depended on stone tools and baskets.[5] Seasonal settlements and resource exploration have also been found along the Santa Clara River and Vasquez Rocks, and along natural springs and creeks that drain into the Santa Clara River. Bowers Cave near Val Verde, California (northwest of the Project Site) is of extreme cultural significance. Bowers Cave, discovered in 1884, yielded "one of the most significant assemblages of American Indian religious and ceremonial artifacts ever found in North America." Spanish explorer, Pedro Fages, first encountered the Tataviam in 1776.[6]

In 1769, Gaspar de Portola led an expedition from San Diego to Monterey and documented the Santa Clarita region. The expedition passed north through the San Fernando Valley to Newhall and the Castaic Junction area. Then the expedition headed west, following the Santa Clara River, to San Buenaventura and travelled north to Monterey. The trail became know as "El Camino Viejo" (The Old Road).

In 1797, the Mission San Fernando used much of Santa Clarita Valley for ranching and became known as the "Estancia de San Francisco Xavier." The native tribes of the area were displaced from their lands and were relocated on Mission grounds. The native tribes were baptized and forced to work. The Tataviam workers constructed the Estancia buildings near the confluence of Castaic Creek and the Santa Clara River. Today, the buildings no longer exist, but the area is still a protected site and is considered archaeologically rich.

The Mexican Revolution in the 1820-1830s secularized the missions in California; and in 1839, Mexican army officer Ignacio del Valle was granted the Rancho San Francisco (comprising roughly 48,000 acres). The land encompasses Newhall and Placerita Creeks. Henry M. Newhall later purchased Rancho San Francisco in 1875.

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2 *Santa Clarita Valley Area Plan – One Valley, One Vision, Chapter 4: Conservation and Open Space Element, 2012.*

3 *Starzak, Richard, Historic Properties Survey Report for the Proposed Alameda Corridor from the Ports of Long Beach and Los Angeles to Downtown Los Angeles, in Los Angeles County. On file, South Central Coast Information Center, California State University-Fullerton. 1994.*

4 *Santa Clarita Valley Area Plan – One Valley, One Vision, Chapter 4: Conservation and Open Space Element, 2012.*

5 *Lyons Avenue At-Grade Rail Crossing, Impact Science, Inc. Draft EIR, March 2010.*

6 *Santa Clarita Valley Area Plan – One Valley, One Vision, Chapter 4: Conservation and Open Space Element, 2012.*

The first documentation of gold discovery in California occurred in Placerita Canyon in 1842, and nearly 1,300 pounds of gold were retrieved between 1842-1847. The discovery of gold prompted the development of mining camps and settlements throughout the mineral-rich Santa Clarita Valley. At the same time, in 1847, American explorer John C. Fremont arrived in Castaic Junction with his Buckskin Battalion, and he accepted the surrender of California from General Andres Pico. Fremont's crossing point through the Santa Susana Mountains became known as Fremont Pass, and was later renamed as Newhall Pass. In 1854, Fremont Pass was later expanded to allow for stagecoach access and provided a major route from St. Louis to San Francisco throughout the late 1850s.

Oil seeps were discovered in Pico Canyon in 1865, and the area became the first location to be drilled for oil. Soon after Henry M. Newhall purchased Mission of San Francisco land, he opened the land up for the development of the Transcontinental Railroad. This, along with the development of Pico oil field and construction of the Pioneer Oil Refinery in the mid-1870s, prompted an oil boom in the Santa Clarita Valley. Additionally, with the completion of the railroad in the area in 1876, the town of Newhall began forming. From 1875-forward, much of the Valley's history can be tied to Newhall and his heirs.[7]

Henry Newhall died in 1882, and his heirs formed The Newhall Land and Farming Company. Between 1936 through the mid-1950s, the Newhall Ranch underwent a radical change when Atholl McBean, grandson-in-law of Henry Newhall, struck oil. In the late 1950s, McBean shifted the Newhall Ranch into the land-development sector due to the housing patterns occurring in Southern California after World War II. During this transition from open land to master-planned community, the modern district of Newhall within the City of Santa Clarita has a number of historic properties within "Old Town Newhall" (west of the Project Site).[8]

Adding to the rich history of the Santa Clarita Valley, the Valley was commonly used as the setting for many western films during the 1930s and 1940s. Some of these western relics can be found in downtown Newhall, such as the Tom Mix Cottages.

Regulatory Setting

Historic resources fall within the jurisdiction of several levels of government. Federal laws provide the framework for the identification, and in certain instances, protection of historic resources. Additionally, states and local jurisdictions play active roles in the identification, documentation, and protection of such resources within their communities. The National Historic Preservation Act (NHPA) of 1966, as amended, and the California Register of Historical Resources (California Register) are the primary federal and state laws and regulations governing the evaluation and significance of historic resources of national, state, regional, and local importance. As archaeological resources are also considered historic, regulations applicable to historic resources are also applicable to archaeological resources and are discussed and analyzed in this section. Descriptions of these relevant laws and regulations are presented below.

[7] *Santa Clarita Valley Area Plan – One Valley, One Vision, Chapter 4: Conservation and Open Space Element, 2012.*

[8] *Lyons Avenue At-Grade Rail Crossing, Impact Science, Inc. Draft EIR, March 2010.*

Federal Regulations

National Register of Historic Places

The National Register of Historic Places (National Register) was established by the NHPA, as "an authoritative guide to be used by Federal, State, and local governments, private groups and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment."[9] The National Register recognizes properties that are significant at the national, state, and/or local levels.

(i) Criteria

To be eligible for listing in the National Register, a property must be at least 50 years of age (unless the property is of "exceptional importance") and possess significance in American history and culture, architecture, or archaeology. A property of potential significance must meet one or more of the following four established criteria:[10]

a) Associated with events that have made a significant contribution to the broad patterns of our history; or
b) Associated with the lives of persons significant in our past; or
c) Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
d) Yield, or may be likely to yield, information important in prehistory or history.

(ii) Integrity

According to National Register Bulletin #15, "to be listed in the National Register of Historic Places, a property must not only be shown to be significant under National Register criteria, but it also must have integrity." Integrity is defined in National Register Bulletin #15 as "the ability of a property to convey its significance."[11] Within the concept of integrity, the National Register recognizes the following seven aspects or qualities that in various combinations define integrity: feeling, association, workmanship, location, design, setting, and materials.

(iii) Context

To be eligible for listing in the National Register, a property must also be significant within a historic context. National Register Bulletin #15 states that the significance of a historic property can be judged only when it is evaluated within its historic context. Historic contexts are "those patterns or trends in history by which a specific occurrence, property, or site is understood and its meaning… within history or

[9] *36 Code of Federal Regulations (CFR) Section 60.2.*
[10] *Title 36 Code of Federal Regulations, Part 60.4 (2011).*
[11] *National Register Bulletin #15, pp 44. (revised 2002).*

prehistory is made clear."[12] A property must represent an important aspect of the area's history or prehistory and possess the requisite integrity to qualify for the National Register.

(iv) Historic Districts

The National Register includes significant properties, which are classified as buildings, sites, districts, structures, or objects. A historic district "derives its importance from being a unified entity, even though it is often composed of a wide variety of resources. The identity of a district results from the interrelationship of its resources, which can… be an arrangement of historically or functionally related properties."[13]

A district is defined as a geographically definable area of land containing a significant concentration of buildings, sites, structures, or objects united by past events or aesthetically by plan or physical development.[14] A district's significance and historic integrity should help determine the boundaries. Other factors include:

- Visual barriers that mark a change in the historic character of the area or that break the continuity of the district, such as new construction, highways, or development of a different character;
- Visual changes in the character of the area due to different architectural styles, types, or periods, or to a decline in the concentration of contributing resources;
- Boundaries at a specific time in history, such as the original city limits or the legally recorded boundaries of a housing subdivision, estate, or ranch; and
- Clearly differentiated patterns of historical development, such as commercial versus residential or industrial. [15]

Within historic districts, properties are identified as contributing and noncontributing. A contributing building, site, structure, or object adds to the historic associations, historic architectural qualities, or archeological values for which a district is significant because:

- It was present during the period of significance, relates to the significance of the district, and retains its historical integrity or is capable of yielding importation information about the period; or
- It independently meets the criterion for listing in the National Register.[16]

Archaeological Resources

The federal Archaeological Resources Protection Act of 1979 (Public Law 96-95) protects archaeological resources and sites on federal and Indian lands, including requirements for issuance of permits by federal land managers to excavate or remove archaeological resources. The Native American Graves and

12 *Ibid., p. 7.*
13 *Ibid., p. 5.*
14 *Title 36 Code of Federal Regulations, Part 60.3(d). (2011)*
15 *National Register Bulletin #21, p. 12. (revised 1997)*
16 *National Register Bulletin #16A, p. 16.*

Repatriation Act (1990) and the Native American Heritage Act (1984 and 1992) provide guidelines for protection of Native American remains and artifacts.

Paleontological Resources

In 2009, the Paleontological Resources Preservation Act (PRPA) became law when President Barack Obama signed the Omnibus Public Land Management Act (OPLMA) of 2009, Public Law 111-011.[17] The PRPA requires the Secretaries of the Interior and Agriculture to manage and protect paleontological resources on Federal land using scientific principles and expertise. The PRPA includes specific provisions addressing management of these resources by Federal agencies. It provides authority for the protection of paleontological resources on Federal lands including criminal and civil penalties for fossil theft and vandalism. The PRPA only applies to Federal lands and does not affect private lands.

State Regulations

California Register of Historical Resources

In 1992, Governor Wilson signed Assembly Bill 2881 into law establishing the California Register of Historical Resources. The California Register is an authoritative guide used by state and local agencies, private groups, and citizens to identify historic resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse impacts.[18] The California Register consists of properties that are listed automatically as well as those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed in the National Register and those formally Determined Eligible for the National Register;
- State Historical Landmarks from No. 0770 onward; and
- Those California Points of Historical Interest that have been evaluated by the State Office of Historic Preservation (SOHP) and have been recommended to the State Historical Resources Commission for inclusion on the California Register.[19]

The criteria for eligibility of listing in the California Register are based upon National Register criteria, but are identified as 1-4 instead of A-D. To be eligible for listing in the California Register, a property generally must be at least 50 years of age and must possess significance at the local, state, or national level, under one or more of the following four criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or
2. It is associated with the lives of persons important to local, California, or national history; or
3. It embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values; or

[17] *P.L. 111-011, Title VI, Subtitle D on Paleontological Resources Preservation (known by its popular name, the PRPA) (123 Stat. 1172; 16 U.S.C. 470aaa).*

[18] *Public Resources Code Section 5024.1(a).*

[19] *Public Resources Code Section 5024.1(d).*

4. It has yielded, or has the potential to yield, information important in the prehistory or history of the local area, California, or the nation.

Historic resources eligible for listing in the California Register may include buildings, sites, structures, objects, and historic districts. Resources less than 50 years of age may be eligible if it can be demonstrated that sufficient time has passed to understand its historical importance. While the enabling legislation for the California Register is less rigorous with regard to the issue of integrity, there is the expectation that properties reflect their appearance during their period of significance.[20]

The California Register may also include properties identified during historic resource surveys. However, the survey must meet all of the following criteria:[21]

1. The survey has been or will be included in the State Historic Resources Inventory;
2. The survey and the survey documentation were prepared in accordance with office [OHP] procedures and requirements;
3. The resource is evaluated and determined by the office [OHP] to have a significance rating of Category 1 to 5 on a DPR Form 523; and
4. If the survey is five or more years old at the time of its nomination for inclusion in the California Register, the survey is updated to identify historical resources which have become eligible or ineligible due to changed circumstances or further documentation and those which have been demolished or altered in a manner that substantially diminishes the significance of the resource.

California Office of Historic Preservation Survey Methodology

The evaluation instructions and classification system prescribed by the OHP in its *Instructions for Recording Historical Resources* provide a three-digit evaluation rating code for use in classifying potential historic resources. In 2003, the codes were revised to address the California Register.

The first digit indicates the general category of evaluation. The second digit is a letter code to indicate whether the resource is separately eligible (S), eligible as part of a district (D), or both (B). The third digit is a number, which is coded to describe some of the circumstances or conditions of the evaluation. The general evaluation categories are as follows:

1. Listed in the National Register or the California Register.
2. Determined eligible for listing in the National Register or the California Register.
3. Appears eligible for listing in the National Register or the California Register through survey evaluation.
4. Appears eligible for listing in the National Register or the California Register through other evaluation.
5. Recognized as historically significant by local government.
6. Not eligible for listing or designation as specified.
7. Not evaluated or needs re-evaluation.

[20] *Public Resources Code Section 4852.*
[21] *Public Resources Code Section 5024.1(g).*

Native American Tribal Consultation

In 2014 the California legislature added new requirements for tribal cultural resources through the approval of Assembly Bill (AB) 52. Pursuant to the provisions of AB 52, Public Resources Code (P.R.C.) Section 21084.2 establishes that "[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment." To help determine whether a project may have such an effect, CEQA requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. Specifically, P.R.C. Section 21080.3.1(b) states:

> *"Prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project, the lead agency shall begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if: (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe, and (2) the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation."*

The tribal notification requirements of AB 52 and P.R.C. Section 21080.3.1 became effective on July 1, 2015, and after the release of the Notice of Preparation (NOP) for this project.[22] To date, no California Native American tribes have requested in writing to be informed by the lead agency through formal notification or have otherwise requested consultation. A copy of the NOP was submitted to the Native American Heritage Commission (NAHC) (see Appendix B to this EIR for a copy of the NAHC comment letter on the NOP). As recommended by the NAHC, provisions for the identification and evaluation of accidentally discovered archaeological resources have been incorporated into this EIR (See the Archaeological Resources and Tribal Cultural Resources subheadings below).

Local Regulations

City of Santa Clarita General Plan

Chapter 2 of the General Plan, Land Use Element, addresses the objectives and policies to guide land uses within the City of Santa Clarita. Specifically, Objective LU 2.2 protects significant community resources from encroachment by incompatible uses, where feasible and appropriate. To achieve this objective, Policy LU 2.2.2 identifies sites and areas of cultural and historical value to the community, and ensure that uses in or adjacent to these areas will not impact their historical integrity.

Additionally, Goal LU 6 aims to protect the community history and natural setting through building a scenic and beautiful urban environment. Objective LU 6.4 protects the Santa Clarita Valley's historical and cultural resources in a scenic setting through appropriate land use designations. The policies to achieve this goal and objective include: maintaining the historic buildings in Newhall through

[22] *The NOP was published on August 5, 2013.*

implementation of preservation measures in the Downtown Newhall Specific Plan; enhancing the area around historic Land Station; maintain cultural resources from pre-historical Native American habitation and historical settlement in the identified areas around Santa Clarita, including along the Santa Clara River; and maintain the historic area of the Rancho San Francisco Estancia.

Chapter 6 of the General Plan, Conservation and Open Space Element, addresses the objectives and policies to preserve open space. Goal CO 10 states that the preservation of open space is to meet the multiple objects for resource preservation. Objective CO 10.1 states that areas throughout the Santa Clarita Valley are to be identified and preserved as open space in order to conserve significant resources for long-term community benefit. To accomplish this goal and objective, Policy CO 10.1.4 aims to maintain and acquire, where appropriate, open space to preserve cultural and historic resources.

It should be noted that the General Plan does not indicate any specific policies or goals with respect to preserving paleontological resources.

One Valley One Vision General Plan

Chapter 15, Goals, Objectives, and Policies, of the One Valley One Vision General Plan for the City of Santa Clarita addresses the objectives and policies to help implement the various goals. Goal CO-5 is to protect the historical and culturally significant resources that contribute to community identity and a sense of history. Objective CO-5.2 is to protect and enhance the historic character of Downtown Newhall. To achieve this goal and objective, the City of Santa Clarita requires that the City supports the Downtown Specific Plan policies to ensure that the character of new development is compatible with and does not detract from the context of historic buildings and block patterns; ensures that all aspects of community design in Newhall are of appropriate for this historic character of the district; and supports the diverse historical resources that illustrate the various phases of settlement within the Santa Clarita Valley.

Objective CO-5.3 aims to encourage conservation and preservation of Native American cultural places, including prehistoric, archaeological, cultural, spiritual, and ceremonial sites on both public and private lands, throughout all stages of the planning and development process. To achieve this objective, the City of Santa Clarita requires that all proposed development projects that may have a potential impact on Native American cultural resources, provide notification to California Native American tribes, and consider the input received prior to a discretionary decision; and the City requires that studies be conducted on cultural resources for any new grading and development in areas identified as having a high potential for Native Americans resources, and incorporate recommendations to mitigate impacts.

These goals and objects are also included in the Santa Clarita General Plan, Conservation Element.

Downtown Newhall Specific Plan

Although, the Project Site is not physically located in the Downtown Newhall Specific Plan study area, all fourteen historic structures identified by the SCCIC search are located in the Newhall Specific Plan study area. The Specific Plan states that it is important to preserve the historic resources downtown Newhall to provide value and appeal. This includes the restoration and the preservation of culturally significant

buildings. The Downtown Newhall Specific Plan asks that temporary fencing may be necessary to protect archaeological or historic resources during site preparation and construction.

Historic Resources Study Area

History of the Study Area

For purposes of this analysis, the Project Site and surrounding Add Area properties were identified for evaluation using the City of Santa Clarita General Plan, Conservation and Open Space Element Historical Resources map and supplemented with additional historical properties identified by SCCIC. The Historic Resources Study Area is identified in Figure 4.4-1, below. The following presents an overview of the history of development within the study area.

4.4.3 ENVIRONMENTAL IMPACTS

Methodology

The historic resources assessment of the Lyons Avenue / Dockweiler Extension Project involved a multi-step methodology. In conducting the analysis of potential historic resources, SCCIC performed the following tasks:

1. Established the study area for the report as a larger area than the actual portion of the Project Site that extends eastward towards the General Plan alignment for Dockweiler Drive towards The Master's University. A ½-mile radius was established as the study area for the archaeological and cultural search.

2. Reviewed the SCCIC database and maps for historic built-environment resources and archeological resources. Reviewed the California Historic Resources Inventory (HRI), the California Point of Historical Interest (SPHI), the California Historical landmarks (SHL), the California Register of Historical Resources (CAL REG), and the National Register of Historical Places (NRHP) for historical structures within the Project Site boundary and within the ½-mile radius. No historical structures were identified within the Project Site. The HRI found 31 properties that have been evaluated for historical significance within a ½–mile radius of the Project Site. Evaluation of a structure does not independently qualify the structure as historical.

3. Reviewed historic map of Santa Susana, California. The map indicates that in 1903, there was a significant amount of development with the Project Site. The Project Site was located within a dense urban environment with numerous roads and buildings. By 1941, the Project Site was still located within a dense urban environment with several roads and buildings.

4. Identified previous Cultural Resources investigations that were conducted within a ½-mile radius of the Project Site. Twenty-four studies were identified within the ½-mile radius of the Project Site, and eight studies are located within the Project Site.

LEGEND

Project Site

Dockweiler Drive Extension (Not Part of the Project Site)

1. Southern Pacific Railroad Bridge; Ice House; and Wilcox Sewer Corporation
   22502-22510 Fifth Street
2. Newhall Signal Newspaper Office
   22506 Sixth Street
3. Ray Osborne's Dwelling
   22614/16 Ninth Street
4. Adam Malinzewski's Dwelling
   22621 Thirteenth Street
5. Sheriff Substation
   24238 Main Street
6. Seventh Day Adventist Church
   24244 Walnut Street
7. Tom Mix Cottages
   24247-24251 Main Street
8. Erwin House
   24287 Newhall Avenue
9. Ye Olde Courthouse
   24307 Railroad Avenue
10. Commerical Structure
    24311-24313 Main Street
11. Old Newhall Jail
    24522 Spruce Street
12. William S. Hart Park and Museum
    24151 Newhall Avenue
13. Heritage Junction
    Historical Park (includes, Newhall Ranch House, Mitchell Adobe School House, Kingsburry House, Callahan's School House, Ramona Chapel, Edison House, Pardee House/-Good Templars, and Saugus Depot)
    24101 Newhall Avenue
14. American Legion Hall/American Theatre Company
    24527 Spruce Street

Source: Ariel View, Google Earth, 2010

PARKER
ENVIRONMENTAL CONSULTANTS

Figure 4.4-1
Historic Resources Study Area

5. Provides recommendations to minimize potential Project impacts to cultural and archeological resources.

The Vertebrate Paleontology Department at the Natural History Museum of Los Angeles County conducted a Vertebrate Paleontology records search of the Natural History Museum of Los Angeles County for any fossils vertebrate localities that lie directly within the Project boundaries and the surrounding area for the portion of the Project Site that extends eastward towards the General Plan alignment for Dockweiler Drive towards The Master's University. No vertebrate fossil localities were identified within the Project Site. Two vertebrate fossil localities from the Saugus Formation (or possibly the older Quaternary sediments), directly north of the Project Site, produced fossil specimens of a camel (*Camelidae*) and horse (*Equus*). The Vertebrate Paleontology Department further provides recommendations to minimize potential Project impacts to paleontological resources.

CEQA Guidelines Thresholds of Significance

According to Checklist Questions V(a) through V(d) in Appendix G of the State CEQA Guidelines, a project may have a significant environmental impact if it were to:

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

The State Legislature has amended CEQA to clarify which properties are significant, as well as which project impacts are considered to be significantly adverse.

A project with an effect that may cause a substantial adverse change in the significance of a historic resource is a project that may have a significant effect on the environment.[23] A substantial adverse change in the significance of a historic resource means demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.[24]

The Guidelines further provide that "the significance of an historic resource is materially impaired when a project… demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources… local register of historic resources… or its identification in a historic resources survey."[25]

Additionally, in accordance with the amended CEQA Guidelines adopted in response to AB 52, a project

[23] *CEQA Guidelines, Section 15064.5(b).*
[24] *CEQA Guidelines, Section 15064.5(b)(1).*
[25] *CEQA Guidelines, Section 15064.5(b)(2).*

may have a significant environmental impact if it would cause a substantial adverse change in the significance of a tribal cultural resource, defined in P.R.C Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

(a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in P.R.C. Section 5020.1(k); or

(b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of P.R.C. Section 5024.1. In applying the criteria set forth in subdivision (c) of P.R.C. Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Project Impacts

Cultural and Historic Resources

A project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment. There are no habitable structures located within the Project Site. The Project Site includes the roadway extension and widening of the intersection of Lyons Avenue and Railroad Avenue and extends eastward towards the General Plan alignment for Dockweiler Drive towards The Master's University and northwest towards the intersection of 12th Street and Arch Street, the closure of an at-grade crossing at the intersection of Railroad Avenue and 13th Street. The portion of the Project Site located at the intersection of Lyons Avenue and Railroad Avenue that extends eastward towards the General Plan alignment for Dockweiler Drive towards The Master's University and northwest towards the intersection of 12th Street and Arch Street would have the potential to adversely impact historic or cultural resources as it includes improving roadway segments and a road extension over undeveloped open space area.

Archaeological Resources

Section 15064.5 of the State CEQA Guidelines defines significant archaeological resources as resources that meet the criteria for historical resources, as described above, or resources that constitute unique archaeological resources. A project-related significant impact may occur if the Proposed Project were to affect archaeological resources. Moreover, a significant impact may occur if project activities, such as grading or excavation, were to disturb previously untouched archeological resources or Native American burial sites. No known archeological sites are identified within the Project Site. While, portions of the Project Site are improved with roadways, the Proposed Project will consist of earthwork activities, such as grading and excavation, in areas that are currently undeveloped. Construction-related earthwork activities may result in the accidental discovery of prehistoric or historic archaeological resources or Native American burial sites. In the unlikely event archaeological resources are discovered during excavation, grading, or construction activities, work will be halted in the area of the find until a qualified archaeologist has evaluated the find in accordance with federal, State, and local guidelines, including

those set forth in California Public Resources Code Section 21083.2. State law prohibits the collection or disturbance of any suspected archaeological materials until a qualified archaeologist is contacted to survey the find. Construction activity may continue unimpeded on other portions of the Project site. The found deposits would be treated in accordance with federal, State, and local guidelines, including those set forth in California Public Resources Code Section 21083.2(i). Thus, with implementation of Mitigation Measure 4.4-1, impacts would be reduced to less than significant levels.

Paleontological Resources

A significant adverse effect could also occur if grading or excavation activities associated with the project were to disturb any paleontological remains within the Project Site. The records search conducted by the Vertebrate Paleontology Department of the Natural History Museum of Los Angeles County yielded no known fossil localities within the Project Site. The closest vertebrate fossil localities are from the Saugus Formation, located directly north of the Proposed Project Site. The fossil specimens are of a camel, *Camelidae*, and a horse, *Equus*. While it is possible that fossilized materials may be discovered during site preparation and construction, specifically grading and excavation activities, precautionary measures set forth in Mitigation Measure 4.4-2 would reduce any potential adverse impacts to paleontological resources to a less than significant level.

Tribal Cultural Resources

As noted above, the NOP for the proposed project preceded AB 52 and the CEQA amendments pertaining to the public notification requirements of Native American Tribes. CEQA requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. No California Native American tribes have requested in writing to be informed by the lead agency through formal notification or have otherwise requested consultation. Based on a records search conducted through the South Central Coastal Information Center (SCCIC) (see Appendix E to this EIR), no archaeological sites have been identified within a ½-mile radius of the Project Site. As such, the Proposed Project would not have a direct impact upon known archaeological resources, including Native American tribal resources. However, as noted in the NAHC's response letter to the NOP, a lack of surface evidence of archeological resources does not preclude their subsurface existence. As such, provisions for the identification and evaluation of accidentally discovered archeological resources would be implemented in accordance with mitigation measure 4.4-1, below. With the incorporation of mitigation measure 4.4-1, impacts upon tribal resources would be less than significant.

4.4.4 CUMULATIVE IMPACTS

In accordance with Section 15130(b)(1)(A)(B) of the CEQA Guidelines, an adequate discussion of a project's significant cumulative impact, in combination with other closely related projects, can be based on either: (1) a list of past, present, and probable future producing related impacts; or (2) a summary of projections contained in an adopted local, regional, or statewide plan or related planning document that describes conditions contributing to the cumulative effect. The lead agency may also blend the "list" and "plan" approaches to analyze the severity of impacts and their likelihood of occurrence. For purposes of

assessing the Project's cumulative impact with respect to impacts upon cultural resources (including archaeological, paleontological and historic resources), the analysis below is appropriately based on a combination of the plan-based approach and the list-based approach to determine the Project's contributing effect on potential cumulative impacts on cultural resources.

The Proposed Project would result in the development of an undeveloped surrounding area, and provide improved access to The Masters University, Old Town Newhall, and the rural residential community of Placerita Canyon. However, impacts to cultural resources tend to be site-specific and are assessed on a site-by-site basis. Additionally, the historic resource assessment for the Proposed Project concluded that the Project will not result in significant adverse impacts on identified historic resources located within and adjacent to the Project Site following appropriate mitigation. Therefore, the Proposed Project's incremental contribution to a cumulative impact would not be considerable, and cumulative impacts to cultural resources would be less than significant.

4.4.5 MITIGATION MEASURES

4.4-1 In the event any archaeological materials are encountered during the course of Project development, all construction activity shall halt in the area of the find and the services of a qualified archaeologist shall be secured to assess the discovered material(s) and prepare a survey, study or report evaluating the significance of the materials encountered. The archaeologist's written assessment shall contain a detailed description of the materials encountered, and recommendations if necessary, for the preservation, conservation, or relocation of the resource. Project development activities may resume once copies of the archaeological survey, study or report are submitted to the satisfaction of the Planning Director and copies distributed to the SCCIC Department of Anthropology.

4.4-2 In the event any suspected paleontological materials are encountered during the course of Project development, all construction activity shall halt in the area of the find and the services of a qualified paleontologist shall be secured to assess the discovered material(s) and prepare a survey, study or report evaluating the significance of the materials encountered. The paleontologist's written assessment shall contain a detailed description of the materials encountered, and recommendations if necessary, for the preservation, conservation, or relocation of the resource. Project development activities may resume once copies of the paleontological survey, study or report are submitted to the satisfaction of the Planning Director and copies distributed to the Los Angeles County Natural History Museum.

4.4.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the incorporation of mitigation measures, impacts upon cultural resources, including archaeological, paleontological, historic, and Native American Tribal resources would be less than significant.

4. ENVIRONMENTAL IMPACT ANALYSIS
5. GEOLOGY/SOILS

4.5.1 INTRODUCTION

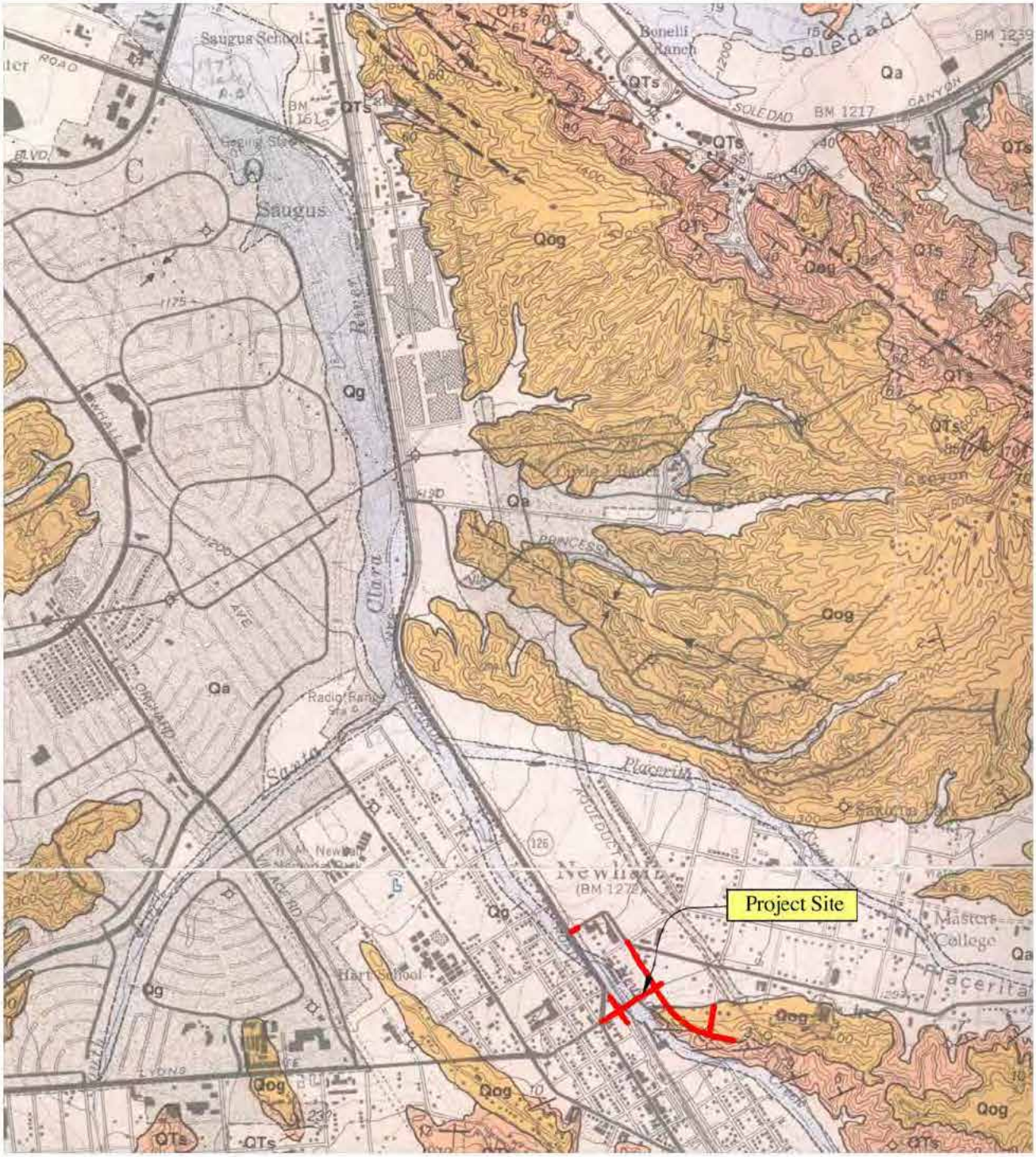
The following section of the Draft EIR evaluates potential impacts related to geology, including seismicity and soils associated with development of the Proposed Project. The majority of the analysis is based on the *Geologic and Geotechnical Report EIR-Level Review Of Road Alignments For Dockweiler Road and Lyons Avenue (The "Geotechnical Report")* prepared by Allan E. Seward Engineering Geology, Inc., dated October 17, 2014. The Geotechnical Report is included as Appendix F of this Draft EIR.

4.5.2 ENVIRONMENTAL SETTING

The Project Site is generally located in the Old Town Newhall area of the City of Santa Clarita. The Project Site is located at the intersection of Lyons Avenue and Railroad Avenue and extends eastward towards the General Plan alignment for Dockweiler Drive towards The Master's University and northwest towards the intersection of 12th Street and Arch Street. The Project Site also includes the closure of an at-grade crossing at the intersection of Railroad Avenue and 13th Street and associated street modification improvements.

With respect to the Geotechnical Report, and the analysis presented below, the Project Site is defined as the area that consists of future road alignments for extension of Lyons Avenue from its current northeastern terminus at Railroad Avenue to a future intersection with proposed Dockweiler Drive approximately 600 ft. to the northeast. This includes a proposed at-grade crossing over the existing Southern Pacific railroad tracks and a crossing over Newhall Creek using a box culvert to connect to the proposed extension of Dockweiler Drive. Dockweiler Drive is proposed to extend from a point of connection at the Master's University property boundary northwesterly for approximately 2,000 feet to the intersection of Arch Street and 13th Street. Aden Avenue is to extend from its current southerly terminus to intersect with the future Dockweiler Drive approximately 250 ft. to the south (See Figure 4.5-1, Geologic Overview Map).

The proposed road alignments are located on the alluvial flood plain and hillside areas adjacent to Newhall Creek. The majority of the proposed road alignment for Lyons Avenue traverses undeveloped land, except for areas where artificial fill and railroad ballast have been placed to elevate and support the existing railroad double tracks. Dumped fill with abundant blocks of asphalt and concrete and other miscellaneous debris has been placed on the southwest bank of Newhall Creek, just northeast of the proposed at-grade railroad crossing. The proposed road alignment of Dockweiler Drive also traverses undeveloped land and a storage yard utilized by Los Angeles County Department of Public Works. The Project Site is covered with light to moderate growth of natural grasses and chaparral. Elevations at the site range from approximately 1255 to 1370 f**ee**t above mean sea level.



Source: Dibblee Geological Foundation Map #DF-56, (Dibblee, 1996)

Approximate Scale: 1"=2,000'

Qa - Quaternary Alluvium
Qog - Quaternary Older Gravels
QTs - Saugus Formation

Source: Allan E. Seward Engineering Geology, Inc., October 2014.

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Figure 4.5-1
Geological Overview Map

Regional Geologic Conditions

The Project Site is located within the central part of the Transverse Ranges geomorphic province of southern California, in the eastern portion of the Ventura Basin. The Ventura Basin has been tectonically down-warped in the geologic past to produce a large-scale synclinal structure in which a thick sequence of Cenozoic sediments has accumulated. In the vicinity of the proposed road alignments, much of the hillside area along the northeastern margin of Newhall Creek consists of bedrock of the Quaternary-age Pacoima Formation (Qp). The relatively flat flood plain southwest of Newhall Creek is underlain by sub-horizontal alluvium deposited (Qal). The Pacoima Formation and alluvial deposits are underlain by bedrock of the Plio-Pleistocene, nonmarine Saugus Formation (TQs). No faults or folds have been identified at the Project Site on the referenced published geologic map of the area. Figure 4.5-1 provides a Geologic Overview Map, which is based on the Geologic Map of the Newhall Quadrangle (Dibblee, 1996).

Geological Structure

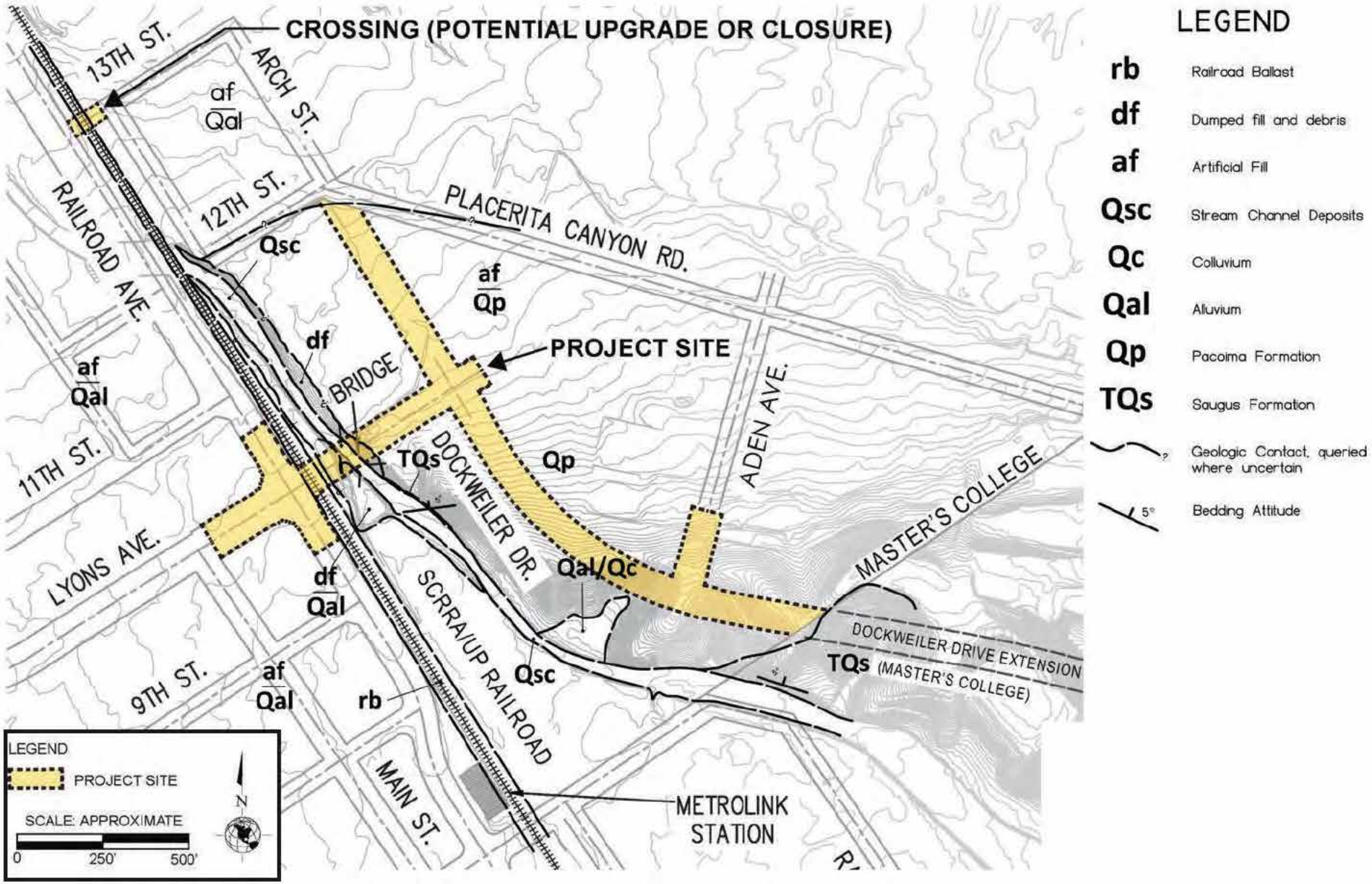
The natural slopes at the Project Site are underlain by sub-horizontally bedded Pacoima Formation in erosional unconformable contact over Plio-Pleistocene non-marine sediments of the Saugus Formation. The Saugus Formation in the vicinity of the Project Site generally strikes roughly east to west and dips gently to the north (Treiman, 1987; and Dibble, 1996). The Saugus Formation bedding measured in northern bank of the Newhall Creek strikes N70W and dips 5° north. The measured bedding is generally consistent with regional geologic maps and the geologic structure as documented during a previous investigation and published report.

Geologic Units

As depicted in Figure 4.5-2, Geologic Map, Plate I, the approximate limits of exposed geologic units based on field observations and the referenced published geologic maps. Artificial fill and railroad ballast have been placed below the railroad tracks. Pavement and aggregate base have been placed beneath existing roadways. General descriptions of geologic units provided below are based the prior geologic observation in the vicinity of the Project Site, and the exposures in the banks of Newhall Creek in the vicinity of the proposed box culvert.

Saugus Formation (TQs)

Bedrock of the Plio-Pleistocene-age Saugus Formation (TQs) is exposed along the lower portion of the northerly eroded bank of Newhall Creek, just east of the proposed road alignment. The Saugus Formation sediments consist dominantly of gray to light brown sandstone and conglomeratic sandstone with scattered greenish-gray siltstone and silty sandstone (Treiman, 1987). Bedding within the Saugus Formation varies from predominately massive and indistinct to cross-bedded to locally well-developed planes on lensing, fine-grained units. Local variance in bedding orientations is common and is due to cross bedding and/or channelized (erosional) contacts.



Source: Allan E. Seward Engineering Geology, Inc., October 2014.

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Figure 4.5-2
Geologic Map, Plate I

Pacoima Formation (Qp)

Bedrock of the Quaternary-age Pacoima Formation (Qp) mantles the majority of the hillside area along the northern margin of Newhall Creek. This formation has been designated as "Older Dissected Surficial

Sediments or Qog" after Dibblee, 1996; however, these terrace deposits have been assigned to the Pacoima Formation (of Oakeshott, 1958) by Treiman (CDMG, 1987). In the Geotechnical Report, the nomenclature by Treiman is used. The bedrock generally consists of lensing, crudely stratified, light yellowish-brown to yellowish-brown to brown, silty to clayey, fine- to coarse-grained sandstone with some gravel, cobbles and rare boulders. Bedding is generally crude to locally well defined. Generally the bedrock is concealed by a mantling of soil and colluvium. However, the eroded banks of the Newhall Creek expose unweathered bedrock.

Quaternary Alluvium (Qal)

Quaternary Alluvium (Qal) underlies the existing surficial artificial fill materials located westerly of Newhall Creek south of 12th Street, and easterly of Newhall Creek north of 12th Street. Based on data obtained by this firm for the adjacent Old Town Newhall Library site, the alluvium is anticipated to consist of interbedded layers of poorly graded sand, silty sand, and gravelly sand. Interbedded layers of sandy silts and clays may also be present. These materials are typically medium dense to dense in the upper 30 to 40 feet with locally loose conditions in the upper 10 feet.

Recent Stream Channel Deposits (Qsc)

Quaternary Stream channel deposits (Qsc) are located within the active Newhall Creek channel. These deposits consist of recent alluvium that has been reworked due to heavy runoff during periodic rains. Stream channel deposits are very similar to the Quaternary alluvium and generally consist of silty sands, sands, and gravels with cobbles.

Quaternary Colluvium (Qc)

Colluvium (Qc) is a non-bedded, heterogeneous accumulation of soil and weathered bedrock deposited by gravity on all but the steepest slopes. These deposits have been mapped based on review of the topography where the estimated thickness is greater than about 3 feet.

Artificial Fill (af)

Artificial fill (af) was apparently placed below the existing railroad tracks to elevate the tracks above the Newhall Creek Flood Plain. The engineering characteristics of this material are currently unknown.

Dumped Fill (df)

Dumped fill (df) is present along the active stream margins of Newhall Creek at the vicinity of the proposed Lyons Avenue road alignment. The dumped fill consists of fill soils with abundant debris (asphalt, concrete, construction trash, metal, vehicle tires). Also present near the proposed alignment is an abandoned vehicle that is partially buried.

Railroad Ballast (rb)

Railroad ballast (rb) consisting of crushed natural rock was placed to support and elevate the two sets of railroad tracks at the site.

Landslides

Review of the referenced published geologic maps indicates that no landslides have been mapped at or adjacent to the site. Review of aerial photographs lack geomorphic features that would indicate prior landslide movement.

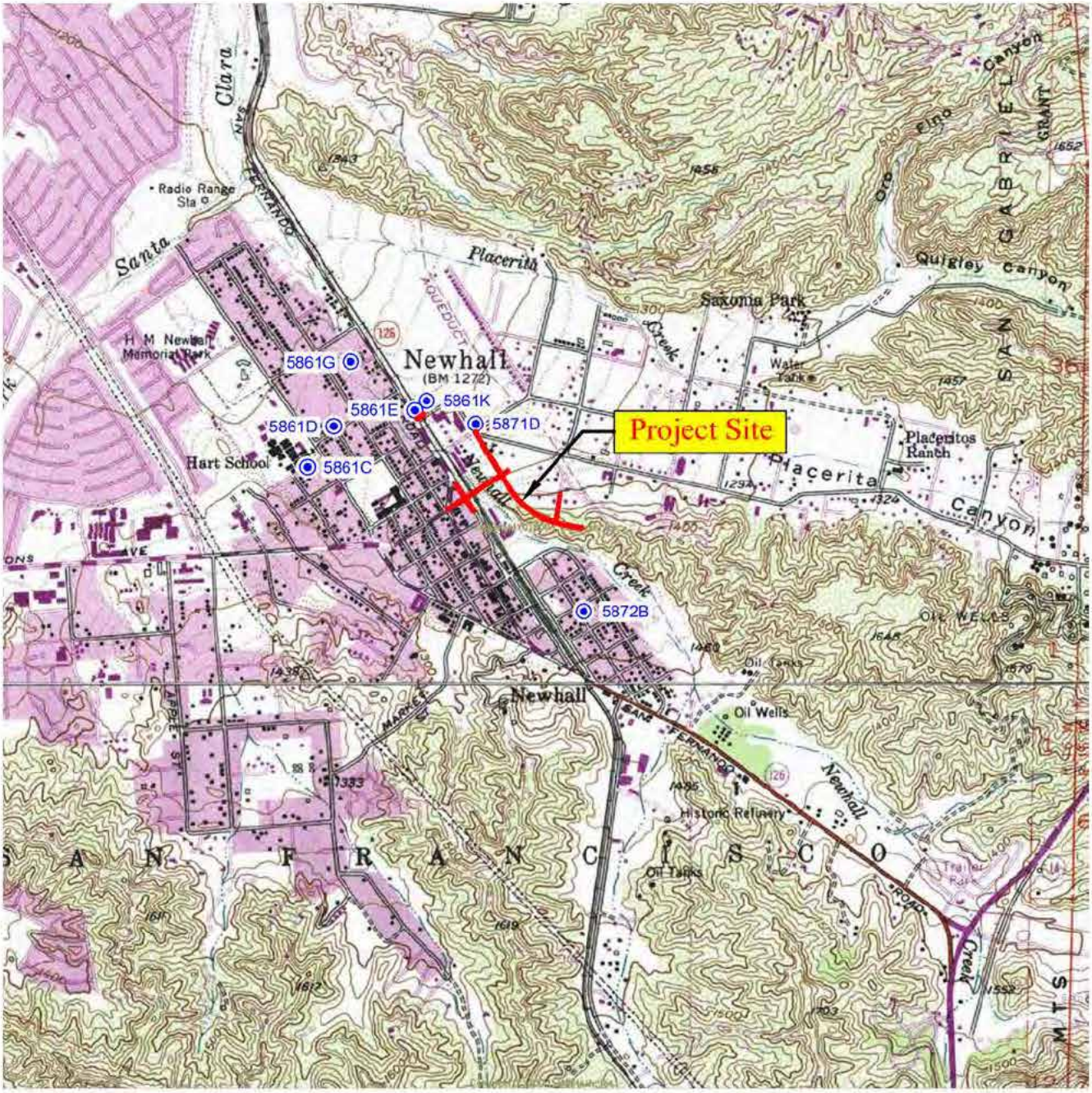
Ground Water

Review of historic ground water data from the Seismic Hazard Map for the Newhall Quadrangle, Water-Resources Investigation using Analog Model Techniques in the Saugus-Newhall Area (Robson, 1972), and Los Angeles Flood Control District (LACFCD) water well records indicates that historic high ground water levels are between 75 and 100 feet below the existing surface at the Project Site. The locations of nearby water wells are shown in Figure 4.5-3, Water Well Location Map. The historic ground water levels for each well obtained from LACFCD records are provided in Table 4.5-1, Summary of LAFCD Water Well Data. In addition, ground water was not encountered in subsurface explorations performed by this firm to a depth of 50 ft in the alluvium for the adjacent Old Town Newhall Library. However, temporary perched ground water conditions may exist below Newhall Creek following periods of significant rainfall and runoff.

Table 4.5-1
Summary of LAFCD Water Well Data

LACFCD Well Number	Surface Elevation	Historic High			Historic Low			Monitoring Period
		Depth	Elevation	Date	Depth	Elevation	Date	
5861C	1231.0	47.5	1183.5	11/24/58	179.3	1051.7	11/7/68	11/7/57 to 4/30/81
5861D	1236.5	103.2	1133.8	12/11/56	202.1	1034.4	10/28/67	12/11/56 to 11/30/88
5861E	1249.0	102.0* 33.0**	1147.0 1216.0	11/29/60 10/15/05	212.0	1037.0	10/15/91	11/19/59 to 10/15/08
5861G	1232.0	71.0	1161.0	4/14/76	81.3	1150.7	5/13/83	4/11/76 to 5/13/83
5861K	1250.0	102.0	1148.0	11/15/06	222.0	1028.0	10/15/91	10/15/91 to 10/15/08
5871D	1270.0	100.2	1169.8	4/6/73	230.8	1039.2	10/30/91	10/22/48 to 11/6/06
5872B	1290.0	66.6	1223.4	5/5/80	78.4	1211.6	11/8/77	4/14/76 to 4/8/86

Note: All depths and elevations in feet
** The historic high depth to ground water recorded between 1959 and 2000 is 102.0 ft*
*** The historic high depth to ground water recorded between 2000 and 2008 is 33.0 ft*
Source: Allan E. Seward Engineering Geology, Inc., October 2014.



Legend

6981E *Location of LACFCD water well*

Source: U.S. Geological Survey Newhall, and Oat Mountain Quadrangles, Dated 1952 (Photorevised 1969), Dated 1952 (Photorevised 1969), Respectively

Approximate Scale: 1"=2,000'

NOTE: THIS IS NOT A SURVEY OF THE PROPERTY

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Source: Allan E. Seward Engineering Geology, Inc., October 2014.

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Figure 4.5-3
Water Well Location Map

A low potential exists for temporary, perched ground water conditions to develop within the bedrock of the Pacoima formation. Perched ground water can contribute to slope instability in natural slopes and cut slopes. To prevent build-up of water, subdrains are typically recommended in canyon areas in which fill will be placed and back drains for slopes that are to be constructed as Stability Fills or Buttress Fills.

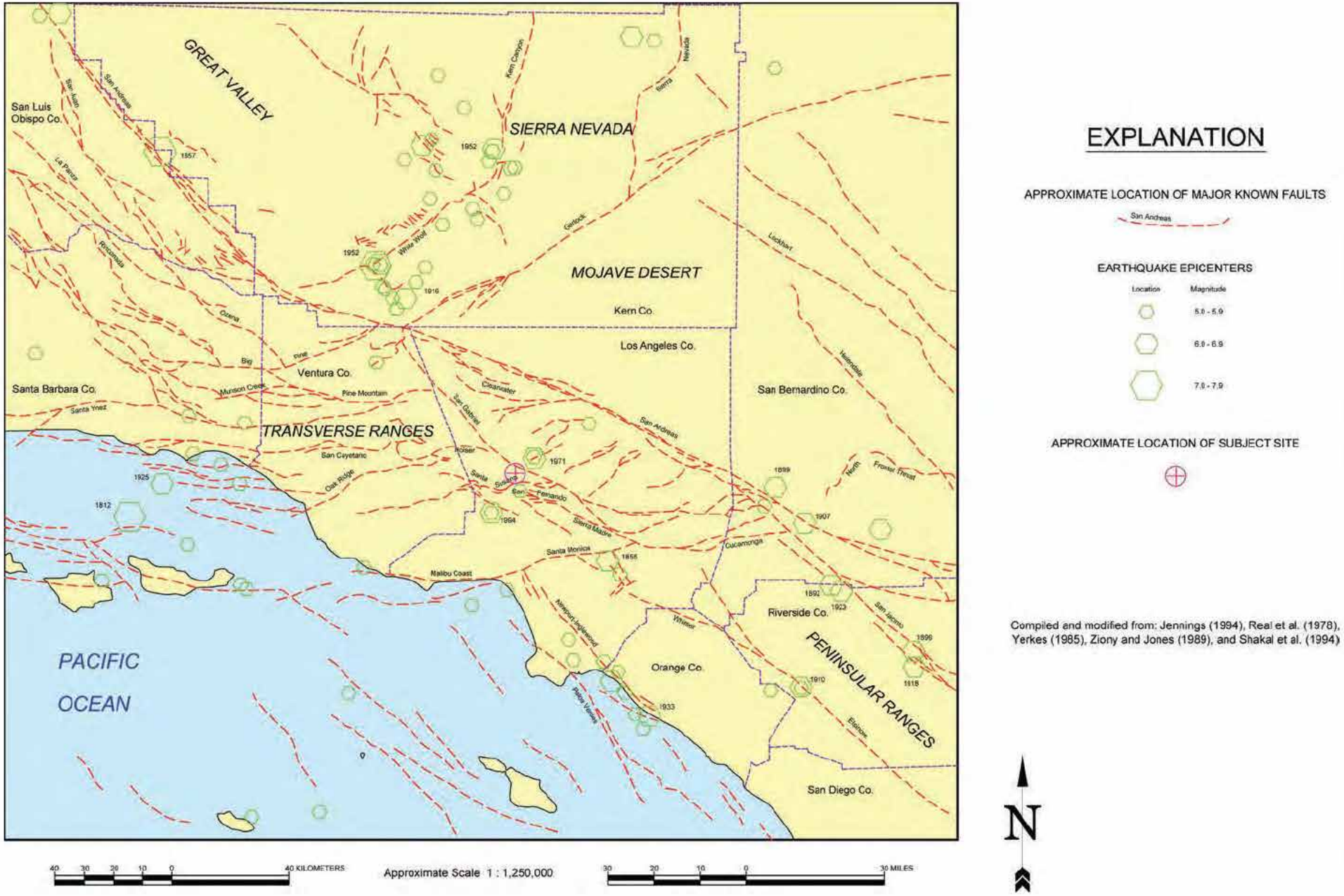
Due to the historic high ground water elevations and the elevated nature of portions of the road alignment, ground water is not expected to significantly affect the project, provided the proposed grading is evaluated from a geotechnical standpoint during the design stage and the geotechnical recommendations are implemented during construction.

Seismic Considerations

The Project Site lies within the seismically active southern California region. Earthquake-related hazards typically include ground rupture, ground shaking, and ground failure. Review of the Alquist-Priolo Earthquake Fault Zone Map for the Newhall Quadrangle, the Seismic Safety Element of the L.A. County General Plan, and the published Geologic Maps indicates that no active or potentially active faults traverse the Project Site. Review of the site topography and the aerial photographs did not reveal any lineaments or other indicators suggestive of faulting at the Project Site. The nearest known active fault is the San Gabriel Fault, which is 3.7 km from the site at its nearest point. Table 4.5-2 provides a list of regional faults near the Project Site, Figure 4.5-4 provides a map of the fault locations, and Figure 4.5-5 provides a Seismic Hazards Map. Based on these distances, the probability of fault-related ground rupture at the site is considered to be very low.

Table 4.5-2
Summary of Nearby Faults

Fault Name	Closest Distance to Site (km)		Maximum Magnitude	Slip Rate (mm/yr)
	Surface Trace	Surface Projection of Rupture Area		
San Gabriel	3.7	3.7	7.0	1.0
Holser	4.3	3.1	6.5	0.4
Northridge (E. Oak Ridge)	5.1	5.1	6.9	1.5
Santa Susana	7.1	0.0	6.6	5.0
Sierra Madre (San Fernando)	9.9	4.7	6.7	2.0
Verdugo	16.7	15.8	6.7	0.5
Oak Ridge (on shore)	17.8	17.8	6.9	4.0
San Cayetano	22.2	22.2	6.8	6.0
Sierra Madre	24.5	21.4	7.0	3.0
Simi-Santa Rosa	26.7	26.7	6.7	1.0
San Andreas	33.1	33.1	7.8	34.0
Source: Allan E. Seward Engineering Geology, Inc., October 2014.				



Source: Allan E. Seward Engineering Geology, Inc., October 2014.

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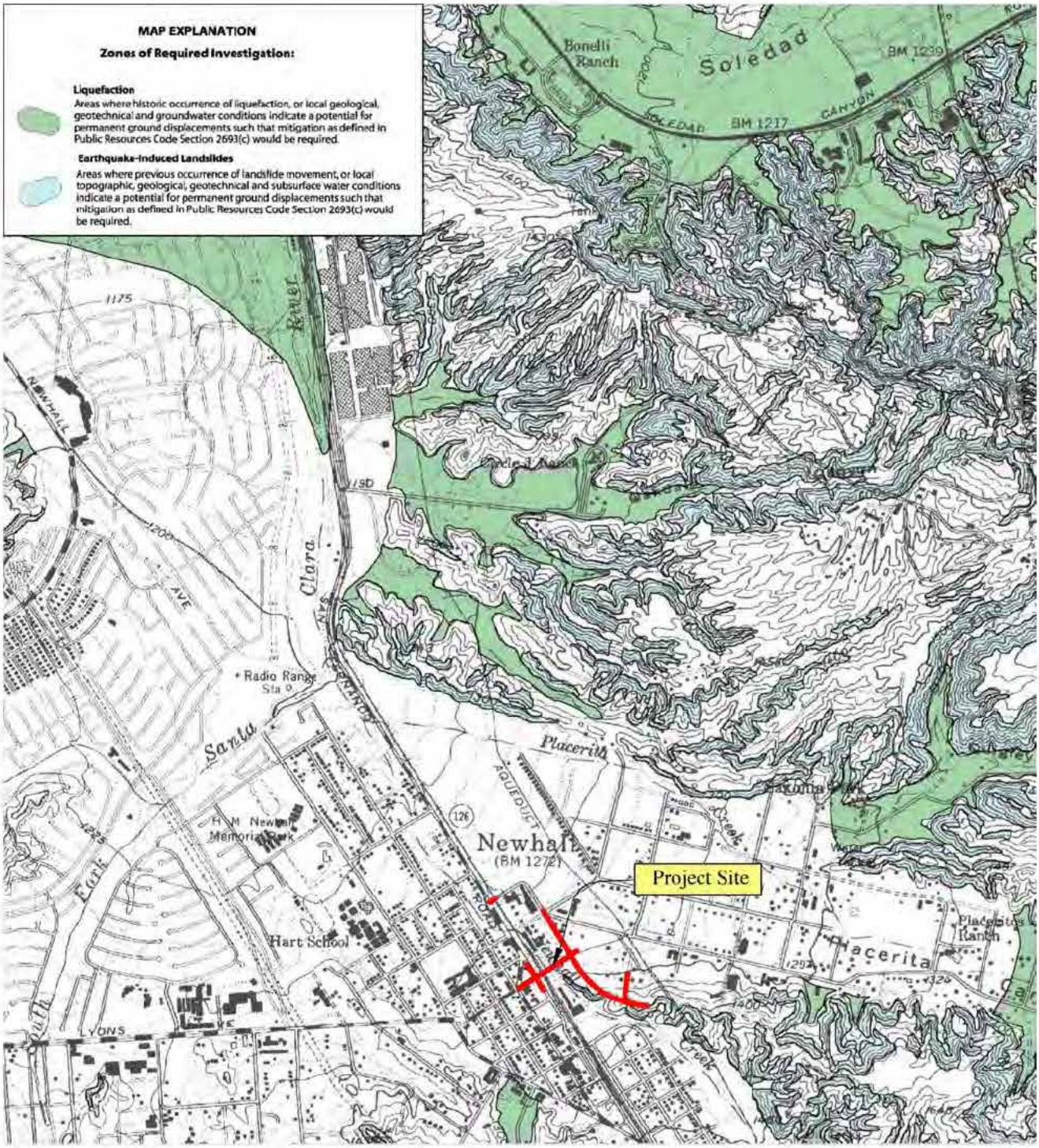
Figure 4.5-4
Fault and Earthquake Epicenter Location Map



Source: Seismic Hazard Zones Maps for the Newhall Quadrangle - Official Map Released 1/1/98

Approximate Scale: 1"=2,000'

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Source: Allan E. Seward Engineering Geology, Inc., October 2014.

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Figure 4.5-5
Seismic Hazard Map

Ground Shaking

Peak ground acceleration (PGA) consistent with maximum considered earthquake (MCE) ground motions were evaluated at the site for bedrock (Site Class B) and alluvial (Site Class C) soil conditions in accordance with the 2013 California Building Code and ASCE 7-10. The mapped MCE geometric mean (MCE_G) peak ground accelerations (PGA_M) adjusted for Site Class effects were first evaluated using the U.S. Seismic Design Maps web tool provided by the United States Geological Survey (USGS). The MCE_G PGA_M was then evaluated for a two percent probability of exceedance within a 50-year period

using the USGS 2008 Interactive Deaggregation web tool. The PGA_M calculated using the probabilistic procedure is based on estimated values of shear wave velocity (V_{s30}) within the range designated for the corresponding Site Class. The estimated PGA_M for bedrock (1.17g) and alluvial (1.03g) soil conditions was taken as the lesser of the mapped geometric mean peak ground accelerations and the probabilistic geometric mean peak ground accelerations indicated in the Table 4.5-3.

Table 4.5-3
MCE Geometric Mean (MCE_G) Peak Ground Accelerations (PGA_M)

Geologic Unit	Site Class	Estimated shear wave velocity, V_{s30} (m/s)	MCE_G PGA_M	
			Mapped	Probabilistic
Bedrock	C	455	1.10g	1.17g
Alluvium	D	270	1.10g	1.03g
Source: Allan E. Seward Engineering Geology, Inc., October 2014.				

Ground Failure

Ground failure is a general term for seismically induced, secondary, permanent ground deformation caused by strong ground motion. This includes liquefaction, lateral spreading, ground lurching, seismic settlement of poorly consolidated materials (dynamic densification), differential materials response, sympathetic movement on weak bedding planes or non-causative faults, slope failures, and shattered ridge effects.

The majority of the Project Site is underlain by bedrock materials that are not susceptible to liquefaction. The alluvial soils present at the site, as depicted in Figure 4.5-2, are not designated on the State of California Seismic Hazard Zone Map for the Newhall Quadrangle as a zone in which investigation of potentially liquefiable materials is required. The depth to historic high ground water at the Project Site is greater than 50 feet. Based on the preceding factors, the potential for liquefaction and associated seismic settlements and lateral spreading is therefore considered very low.

Relatively loose granular alluvial soils located within and adjacent to the active Newhall Creek channel and within minor tributary canyons adjacent to the road alignment may be prone to dynamic densification as a result of future earthquake shaking. Evaluation of the potential for dynamic densification should be performed at the design stage. Typically the potential for dynamic densification of these materials can be

mitigated by removal of the materials and then replacing them as compacted fill. Potential for seismic settlement (dynamic densification) is negligible in the bedrock portions of the site.

The hillside areas directly adjacent to the road alignment are designated on the State of California Seismic Hazard Zone Map for the Newhall Quadrangle as a zone in which investigation of potential for earthquake-induced landslides is required (see Figure 4.5-5). The potential for earthquake-induced slope failures and surficial failures on the critical natural and proposed design slopes will need to be evaluated at the design stage. Cut and fill slopes constructed per the California Building Code typically are not subject to earthquake-induced failures. Typical mitigation for slopes prone to earthquake-induced failures include avoidance, removal of surficially unstable materials, laying back the slope to a shallower gradient, buttressing, construction of shear keyways, or debris basins and walls that may be designed to divert and/or collect the calculated volume of material expected to fail. Additionally, no landslides have been mapped at the Project Site. Due to the relatively shallow dip of the bedding of the Pacoima Formation and the Saugus Formation bedrock, and of the flat-lying alluvial deposits that underlie the site, the potential for differential materials response and slippage along weak bedding planes is considered to be negligible.

Slope Stability

It is anticipated that both cut and fill slopes will be necessary at various locations along the proposed alignments and that cut slopes will expose Saugus Formation and Pacoima Formation bedrock. These proposed slopes should be designed and constructed at gradients of 2:1 horizontal to vertical or shallower. All constructed slopes should be evaluated by a geotechnical firm for conformance to applicable requirements/standards for gross and surficial slope stability. If it is determined that proposed slopes do not satisfy required factor of safety requirements for gross slope stability, mitigation measures will have to be designed based on results of slope stability analyses. If surficial stability of the proposed slopes is determined to be insufficient, measures to mitigate surficial stability will be required. This may include but not be limited to the following:

1. Avoidance
2. Stability fills
3. Flattening of slopes to 3:1 (h:v), or flatter
4. Seeding/planting of slopes
5. Guniting of slopes
6. Mechanically Stabilized Earth (MSE) slopes

Natural slopes adjacent to the proposed road alignments exposing adverse geologic bedding conditions or steep gradients should be evaluated. If it is determined that these slopes do not satisfy required factor of safety requirements the natural slopes may be stabilized with Buttress Fills or Shear Keys designed by the Project Geotechnical Engineer.

Laboratory testing fill source materials is required to evaluate both gross and surficial stability of the proposed fill slopes, including remedial Buttress Fills and Stability Fills. Shear strength testing should be performed on soil samples that represent the mixture of materials that will be placed in the proposed fills.

Steep natural slopes adjacent to the proposed road alignment should also be evaluated for potential debris flow hazards. Avoidance of the hazard by selective structural locations, construction of impact or debris walls and/or debris basins, control of run-off or removal of loose surficial materials can be used to mitigate debris flow hazards.

Deep Fills

Based on preliminary review of the proposed road alignments, deep fill areas (i.e. fills deeper than 40 ft below proposed grade) are not anticipated.

Soil Compressibility

Rapidly buried, unsaturated sediments, such as colluvium and alluvium, commonly contain extensive voids and, as a consequence, are subject to hydro-compression (collapse) settlement when inundated. Hydro-compression occurs when water enters sediments and reorients the sediment particles into a more compact arrangement with fewer and smaller voids. Compacted fills and structures constructed over deposits prone to hydro-compression may experience settlement and associated distress and damage.

Based on explorations for the adjacent Old Town Newhall Library site, alluvial soils at the Project Site are anticipated to be typically medium dense to depths of 30 to 40 ft, with local loose zones in the upper 10 feet. The density of the artificial fill placed below the railroad tracks is currently undefined. The potential for settlement within these units should be addressed in more detail during a future geotechnical investigation at the design stage.

If soils subject to hydro-compression or consolidation are identified at the Project Site, settlement and potential adverse impacts to the proposed road improvements can be mitigated by removal and recompaction of loose or soft material.

The phenomenon of hydro-compression does not apply to the bedrock deposits that underlie most of the Project Site. Further exploration should be performed at the site to evaluate if hydro-compression-prone materials, such as colluvium, are present in areas where pavements or compacted fills are proposed.

Erosion Potential and Drainage

Fill, bedrock, and soil materials at the site will be susceptible to erosion if drainage features to control sheet flow over the ground surface are not provided. The drainage features should be designed to prevent water from ponding on graded areas and from flowing over natural or constructed slopes, and should direct surface water to designed debris basins or natural drainage courses, where applicable. Debris material generated by erosion of site materials should be contained inside the site boundaries. The potential for erosion of the banks of Newhall Creek should be evaluated by the project civil engineer.

Dam Inundation and Flooding

No dams currently exist in the Newhall Creek Drainage and the Project Site is not in a dam inundation area per the Flood and Inundation Hazard Map (Plate 6) of the Los Angeles County Safety Element of the

General Plan. The potential for dam inundation is therefore considered nonexistent. The potential for flooding of Newhall Creek is addressed in Section 4.6, Hydrology and Water Quality.

Regulatory Framework

Applicable State Regulations/Policies

Alquist-Priolo Earthquake Fault Zoning Act

California's Alquist-Priolo Act (Public Resources Code § 2621 et seq.), originally enacted in 1972 as the Alquist-Priolo Special Studies Zone Act and renamed in 1994, is intended to reduce the risk of life and property from surface fault rupture during earthquakes. The Alquist-Priolo Act prohibits the location of most types of structures intended for human occupancy across the traces of active faults and strictly regulates construction in the corridors along active faults (Earthquake Fault Zone). It also defines criteria for identifying active faults, giving legal weight to terms such as "active," and establishes a process for reviewing building proposals in and adjacent to Earthquake Fault Zones.

Under the Alquist-Priolo Act, fault zones are defined, and construction along or across them is strictly regulated if they are "sufficiently active" and "well-defined." A fault is considered sufficiently active if one or more of its segments or strands shows evidence of surface displacement during Holocene time (defined for the purposes of the Act as within the last 11,000 years). A fault is considered well-defined if its trace can be clearly identified by a trained geologist at the ground surface or in the shallow subsurface, using standard professional techniques, criteria, and judgment.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (Public Resources Code §§ 2690-2699.6) is intended to reduce the damage resulting from earthquakes. While the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including strong ground shaking, liquefaction, and seismically induced landslides. Its provisions are similar in concept to those of the Alquist-Priolo Act; the State is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other corollary hazards; and cities and counties are required to regulate development within mapped Seismic Hazard Zones.

Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development. Specifically cities and counties are prohibited from issuing development permits for sites in Seismic Hazard Zones until appropriate site-specific geologic or geotechnical investigations have been carried out, and measures to reduce potential damage have been incorporated into the development plans.

California Building Standards Code

The State of California's minimum standards for structural design and construction are given in the California Building Standards Code (CBSC) (California Code of Regulations Title 24). The CBSC is based on the IBC (International Code Council, 1997), which is used widely throughout the United States (generally adopted on a state-by-state or district-by-district basis) and has been modified for California

conditions with numerous, more detailed or more stringent regulations. The CBSC requires that "classification of the soil at each building site will be determined when required by the building official" and that "the classification will be based on observation and any necessary test of the materials disclosed by borings or excavations." In addition, the CBSC states that "the soil classification and design-bearing capacity will be shown in the building plans, unless the foundation conforms to specified requirements." The CBSC provides standards for various aspects of construction, including but not limited to: excavation, grading, and earthwork construction; fills and embankments; expansive soils; foundation investigations; and liquefaction potential and soil strength loss. In accordance with California law, the Project would be required to comply with all provisions of the CBSC.

Applicable Local Regulations/Policies

City of Santa Clarita Unified Development Code

All grading and excavation activities are subject to comply with Chapters 17.20 to 17.30 (Division 3) of the City of Santa Clarita Unified Development Code (UDC). Rules and regulations contained within these chapters provide for the control of excavation, grading, and earthwork construction, including fills or embankment activities. During the grading permit application process, the City Engineer may require engineering geological and soil reports, as well as seismic hazard zone studies be prepared for proposed developments. The engineering geological report would require an adequate description of the geology of the site, along with conclusions and recommendations regarding the effect of geologic condition of any proposed development. Soil reports would be required to characterize the existing soil resources on a site, and provide recommendations for grading and design criteria. Development in seismic hazard zone will require studies that evaluate the potential for seismically induced liquefaction, soil instability, and earthquake induced landslides to occur on a site. The City of Santa Clarita enforces structural requirements of the building code, the Alquist-Priolo Special Studies Zones, and sound engineering and geotechnical practices in evaluating structural stability of proposed new development.

4.5.3 ENVIRONMENTAL IMPACTS

Thresholds of Significance

In accordance with guidance provided in the Environmental Checklist Form contained in Appendix G to the *State CEQA Guidelines,* lead agencies are encouraged to address the questions from the Checklist that are relevant to the Project's environmental effects. With respect to Geology and Soils, the following Checklist Questions are addressed under the Project Impacts/Environmental Consequences subheading below. Would the Project:

(a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) 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 (Refer to Division of Mines and Geology Special Publication 42);

ii) Strong seismic ground shaking;

iii) Seismic-related ground failure, including liquefaction; or

iv) Landslides;

(b) Result in substantial soil erosion or the loss of topsoil;

(c) 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 landslide, lateral spreading, subsidence, liquefaction, or collapse;

(d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994) creating substantial risks to life or property; or

(e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for disposal of waste water?

As discussed in the Initial Study, the Proposed Project would have a potentially significant impact on Geology and Soils Checklist questions (a)-(d) and less than significant impact on Checklist question (e), reproduced above.

Project Impacts

Strong Seismic Ground Shaking

Potential for primary ground rupture on a fault at the Project Site is considered to be low. Peak ground acceleration (PGA) consistent with maximum considered earthquake (MCE) ground motions is expected to be 1.03g in alluvial portions of the site and 1.10g in portions of the site where bedrock outcrops or is present at shallow depth. Therefore, with implementation of Mitigation Measure 4.5-1, impacts with respect to strong seismic ground shaking would be less that significant.

Seismic-Related Ground Failure, Including Liquefaction

The alluvium that underlies portions of the Project Site is not designated as potentially liquefiable on the State of California Seismic Hazard Zone Map for the Newhall Quadrangle. In addition, historic high ground water elevations are greater than 50 ft in depth. Therefore the potential for liquefaction of alluvium is considered very low.

The potential for seismic settlement (dynamic densification) during future seismic events is non-existent in the bedrock portions for the Project Site but should be evaluated in site alluvial soils, colluvium, and existing artificial fills to remain in place.

All slopes should be evaluated by the Project Geotechnical Engineer at the planning and design stages. The hillside area of the Project Site is designated on the State of California Seismic Hazard Zone Map to have earthquake-induced slope instability. However, the potential for earthquake-induced slope failures is considered low provided that future geologic and geotechnical evaluations and recommendations for slope stability is incorporated into design and construction. Therefore, with implementation of Mitigation Measure 4.5-1, impacts with respect to seismic-related ground failure would be less that significant.

Landslides

No landslides have been mapped on the subject Project Site. Stability of cut slopes that are constructed at gradients of 2:1 or shallower are anticipated to expose favorable bedding conditions and be grossly stable. However, cut slopes will require subsurface investigation to determine the specific geologic conditions for evaluation by the Geotechnical Engineer. Remedial measures will be required where ascending or descending cut slopes are not stable as determined by geologic or geotechnical stability analyses.

A study should be conducted at the design stage to confirm the geologic conditions of natural slopes. This study should include subsurface investigation to determine the specific geologic conditions for evaluation by the Geotechnical Engineer. Remedial measures will be required where ascending or descending slopes are not stable as determined by geologic or geotechnical stability analyses. A study should be conducted at the design stage to evaluate potential debris flow hazards on steep natural slopes ascending from the proposed road alignments. Avoidance of the hazard by selective structural locations, construction of impact or debris walls and/or debris basins, control of run-off or removal of loose surficial materials can be used to mitigate debris flow hazards. Therefore, with implementation of Mitigation Measure 4.5-1, impacts with respect to landslides would be less that significant.

Soil Stability

Rapidly buried silty sediments such as thick colluvium and alluvium may be subject to hydro-compression. A study should be conducted to evaluate the hydro-compression potential of colluvial deposits and portions of the alluvium. Materials characterized as susceptible to hydro-compression tests in the laboratory can be mitigated by removal prior to the placement of fill. Specific recommendations should be provided at the design stage.

The bedrock is moderately consolidated, which indicates that grading operations can be performed with conventional equipment.

Cobbles and small boulders are likely present within the alluvium and bedrock. This oversize material may present difficulties during cutting operations with some types of equipment. In addition, oversize material will require special handling during fill construction.

A study should be conducted to evaluate the expansive potential of fine-grained soils during the design stage. If potentially expansive units are encountered in the street grades during construction, they should be evaluated by Expansion Index (EI) tests by the Project Geotechnical Engineer relative to mitigations. The expansive material can be removed to a specified depth determined by the Project Geotechnical Engineer and replaced with soil with very low to non-expansive characteristics. Alternatively, the expansive soil may be treated with additives to lower the expansion potential.

Soils on the Project Site may be corrosive to concrete and ferrous metals. Soil moisture, chemistry, and other physical characteristics all have important effects on corrosivity. Testing during development will indicate what special measures, such as cement type in concrete and corrosion protection for metallic pipes, may be required for construction. Planting and irrigation of cut slopes and fill slopes should be included in future design phases in order to improve surficial stability of slopes and to mitigate potential

for erosion. Therefore, with implementation of Mitigation Measure 4.5-1, impacts with respect to soil stability would be less that significant.

Construction Considerations

Rippability

The Project Site is underlain by Saugus Formation, Pacoima Formation, Quaternary alluvium and artificial fill. These materials can be ripped with standard grading equipment.

Oversized Material

The alluvial and bedrock materials underlying the site may contain significant quantities of oversized material. Additionally, the dumped fill located along the southwest bank of Newhall Creek contains common blocks of asphalt and concrete as well as scattered boulders, car parts, and other oversized debris. Any oversized material that may be encountered during construction should not be incorporated into potential compacted fill during grading operations. Specifications and guidelines for handling and disposal should be addressed by the project geotechnical engineer at the design stage.

Expansion Potential of Soils

The site alluvial materials are generally granular and are not typically expansive in nature. However, fine-grained units of the Saugus Formation are known to have significant expansion potential when exposed to water. In addition, Pacoima formation bedrock, artificial fill, colluvium and alluvial deposits present at the site may contain material with significant expansion potential. Expansive materials at the site should be evaluated by the Project Geotechnical Engineer during the grading plan stage of development. Expansion potential of site soils can be mitigated by controlling the water content and density of fill soils, by specifying embedment and reinforcement of structures, and by removing the expansive materials and replacing them with compacted material with low expansion potential.

Soil Corrosivity

Past experience with similar soils on nearby sites suggests that the on-site soils likely have a low concentration of sulfate and chloride, and low acidity. This indicates a low potential for corrosion of concrete and, therefore, it is anticipated that Type I or II Portland cement will be satisfactory for use at the site. The resistivity of similar soils near the site tested by this firm indicates that they are typically moderately corrosive to ferrous metals. The corrosive characteristics of the site soils should be verified with laboratory testing at the design stage. If corrosive soils are encountered, options to mitigate potential corrosive soils include protective wraps and coatings for buried metal pipes and special types of cement that are resistant to corrosion.

Shrinkage and Bulking of Materials

Typically, soil, colluvium, uncompacted artificial fill, alluvial deposits, and terrace deposits (i.e. Pacoima formation bedrock) reduce in volume (“shrink”) by up to about 10 percent when excavated and

subsequently recompacted. In contrast, Saugus Formation bedrock typically increases in volume ("bulk") by up to about 5 percent when excavated and recompacted. In order to evaluate the cut-fill balance of the proposed grading, shrinkage/bulking of on-site materials including landslide debris should be estimated at the design stage.

Retaining Walls

The grades at the northeast end of Lyons Avenue and adjacent portions of Railroad Avenue will need to be raised in order to tie into the existing grade at the railroad crossing. It is the geotechnical engineer's understanding that retaining walls may be used to accommodate the changes from the proposed grades to adjacent properties proposed to remain at existing grades. Geotechnical parameters for these walls and for design of the proposed box culvert and associated wing walls for the Newhall Creek crossing should be addressed at the design stage.

Oil Wells and Water Wells

Review of the Munger Map Book and California Division of Oil and Gas records indicates that no oil wells have been drilled on or immediately adjacent to the site. If any undocumented oil wells are encountered during future construction operations at the site, their location(s) should be surveyed and the current well conditions evaluated. Review of LACFCD records indicates that water wells have been drilled in the vicinity of the proposed road alignments. If one of these water well is within the proposed road alignment, or if a water well is encountered during future construction operations at the site, the location should be surveyed and the potential impacts to well conditions should be evaluated.

Therefore, with implementation of Mitigation Measure 4.5-1, impacts relating to geology and soils would be less that significant.

4.5.4 CUMULATIVE IMPACTS

Geotechnical impacts related to future development in the City of Santa Clarita would involve hazards related to site-specific soil conditions, erosion, and ground-shaking during earthquakes. Such conditions are site-specific and would not be common to (nor shared with, in an additive sense) the impacts on other sites that are not physically connected. Cumulative development in the area would increase the overall population for exposure to seismic hazards by increasing the number of people potentially exposed. However, with adherence to applicable State and Federal regulations, buildings codes and sound engineering practices, geologic hazards could be reduced to less-than-significant levels. Furthermore, development of each of the related projects and the Proposed Project would be subject to uniform site development and construction review standards that are designed to protect public safety. Therefore, cumulative geotechnical impacts would be less than significant.

4.5.5 MITIGATION MEASURES

4.5-1 The Proposed Project shall be designed and constructed in accordance with the City and State Building Codes and shall adhere to all modern earthquake standards, including the recommendations provided in the Project's Geotechnical Report, which shall be reviewed by the

City's Building and Safety Division.

4.5-2 Prior to the issuance of a grading permit, the Applicant shall provide grading plans to the City's Building and Safety Division for review and approval. Grading plans shall comply with the City's requirements for slope stability. Grading plans shall also comply with City requirements for stability under static and pseudo static loading conditions to mitigate risks associated with earthquake induced landslides.

4.5.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the implementation of mitigation measure listed above, impacts related to geology and soils would be less than significant.

4. ENVIRONMENTAL IMPACT ANALYSIS
6. HYDROLOGY / WATER QUALITY

4.6.1 INTRODUCTION

This section describes existing hydrology and water quality conditions in the project area and its immediate surroundings and addresses the federal state and local regulations and standards that govern impacts to hydrology, water quality and drainage as it pertains to the Project. Following a description of the regulations and existing conditions, potentially significant impacts associated with the Proposed Project are identified, along with mitigation measures to reduce potential project impacts. This section is heavily based on the findings and conclusions as presented in the following technical report:

- *Hydraulic and Scour Analysis Newhall Creek at Proposed Dockweiler Road Bridge, Newhall, California*, prepared by Rivertech, Inc., dated February 2015 ("Hydraulic Report"), which is provided in Appendix G of this Draft EIR.

4.6.2 REGULATORY SETTING

Federal Regulations

National Flood Insurance Program

The National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973 mandate the Federal Emergency Management Agency (FEMA) to evaluate flood hazards. FEMA provides flood insurance rate maps (FIRMs) for local and regional planners to promote sound land use and floodplain development, identifying potential flood areas based on the current conditions. To delineate a FIRM, FEMA conducts engineering studies referred to as flood insurance studies (FIS). Using information gathered in these studies, FEMA engineers and cartographers delineate special flood hazard areas (SFHA) on FIRMs.

The Flood Disaster Protection Act requires owners of all structures in identified SFHAs to purchase and maintain flood insurance as a condition of receiving federal or federally-related financial assistance, such as mortgage loans from federally-insured lending institutions. Community members within designated areas are able to participate in the National Flood Insurance Program (NFIP) afforded by FEMA. The NFIP is required to offer federally-subsidized flood insurance to property owners in those communities that adopt and enforce floodplain management ordinances that meet minimum criteria established by FEMA. The National Flood Insurance Reform Act of 1994 further strengthened the NFIP by providing a grant program for state and community flood mitigation projects. The act also established the Community Rating System, a system for crediting communities that implement measures to protect the natural and beneficial functions of their floodplains, as well as manage erosion hazards.

Clean Water Act

The United States Environmental Protection Agency (EPA) regulates water quality under the Clean Water Act (also known as the Federal Water Pollution Control Act). Enacted in 1972, and significantly amended in subsequent years, the Clean Water Act is designed to restore and maintain the chemical, physical, and biological integrity of waters in the United States. The Clean Water Act provides the legal framework for several water quality regulations, including National Pollutant Discharge Elimination System (NPDES) Permits, effluent limitations, water quality standards, pretreatment standards, anti-degradation policy, non-point source discharge regulation, and wetlands protection.

The Clean Water Act requires NPDES permits for the discharge of pollutants to waters of the United States. The Clean Water Act requires that the EPA establish regulations for permitting of municipal and industrial storm water discharges under the NPDES permit program. The regulations require that municipal separate storm sewer system (MS4) discharges to surface waters be regulated by a NPDES permit. In implementing the Clean Water Act, the EPA has delegated the responsibility for administration of portions of the Clean Water Act to state and regional agencies. The Clean Water Act requires states to adopt water quality standards for receiving water bodies and to have those standards approved by the EPA. Water quality standards consist of designated beneficial uses for a particular receiving water body (e.g., wildlife habitat, agricultural supply, fishing, etc.), along with water quality criteria necessary to support those uses. Water quality criteria are prescribed concentrations or levels of constituents, such as lead, suspended sediment, and fecal coliform bacteria, or narrative statements that represent the quality of water that support a particular use.

Federal Antidegradation Policy

The Federal Antidegradation Policy (Title 40, CFR §131.12) requires states to develop statewide anti-degradation policies and identify methods for implementing them. Pursuant to this policy, state anti-degradation policies and implementation methods shall, at a minimum, protect and maintain: (1) existing in-stream water uses; (2) existing water quality where the quality of the waters exceeds levels necessary to support existing beneficial uses, unless the state finds that allowing lower water quality is necessary to accommodate economic and social development in the area; and (3) water quality in waters considered an outstanding national resource. State permitting actions must be consistent with the Federal Antidegradation Policy.

State And Local Regulations

California Porter-Cologne Act

The Porter-Cologne Water Quality Control Act (embodied in the California Water Code) established the principal California legal and regulatory framework for water quality control. The California Water Code authorizes the State Water Resources Control Board (SWRCB) to implement the provisions of the Federal Clean Water Act including the authority to regulate waste disposal sites and to require cleanup of discharges of hazardous materials and other pollutants. The California Water Code also establishes reporting requirements for unintended discharges of hazardous substance, sewage, or oil or petroleum

products.

Under the California Water Code, the State of California is divided into nine regions governed by regional water quality control boards (RWQCB) that, under the guidance and review of the SWRCB, implement and enforce provisions of the California Water Code and the Clean Water Act. Each RWQCB must formulate and adopt a water quality control plan (Basin Plan) for its region. The Basin Plan must conform to the policies set forth in the California Water Code and established by the SWRCB in its state water policy. The California Water Code also provides RWQCBs the authority to include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

Los Angeles Regional Board Basin Plan

The Los Angeles Regional Board's Basin Plan is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Specifically, the Basin Plan: (i) designates beneficial uses for surface and ground waters; (ii) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's antidegradation policy; and (iii) describes implementation programs to protect all waters in the Region. In addition, the Basin Plan incorporates (by reference) all applicable State and Regional Board plans and policies and other pertinent water quality policies and regulations. Those of other agencies are referenced in appropriate sections throughout the Basin Plan.

California Toxics Rule

The EPA has established water quality criteria for certain toxic substances via the California Toxics Rule. The California Toxics Rule establishes acute (i.e., short-term) and chronic (i.e., long-term) standards for bodies of water such as inland surface waters and enclosed bays and estuaries that are designated by the Los Angeles Regional Water Quality Control Board (LARWQCB) as having beneficial uses protective of aquatic life or human health. Due to the intermittent nature of storm water runoff, especially in southern California, the acute criteria are considered to be more relevant to storm water than are the chronic criteria.

California Toxics Rule criteria for certain metals are expressed as a function of hardness because hardness and/or water quality characteristics that are usually correlated with hardness can reduce or increase the toxicities of some metals. Hardness is used as a surrogate for a number of water quality characteristics that affect the toxicity of metals: increasing hardness has the effect of decreasing the toxicity of metals. At higher hardness values for the receiving water, copper, lead, and zinc are more likely to be bound with components in the water column; this in turn reduces the bioavailability and resulting potential toxicity of these metals. Therefore, the California Toxics Rule criteria increase with increasing levels of hardness.

Construction Permits

Pursuant to the Clean Water Act Section 402(p), requiring regulations for permitting of certain storm water discharges, the SWRCB has issued a statewide General Permit for Stormwater Discharges Associated with Construction Activity and Land Disturbance Activities (Order No. 2010-0014-DWQ, adopted by the SWRCB on November 16, 2010 and effective February 14, 2011).

Under this Construction General Permit, discharges of storm water from construction sites with a disturbed area of one or more acres are required to either obtain individual NPDES permits for storm water discharges or be covered by the Construction General Permit. Coverage under the Construction General Permit is accomplished by completing and filing permit registration documents, which include a Notice of Intent (NOI), Storm Water Pollution Prevention Plan (SWPPP), and other documents required by this General Permit, and mailing the appropriate permit fee to the State Water Board, prior to the commencement of construction activity. SWPPPs incorporate erosion control, sediment removal, and construction waste management control measures during construction, site stabilization measures in the short-term post-construction period, and may identify best management practices (BMPs) for post-construction land use.

Dischargers must file a Notice of Termination with the Regional Water Board when construction is complete and final stabilization has been reached or ownership has been transferred. The discharger must certify that all State and local requirements have been met in accordance with this General Permit. In order for construction to be found complete, the discharger must install post-construction storm water management measures and establish a long-term maintenance plan.

Los Angeles County MS4 Permit

The State's Municipal Storm Water Permitting Program regulates storm water discharges from Municipal Separate Storm Sewer Systems (MS4s). Under Phase I of the Program, which started in 1990, the RWQCBs have adopted NPDES storm water permits for medium (serving between 100,000 and 250,000 people) and large (serving 250,000 people) municipalities. Most of these permits were issued to a group of co-permittees encompassing an entire metropolitan area.

In 2001, the LARWQCB issued an NPDES Permit and Waste Discharge Requirements (Order No. 01-182) under the Clean Water Act and the Porter-Cologne Act for discharges of urban runoff in public storm drains in Los Angeles County. The Permit was most recently amended on April 14, 2011, pursuant to the peremptory writ of mandate in L.A. Superior Court Case No. BS122724, which voided and set aside a 2006 amendment. The Permittees are the Los Angeles County incorporated cities (including the City but excluding the City of Long Beach) and the County (collectively "the Co-permittees").

An important element incorporated into the NPDES MS4 Permit is the requirements associated with development or redevelopment of a site. The NPDES MS4 Permit requires many development projects to incorporate permanent (post-construction) storm water mitigation measures. These measures are addressed by developers through the preparation of a Standard Urban Stormwater Mitigation Plan (SUSMP) or a Site-Specific Mitigation Plan. The primary purpose of these plans is to reduce the quantity

and improve the quality of storm water runoff that leaves a site.

To implement the requirements of the NPDES permit, the Co-permittees have created development planning guidance and control measures that control and mitigate storm water quality and quantity impacts to receiving waters as a result of new development and redevelopment. The Co-permittees are also required to implement other municipal source detection and elimination programs, as well as maintenance measures.

Floodplain Management

Pursuant to City of Santa Clarita Municipal Code (Chapter 10.06) the City of Santa Clarita regulates development within flood-prone areas via a City Floodplain Management Ordinance. This ordinance states that within special flood hazard areas no structure or land shall be constructed, located, extended, converted, or altered without full compliance with the terms of the ordinance and without obtaining a floodplain area development permit before any construction or other development begins within any area of special flood hazard.

The City has adopted its floodplain management ordinance to implement the NFIP and other federal requirements established by FEMA. The City has adopted Chapter 11.60 of the Los Angeles County Code by reference, which establishes floodway maps, governs land uses and construction of structures within floodways, and establishes water surface elevations. Floodplains are divided into two types of hazard areas:

- The "floodway," which is the portion of the stream channel that carries deep, fast moving water (usually defined as the area needed to contain a 100-year storm flow); and
- The "flood fringe" area, the remainder of the floodplain outside the floodway, which is subject to inundation from shallow, slow-moving water. The standards described below are required for all types of construction in all areas of special flood hazards.

Drainage requirements set forth by the City are also addressed in other portions of the Uniform Development Code and in the Building Code, in order to ensure that stormwater flows are directed away from buildings into drainage devices to prevent flooding.

Stormwater and Urban Runoff Pollution Control

Stormwater and Urban Runoff Pollution Control Section 10.04.070 of the City's Municipal Code implements federal and state water runoff and discharges within the City of Santa Clarita. Each person applying to the City for a grading or building permit, for projects for which compliance with regulations governing State Construction Activity Stormwater Permits (SCASP) is required, must submit satisfactory proof to the City:

- (i) NOI to comply with the SCASP has been filed; and
- (ii) That a stormwater pollution prevention plan has been prepared before the City shall issue any grading or building permit on the construction project. A copy of the NOI and the SWPPP shall

be maintained on site during grading and construction and shall be made available for inspection, review and copying upon the request of any City inspector.

It shall be a violation of this chapter for any person or entity required under federal or state law to comply with the requirements for SCASP for construction activity in the City to conduct, authorize or permit construction activities in the City at any facility which discharges to the City's MS4 without complying with all applicable requirements for a SCASP.

Each person applying for a grading or building permit for any project for which compliance with regulations governing SCASP is not required shall submit to the City for information, and shall implement a grading and construction activity runoff control program adequate to accomplish all of the following:

1. Retain on site the sediments generated on or brought to the project site, using treatment control or structural BMPs;
2. Retain construction-related materials and wastes, spills and residues at the project site and prevent discharges to streets, drainage facilities, the MS4, receiving waters or adjacent properties;
3. Contain non-stormwater runoff from equipment and vehicle washing at the project site; and
4. Control erosion from slopes and channels through use of effective BMPs, such as limitation of grading during the wet season, inspection of graded areas during rain events; planting and maintenance of vegetation on slopes, if any, and covering any slopes susceptible to erosion.

Additionally, Section 10.04.070 requires that:

- No person generating or producing pavement sawcutting wastes in any street, curb or sidewalk in the City shall fail to recover and properly dispose of such sawcutting wastes, and in no case shall such wastes be permitted or suffered to enter any part of the MS4, including, but not limited to, any storm drain;
- No person performing street and road maintenance in any street in the City shall fail to manage street and road maintenance materials in a manner which prevents such materials from being discharged to the MS4; and
- No person shall wash any concrete truck or any part of any concrete truck, including, but not limited to, any chute, pump or tools, in any place in the City except an area designated for that purpose by the City, if the City has designated such a place. No person shall permit or suffer any concrete rinseate or washwater from any truck, pump, tool, or equipment to enter any drain, open ditch, street or road or any catch basin or any other part of the MS4.

Existing Conditions

Local Hydrology

The existing Project Site is generally pervious. The site consists of improved segments of Railroad Avenue and Lyons Avenue roadways and undeveloped land to the east extending towards The Master's University and Arch Street. The west end of the Project Site encompasses portions of Newhall Creek and

traverses a storage yard utilized by Los Angeles County Department of Public Works. The portion of the Project Site that includes the intersection of Railroad Avenue and 13th Street is developed with existing road surface and an at grade crossing.

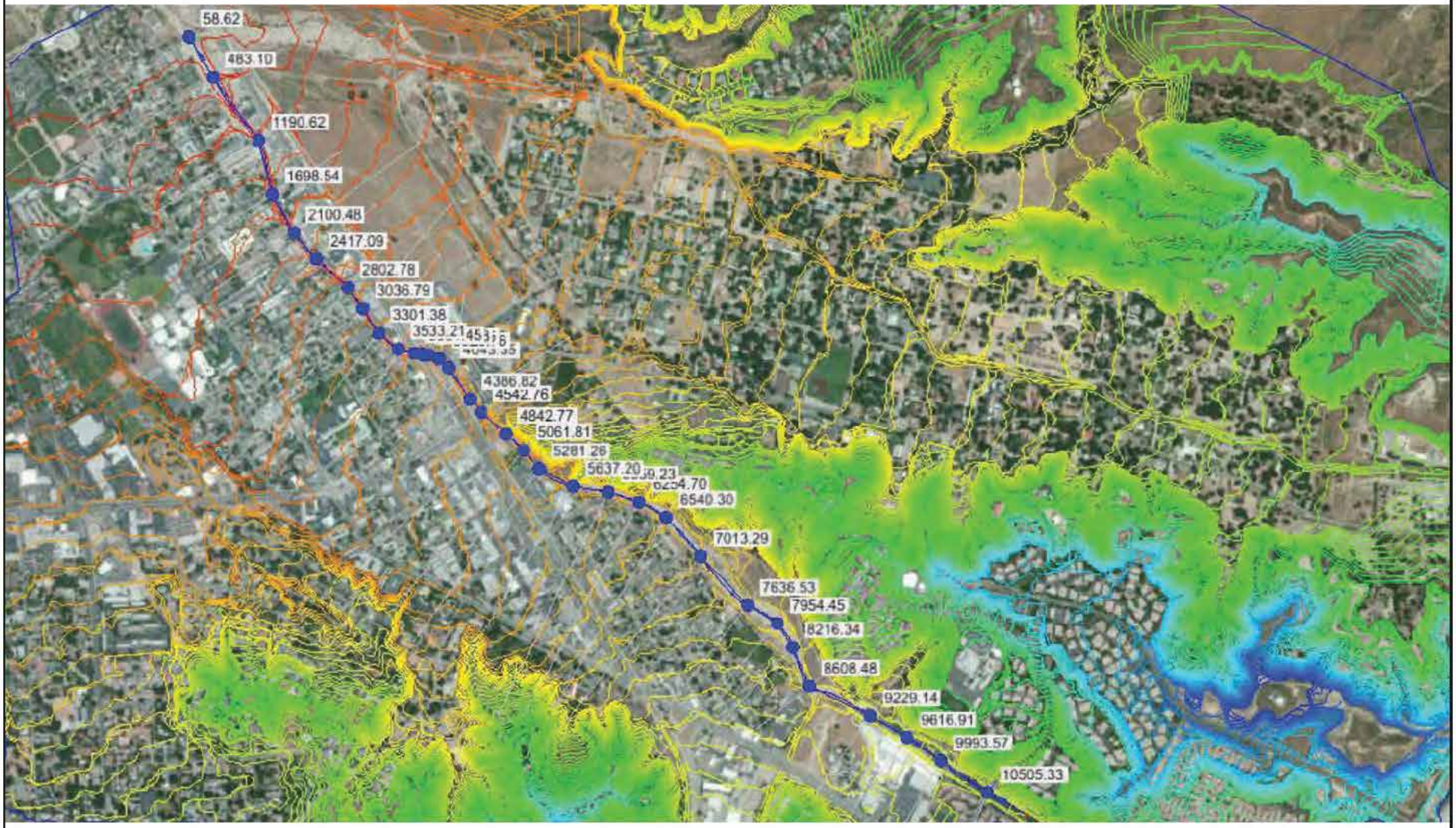
The Newhall Creek study reach boundaries, as described in the Hydraulic Report, are Placerita Creek and the survey limits, approximately 3,000 feet downstream of the SR14 crossing, at the downstream and upstream limits, respectively. Based on the available topographic survey, the average channel slope of 0.4% was applied to determine the downstream normal depth, which is added to the channel invert to arrive at the starting water-surface elevation. Figure 4.6-1 depicts the topography and river stationing. The proposed bridge, an extension of Dockweiler Road and Lyons Avenue over Newhall Creek Channel crossing, was modeled using the culvert hydraulics computer program HY-8.

One of the sources of hydrologic data utilized for the Hydraulic Report is the Los Angeles County Flood Control District (LACFCD) Design Division, who provided hydrologic data for Newhall Creek Channel, which was part of 2001 to 2005 LACFCD comprehensive study for the South Fork of the Santa Clara River watershed. Peak flows for Newhall Creek sub-areas are provided for 50-year clear-flow, 50-year burned-flow and 50-year burned/bulked (Capital Flood). The second source of hydrologic data is the Federal Emergency Management Agency, as part of the Flood Insurance Study, which provides 100-year peak flows. Table 4.6-1 below, summarizes the flood flows.

Table 4.6-1
Summary of Flood Flows

Source	Event	Peak Discharge (ft^3/s)
Capital Flood	50-year Burn/Bulk	9,200
LACDPW	50-year Burn	7,321
LACDPW	50-year Clear	7,021
Flood Insurance Study	100-year	4,640
Source: Hydraulic and Scour Analysis Newhall Creek at Proposed Dockweiler Road Bridge, Newhall, California, prepared by Rivertech, Inc., dated February 2015.		

Based on the LACFCD Sedimentation Manual recommendation for the Santa Clara River watershed, it is prescribed that the Newhall Creek be improved as a soft bottom channel with protected levees. To convey the Capital Flood, a discharge of 9,200 cubic feet per second ($ft^{3/}s$), the proposed channel section will require a trapezoidal section with an 80-foot wide base and 2:1 lined side slopes. This section is similar to the existing upstream improvements at Del Oro Street crossing with Newhall Creek. HEC-RAS model input and output data, including cross sections and detailed tables are provided in the Appendix of the Hydraulic Report. The proposed four 24-feet wide and 8-feet deep opening reinforced concrete bridge will accommodate the Capital Flood.



Source: Rivertech, Inc., February 2015

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Figure 4.6-1
Topography and River Stationing

Ground Water

Review of historic ground water data from the Seismic Hazard Map for the Newhall Quadrangle, Water-Resources Investigation using Analog Model Techniques in the Saugus-Newhall Area, and LACFCD water well records indicates that historic high ground water levels are between 75 and 100 feet below the existing surface at the Project Site. The locations of nearby water wells are shown in Figure 4.5-3, Water Well Location Map in Section 4.5. The historic ground water levels for each well obtained from LACFCD records are provided in Table 4.5-1, Summary of LAFCD Water Well Data, in Section 4.5. In addition, ground water was not encountered in subsurface explorations to a depth of 50 feet in the alluvium for the adjacent Old Town Newhall Library. However, temporary perched ground water conditions may exist below Newhall Creek following periods of significant rainfall and runoff. A low potential exists for temporary, perched ground water conditions to develop within the bedrock of the Pacoima formation. Perched ground water can contribute to slope instability in natural slopes and cut slopes. To prevent build-up of water, subdrains are typically recommended in canyon areas in which fill will be placed and back drains for slopes that are to be constructed as Stability Fills or Buttress Fills. Due to the historic high ground water elevations and the elevated nature of portions of the road alignment, ground water is not expected to significantly affect the project, provided the proposed grading is evaluated from a geotechnical standpoint during the design stage and the geotechnical recommendations are implemented during construction.[1]

Inundation and Flooding

No dams currently exist in the Newhall Creek Drainage and the Project Site is not in a dam inundation area per the Flood and Inundation Hazard Map of the Los Angeles County Safety Element of the General Plan. The potential for dam inundation is therefore considered nonexistent.[2] The western portion of the roadway extension that crosses Newhall Creek, is located in a "Zone A", as indicated in the National Flood Insurance Rate Map for Los Angeles County, which indicates a special flood hazard area that is subject to inundation by the 1% annual chance flood (100-year flood).[3] The floodplain map for Capital peak flow is provided in the Appendix of the Hydraulic Report. The cut sections using the Watershed Modeling System (WMS) river tools were imported into HECRAS as georeferenced geometry. This geometric data was then modified and amended to accurately reflect the hydraulic characteristics, e.g., bridges, channel banks, roughness, etc. The model includes the Railroad Avenue and Southern Pacific Railway bridges. Boundary conditions (i.e., flows and starting water-surface elevations) were added to complete the model. Figure 4.6-2 and Figure 4.6-3 depict the hydraulic sections and existing conditions of the water profile, respectively. The detailed input and output of the existing condition hydraulic model is

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1 *Geologic and Geotechnical Report EIR-Level Review Of Road Alignments For Dockweiler Road and Lyons Avenue, prepared by Allan E. Seward Engineering Geology, Inc., dated October 17, 2014. See Appendix E of this Draft EIR.*

2 *Ibid.*

3 *Federal Emergency Management Agency, National Flood Insurance Program, Flood Insurance Rate Mao, Los Angeles County, California and Incorporated Areas, Map Number 06037C0820F, September 26, 2008.*

Source: Rivertech, Inc., February 2015

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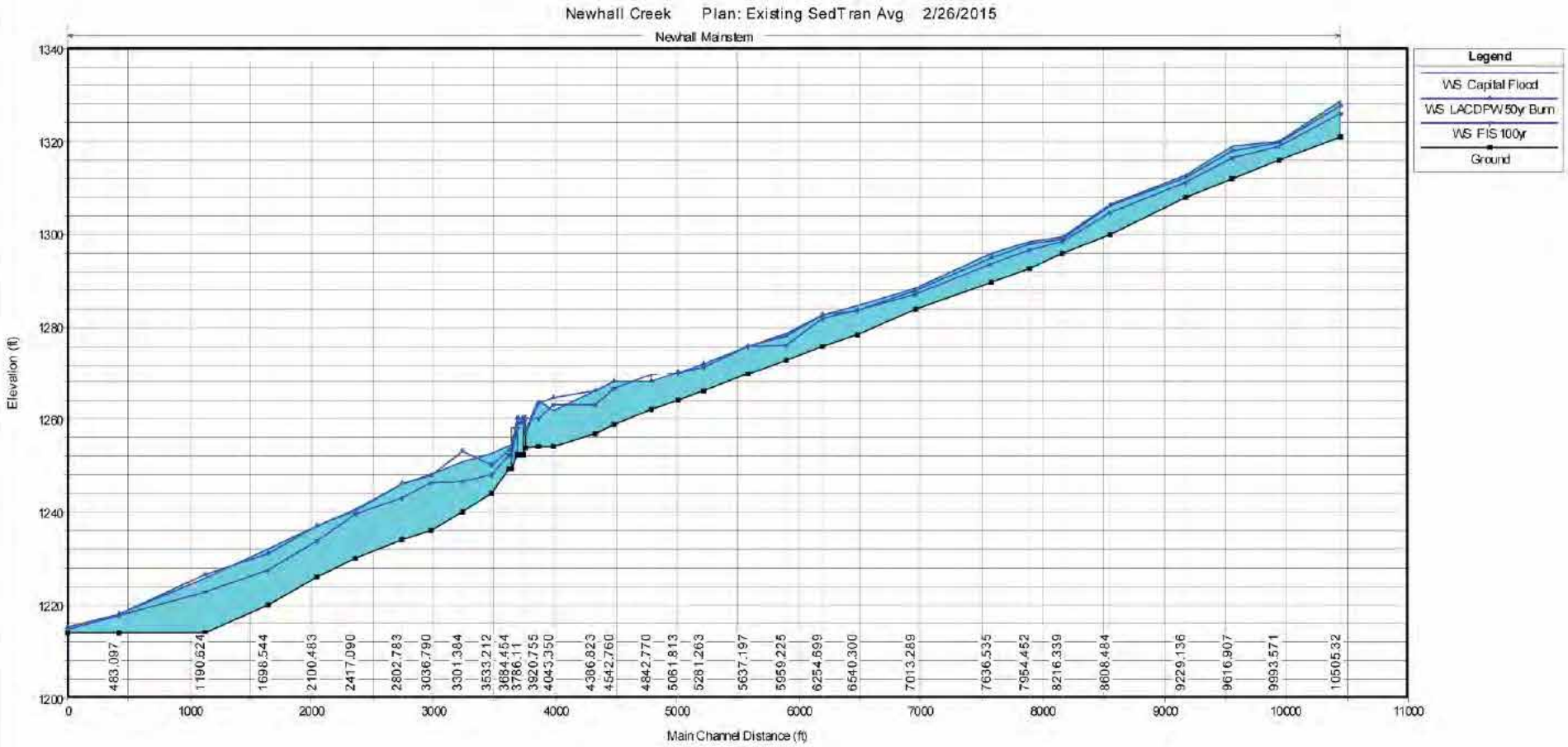
Figure 4.6-2
Hydraulic Sections - Plan View



Source: Rivertech, Inc., February 2015

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Figure 4.6-3
Water Surface Profile - Existing Conditions

exhibited in the Appendix of the Hydraulic Report. The existing Newhall Creek Channel does not have the capacity to convey the FIS 100-year and the Capital Flood flow rates. As a result, the 100-year model results show that a significant percentage of the flow spill out the main channel and flood the railroad, entering the Railroad Avenue.

4.6.3 ENVIRONMENTAL IMPACTS

Thresholds of Significance

In accordance with Appendix G to the CEQA Guidelines, a project could result in a significant impact if the project would result in one or more of the following:

(a) 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., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);

(b) 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, which would result in substantial erosion or siltation on- or off-site;

(c) 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 which would result in flooding on- or off-site;

(d) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;

(e) Otherwise substantially degrade water quality;

(f) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;

(g) Place within a 100-year flood hazard area structures which would impede or redirect flood flows;

(h) 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

(i) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow.

Project Impacts

Water Quality

Construction

During construction, sediment is typically the constituent of greatest potential concern. The greatest risk of soil erosion during the construction phase occurs when site disturbance peaks due to grading activity and removal and re-compaction or replacement of fill areas. Sediment is not typically a constituent of concern during the long-term operation of developments similar to the Project because sites are usually paved or landscaped, and proper drainage infrastructure is installed. Other pollutants that could affect surface-water quality during the Project construction phase include petroleum products (gasoline, diesel, kerosene, oil, and grease), hydrocarbons from asphalt paving, construction equipment leaks, paints and solvents, detergents, fertilizers, and pesticides (including insecticides, fungicides, herbicides, and rodenticides).

Development projects within the City of Santa Clarita are required to prepare and implement a SWPPP, in accordance with the NPDES General Permit for Discharges of Storm Water Associated with Construction Activity and Land Disturbance Activities. The site-specific SWPPP would be prepared prior to earthwork activities and would be implemented and monitored for compliance during project construction activities. The SWPPP would include BMPs and erosion control measures to prevent pollution in storm water discharge.

Typical BMPs that could be used during construction include good-housekeeping practices (e.g., street sweeping, proper waste disposal, vehicle and equipment maintenance, concrete washout area, materials storage, minimization of hazardous materials, proper handling and storage of hazardous materials, etc.) and erosion/sediment control measures (e.g., silt fences, fiber rolls, gravel bags, storm water inlet protection, and soil stabilization measures, etc.). The SWPPP would be subject to review and approval by the City for compliance with the City's Stormwater and Urban Runoff Pollution Control, Section 10.04.070 of the City's Municipal Code. Additionally, all Project construction activities would comply with the City's grading permit regulations, which require the implementation of grading and dust control measures, including a wet weather erosion control plan if construction occurs during rainy season, as well as inspections to ensure that sedimentation and erosion is minimized. The site specific BMPs that are required to be incorporated into the Project's SWPPP are identified below in Section (3), Regulatory Compliance. Therefore, through compliance with NPDES requirements and City grading regulations, the Project's construction impacts related to water quality would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality. Construction-related impacts to hydrology and water quality would therefore be less than significant.

Operation

Once the Proposed Project has been constructed, urban runoff could include the above-mentioned contaminants. Trace metals from road surface runoff and landscape maintenance debris may be mobilized in storm runoff and in dry-season in "nuisance flows" from landscape irrigation. Liquid product spills occurring at the Project Site could also enter the storm drain. Dry product spills could enter

the storm drain via runoff in wet weather conditions or dry-season "nuisance flows."

The existing Project Site is generally pervious. In accordance with NPDES requirements, the Project Applicant would be required to have a Project-specific SUSMP in place during the operational life of the Project to address the management of runoff from the proposed roadway extension. The SUSMP would include site design, source control, low-impact development, and treatment control BMPs and would address site design BMPs (such as minimizing impervious areas, maximizing permeability, minimizing directly connected impervious areas, and creating reduced or "zero discharge" areas); incorporate applicable source control BMPs; incorporate treatment control BMPs as described in the Los Angeles County SUSMP; describe long-term operation and maintenance requirements for the treatment control BMPs; and describe the mechanism for funding the long-term operation and maintenance of the treatment control BMPs.

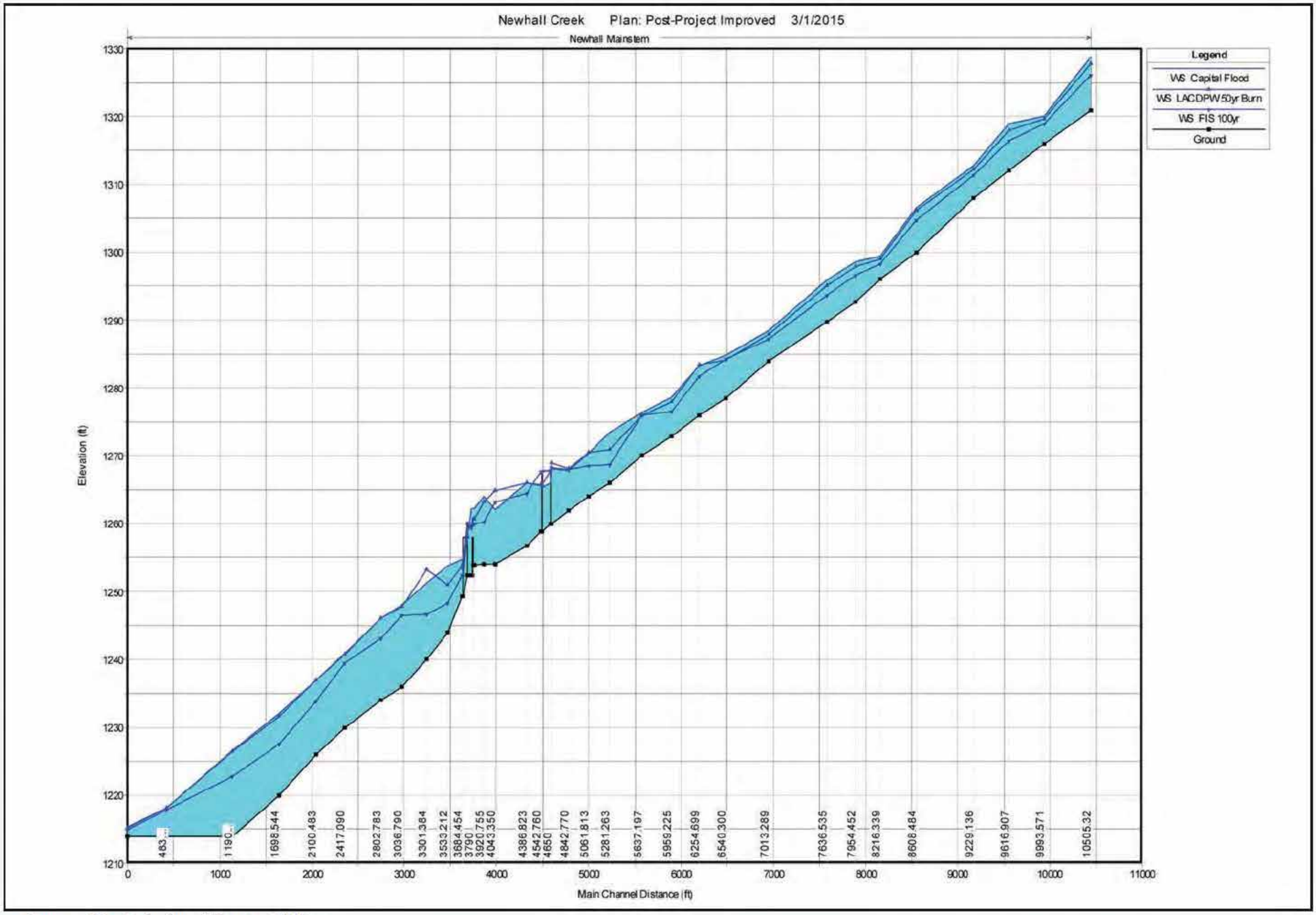
The final selection of BMPs would be completed through coordination with the City. Also, per the NPDES, the storm water quality plan would be subject to review and approval by the City for compliance with the City's Development Best Management Practices Handbook, Low Impact Development Manual, Part B Planning Activities. Therefore, implementation of the storm water quality plan as discussed above water quality impacts during operation would be less than significant.

Inundation and Flooding

The implementation of the proposed bridge and channel widening are two significant components of the post-project hydraulic model. The bridge has four 25-foot wide and 8-foot deep openings. The approach to the bridge is an improved channel that is trapezoidal in shape with an 80-foot bottom width and 2:1 aide slopes. The hydraulic sections and input from the existing condition model was the basis for the post project with the implementation of the proposed bridge and channel widening. The results of the HEC-RAS hydraulic model output indicate that the proposed bridge and channel improvement will accommodate the Capital Flood, i.e., no overtopping of the road, and will not create any flood hazard for the adjacent railroad and proposed street improvements. The bridge conveys both the 50-year burn/bulk and FIS 100-year flood flows with more than 2 feet of freeboard. Figure 4.6-4 illustrates the resulting water-surface profiles for the post-project scenario. The detailed input and output of the post-project scenario hydraulic model is exhibited in the Appendix of the Hydraulic Report. The results of this study provide the calculated shear stress on the streambank. In order to protect the streambank from erosion, a lining with a *permissible shear stress,* τ_p, greater than τ_c must be installed. Riprap and vegetation linings are recommended for the high and moderate shear zones, respectively.

Regulatory Compliance

The Proposed Project will span the Newhall Creek. Roadway construction will include a new bridge across Newhall Creek and provide embankment protection to the roadway and creek. The Newhall Creek improvements will be designed in accordance with current regulatory and State permitting agencies, which include:



Source: Rivertech, Inc., February 2015

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Figure 4.6-4
Water Surface Profile - Post Project Scenario

- Excavation and grading activities shall be scheduled during dry weather periods. If grading occurs during the rainy season (October 15 through April 1), diversion dikes shall be constructed to channel runoff around the site. Channels shall be lined with grass or roughened pavement to reduce runoff velocity.
- Appropriate erosion control and drainage devices shall be provided in compliance with the Building Code.
- Stockpiles and excavated soil shall be covered with secured tarps or plastic sheeting.
- All waste shall be disposed of properly. Use appropriately labeled recycling bins to recycle construction materials including: solvents, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and vegetation. Non-recyclable materials/wastes shall be taken to an appropriate landfill. Toxic wastes shall be discarded at a licensed regulated disposal site.
- Leaks, drips, and spills shall be cleaned up immediately to prevent contaminated soil on paved surfaces that can be washed away into the storm drains.
- Pavement shall not be hosed down at material spills. Dry cleanup methods shall be used whenever possible.
- Dumpsters shall be covered and maintained. Uncovered dumpsters shall be placed under a roof or be covered with tarps or plastic sheeting.
- The Project Applicant shall implement storm water best management practices (BMPs) to treat and infiltrate the runoff from a storm event producing 0.75 inch of rainfall in a 24-hour period. The design of structural BMPs shall be in accordance with the Development Best Management Practices Handbook, Part B, Planning Activities. A signed certificate from a California licensed civil engineer or licensed architect that the proposed BMPs meet this numerical threshold standard shall be required.
- Post-development peak storm water runoff discharge rates shall not exceed the estimated pre-development rate.
- The amount of impervious surface shall be reduced to the extent feasible by using permeable pavement materials where appropriate, including: pervious concrete/asphalt, unit pavers (i.e., turf block), and granular materials (i.e. crushed aggregates, cobbles, etc.).
- A roof runoff system shall be installed, as feasible, where site is suitable for installation.
- All storm drain inlets and catch basins within the project area shall be stenciled with prohibitive language (such as NO DUMPING - DRAINS TO OCEAN) and/or graphical icons to discourage illegal dumping.
- Legibility of stencils and signs shall be maintained.
- Materials with the potential to contaminate storm water shall be placed in an enclosure, such as a cabinet or shed or similar structure that prevents contact with or spillage to the storm water conveyance system.
- Storage areas shall be paved and sufficiently impervious to contain leaks and spills.
- An efficient irrigation system shall be designed and implemented by a certified landscape contractor to minimize runoff including: drip irrigation for shrubs to limit excessive spray; a SWAT-tested weather-based irrigation controller with rain shutoff; matched precipitation (flow) rates for sprinkler heads; rotating sprinkler nozzles; minimum irrigation system distribution uniformity of 75 percent; and flow reducers.

- The owner(s) of the property shall prepare and execute a covenant and agreement binding the owners to post construction maintenance on the structural BMPs in accordance with the Standard Urban Stormwater Mitigation Plan and or per manufacturer's instructions.
- Toxic wastes shall be discarded at a licensed regulated disposal site.
- Wastes including paper, glass, aluminum, oil, and grease shall be recycled to the extent feasible.
- The owner(s) of the property shall prepare and execute a covenant and agreement satisfactory to the Planning Department binding the owners to post construction maintenance on the structural BMPs in accordance with the Standard Urban Stormwater Mitigation Plan and/or per manufacturer's instructions.

4.6.4 CUMULATIVE IMPACTS

Future development projects within the Project area are likely to be subject to more stringent BMPs (since BMPs are regularly updated) than what are in use under the existing conditions. As such, future development would likely result in a net beneficial impact by reducing surface water runoff flows during storm events and improving the overall quality of water draining from the area.

Additionally, similar to the Proposed Project, each of the applicants of proposed development projects would be required to prepare and implement a SWPPP (construction) and SUSMP (operation) and would be subject to preliminary Site Plan review by the City to determine what drainage improvements and BMPs would be required to ensure no significant water quality issues. As discussed above, the Proposed Project would not result in any significant hydrology and water quality impacts and together with future development, would not create an impact that is cumulatively considerable, as each development project would have to comply with site specific development standards and state water quality regulations. Compliance with these standards would ensure that the related projects would further the objectives of applicable regional water quality plans. Therefore, cumulative impacts to hydrology and water quality would not be cumulatively considerable.

4.6.5 MITIGATION MEASURES

No project specific mitigation measures are required.

4.6.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of the regulatory compliance measures identified above, construction and operational hydrology and water quality impacts would be less than significant prior to mitigation. Therefore no mitigation measures are required.

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4. ENVIRONMENTAL IMPACT ANALYSIS
7. LAND USE AND PLANNING

4.7.1 INTRODUCTION

The following analysis discusses the consistency of the Proposed Project with the corresponding land use and zoning designations and guidelines within the City of Santa Clarita. The following land use analysis is presented as an informational document to disclose the project's consistency or inconsistency with the existing adopted regional land use plans and local land use and zoning regulations.

4.7.2 ENVIRONMENTAL SETTING

Existing and Adjacent Land Uses

The existing Project Site consists of improved segments of Railroad Avenue and Lyons Avenue roadways and undeveloped land to the east extending towards Dockweiler Drive. The west end of the Project Site encompasses portions of Newhall Creek and traverses a storage yard utilized by Los Angeles County Department of Public Works. The portion of the Project Site that includes the intersection of Railroad Avenue and 13th Street is developed with existing road surface and an at-grade crossing. The UP/Metrolink Railroad line crosses the Project Site east of the intersection of Railroad Avenue and Lyons Avenue Railroad and at the intersection of Railroad Avenue and 13th Street.

The portion of the Project Site to the east of the intersection of Railroad Avenue and Lyons Avenue is bounded by commercial and industrial uses to the north a landscape nursery to the south east, the Jan Heidt Newhall Metro Link Station and open space to the south, and the Old Town Newhall Library and commercial uses to the west across Railroad Avenue. The portion of the Project Site to the east of the intersection of Railroad Avenue and 13th Street is bounded by undeveloped land to the north, commercial and industrial uses to the east, Newhall Creek to the south, and one-story commercial buildings to the west, across Railroad Avenue.

Relevant Land Use Policies

The Project Site is subject to the designations and regulations of several local and regional land use and zoning plans. At the regional level, the Project Site is located within the planning area of the Southern California Association of Governments (SCAG), the region's federally-designated metropolitan planning organization, and therefore is subject to SCAG's Regional Comprehensive Plan and Guide (RCPG) and the 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The Project is also located within the South Coast Air Basin (SCAB) and therefore is within the jurisdiction of the South Coast Air Quality Management District (SCAQMD) and is subject to SCAQMD's Air Quality Management Plan (AQMP). The Project Site is located within the Los Angeles Watershed Basin and is subject to the regulatory oversight of the Los Angeles Regional Water Quality Control Board (LARWQCB). In addition, the Project Site is subject to the Congestion Management Plan (CMP) for Los Angeles County.

At the local level, development of the Project Site is guided by the General Plan of the City of Santa Clarita (General Plan). The General Plan provides general guidance on land use issues and planning policy for the entire City. The Circulation Element of the General Plan is applicable to the Proposed Project, as it promotes a variety of techniques for improving mobility within the City of Santa Clarita. The City of Santa Clarita Municipal Code (SCMC) guides zoning, land use decisions and development patterns for individual properties. Within the City of Santa Clarita, the Project Site is located in the Placerita Canyon Special Standards District (PCSSD) and is part of the North Newhall Area (NNA), which includes a Mixed-Use Overlay Zone. In addition, the Project Site is located in the City's Compass Blueprint Concept Plan (Concept Plan) area, and is adjacent to the Old Town Newhall Specific Plan (Specific Plan) area.

Southern California Association of Governments

SCAG is a federally designated Metropolitan Planning Organization (MPO) representing six counties (Ventura, Orange, San Bernardino, Riverside, Imperial, and Los Angeles). SCAG is mandated by federal and State law to research and draw up plans for transportation, growth management, hazardous waste management, and a regional growth forecast that is the foundation for these plans and regional air quality plans developed by the South Coast Air Quality Management District (SCAQMD). SCAG divides its planning area into 15 subregions. The Project Site is located within the North Los Angeles County subregion.

As part of its regional planning efforts, SCAG prepared and has adopted the 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) to address regional growth and measure progress toward achieving regional planning goals and objectives.

Regional Transportation Plan/ Sustainable Communities Strategy (RTP/SCS)

On April 2016, SCAG's Regional Council adopted the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): A Plan for Mobility, Accessibility, Sustainability, and a High Quality of Life. The RTP/SCS is the culmination of a multi-year effort involving stakeholders from across the SCAG Region. The 2016-2040 RTP/SCS balances the Southern California region's future mobility and housing needs with economic, environmental, and public health goals.

Based on the regional growth projections in the 2016-2040 RTP/SCS, the City of Los Angeles had an estimated permanent population of approximately 3,845,500 persons, approximately 1,325,500 residences, and 1,696,400 jobs.[1] By the year 2040, SCAG forecasts the City of Los Angeles will increase to 4,609,400 persons (or a 20 percent increase from the year 2012) with approximately 1,690,300 residences (or an 28 percent increase from the year 2012) and approximately 2,169,100 jobs (or an

[1] Southern California Association of Government, 2016-2040 Regional Transportation Plan / Sustainable Communities Strategy, Demographics and Growth Forecast Appendix, adopted April 2016.

approximate 28 percent increase from year 2012)[2].

The RTP/SCS incorporates SCAG's Compass Growth Vision, adopted in 2004, which encourages better relationships between housing, transportation, and employment. The Growth Vision is driven by four key principles: (1) Mobility – Getting where we want to go, (2) Livability – Creating positive communities, (3) Prosperity – Long-term health for the region, and (4) Sustainability – Preserving natural surroundings. Additionally, the Compass Growth Vision incorporates a 2% Growth Strategy that will increase the region's mobility by putting new employment centers and new neighborhoods near major transit systems.

Compass Blueprint Concept Plan

As part of SCAG's Sustainability Program, the Compass Blueprint program partners SCAG with local governments to develop demonstration projects that promote land use and transportation planning and implement regional visions at the local level. Compass Blueprint is guided by four core principles, which include, mobility, livability, prosperity and sustainability. The City of Santa Clarita's Compass Blueprint Concept Plan is a conceptual land use and circulation plan that guides development in the Newhall community north of Old Town Newhall and east of Railroad Avenue. The Concept Plan consists of a mix of commercial, office and residential uses that serve to strengthen the Old Town Newhall area, encourage the use of public transit, and be compatible with the rural and equestrian character of Placerita Canyon.

South Coast Air Quality Management District

The Project Site is located within the South Coast Air Basin (SCAB) and is therefore within the jurisdiction of the South Coast Air Quality Management District (SCAQMD). In conjunction with SCAG, the SCAQMD is responsible for formulating and implementing air pollution control strategies. The Air Quality Management Plan (AQMP) is intended to establish a comprehensive regional air pollution control program leading to the attainment of state and federal air quality standards in the SCAB area. Air quality impacts of the Proposed Project and consistency of the Project impacts with the AQMP is analyzed in greater detail in Section 4.2, Air Quality of this Draft EIR.

Congestion Management Program

The Congestion Management Program (CMP) is a state-mandated program that was enacted by the State Legislature with the passage of Proposition 111 in 1990. The program is intended to address the impact of local growth on the regional transportation system.

As required by the 2010 Congestion Management Program for Los Angeles County, a Traffic Impact Assessment (TIA) has been prepared to determine the potential impacts on designated monitoring locations on the CMP highway system. The analysis has been prepared in accordance with procedures outlined in the 2010 Congestion Management Program for Los Angeles County, County of Los Angeles

[2] Ibid.

Metropolitan Transportation Authority. Refer to Section 4.9, Transportation and Traffic, for a complete discussion and project impact analysis related to the CMP.

The City of Santa Clarita General Plan

Land use decisions are guided by the City of Santa Clarita's General Plan, which establishes goals and policies related to land use, transportation, population growth and distribution, development, open space, resource preservation and utilization, air and water quality, noise impacts, public safety, infrastructure, and other related physical, social, and economic factors. As stated in the General Plan, in addition to serving as a basis for local decision making, the General Plan establishes a clear set of development guidelines for citizens, developers, neighboring jurisdictions and agencies, and provides the community with an opportunity to participate in the planning process. The purpose of this General Plan is to comply with state requirements and to provide the City with a comprehensive, long-range policy guideline for future development.

Pursuant to the City of Santa Clarita's General Plan the portion of the Project Site located at 13th Street and Railroad Avenue and Lyons Avenue and Railroad Avenue has a General Plan land use designation of Mixed Use Neighborhood (MXN). The General Plan states that areas with a MXN designation should be developed to create neighborhoods that combine residential uses with complementary commercial services, including retail and office uses. MXN zoned areas should be located in close proximity to public transit and provide roadway and trail linkages to adjacent development.

Circulation Element

The Circulation Element of the General Plan aims to guide the development of efficient, cost-effective and comprehensive transportation systems that are consistent with regional plans and local needs of the City of Santa Clarita. Planning for the location and capacity of circulation improvements serves to enhance economic strength and quality of life in Santa Clarita. The Santa Clarita Valley's circulation system provides vital connections linking neighborhoods, services, and employment centers throughout the community and the region. A comprehensive transportation network of roadways, multi-use trails and bike paths, bus transit, and commuter rail provides mobility options to Santa Clarita residents and businesses. The Circulation Element identifies and promotes a variety of techniques for improving mobility, which includes: development of alternative travel modes and support facilities; increased efficiency and capacity of existing systems through management strategies; and coordination of land use planning with transportation planning by promoting concentrated, mixed-use development near transit facilities. The extension of Dockweiler Drive is identified in the Circulation Element as a major new roadway.

The proposed roadway from the Arch Street/12th Street/ Placerita Canyon/Dockweiler Drive intersection to the future intersection of Lyons Avenue and Dockweiler Drive will be a two-lane facility with a 13-foot landscaped parkway/sidewalk on each side. The proposed roadway from the Lyons Avenue and Dockweiler Drive intersection to the Master's University property line will be a 2-lane facility with a 12-

foot raised landscaped median, and 13-foot parkway/sidewalk on each side. The median lanes will be 12 feet wide and the parking lanes 9 feet wide with a 6-foot bike lane. The parking lanes will be capable of being converted into a travel lane to create an ultimate 4-lane facility in compliance with the City's General Plan. The typical right-of-way (R/W) width will be 92 feet.

Santa Clarita Municipal Code

All development activity on the Project Site is subject to the Santa Clarita Municipal Code (SCMC), particularly Chapter I7, Zoning. The Planning and Zoning Code establishes requirements for the Project Site, with respect to permitted uses, building height, density, yard setbacks, and parking. The portion of the Project Site located at 13th Street and Railroad Avenue and Lyons Avenue and Railroad Avenue is currently zoned for MXN (Mixed-Use Neighborhood). Pursuant to SCMC Chapter 17.35, Section 020, the residential density range in mixed-use neighborhoods designates a minimum of 6 to a maximum of 18 dwelling units per acre, and maximum floor area ratio (FAR) for the nonresidential portion of the development is 0.5. The maximum building height of a project is 50 feet.

The portion of the Project Site that crosses the UP/Metrolink Railroad line is zoned for PI (Public Institutional). The PI zoning designation identifies lands that are used for various types of public or/and community serving facilities owned and operated by public agencies, special districts, nonprofit organizations and other entities. Allowable uses include civic and governmental offices, public works yards, public or private schools, libraries, day care centers, airports, hospitals and supporting medical facilities, museums, fire stations, police stations, landfills, and prisons.

Oak Trees

Native oak trees are protected under City of Santa Clarita Oak Tree Ordinance (Ordinance No. 89-10, passed by the City Council on April 25, 1989) and the City's Oak Tree Preservation and Protection Guidelines (adopted September 11, 1990). The City of Santa Clarita's Oak Tree Preservation ordinance (Unified Development Code §17.51.040) requires the preservation of all healthy oak trees and that removal, cutting, pruning, relocation, damage, or encroachment into the protected zone of any oak trees measuring 6 inches or larger in circumference (DBH, diameter at breast height) on public or private property can only be done in accordance with a valid oak tree permit issued by the City.

Placerita Canyon Special Standards District

Chapter 17.39, Section 020, of the SCMC establishes the PCSSD design standards in order to protect, preserve and enhance the secluded, rural and equestrian character of the Placerita Canyon community. The PCSSD ensures that development is compatible with the characteristics of surrounding single-family residential neighborhoods and that development does not negatively impact light, air, and privacy of the existing single-family residences. The PCSSD serves to help mitigate the cumulative impacts of development and ensure reasonable access to public riding and hiking trails.

North Newhall Area

The North Newhall Area (NNA) was established to stimulate development and redevelopment activities in the area north of Old Town Newhall. Most of the NNA is located within the PCSSD. The northern portion of the NNA is undeveloped with a hillside to the north, oak trees and Placerita Creek. The commercial corridor along the west side of Railroad Avenue consists of mixed retail and commercial uses. The SCMC establishes guidelines for the NNA to ensure that it provides buffering, transitional densities and protection for the existing developed areas and not intrude in or change the character of Placerita Canyon located east of the NNA. Additionally, a Mixed Use Overlay Zone was adopted to encourage a mix of residential, commercial, employment, and institutional uses along the Newhall Avenue and Lyons Avenue corridors. The Mixed Use Overlay Zone serves to revitalize older commercial corridors, increase opportunities for infill housing, and encourage development that creates pedestrian-oriented neighborhoods.

Old Town Newhall Specific Plan

As shown in Figure 2-6, of the Project Description, portions of the Project Site are located in the Old Town Newhall Specific Plan area. The Specific Plan encourages mixed-use and transit-oriented development in the historic community of Newhall, in order to promote new investment, spur economic development, and create new residential opportunities in this area. The Specific Plan transformed San Fernando Road into a pedestrian-oriented 'Main Street' with public buildings, parking garages, an open-air market and mixed commercial and residential development.

4.7.3 ENVIRONMENTAL IMPACTS

Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines, a project may have a significant environmental impact if it were to:

(a) Physically divide an established community;

(b) 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, coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or

(c) Conflict with any applicable habitat conservation plan or natural community conservation plan.

Project Impacts

The Proposed Project would not physically divide an established community. Rather, the extension of Dockweiler Drive is proposed by the Circulation Element to be one of the primary east-west arterials through the City of Santa Clarita that would provide a through connection from Sierra Highway to

Railroad Avenue. The Project includes the extension of a segment of Lyons Avenue from Railroad Avenue to the future connection with Dockweiler Drive at The Master's University site and northwest towards the intersection of Arch Street and 12th Street. The Proposed Project will include re-profiling the intersection of Lyons Avenue and Railroad Avenue to allow the construction of a new SCRRA/UP railroad at-grade crossing east of Railroad Avenue. The Proposed Project's anticipated closure of the at-grade crossing at the intersection of Railroad Avenue and 13th Street would not divide an established community as the re-routing of traffic from the 13th Street at-grade crossing to the proposed alignment extending from Lyons Avenue to the northern proposed five-leg intersection at Arch Street/12th Street/Placerita Canyon would provide an alternative route into the Placerita Canyon neighborhood. The proposed intersection alignment of Lyons Avenue and Dockweiler Drive would include monument signage to properly identify the entrance to the Placerita Canyon community as a residential community with no through access. Traffic signage and a dedicated right-turn alignment will appropriately direct through-traffic to the southern alignment of the roadway towards Dockweiler Drive to prevent passing motorists from inadvertently making a left turn into the Placerita Canyon neighborhood. The Proposed roadway alignment will span the Newhall Creek which will also serve to increase pedestrian and vehicular access in the area. Accordingly, implementation of the Proposed Project would not disrupt or divide the physical arrangement of the established community, and no impact would occur.

Land Use Compatibility

The Proposed Project would not conflict with any applicable land use plans, policies, or regulations. Provided below is a plan consistency analysis with the applicable governing plans that guide land use development in the project area.

Regional Transportation Plan/ Sustainable Communities Strategy

As discussed in the consistency analysis in Table 4.7-1 below, the Proposed Project would substantially comply with the goals identified in the 2016-2040 RTP/SCS.

Table 4.7-1
Regional Transportation Plan/ Sustainable Communities Strategy Consistency Analysis

Regional Transportation Plan/ Sustainable Communities Strategy Goals	Project Consistency Analysis
Regional Goals	
1. Align the plan investments and policies with improving regional economic development and competitiveness.	**Not Applicable:** The Proposed Project is largely a roadway infrastructure project and does not propose any business related uses. Therefore this policy is not applicable to the Project.
2. Maximize mobility and accessibility for all people and goods in the region.	**Consistent:** The Proposed Project's connection to the future extension of Dockweiler Drive is an approved segment of the City's Circulation Element and would create a primary east-west arterial through the City of Santa Clarita. The Proposed Project would also include pedestrian crossing improvements and driveway grading improvements thereby improving mobility and

Regional Transportation Plan/ Sustainable Communities Strategy Goals	Project Consistency Analysis
	accessibility for people and goods in the region. As such the Proposed Project would be consistent with this goal.
3. Ensure travel safety and reliability for all people and goods in the region.	**Consistent:** The roadway improvements proposed by the extension of Lyons Avenue include the construction of a new SCRRA/UP railroad grade crossing east of Railroad Avenue and closure of the at-grade crossing at the intersection of 13th Street and Railroad Avenue. As such, the Proposed Project would create a safe and reliable east-west transit connection through the City of Santa Clarita by improving traffic movements and safety at the railroad crossing. The Proposed Project is therefore consistent with this goal.
4. Preserve and ensure a sustainable regional transportation system.	**Consistent:** The Proposed Project would serve to complete the City's adopted Circulation Element and would improve regional mobility and would therefore be consistent with this goal.
5. Maximize the productivity of our transportation system.	**Consistent:** The Proposed Project would serve to implement a portion of the City's adopted Circulation Element by completing a primary east-west arterial through the City of Santa Clarita. Construction of this link is anticipated to reduce cross valley trip lengths and travel times, provide an alternate travel route, support a multi-modal transportation network by reducing bus travel times in the City and by providing the opportunity for increased bike and pedestrian traffic. Therefore, the Project would be consistent with the goal of maximizing the productivity of the regional transportation system.
6. Protect the environment and health of our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking).	**Consistent:** The Proposed Project roadway alignment would reduce vehicles miles traveled by creating a primary east-west arterial through the City of Santa Clarita. The Proposed Project would also include new bike and pedestrian pathways to Class I Standards. Therefore the Proposed Project would encourage active transportation and would be consistent with this goal.
7. Actively encourage and create incentives for energy efficiency, where possible.	**Not Applicable:** The Proposed Project is largely a roadway infrastructure project and would not require any electricity other than that necessary to illuminate pole mounted street lights in the public right-of-way. Thus, this policy is not applicable to the Proposed Project.
8. Encourage land use and growth patterns that facilitate transit and non-motorized transportation.	**Consistent:** The Proposed roadway alignment would include new bike and pedestrian pathways to Class II Standards. Therefore the Proposed Project would encourage non-motorized transportation and would be consistent with this goal.
9. Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.	**Consistent:** The Proposed Project includes the construction of an at-grade crossing at Lyons Avenue and Railroad Avenue and the anticipated closure of the existing at-grade crossing at 13th Street and Railroad Avenue. Approval and implementation of the Project will require coordination with multiple governmental

Regional Transportation Plan/ Sustainable Communities Strategy Goals	Project Consistency Analysis
	planning agencies including the City of Santa Clarita, the California Public Utilities Commission (CPUC), and the Metropolitan Transportation Authority (MTA). Coordination between these agencies and the review and approval of all applicable permits for each respective agency will ensure the safety, reliability, and security of the regional transportation system.
Source: SCAG, 2016-2014 Regional Transportation Plan/Sustainable Communities Strategy, 2016.	

City of Santa Clarita Municipal Code

Pursuant to the Santa Clarita Municipal Code (SCMC), a portion of the Project Site at 13th Street and Railroad Avenue and Lyons Avenue is currently zoned for MXN (Mixed-Use Neighborhood) and a portion of the Project Site that crosses the UP/Metrolink Railroad line is zoned for PI (Public Institutional). The Proposed Project does not include the development of residential, commercial or industrial buildings and therefore no impact would occur with respect to zoning.

As discussed above and in Sections 2.0, Project Description, and 4.3, Biological Resources, native oak trees are protected under City of Santa Clarita Oak Tree Ordinance (Ordinance No. 89-10, passed by the City Council on April 25, 1989). The City of Santa Clarita requires that all potential impacts to oak trees be preceded by an application to the City that includes a detailed oak tree report and that loss of or damage to protected oaks be mitigated at a minimum 2:1 ratio. Based upon the development and grading footprint of the Proposed Project, construction of the proposed roadway would require the removal of two oak trees. As such, the Proposed Project would require the approval of an Oak Tree Permit and Hillside Review Permit at such time as development occurs or when funding of roadway construction becomes available. These entitlements will be obtained at such time as the proposed alignment is approved and roadway funding is available to implement the Project. With procurement of the required Oak Tree Permit and Hillside Review Permits, land use impacts would be less than significant.

City of Santa Clarita General Plan

Pursuant to the City of Santa Clarita's General Plan the portion of the Project Site located at 13th Street and Railroad Avenue and Lyons Avenue and Railroad Avenue has a General Plan land use designation of Mixed Use Neighborhood (MXN). The portion of the Project Site that crosses the UP/Metrolink Railroad line is zoned for PI (Public Institutional). The Proposed Project does not include the development of any residential, commercial or industrial buildings and as such, no impact would occur with respect to the land use designation of the Project Site.

Circulation Element

The extension of Dockweiler Drive is identified in the Circulation Element as a major new roadway. The extension, as proposed in the Circulation Element, would complete the approved roadway connection from Railroad Avenue to Sierra Highway. Construction of the extension would include a new four-lane secondary highway, connecting Dockweiler Drive from Railroad Avenue to Leonard Tree Lane. The

Proposed Project includes the extension of Lyons Avenue from Railroad Avenue to the approved alignment of Dockweiler Drive at The Master's University site. As shown in Table 4.7-2 below, the Proposed Project would be in substantial compliance with the goals, objectives and polices of the Circulation Element.

Table 4.7-2
City of Santa Clarita Circulation Element Consistency Analysis

City of Santa Clarita Circulation Element	Project Consistency Analysis
Street and Highway System Goals, Objectives and Policies	
Goal C 2: A unified and well-maintained network of streets and highways which provides safe and efficient movement of people and goods between neighborhoods, districts, and regional centers, while maintaining community character.	**Consistent:** The Proposed Project would expand an existing roadway system by linking Lyons Avenue, from Railroad Avenue, to the future connection of Dockweiler Drive at The Master's University site. The roadway expansion includes connection points to the 12th Street/Arch Street/Placerita Canyon intersection, which will link Old Town Newhall with the Placerita Canyon neighborhood and The Master's University. The design of Dockweiler Drive will include Class II pedestrian sidewalks and bike lanes on each side. Bike Lane connectors are proposed from Dockweiler Drive to connect to the Proposed Class I Bike Path along Railroad Avenue and the existing Class III Bike Path along Railroad Avenue. As such the Proposed Project is consistent with this goal.
Objective C 2.1: Implement the Circulation Plan (as shown on Exhibit C-2) for streets and highways to meet existing and future travel demands for mobility, access, connectivity, and capacity.	**Consistent:** The expansion of Lyons Avenue from Railroad Avenue, to the future connection of Dockweiler Drive at The Master's University site is consistent with the proposed roadway as indicated on Exhibit C-2 of the Circulation Plan. The extension of the proposed roadway (Lyons Avenue) was designated as a Secondary Highway. Thus, the Project is consistent with the Circulation Plan and the approved Master's University Master Plan, in which Dockweiler Drive was designated as a 4-lane Secondary Highway. The proposed roadway will be a 2-lane facility with a 12-foot raised landscaped median, and 13-foot parkway/sidewalk on each side. The parking lanes will be capable of being converted into a travel lane to create an ultimate 4-lane facility in compliance with the City's General Plan connecting Dockweiler Drive from Railroad Avenue to Leonard Tree Lane. The proposed roadway expansion will meet existing and future travel demands for mobility, access, connectivity, and capacity and is therefore consistent with this objective.
Policy C 2.1.1: Protect mobility on arterial highways by limiting excessive cross traffic, access points, and turning movements; traffic signals on arterial highways should be spaced at least ½-mile apart, and the minimum allowable separation should be at least ¼-mile.	**Partially Consistent:** The Proposed Project will include re-profiling the intersection of Lyons Avenue and Railroad Avenue to allow the construction of a new SCRRA/UP railroad at-grade crossing east of Railroad Avenue. Consistent with the CPUC policy for limiting new at-grade crossings, the Project proposes the closure of an at-grade crossing east of the intersection of Railroad Avenue and 13th Street. However, the Proposed

City of Santa Clarita Circulation Element	Project Consistency Analysis
	Project would result in a signalized T-intersection at the proposed intersection of Lyons Avenue and Dockweiler Road, which is less than 0.10 mile east of the existing signalized intersection of Lyons Avenue and Railroad Avenue. Thus, the Project would be partially consistent with this policy.
Policy C 2.1.2: Enhance connectivity of the roadway network to the extent feasible given the constraints of topography, existing development patterns, and environmental resources, by constructing grade separations and bridges; connecting discontinuous streets; extending secondary access into areas where needed; prohibiting gates on public streets; and other improvements as deemed appropriate based on traffic analysis.	**Consistent:** The Proposed Project will span Newhall Creek to the east of the intersection of Railroad Avenue and Lyons Avenue. Newhall creek currently serves as an impediment to vehicular access between Old Town Newhall and the areas east of Railroad Avenue. Therefore, the Project will be consistent with this policy.
Policy C 2.1.3: Protect and enhance the capacity of the roadway system by upgrading intersections to meet level of service standards, widening and/or restriping for additional lanes, synchronizing traffic signals, and other means as appropriate.	**Consistent:** As presented in Table 3-2 under Year 2019 Project Proposed Project Condition of the Traffic Study (See Appendix I of this Draft EIR), most of the study intersections are anticipated to continue to operate at LOS "D" or better under the With Project conditions with mitigation. As compared to the 2019 and 2035 No Build conditions, the Project would provide for improved circulation under the Santa Clarita Valley Consolidated Traffic Model (SCVCTM). Therefore, with mitigation the Proposed Project would be consistent with this policy.
Policy C 2.1.4: Ensure that future dedication and acquisition of right-of-way is based on the adopted Circulation Plan, proposed land uses, and projected demand.	**Consistent:** The Proposed Project is consistent with the Circulation Plan, as it would include the extension of Lyons Avenue, from Railroad Avenue, to the future connection of Dockweiler Drive at The Master's University site. Therefore, the necessary acquisition of parcels within the planned right-of-way is consistent with this policy.
Policy C 2.1.5: At the time of project level review, monitor levels of service, traffic accident patterns, and physical conditions of the existing street system, and upgrade roadways as needed through the Capital Improvement Program.	**Consistent:** The Proposed Project includes the implementation of a planned capital improvement project to improve one roadway segment of the City's Circulation Element. Therefore, the Proposed Project would be consistent with this policy.
Objective C 2.2: Adopt and apply consistent standards throughout the Santa Clarita Valley for street design and service levels, which promote safety, convenience, and efficiency of travel.	**Not Applicable:** This policy is directed at the City's Planning and policy documents and is not applicable to a single project. As such it is not applicable to the Proposed Project. However, the Project would be built to the adopted roadway standards for Secondary Highway of the City's Circulation Element.
Policy C 2.2.1: Designate roadways within the planning area based on their functional classification as shown on Exhibit C-2.	**Consistent:** The Proposed Project is consistent with Exhibit C-2 of the Circulation Plan, as it would include the extension of Dockweiler Drive as a designated Secondary Highway as contemplated and approved in the City's adopted Circulation Element. Therefore the Proposed Project is consistent with this policy.
Policy C 2.2.2: Adopt consistent standard street cross sections for City and County roadways in the planning	**Not Applicable:** This policy is directed at the City with respect to adopting uniform and consistent cross

City of Santa Clarita Circulation Element	Project Consistency Analysis
area, as shown on Exhibit C-3.	sections. As such this policy is not directly applicable to any one specific project including the Proposed Project.
Policy C 2.2.3: Coordinate circulation plans of new development projects with each other and the surrounding street network, within both City and County areas.	**Consistent:** The Proposed Project is consistent with the adopted Circulation Plan of the City's General Plan, which was developed based on an analysis of existing conditions in the Valley, future development in both City and County areas, and anticipated growth. As such, the Proposed Project is consistent with this policy.
Policy C 2.2.4: Strive to maintain a Level of Service (LOS) D or better on most roadway segments and intersections to the extent practical; in some locations, a LOS E may be acceptable, or LOS F may be necessary, for limited durations during peak traffic periods.	**Consistent:** As presented in Table 3-2 under Year 2019 Project Proposed Project Condition of the Traffic Study (See Appendix I of this Draft EIR), most of the study intersections are anticipated to continue to operate at LOS "D" or better. There are four intersections that are anticipated to operate at LOS "F." As such, mitigation measures are necessary to accommodate the anticipated Year 2019 traffic for the Proposed Project. With mitigation, all but one intersection would operate at LOS C or better. The intersection of Sierra Highway and Placerita Canyon Road would operate at LOS D, which would otherwise operate at LOS F under the future 2019 No Build condition. Under the 2035 With Project condition with mitigation, all intersections would operate at LOS E or better resulting in a less than significant impact after mitigation. Therefore the Proposed Project would be consistent with this policy.
Policy C 2.2.5: Adopt common standards for pavement width in consideration of capacity needs to serve projected travel demand, provided that a reduction in pavement width may be allowed in order to reduce traffic speeds, protect resources, enhance pedestrian mobility, or as otherwise deemed appropriate by the reviewing authority.	**Not Applicable:** This policy is directed at the City with respect to adopting uniform and consistent cross sections. As such this policy is not directly applicable to any one specific project including the Proposed Project.
Policy C 2.2.6: Within residential neighborhoods, promote the design of "healthy streets" which may include reduced pavement width, shorter block length, provision of on-street parking, traffic-calming devices, bike routes and pedestrian connectivity, landscaped parkways, and canopy street trees.	**Consistent:** The proposed expansion of Lyons Avenue to the future expansion of Dockweiler Drive at The Master's University site would include the development of a secondary highway and would not encroach into a residential neighborhood. The proposed roadway will be a 2-lane facility with a 12-foot raised landscaped median, and 13-foot parkway/sidewalk on each side. The median lanes will be 12 feet wide and the parking lanes 9 feet wide with a 6-foot bike lane. The parking lanes will be capable of being converted into a travel lane to create an ultimate 4-lane facility in compliance with the City's General Plan. The typical right-of-way (R/W) width will be 92 feet. The design of Dockweiler Drive will include sidewalks, Class II bike lanes on each side. Class II bike routes will provide a striped lane for one-way bike travel and will be marked with signs and pavement striping. As such, the Proposed Project would be consistent with this policy.
Policy C 2.2.7: Where practical, encourage the use of grid or modified grid street systems to increase connectivity and walkability; where cul-de-sacs are	**Not Applicable:** The proposed expansion of Lyons Avenue to the future expansion of Dockweiler Drive at The Master's University site includes the development

City of Santa Clarita Circulation Element	Project Consistency Analysis
provided, promote the use of walkways connecting cul-de-sac bulbs to adjacent streets and/or facilities to facilitate pedestrian access; where street connectivity is limited and pedestrian routes are spaced over 500 feet apart, promote the use of intermediate pedestrian connections through or between blocks.	of a secondary highway, which would complete a primary east-west arterial through the City of Santa Clarita. Therefore this policy is not applicable to the Proposed Project.
Policy C 2.2.8: Local street patterns should be designed to create logical and understandable travel paths for users and to provide access between neighborhoods for local residents while discouraging cut-through traffic; cul-desac length should not exceed 600 feet, and "dog-leg" cul-de-sacs with one or more turns between the bulb and the outlet should be avoided where possible.	**Not Applicable:** The proposed expansion of Lyons Avenue to the future expansion of Dockweiler Drive at The Master's University site would include the development of a secondary highway, the closure of an at-grade crossing at 13th Street. The Proposed Project does not include a local street, and as such this policy is not applicable.
Policy C 2.2.9: Medians constructed in arterial streets should be provided with paved crossover points for emergency vehicles, where deemed necessary by the Fire Department.	**Consistent:** The Proposed Project would be subject to the site plan review requirements of the Los Angeles County Fire Department to ensure that roadway would remain accessible to emergency service vehicles. Therefore, the Proposed Project would be consistent with this policy.
Policy C 2.2.10: The street system design, including block length, width, horizontal and vertical alignments, curves, and other design characteristics, should function safely and effectively without the subsequent need for excessive traffic control devices to slow or deflect traffic.	**Consistent:** The Proposed Project would be subject to the site plan review requirements of the City of Santa Clarita to ensure that the proposed roadway would operate safely and effectively. The Proposed Project includes a signalized T intersection at the proposed intersection of Lyons Avenue and Dockweiler Drive and a proposed five-leg unsignalized intersection at Arch Street/12th Street/Placerita Canyon and Dockweiler Drive, and the closure of an at-grade crossing at 13th Street. Therefore, the Proposed Project would be consistent with this policy.
Policy C 2.2.11: For intersections of collector or larger streets, four-way intersections are preferred over offset intersections.	**Not Consistent:** The Proposed Project will include a 5-leg all way stop at the intersection of Arch Street/12th Street/Placerita Canyon and the planned extension to Dockweiler Drive. As such, the Proposed Project is not consistent with this policy.
Policy C 2.2.12: Private streets, other than driveways and alleyways typically associated with multi-family development, should be constructed to standards for public rights-of-way, except as otherwise approved by the reviewing agency.	**Not Applicable:** The Proposed Project does not include the development of private streets associated with multi-family development. Therefore, this policy is not applicable.
Policy C 2.2.13: Protect the community character of rural areas by requiring use of rural street standards, which may include reduced pavement width, reduced street lighting to protect night skies, rolled curbs or no curbs and no sidewalks.	**Not Applicable:** The proposed expansion of Lyons Avenue to the future expansion of Dockweiler Drive at The Master's University site would include the development of a secondary highway, the closure of an at-grade crossing at 13th Street. The Proposed Project does not include a rural street, and as such this policy is not applicable. The planned T intersection at Lyons Avenue and Dockwieler Drive will include a dual right turn lane southbound and a single left turn lane northbound for eastbound traffic. For northbound traffic, the alignment would include a dual left turn lane and a single through lane. Appropriate signage would

City of Santa Clarita Circulation Element	Project Consistency Analysis
	also be placed to warn drivers that Placerita Canyon does not provide through access to non-residents. Thus, the Project would be consistent with this Policy.
Policy C 2.2.14: Streets should be designed in context with the terrain and the natural and built features of the area, but excessively circuitous streets should be avoided to minimize unnecessary vehicle, bicycle and pedestrian mileage.	**Consistent:** The Proposed Project would be subject to the site plan review requirements of the City of Santa Clarita to ensure that the proposed roadway and pedestrian improvements would operate safely and effectively. The project includes grading within proximity to a significant ridgeline that was previously approved to be graded and would incorporate landform grading practices to minimize the extent of grading consistent with the grading contours of the southern extension of Dockweiler Drive that was approved under the Master's College EIR. Therefore, the Proposed Project would be consistent with this policy.
Policy C 2.2.15: Adopt consistent standards for implementation of Americans with Disabilities Act requirements such as curb ramp design and accessible pedestrian signals.	**Not Applicable:** This policy is directed towards the City in adopting policies that are consistent with federal ADA requirements. Therefore this policy is not applicable to the Proposed Project.
Objective C 2.3: Balance the needs of congestion relief with community values for aesthetics and quality of life.	**Consistent:** The Proposed Project will provide congestion relief to the local transportation system by completing a primary east-west arterial through the City of Santa Clarita and is consistent with this goal. The proposed roadway from the Arch Street/12th Street/ Placerita Canyon/Dockweiler Drive intersection to the future intersection of Lyons Avenue and Dockweiler Drive will a two-lane facility with a 13-foot landscaped parkway/sidewalk on each side. The proposed roadway from the Lyons Avenue and Dockweiler Drive intersection to the Master's University property line will be a 2-lane facility with a 12-foot raised landscaped median, and 13-foot parkway/sidewalk on each side. The parking lanes will be capable of being converted into a travel lane to create an ultimate 4-lane facility in compliance with the City's General Plan. The typical right-of-way (R/W) width will be 92 feet. The design of Dockweiler Drive will include sidewalks, Class II bike lanes on each side. Class II bike routes will provide a striped lane for one-way bike travel and will be marked with signs and pavement striping. Therefore the Proposed Project is consistent with this policy.
Policy C 2.3.1: Enhance community appearance through landscaping, street lighting, street furniture, bus shelters and benches, and other aspects of streetscape design within the right-of-way, where appropriate.	**Consistent:** The Prosed Project will include a 12-foot landscaped median from the Lyons Avenue and Dockweiler Drive intersection to the Master's University property line and a 13-foot parkway/sidewalk on each side of the roadway for the entire length of the alignment. The Proposed Project will also include sidewalks, Class II bike lanes, street lighting, and pedestrian crossing improvements. As such, the Proposed Project is consistent with this policy.
Policy C 2.3.2: Encourage unified treatment of arterial streets within both City and County areas, while permitting flexibility of streetscape design between	**Consistent:** From the Arch Street/12th Street/ Placerita Canyon/Dockweiler Drive intersection to the future

City of Santa Clarita Circulation Element	Project Consistency Analysis
neighborhoods and districts to preserve village character.	intersection of Lyons Avenue and Dockweiler Drive the roadway will be a two-lane facility with a 13-foot landscaped parkway/sidewalk on each side. The proposed roadway extension from the Lyons Avenue and Dockweiler Drive intersection to the Master's University property line is planned as a Secondary Highway with a 2-lane facility, a 12-foot raised landscaped median, and 13-foot parkway/sidewalk on each side. The parking lanes will be capable of being converted into a travel lane to create an ultimate 4-lane facility in compliance with the City's General Plan. The typical right-of-way (R/W) width will be 92 feet. The Proposed Project also includes street widening for Lyons and Railroad Avenues. The median lanes will be 12 feet wide and the parking lanes will be 9 feet wide with a 6-foot bike lane. Class II Bike Lane connectors are proposed from Dockweiler Drive to connect to the Proposed Class I Bike Path along Railroad Avenue and the existing Class III Bike Path along Railroad Avenue.
Policy C 2.3.3: When evaluating road widening projects, consider the impacts of additional traffic, noise, and fumes on adjacent land uses and use context sensitive design techniques where appropriate.	**Consistent:** The Proposed Project impacts with respect to traffic and noise have been analyzed in this Draft EIR. Traffic impacts and mitigation measures are presented in Section 4.9 of this Draft EIR. Noise impacts and mitigation measures are discussed in Section 4.8 of this Drat EIR. Air quality impacts are addressed in Section 4.2, Air Quality. Each of these sections includes recommended mitigation measures to reduce the Project's potential adverse impacts to the maximum extent feasible. As such, the Proposed Project is consistent with this policy.
Policy C 2.3.4: Protect residential neighborhoods from cut-through traffic using local streets to avoid congested arterials, through use of street design and traffic control devices.	**Consistent:** The Proposed Project has been planned with special consideration to avoid misdirecting through traffic into the Placerita Canyon neighborhood which does not provide through traffic to Sierra Highway for non-residents. The planned T intersection at Lyons Avenue and Dockwieler Drive will include a dual right turn lane southbound and a single left turn lane northbound for eastbound traffic. For northbound traffic, the alignment would include a dual left turn lane and a single through lane. Appropriate signage would also be placed to warn drivers that Placerita Canyon does not provide through access to non-residents. Thus, the Project would be consistent with this Policy.
Objective C 2.4: Allow trucks to utilize only major and secondary highways as through routes, to minimize impacts of truck traffic on surface streets and residential neighborhoods.	**Consistent:** The Proposed Projects includes the development of new Secondary Highway that will connect to the future extension of Dockweiler Drive to provide a through access way from Sierra Highway to Lyons Avenue. This extension will improve local and

City of Santa Clarita Circulation Element	Project Consistency Analysis
	regional circulation of truck traffic. Therefore the Proposed Project is consistent with this objective.
Policy C 2.4.1: Require design of pavement sections on major and secondary highways to account for truck traffic, to prevent excessive pavement deterioration from truck use.	**Consistent:** The Proposed Project will be designed in accordance with the appropriate design features and standards required for secondary highways. The Proposed Project would be subject to the site plan review requirements of the City of Santa Clarita. Therefore, the Proposed Project would be consistent with this policy.
Policy C 2.4.2: Establish adequate setbacks from major and secondary highways for sensitive receptors and sensitive uses, so as to minimize impacts on these individuals and uses from noise and air pollution caused by truck traffic.	**Consistent:** The Proposed Project impacts with respect to air quality and noise have been analyzed in this Draft EIR. Air quality impacts and mitigation measures are presented in Section 4.2 of this Draft EIR. Noise impacts and mitigation measures are discussed in Section 4.8 of this Drat EIR. As discussed in each respective section, the Project has been designed to reduce potential air quality and noise impacts to the maximum extent feasible. Where applicable mitigation measures have been proposed to reduce or eliminate adverse impact upon the adjacent residential community. Therefore, the Proposed Project is consistent with this policy.
Policy C 2.4.3: Prohibit through truck traffic on designated scenic routes.	**Not Applicable:** The Proposed Development does not contain a scenic route; as such this policy is not applicable to the Proposed Project.
Policy C 2.4.4: Adopt regulations for truck parking on public streets, to avoid impacts to residential neighborhoods.	**Consistent:** The proposed extension of Dockweiler Drive includes a parking lane on each side of the roadway. It is anticipated that restrictions will be provided to restrict commercial truck parking along Dockweiler Drive. Therefore, the Proposed Project is consistent with this policy.
Objective C 2.5: Consider the needs for emergency access in transportation planning.	**Consistent:** The Proposed Project would be subject to the site plan review requirements of the Los Angeles County Fire Department to ensure that the proposed roadway would remain accessible to emergency service vehicles. Therefore, the Proposed Project would be consistent with this policy.
Policy C 2.5.1: Maintain a current evacuation plan as part of emergency response planning.	**Not Applicable:** The proposed expansion of Lyons Avenue to the future expansion of Dockweiler Drive at The Master's University site includes the development of a secondary highway, which would complete a primary east-west arterial through the City of Santa Clarita. The proposed alignment will facilitate emergency access into and out of Placerita Canyon in a more efficient manner than the current roadway configuration at 13th Street and Railroad Avenue. As such, the Proposed Project would be consistent with this policy.
Policy C 2.5.2: Ensure that new development is provided with adequate emergency and/or secondary access for purposes of evacuation and emergency response; require two points of ingress and egress for every subdivision or phase thereof, except as otherwise	**Consistent:** The Proposed Project would be built to City roadway standards and would be subject to the site plan review requirements of the Los Angeles County Fire Department to ensure that the proposed roadway would remain accessible to emergency service vehicles.

City of Santa Clarita Circulation Element	Project Consistency Analysis
approved for small subdivisions where physical constraints preclude a second access point.	Therefore, the Proposed Project would be consistent with this policy.
Policy C 2.5.3: Require provision of visible street name signs and addresses on all development to aid in emergency response.	**Consistent:** The Proposed Project would be subject to the adopted roadway and signage standards and site plan review requirements of the City of Santa Clarita. Therefore, the Proposed Project would be consistent with this policy.
Policy C 2.5.4: Provide directional signage to Interstate 5 and State Route 14 at key intersections in the Valley, to assist emergency evacuation operations.	**Consistent:** The Proposed Project would provide appropriate signage consistent with the standards in the City's Circulation Element. Therefore, the Proposed Project would be consistent with this policy.
Objective C 2.6: Ensure that funding and phasing of new transportation improvements is coordinated with growth.	**Consistent:** The project was selected by Metro as part of its 2015 Call for Projects. Matching funds in the amount of 20% will be committed by the City of Santa Clarita. All aspects of the project would be Federal-aid eligible. Therefore, the Proposed Project would be consistent with this policy.
Policy C 2.6.1: Require that new development construct transportation improvements or provide its fair share of the cost of transportation such improvements, and ensure that required improvements or in-lieu contributions are in place to support the development prior to occupancy.	**Consistent:** The Circulation Element has identified the extension of Dockweiler Drive as a key transportation improvement project for the City of Santa Clarita to meet growth demands and improve mobility. As discussed above, the Project is proposed to be selected by Metro as part of its 2015 Call for Projects. Matching funds in the amount of 20% will be committed by the City of Santa Clarita. As such, the Proposed Project is consistent with this goal.
Policy C 2.6.2: Evaluate the feasibility of establishing a joint City/County Intelligent Transportation Management System (ITMS) impact fee for new development that is unable to otherwise mitigate its impacts to the roadway system through implementation of the adopted Highway Plan.	**Not Applicable:** This policy is outside the scope of the Proposed Project.
Policy C 2.6.3: Coordinate with Caltrans and other local, regional, state and federal agencies in identifying and implementing funding alternatives for the Valley's transportation systems.	**Consistent:** Approval and implementation of the Project will require coordination with multiple governmental planning agencies including the City of Santa Clarita, the California Public Utilities Commission (CPUC), and the Metropolitan Transportation Authority (MTA). The Project was selected by Metro as part of its 2015 Call for Projects. Coordination between these agencies and the review and approval of all applicable permits for each respective agency will ensure the Project is prioritized by need and all feasible project alternatives are evaluated. Project Alternatives are analyzed in Section 6 of this Draft EIR. As such the Proposed Project would be consistent with this policy.
Policy C 2.6.4: Coordinate road construction with improvements to other utility systems in the right-of-way.	**Consistent:** The Proposed Project is being developed in coordination with the City of Santa Clarita. Other governmental agencies that may involve coordination with in the development process, include, but are not limited to the CPUC, California Department of Fish and Wildlife, the Army Corps of Engineers (ACOE), Metro, the Regional Water Quality Control Board (LARQCB),

City of Santa Clarita Circulation Element	Project Consistency Analysis
	and the Los Angeles County Fire Department. Therefore, the Proposed Project would be consistent with this policy.
Objective C 2.7: Pursue the safety, efficiency and tranquility of existing and future residential streets by properly planning for local, collector and arterial roadways and limiting residential driveway access onto collector or arterial roadways.	**Not Applicable:** The Proposed Project does not include direct access onto any existing residential roadways. Therefore, this objective is not applicable to the Proposed Project.
Policy C.2.7.1: To the extent feasible, plan residential subdivisions with sufficient arterial and non-loaded collector streets so that projected traffic volumes on local residential streets with unrestricted driveway access remains below 2000 ADT.	**Not Applicable:** The Proposed Project does not propose a residential subdivision; this policy is not applicable to the Proposed Project.
Policy C.2.7.2: Discourage direct driveway access onto collector streets within single-family residential subdivisions. Limit driveway access from multi-family residential and commercial development onto collector streets to the extent possible.	**Not Applicable:** The proposed roadway expansion would complete a primary east-west arterial through the City of Santa Clarita and does not provide direct access to any residential driveways. As such, this policy is not applicable to the Proposed Project.
Policy C.2.7.3: Where feasible, design new residential subdivisions with more than 200 residential units with direct access to an existing arterial roadway or an existing non loaded collector street. Discourage new large residential subdivisions from having primary access through local neighborhood streets.	**Not Applicable:** The Proposed Project does not propose a residential subdivision; this policy is not applicable to the Proposed Project.
Source: City of Santa Clarita, Department of City Planning, General Plan Circulation Element, 2011	

Placerita Canyon Special Standards District and North Newhall Area

The Lyons Avenue / Dockweiler Drive extension and at-grade crossing closure at 13th Street is also located in the Placerita Canyon Special Standards District (PCSSD) and is part of the North Newhall Area (NNA), which includes a Mixed-Use Overlay Zone. Chapter 17.39, Section 020, of the Santa Clarita Municipal Code (SCMC) establishes the PCSSD design standards in order to protect, preserve and enhance the secluded, rural and equestrian character of the Placerita Canyon community. As shown in Table 4.7-3 below, the Proposed Project is in substantial compliance with the standards identified in the PCSSD.

Table 4.7-3
Placerita Canyon Special Standards District Consistency Analysis

Placerita Canyon Special Standards District	Project Consistency Analysis
B. Property Development Standards	
2. c.: Street lights, in accordance with City standards, shall be installed only at road-to-road intersections; exterior lighting shall be designed to minimize off-site illumination, within the requirements for public safety. Exterior lighting on residential parcels shall be of top-shielded design to prevent direct off-site illumination; hoods shall be used to direct light away from adjacent parcels. Exterior lighting on nonresidential parcels shall be prohibited except where necessary for the safety of	**Consistent:** The Proposed Project would be subject to the site plan review requirements of the City of Santa Clarita and as such, streetlights for the Proposed Project will be placed in accordance with City standards. Therefore, the Proposed Project would be consistent with this standard.

Placerita Canyon Special Standards District	Project Consistency Analysis
pedestrian and vehicular traffic, as determined by the City. To minimize off-site illumination where lights are required, cut-off fixtures in keeping with a rural equestrian architectural style will be specified.	
2. e: Bridges shall be limited to those required for public safety and shall be designed to accommodate equestrian access.	**Consistent:** The Proposed Project includes the extension of Lyons Avenue, which will span the Newhall Creek. The roadway construction will construct a new bridge across Newhall Creek and provide embankment protection to the roadway and creek. The Newhall Creek improvements will be designed in accordance with current regulatory and State permitting agencies. As such, the Proposed Project would be consistent with this standard.
2. g: Existing and future drainage shall be accommodated to provide adequate carrying capacity and erosion protection and shall not create or extend detrimental hazards or consequences upstream.	**Consistent:** As discussed in Section 4.6, Hydrology/ Water Quality, the hydrology and scour analysis concluded that the Proposed bridge spanning the banks of Newhall Creek would accommodate the Capital Flood, i.e., no overtopping of the road, and will not create any flood hazard for the adjacent railroad and proposed street improvements. The bridge conveys both the 50-year burn/bulk and FIS 100-year flood flows with more than 2 feet of freeboard. Therefore, the construction of the bridge would not be detrimental to adjacent upstream or downstream properties.
E. North Newhall Area	
1. Public Participation/Outreach	
a: Be subject to public participation and outreach led by the applicant(s) or the applicant's representative, at the onset of and during conceptual planning and prior to formal submittal of a proposed project to the City. Outreach would include, but is not limited to, the Placerita Canyon property owners' association.	**Consistent:** A Notice of Preparation for the Draft EIR for the Proposed Project was filed on August 5, 2013 and was available for public review and comment until September 3, 2013. A public scoping meeting for the Draft EIR was held on August 21, 2013 at City Hall in Santa Clarita. Through these outreach efforts the City received comment letters from various community members including the Placerita Canyon Property Owners' Association. Public comments were considered in the preparation of this Draft EIR. As such, the Proposed Project is consistent with this standard.
2. Traffic Intrusion/Gateways	
a: Be internally and externally pedestrian-oriented, and have equestrian and bicycle amenities and accommodations.	**Consistent:** The design of Dockweiler Drive will be a very pedestrian and bicycle friendly roadway, providing sidewalks, Class II bike lanes on each side. Class II bike routes will provide a striped lane for one-way bike travel and will be marked with signs and pavement striping. As such, the Proposed Project will be consistent with this standard.
b: Understand and acknowledge that any development at these locations will increase existing vehicular traffic and create new vehicular traffic, and that there will be impacts to equestrian and pedestrian circulation in the existing neighborhood, and therefore to minimize those	**Consistent:** Although the Proposed Project does not involve the development of structures, the Proposed Project will include reprofiling the intersection of Lyons Avenue and Railroad Avenue to allow the construction of a new SCRRA/UP railroad grade crossing east of

Placerita Canyon Special Standards District	Project Consistency Analysis
impacts, special attention must be given to mitigate impacts caused by such identified access points.	Railroad Avenue. The new Lyons Avenue railroad at-grade crossing will improve traffic movements and safety at the railroad crossing. The Proposed also includes the closure of an at-grade crossing east of the intersection of Railroad Avenue and 13th Street to minimize the number of at-grade crossings in the Newhall area and improve public safety. While the Project will increase traffic flows through the planned roadway extension, the design of Dockweiler Drive will include sidewalks for pedestrian use and Class II bike lanes on each side. Class II bike routes will provide a striped lane for one-way bike travel and will be marked with signs and pavement striping. Therefore the Proposed Project would be consistent with this standard.
c: Layout and orientation of any developments shall be designed to discourage and where possible prevent additional trips into Placerita Canyon caused by or resulting from such developments.	**Consistent:** The Proposed Project has been planned with special consideration to avoid misdirecting through traffic into the Placerita Canyon neighborhood which does not provide through traffic to Sierra Highway for non-residents. The planned T intersection at Lyons Avenue and Dockwieler Drive will include a dual right turn lane southbound and a single left turn lane northbound for eastbound traffic. For northbound traffic, the alignment would include a dual left turn lane and a single through lane. Appropriate signage would also be placed to warn drivers that Placerita Canyon does not provide through access to non-residents. Thus, the Project would be consistent with this Policy. Furthermore, the gate located at the western entrance to Placerita Canyon Road would remain. The gate provides restrictive access to residents of the Placenta Canyon neighborhood. As such, the Proposed Project would be consistent with this standard.
d: Include defined entry gateways or monuments into the Placerita Canyon special standards district, at Railroad Avenue, complete with landscaping and architectural elements with signage expressly stating there is no through traffic allowed.	**Consistent:** While the proposed monument signage has not yet been designed, as a city sponsored capital improvement project it is anticipated that the Proposed Project would be consistent with this policy in ensuring appropriate signage is provided informing motorists that the Placerita Canyon neighborhood does not provide through access to Sierra Highway.
e: A traffic study shall be prepared for all new developments that are projected to generate two hundred fifty (250) or more new daily trips, within the areas encompassed by the NNA. The traffic study shall analyze those potentially impacted intersections within the NNA area and those that lie within a one (1) mile radius of the subject development site.	**Consistent:** the Proposed Project's impact on transportation and traffic is based on the Traffic Study titled, Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA, prepared by Hall & Foreman, Inc. dated December 9, 2014. The scope and methodology of this analysis was determined in conjunction with the City of Santa Clarita. The complete Traffic Study is included in Appendix H to this Draft EIR. A total of 17 intersections were included in the Traffic Study for evaluation. Therefore, the Proposed Project is consistent with this standard.
3. Buffering and Transitions	
a: Preserve the existing rural equestrian community, generally known as Placerita Canyon, and provide	**Consistent:** Dockweiler Drive will include sidewalks for pedestrian use, Class II bike lanes on each side, and

Placerita Canyon Special Standards District	Project Consistency Analysis
adequate buffers and graduated transitional design to ensure existing neighborhood protection and compatibility of character resulting from any proposed development.	a multi-purpose trail on the east side. Class II bike routes will provide a striped lane for one-way bike travel and will be marked with signs and pavement striping. Therefore, the Proposed Project is consistent with this design standard.
b: Incorporate the current Santa Clarita Valley Trails Advisory Committee (SCVTAC) network of multi-use trails into adjacent neighborhoods which shall have rural and equestrian characteristics.	**Consistent:** Dockweiler Drive will include sidewalks for pedestrian use, Class II bike lanes on each side, and a multi-purpose trail on the east side. Class II bike routes will provide a striped lane for one-way bike travel and will be marked with signs and pavement striping. Multi-purpose trails are to be unpaved and will be available for equestrian, hiking, and mountain bike use. Potential Bike Lane connectors are proposed from Dockweiler Drive to connect to the Proposed Class I Bike Path along Railroad Avenue and the existing Class II Bike Path along Railroad Avenue. As such the Proposed Project is consistent with this standard.
c: Require use of the MWD right-of-way as a buffer (subject to MWD approval) between the NNA within the PCSSD and the rest of Placerita Canyon, which landscaping shall consist of low water, low maintenance landscape material.	**Not Applicable:** This policy is not applicable to the Proposed Project as the Project is not located within or adjacent to the MWD right-or-way.
5. Flood Control	
a: Waterway bottoms and sides shall not be improved with concrete or hard impervious surfaces and shall be maintained in a natural appearance	**Consistent**: As discussed in Section 4.6, Hydrology/Water Quality, the LACFCD Sedimentation Manual recommendation for the Santa Clara River watershed prescribes that the Newhall Creek be improved as a soft bottom channel with protected levees. To convey the Capital Flood, a discharge of 9,200 cubic feet per second (ft^3/s), the proposed channel section will require a trapezoidal section with an 80-foot wide base and 2:1 lined side slopes. This section is similar to the existing upstream improvements at Del Oro Street crossing with Newhall Creek. HEC-RAS model input and output data, including cross sections and detailed tables are provided in the Appendix of the Hydraulic Report. The proposed four 24-feet wide and 8-feet deep opening reinforced concrete bridge will accommodate the Capital Flood.
b: Fencing shall not be permitted to cross riverbeds or waterways in a manner which denies or interferes with easy trail access.	**Consistent**: The proposed channel section will require a trapezoidal section with an 80-foot wide base and 2:1 lined side slopes. The proposed four 24-feet wide and 8-feet deep opening reinforced concrete bridge will accommodate through trail access and serve as a wildlife corridor for wildlife within the Newhall Creek. See also Section 4.3, Biological Resources.
c: On-site flood control mitigation would provide assistance or relief to other hydrology/drainage impacts within Placerita Canyon due to changes of topography on NNA properties.	**Consistent**: As discussed in Section 4.6, Hydrology/ Water Quality, the hydrology and scour analysis concluded that the Proposed bridge spanning the banks of Newhall Creek would accommodate the Capital Flood, i.e., no overtopping of the road, and will not create any flood hazard for the adjacent railroad and proposed street improvements. The bridge conveys both

Placerita Canyon Special Standards District	Project Consistency Analysis
	the 50-year burn/bulk and FIS 100-year flood flows with more than 2 feet of freeboard. Therefore, the construction of the bridge would not be detrimental to adjacent upstream or downstream properties.
Source: Santa Clarita Municipal Code, Chapter 17.39 Special Standards Districts, Section 17.39.020 Placerita Canyon Special Standards District.	

Old Town Newhall Specific Plan

The Proposed Project would create a new segment of roadway that would connect Lyons Avenue to the existing roadways east of Railroad Avenue. The Proposed Project would improve local and regional circulation by connecting the Old Town Newhall community west of the Project Site to the Placerita Canyon community and The Master's University east of the Project Site and is therefore consistent with the Specific Plan.

Compass Blueprint Concept Plan

As described in the Concept Plan, the extension of Dockweiler Drive will be designed as a two-lane artery, which will become the primary route through the Concept Plan area east of Railroad Avenue. The proposed roadway from the Arch Street/12th Street/ Placerita Canyon/Dockweiler Drive intersection to the future intersection of Lyons Avenue and Dockweiler Drive will be a two-lane facility with a 13-foot landscaped parkway/sidewalk on each side. The proposed roadway from the Lyons Avenue and Dockweiler Drive intersection to the Master's University property line will be a 2-lane facility with a 12-foot raised landscaped median, and 13-foot parkway/sidewalk on each side. The median lanes will be 12 feet wide and the parking lanes 9 feet wide with a 6-foot bike lane. The parking lanes will be capable of being converted into a travel lane to create an ultimate 4-lane facility in compliance with the City's General Plan. The typical right-of-way (R/W) width will be 92 feet. The Concept Plan proposes that Dockweiler Drive be a divided roadway with a wide center median to facilitate the efficient movement of traffic. Therefore the Proposed Project would be consistent with the Concept Plan.

Conservation Plans

The Project Site is not located in a habitat conservation plan or natural community conservation plan. The Project Site is largely surrounded by development and road networks and is not zoned for conservation. However, as discussed in Section 4.3 Biological Resources, two California Department of Fish and Wildlife (CDFW) jurisdictional features occur within the Project Site, the Newhall Creek and a small ephemeral drainage that is a tributary to Newhall Creek. The Project would result in both temporary and permanent impacts to the areas of the Newhall Creek and its associated tributary and are classified as "riverine and related permanent water, with continuous flow at least seasonally." With the implementation of MM 4.3-3, impacts to jurisdictional resources would be reduced to a less than significant level.

Additionally, Newhall Creek, which extends through the Project Site and provides passage through developed areas between the Santa Clarita River and the Angeles National Forest to the southeast and is considered a part of a wildlife movement or migration corridor. To limit impacts to wildlife movement, four 25-foot wide and 8-foot deep openings in a concrete box bridge with 80-foot wide soft base and 2:1 protected side slopes is proposed where the proposed roadway extension crosses Newhall Creek. As designed, this bridge would not result in any barrier to wildlife movement and would serve to protect Newhall Creek as a functioning wildlife movement corridor. The project as proposed would not result in significant impacts to wildlife movement. Therefore, with incorporation of Mitigation Measure 4.3-3 and the aforementioned project design features, impacts with respect to conservation plans would be less than significant.

4.7.4 CUMULATIVE IMPACTS

Cumulative land use impacts could occur if other related projects in the vicinity of the proposed project site would result in land use incompatibility impacts in conjunction with the impacts of the proposed project. However, development of each related project would be subject to all adopted plans and regulations. Based upon the information available regarding the project growth as forecasted in the City's General Plan, it is reasonable to assume that the related projects under consideration in the surrounding community would implement and conform to local and regional planning goals and policies. Therefore, development of the Proposed Project would not result in a significant cumulative land use impact.

4.7.5 MITIGATION MEASURES

No mitigation measures are required.

4.7.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The Proposed Project would result in less than significant impacts associated with land use and planning.

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4. ENVIRONMENTAL IMPACT ANALYSIS
8. NOISE

4.8.1 INTRODUCTION

This section evaluates the potential for noise and groundborne vibration impacts resulting from implementation of the Proposed Project, including impacts associated with a substantial temporary and/or permanent increase in ambient noise levels in the vicinity of the Project Site; exposure of people in the vicinity of the Project Site to excessive noise or groundborne vibration levels; and whether the anticipated exposure would exceed acceptable standards established in the local general plan or noise ordinance. Mitigation measures intended to reduce impacts to noise and vibration are proposed, where appropriate, to avoid or reduce significant impacts of the Proposed Project.

Data used to prepare this analysis was obtained from the City of Santa Clarita General Plan Noise Element, the City of Santa Clarita Municipal Code (SCMC), the Federal Transit Administration Transit Noise and Vibration Impact Assessment (Harris Miller Miller & Hanson, 2006), and by measuring and modeling existing and future noise levels at the Project Site and surrounding areas. Noise prediction modeling conducted in this analysis is based on the Federal Highway Administration (FHWA) Highway Noise Prediction Model (FHWA-RD-77-108). The noise measurement data and modeling calculation worksheets are provided in Appendix H to this Draft EIR.

Fundamentals of Sound And Environmental Noise

Sound is technically described in terms of amplitude (i.e., loudness) and frequency (i.e., pitch). The standard unit of sound amplitude measurement is the decibel (dB). The dB scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound. The pitch of the sound is related to the frequency of the pressure vibration. Since the human ear is not equally sensitive to a given sound level at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted dB scale (dBA) provides this compensation by emphasizing frequencies in a manner approximating the sensitivity of the human ear.

Noise, on the other hand, is typically defined as unwanted sound audible at such a level that the sound becomes an undesirable by-product of society's normal day-to-day activities. Sound becomes unwanted when it interferes with normal activities, causes actual physical harm, or results in adverse health effects. The definition of noise as unwanted sound implies that it has an adverse effect, or causes a substantial annoyance, to people and their environment. However, not every unwanted audible sound interferes with normal activities, causes harm, or has adverse health effects. For unwanted audible sound, i.e. noise, to be considered adverse it must occur with sufficient frequency and at such a level that these adverse impacts are reasonably likely to occur. Thresholds of significance, set forth below, are established to differentiate between benign, unwanted audible sound and potentially significant and adverse unwanted audible sound.

A typical noise environment consists of a base of steady ambient noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. These can vary from an occasional aircraft or train passing by to virtually continuous noise, such as traffic on a major highway. Table 4.8-1, Representative Environmental Noise Levels, illustrates representative noise levels in the environment.

Table 4.8-1
Representative Environmental Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	—110—	Rock Band
Jet Fly-over at 100 feet		
	—100—	
Gas Lawnmower at 3 feet		
	—90—	
		Food Blender at 3 feet
Diesel Truck going 50 mph at 50 feet	—80—	Garbage Disposal at 3 feet
Noisy Urban Area during Daytime		
Gas Lawnmower at 100 feet	—70—	Vacuum Cleaner at 10 feet
Commercial Area		Normal Speech at 3 feet
Heavy Traffic at 300 feet	—60—	
		Large Business Office
Quiet Urban Area during Daytime	—50—	Dishwasher in Next Room
Quiet Urban Area during Nighttime	—40—	Theater, Large Conference Room (background)
Quiet Suburban Area during Nighttime		
	—30—	Library
Quiet Rural Area during Nighttime		Bedroom at Night, Concert Hall (background)
	—20—	
		Broadcast/Recording Studio
	—10—	
Lowest Threshold of Human Hearing	—0—	Lowest Threshold of Human Hearing

Source: California Department of Transportation, Technical Noise Supplement, October 1998.

Several rating scales have been developed to analyze the adverse effects of community noise on people. Since environmental noise fluctuates over time, these scales consider that the effects of noise on people is largely dependent upon the total acoustical energy content of the noise, as well as the time of day when the noise occurs. Those that are applicable to this analysis are as follows:

- L_{eq}: An L_{eq}, or equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- L_{max}: The maximum instantaneous noise level experienced during a given period of time.

- L_{min}: The minimum instantaneous noise level experienced during a given period of time.
- CNEL: The Community Noise Equivalent Level (CNEL) is a 24-hour average L_{eq} with a 5 dBA "weighting" during the hours of 7:00 P.M. to 10:00 P.M. and a 10 dBA "weighting" added to noise during the hours of 10:00 P.M. to 7:00 A.M. to account for noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a constant 60 dBA 24 hour L_{eq} would result in a CNEL of 66.7 dBA.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day, night, or over a 24-hour period. For residential uses, environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60–70 dBA range, and high above 70 dBA. Frequent exposure to noise levels greater than 85 dBA over time can cause temporary or permanent hearing loss. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet suburban residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate level noise environments are urban residential or semi-commercial areas (typically 55–60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with more noisy urban residential or residential-commercial areas (60–75 dBA) or dense urban or industrial areas (65–80 dBA).

It is widely accepted that in the community noise environment the average healthy ear can barely perceive CNEL noise level changes of 3 dBA. CNEL changes from 3 dBA to 5 dBA may be noticed by some individuals who are extremely sensitive to changes in noise. A 5 dBA CNEL increase is readily noticeable to most people, while a 10 dBA increase in sound pressure is perceived as a doubling of sound. However, there is no direct correlation between increasing or even doubling noise-generating uses and what is detectable by the human ear as an increase in noise level. The human ear perceives a 10 dB(A) increase in sound level to be a doubling of sound volume, but doubling the sound energy, i.e., the noise-generating activity, only results in a 3 dB(A) increase in sound. This means that a doubling of sound wave energy (e.g., doubling the volume of traffic on a roadway) would result in a barely perceptible change in sound level to the human ear. Thus, relatively sizeable increases in baseline noise generation are not necessarily perceived as significant noise increases by the human ear.

Noise levels from a particular source generally decline as the distance to the receptor increases. Other factors, such as the weather and reflective barriers, also help intensify or reduce the noise level at any given location. A commonly used rule of thumb for roadway noise is that for every doubling of distance from the source (assume a starting point of 50 feet), the noise level is reduced by about 3 dBA at acoustically "hard" locations (i.e., the area between the noise source and the receptor is nearly complete asphalt, concrete, hard-packed soil, or other solid materials) and 4.5 dBA at acoustically "soft" locations (i.e., the area between the source and receptor is normal earth or has vegetation, including grass). Noise from stationary or point sources is reduced by about 6 to 7.5 dBA for every doubling of distance at acoustically hard and soft locations, respectively. Noise levels are also generally reduced by about 1 dBA for each 1,000 feet of distance due to air absorption. Noise levels may also be reduced by intervening structures – generally, a single row of buildings between the receptor and the noise source reduces the

noise level by about 5 dBA, while a solid wall or berm can reduce noise levels by 5 to 10 dBA. The normal noise attenuation within residential structures with open windows is about 17 dBA, while the noise attenuation with closed windows is about 25 dBA.[1]

Fundamentals Of Environmental Groundborne Vibration

Vibration is sound radiated through the ground. Vibration can result from a source (e.g., train operations, motor vehicles, machinery equipment, etc.) causing the adjacent ground to move and creating vibration waves that propagate through the soil to the foundations of nearby buildings. This effect is referred to as groundborne vibration. The peak particle velocity (PPV) or the root mean square (RMS) velocity is usually used to describe vibration levels. PPV is defined as the maximum instantaneous peak of the vibration level and is typically used for evaluating potential building damage. RMS is defined as the square root of the average of the squared amplitude of the level. RMS velocity in decibels (VdB) is typically more suitable for evaluating human response.

The background vibration velocity level in residential areas is usually around 50 VdB. The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. Most perceptible indoor vibration is caused by sources within buildings, such as the operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings, such as historic buildings. The general human response to different levels of groundborne vibration velocity levels is described in Table 4.8-2, Human Response to Different Levels of Groundborne Vibration.

Table 4.8-2
Human Response to Different Levels of Groundborne Vibration

Vibration Velocity Level	Human Perception
65 VdB	Approximate threshold of perception for many people.
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable.
85 VdB	Vibration acceptable only if there are an infrequent number of events per day.

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.

[1] *National Cooperative Highway Research Program Report 117, Highway Noise: A Design Guide for Highway Engineers, 1971.*

4.8.2 REGULATORY SETTING

City of Santa Clarita General Plan

The California Government Code requires that a noise element be included in the general plan of each county and city in the state. Each local government's goals, objectives, and policies for noise control are established by the noise element of the general plan and the passage of specific noise ordinances.

The Noise Element of the City of Santa Clarita General Plan, adopted in 2011, establishes policies for the compatibility of new land uses with various noise levels. These policies have been used to set and adopt exterior and interior noise compatibility criteria for various land uses within the City. The purpose of these criteria is to reduce the various potential effects of noise on people, including sleep disturbance, reduced physical and mental performance, annoyance, and interference with speech communication. The land use-noise compatibility guidelines for noise are identified in Figure 4.8-1, City of Santa Clarita Land Use Compatibility Guidelines for Noise.

The Noise Element identifies 65 dBA and 55 dBA as the established exterior noise standards for residential uses during daytime and nighttime hours, respectively. When averaged over a 24-hour period, these noise levels average to approximately 65 dBA CNEL. The established exterior noise standard for schools, childcare centers, senior housing and other sensitive uses is also 65 dBA during the daytime hours when these uses would be occupied. The exterior noise standard for commercial and industrial uses is 80 dBA during the day and 70 dBA during nighttime hours. These levels average out to approximately 80 dBA CNEL over a 24-hour period.

Part 2 of the Noise Element identifies the City's goals,' objectives,' and policies' that are associated with community noise impacts. Several of the goals, policies, and objectives listed in the Noise Element are oriented towards new residential, commercial or industrial development projects and are thus not applicable to the Proposed Project. As such, the goals,' objectives,' and policies' that are relevant to the Proposed Project are identified as follows:

Noise Environment

Goal N 1: A healthy and safe noise environment for Santa Clarita Valley residents, employees, and visitors.

Objective N 1.1: Protect the health and safety of the residents of the Santa Clarita Valley by the elimination, mitigation, and prevention of significant existing and future noise levels.

Policy N 1.1.1 Use the Noise and Land Use Compatibility Guidelines contained on Exhibit N-8 of the General Plan, which are consistent with State guidelines, as a policy basis for decisions on land use and development proposals related to noise.

Policy N 1.1.2 Continue to implement the adopted Noise Ordinance and other applicable code provisions, consistent with state and federal standards, which establish

noise impact thresholds for noise abatement and attenuation, in order to reduce potential health hazards associated with high noise levels.

Policy N 1.1.3 Include consideration of potential noise impacts in land use planning and development review decisions.

Policy N 1.1.4 Control noise sources adjacent to residential, recreational, and community facilities, and those land uses classified as noise sensitive.

Policy N 1.1.5 Monitor and update data and information regarding current and projected noise levels in the planning area.

Policy N 1.1.6: Provide development review comments on projects proposed by other agencies and special districts that may generate noise impacts affecting land uses within the Santa Clarita Valley, including any freeway and high-speed rail projects.

Reduction of Noise from Traffic[2]

Goal N 2: Protect residents and sensitive receptors from traffic-generated noise.

Objective N 2.1: Prevent and mitigate adverse effects of noise generated from traffic on arterial streets and highways through implementing noise reduction standards and programs.

Policy N 2.1.1: Encourage owners of existing noise-sensitive uses, and require owners of proposed noise sensitive land uses, to construct sound barriers to protect users from significant noise levels, where feasible and appropriate.

Policy N 2.1.2: Encourage the use of noise absorbing barriers, where appropriate.

Policy N 2.1.4: Reduce significant noise levels related to through-traffic in residential areas by promoting subdivision circulation designs to contain a hierarchy of streets, which efficiently direct traffic to highways.

Policy N 2.1.6: Work with the City of Santa Clarita Transit to improve and expand current public transit services and routes to reduce vehicle trips and resulting noise levels.

[2] *Policies N 2.1.3, N 2.1.5 and N2.1.7 are not applicable to the Proposed Project.*

Residential Neighborhoods[3]

Goal N 3: Protect residential neighborhoods from excessive noise.

Objective N 3.1: Prevent and mitigate significant noise levels in residential neighborhoods.

Policy N 3.1.3: Through enforcement of the applicable Noise Ordinance, protect residential neighborhoods from noise generated by machinery or activities that produce significant discernable noise exceeding recommended levels for residential uses.

Policy N 3.1.4: Require that those responsible for construction activities develop techniques to mitigate or minimize the noise impacts on residences, and adopt standards that regulate noise from construction activities that occur in or near residential neighborhoods.

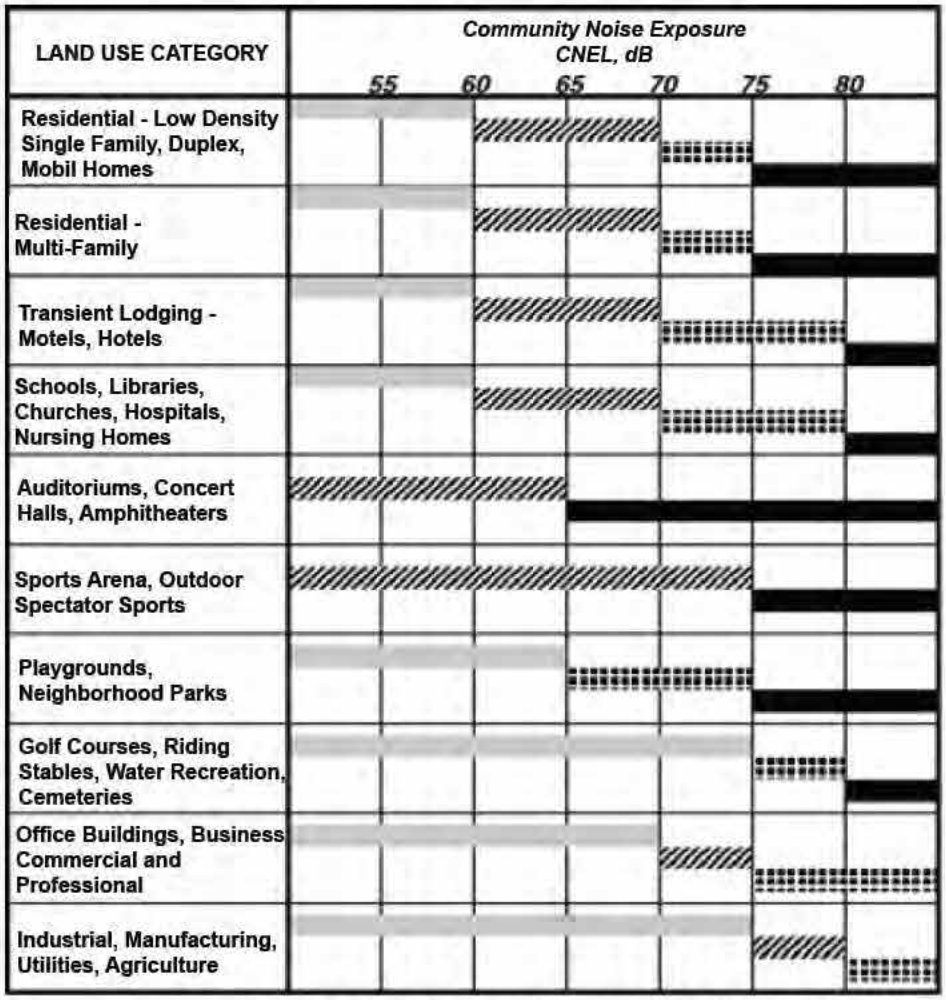
City of Santa Clarita Municipal Code

The City of Santa Clarita has also adopted a Noise Ordinance (Chapter 11.44 of the Santa Clarita Municipal Code), which identifies noise standards for various sources, specific noise restrictions, exemptions, and variances for sources of noise within the City. The Noise Ordinance applies to all noise sources with the exception of any vehicle that is operated upon any public highway, street or right-of-way, or to the operation of any off-highway vehicle, to the extent that it is regulated in the State Vehicle Code, and all other sources of noise that are specifically exempted.

Noise Ordinance Section 11.44.040, Noise Limits, codifies the noise limits for various land uses that were established in the City of Santa Clarita General Plan. The City's noise limit standards for specified land uses are identified in Table 4.8-3, City Ordinance Noise Limits.

Section 11.44.080 of the Noise Ordinance provides noise standards for construction and building activities. Pursuant to Section 11.44.080, no person shall engage in any construction work which requires a building permit from the City on sites within three hundred (300) feet of a residentially zoned property except between the hours of 7:00 A.M. to 7:00 P.M., Monday through Friday, and 8:00 A.M. to 6:00 P.M. on Saturday. Further, no work shall be performed on the following public holidays: New Year's Day, Independence Day, Thanksgiving, Christmas, Memorial Day and Labor Day. Emergency work as defined in Section 11.44.020(D) is permitted at all times. The Department of Community Development may issue a permit for work to be done "after hours"; provided, that containment of construction noises is provided. (Ord. 89-29, 1/23/90; Ord. 93-4, 3/9/93; Ord. 00-3, 2/8/00; Ord. 05-1 § 2, 1/25/05; Ord. 06-7 § 1, 10/10/06).

[3] *Policies N 3.1.1, N 3.1.2, N 3.1.5, N 3.1.6, N 3.1.7, N 3.1.8, and N 3.1.9 are not applicable to the Proposed Project.*



LEGEND

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 insultaion features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

NORMALY UNACCEPTABLE
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insullation features included in the design. Sound walls, window upgrades, and site design modifications may be needed in order to achieve City standards.

CLEARLY UNACCEPTABLE
New construction or development should generally not be undertaken.

CONSIDERATIONS IN DETERMINATION OF NOISE-COMPATIBLE LAND USE

A. NOISE EXPOSURE INFORMATION DESIRED

Where sufficient data exists, evaluate land use suitability with respect to a worst-case value of CNEL. Usually, a future projection of noise levels represents the worst-case. Existing and future noise contours for freeways, roadway, airport and railroads are provided in the Noise Element.

B. NOISE SOURCE CHARACTERISTICS

The land use-noise compatibility recommendations should be viewed in relation to the specific source of the noise. For example, aircraft and railroad noise is normally made up of higher single noise events than auto traffic but occurs less frequently. Therefore, different sources yielding the same composite noise exposure do not necessarily create the same noise environment. The State Aeronautics Act uses 65 dB CNEL as the criterion which airports must eventually meet to protect existing residential communities from unacceptable exposure to aircraft noise. In order to facilitate the purposes of the Act, one of which is to encourage land uses compat ble with the 65 dB CNEL criterion wherever possible, and in order to facilitate the ability of airports to comply with the Act, residential uses located in areas with an aircraft noise level greater than 65 CNEL should be discouraged and considered located within normally unacceptable areas.

C. SUITABLE INTERIOR ENVIRONMENTS

One objective of locating residential units relative to a known noise source is to maintain a suitable interior noise environment at no greater than 45 dB CNEL. This requirement, coupled with the measured or calculated noise reduction performance of the type of structure under consideration, should govern the minimum acceptable distance to a noise source.

D. ACCEPTABLE OUTDOOR ENVIRONMENTS

Another consideration, which in some communities is an overriding factor, is the desire for an acceptable outdoor noise environment. The acceptable outdoor noise level is 65 CNEL for rear yard areas, neighborhood parks, and pool recreation a reas at multi-family developments.

Source: City of Santa Clarita Noise Element, 2011.

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Figure 4.8-1
City of Santa Clarita Land Use Compatibility Guidelines for Noise

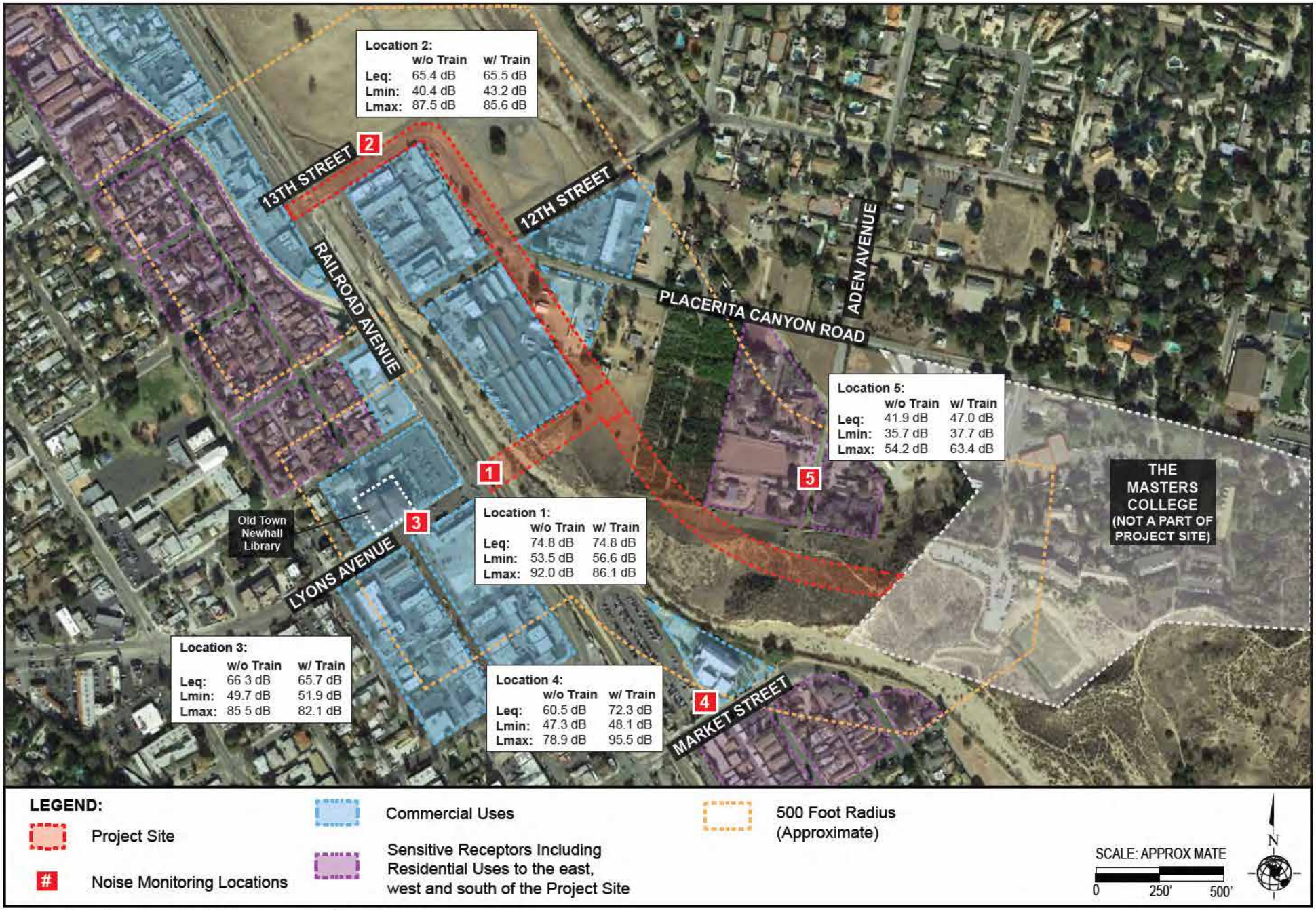
Table 4.8-3
City Ordinance Noise Limits

Part A. Noise Limits		
Region	**Time**	**Sound Level (dB)**
Residential Zone	Day	65
Residential Zone	Night	55
Commercial and Manufacturing	Day	80
Commercial and Manufacturing	Night	70
Part B. Corrections to Noise Limits		
(1) Repetitive impulsive noise		-5
(2) Steady whine, screech or hum		-5
The following corrections apply to day only:		
(3) Noise occurring more than 5 but less than 15 minutes per hour		+5
(4) Noise occurring more than 1 but less than 5 minutes per hour		+10
(5) Noise occurring less than 1 minutes per hour		+20
Source: City of Santa Clarita Municipal Code, Section 14.44.040, Noise Limits (Ord. 89-29, 1/23/90).		

Existing Ambient Noise Levels

Noise measurements were taken with a Larson Davis 831 sound level meter, which conforms to industry standards set forth in ANSI S1.4-1983 (R2001) - American National Standard Specification for Sound Level Meters. Consistent with protocol for community noise analysis, the sound level meter was programmed to record the "A" weighted average sound level (L_{eq}) over a continuous period of 15 minutes in duration. The average recorded sound event noise level (L_{eq}), the minimum noise level (L_{min}) and the maximum noise level (L_{max}) for each location is summarized below.

The Southern Pacific Railroad runs parallel to Railroad Avenue in the vicinity of the Project Site and is a contributing factor affecting the ambient noise conditions. For this reason, noise measurements documented two conditions: ambient noise levels without train activity and ambient noise with train activity. Noise measurements documenting ambient noise levels took place at five locations discussed below. Noise Monitoring Locations are shown in Figure 4.8-2, below. A summary of noise observations at each of the measurement locations is provided below.



Source: Google Earth, 2015; Noise Measurements June 13, 2017

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Figure 4.8-2
Noise Monitoring Location Map

- **Location 1** is at the east side of the intersection of Lyons Avenue and Railroad Avenue. Primary noise sources as this location included vehicle traffic, construction trucks, and delivery trucks. The ambient noise levels with and without a train passing by were identical (74.8 dBA_{Leq}) indicating there was no difference in the ambient noise levels when a train passed by as compared to when no trains were passing by. This observation is due to the relatively close distance between the primary noise source (traffic) and the monitoring location (adjacent sidewalk). During these measurement events, noise from a single vehicle passing by was noticeably louder than the noise attributable to the train passing by.

- **Location 2** is located on the north side of 13th Street approximately 250 feet east of the 13th Street and Railroad Avenue at-grade crossing. The primary source of noise at this location is vehicle and delivery truck traffic on 13th Street. The ambient noise levels without a train passing and with a train passing were 65.4 and 65.5 dBA_{Leq}, respectively, indicating there was no noticeable difference in the ambient noise levels when a train passed by as compared to when no trains were passing by.

- **Location 3** is located on the north side of Lyons Avenue at the intersection of Lyons Avenue and Main Street, directly in front of the Old Newhall Library. The primary sources of noise at this location are pedestrian activity and vehicle traffic. This site is within 350 feet of the railroad right-of-way. The ambient noise levels without a train passing and with a train passing were 66.3 and 65.7 dBA_{Leq}, respectively. Based on observations during both measurements, the predominant noise source was vehicular traffic on Lyons Avenue. The observed noise level was 0.6 dBA louder during the measurement event without the train passing.

- **Location 4** is located on the north side of Market Street at the Jan Heidt Metrolink Station approximately 250 feet east of the railroad right-of-way. The ambient noise at this location is influenced by vehicles on Market Street and Railroad Avenue and trains entering and leaving the Metrolink Station. The ambient noise levels without a train passing and with a train passing were 60.5 and 72.3 dBA_{Leq}, respectively, indicating an increase of approximately 11.8 dBA louder during the measurement event with the train stopping at the station.

- **Location 5** is located at the terminus of Aden Avenue, south of Placerita Canyon. This location is approximately 900 feet east of the railroad right-of way and the line-of-sight between the residences and the Old Town Newhall community to the west (including Railroad Avenue and the railroad right-of-way) is obscured by the intervening topography. Noise observations during this measurement reading were consistent with typical residential activities. During the measurement without a train event the following noise sources were noted: barking dogs, contractors dumping trash in bins, a lawn mower, a delivery truck, and a plane passing overhead. The ambient noise levels without a train passing and with a train passing were 41.9 and 47.0 dBA_{Leq}, respectively, indicating the ambient noise level increased by approximately 5.1 dBA when trains pass through the Metrolink Station.

Table 4.8-4
Existing Noise Levels Measured at the Project Site
Without Train Activity

Noise Measurement Location	Noise Sources	Noise Level Statistics (dBA)		
		L_{eq}	L_{min}	L_{max}
1A. Lyons Avenue and Railroad Avenue	Vehicle traffic and delivery trucks	74.8	53.5	92.0
2A. 13th Street and Railroad Avenue	Vehicle traffic, delivery trucks, pedestrians, and buses	65.4	40.4	87.5
3A. Main Street and Lyons Avenue	Pedestrian activity and vehicle traffic	66.3	49.7	85.5
4A. Aden Ave. south of Placerita Canyon. Rd.	Barking dogs, residential construction (remodel), delivery truck, and plane passing overhead.	60.5	47.3	78.9

Notes:

Notes: The "A" designation after the location numbers signifies ambient noise measurements.

Source: Parker Environmental Consultants, Noise measurements were conducted on June 13, 2017. Noise measurement data is provided in Appendix H to this Draft EIR.

Table 4.8-5
Existing Noise Levels Measured at the Project Site
With Train Activity

Noise Measurement Location	Noise Sources	Noise Level Statistics (dBA)		
		L_{eq}	L_{min}	L_{max}
1T. Lyons Avenue and Railroad Avenue	Vehicle traffic and delivery trucks	74.8	56.6	86.1
2T. 13th Street and Railroad Avenue	Vehicle traffic, delivery trucks, pedestrians, and buses	65.5	43.2	85.6
3T. Main Street and Lyons Avenue	Pedestrian activity and vehicle traffic	65.7	51.9	82.1
4T. Aden Ave. south of Placerita Canyon. Rd.	Barking dogs, residential construction (remodel), delivery truck, and plane passing overhead.	72.3	48.1	95.5

Notes:

Notes: The "T" designation after the location numbers signifies noise measurements that include the passing of a train in addition to ambient noise.

Source: Parker Environmental Consultants, Noise measurements were conducted on June 13, 2017. Noise measurement data is provided in Appendix H to this Draft EIR.

Predicted Roadway Noise Levels

Existing roadway noise levels for selected roadway segments in the vicinity of the Project Site were modeled based on average daily traffic volumes and the roadway noise prediction modeling methodology of the Federal Highway Administration (FHWA) Highway Noise Prediction Model (FHWA-RD-77-108). The modeling data is provided in Appendix H to this Draft EIR. The traffic volumes for each roadway segment are provided in the Project Traffic Study (see Appendix I to this Draft EIR). The estimated average 24-hour hour community noise equivalent noise levels (CNEL) for the selected roadway segments are presented in Table 4.8-6, below. As shown in Table 4.8-6, the roadway noise levels range from 64.5 dBA (CNEL) to 75.3 dBA (CNEL) under existing roadway conditions.

Table 4.8-6
Existing Roadway Noise Levels at Off-Site Locations

Roadway Segment	dBA CNEL (at 50 feet from Centerline of Roadway)
1. Arch St. (between 13th St. and 12th St.)	62.9
2. Railroad Ave. (between 13th St. and Lyons Ave.)	75.3
3. Lyons Ave. (between Newhall Ave. and Main St.)	71.0
4. Lyons Ave (between Main Street and Railroad Ave.)	68.5
5. Railroad Ave. (between Lyons Ave. and Market St.)	72.4
6. Railroad Ave. (between Market St. and Newhall Ave.)	71.9
7. Newhall Ave. (between Railroad Ave. and Race St.)	74.4
8. Newhall Ave. (between Race St. and Valle Del Oro)	75.3
9. Newhall Ave. (between Valle Del Oro and Sierra Hwy)	75.0
10. Sierra Hwy. (between Newhall Ave. and Dockweiler Dr.)	72.6
11. Dockweiler Dr. (between Sierra Hwy. and Valle Del Oro)	65.8
Source: Parker Environmental Consultants, 2017. *Noise measurement data is provided in Appendix H to this Draft EIR.*	

4.8.3 ENVIRONMENTAL IMPACTS

Thresholds of Significance

In accordance with Appendix G to the State *CEQA Guidelines*, a project may be deemed to have a significant adverse noise impact if it would result in:

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.
- For a project located 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, would the project expose people residing or working in the project area to excessive noise levels?
- For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

The following thresholds of significance are based on the City of Santa Clarita's City Land Use Compatibility Guidelines, as well as the noise standards outlined in the City's Noise Ordinance.

Construction Noise Impacts

Construction Noise

A significant on-site noise impact would occur if off-site noise-sensitive land uses would be exposed to project-related construction noise levels originating on or off the project site that would be in violation of Sections 11.44.040, and Section 11.44.080 (as amended) of the City's Noise Ordinance.

Construction and Operational Vibrations

The City of Santa Clarita has not adopted any local threshold level for vibration impacts. In absence of local thresholds, the following analysis relies on the Federal Transit Administration Vibration Criteria for residential land uses.[4] Per this guidance, a significant vibration annoyance impact would occur if the Proposed Project generated vibration levels in excess of 80 VdB at the receptor location.

Operational Noise

Mobile Source Noise Thresholds

Evaluation of off-site mobile source noise impacts considers the City Land Use Compatibility Guidelines and community responses to changes in noise levels. Based on this information, a significant off-site project operational noise impacts would occur under the following criteria:

- Criterion 1: An increase of 5.0 dB(A) or greater in noise level occurs from project-related activities if levels remain within the same land use compatibility classification (e.g., noise levels remain within the normally acceptable range); or

- Criterion 2: An increase of 3.0 dB(A) or greater in noise level occurs from project-related activities which results in a change in land use compatibility classification (e.g., noise levels change from normally acceptable to conditionally acceptable); or

[4] *Caltrans, Transportation and Construction Vibration Guidance Manual (2013) at page 23.*

- Criterion 3: Any increase in noise levels occurs where existing noise levels are already considered unacceptable under the City Land Use Compatibility Guidelines.

The City's noise ordinance exempts emergency operations from noise regulation. Therefore, the assessment of roadway noise impacts does not account for roadway noise that may be generated by emergency vehicles.

Interior Noise Thresholds

A significant noise impact would occur if the Proposed Project causes or contributes to interior noise levels from exterior sources to exceed 45 dB(A) L_{dn} or CNEL in any habitable room of a multi-residential use facility (e.g., hotels, motels, dormitories, long-term care facilities, and apartment houses and other dwellings, except detached single-family dwellings) with doors and windows closed.

Project Impacts

Construction-Related Noise Impacts

Construction of the Proposed Project would require the use of heavy equipment for ground clearing, site grading, and roadway construction. Development activities would also involve the use of smaller power tools, generators, and other sources of noise. During each stage of development, there would be a different mix of equipment operating and noise levels would vary based on the amount of equipment in operation and the location of the activity.

The U.S. Environmental Protection Agency (EPA) has compiled data regarding the noise generating characteristics of specific types of construction phases and specific construction equipment. These data are presented in Table 4.8-7 and Table 4.8-8 for a reference distance of 50 feet from the source. These noise levels can be expected to occur on a temporary and intermittent basis throughout the construction period. As discussed previously, Section 11.44.080 of the Santa Clarita Municipal Code prohibits construction work requiring a building permit on sites within 300 feet of a residentially zoned property from operating except between the hours of 7:00 A.M. and 7:00 P.M. Monday through Friday, and between 8:00 A.M. and 6:00 P.M. on Saturday. As such, construction activities would not measurably affect the L_{dn} noise levels or CNEL since no construction activities would occur after 7:00 P.M. The representative construction phasing and equipment noise levels identified in Tables 4.8-7 and 4.8-8 would, however, increase daytime ambient noise levels in excess of the noise limits set forth in Municipal Code Section 14.44.040, Noise Limits (See Table 4.8-3, above).

Table 4.8-7
Typical Outdoor Construction Noise Levels

Construction Phase	Noise Levels at 50 Feet with Mufflers (dBA L_{eq})	Noise Levels at 60 Feet with Mufflers (dBA L_{eq})	Noise Levels at 100 Feet with Mufflers (dBA L_{eq})	Noise Levels at 200 Feet with Mufflers (dBA L_{eq})
Ground Clearing	82	80	76	70
Excavation, Grading	86	84	80	74
Foundations	77	75	71	65
Structural	83	81	77	71
Finishing	86	84	80	74

[a] *Source: United States Environmental Protection Agency, Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971.*

Table 4.8-8
Noise Range of Typical Construction Equipment

Construction Equipment	Noise Level in dBA L_{eq} at 50 Feet [a]
Front Loader	73-86
Trucks	82-95
Cranes (moveable)	75-88
Cranes (derrick)	86-89
Vibrator	68-82
Saws	72-82
Pneumatic Impact Equipment	83-88
Jackhammers	81-98
Pumps	68-72
Generators	71-83
Compressors	75-87
Concrete Mixers	75-88
Concrete Pumps	81-85
Back Hoe	73-95
Tractor	77-98
Scraper/Grader	80-93
Paver	85-88

[a] *Machinery equipped with noise control devices or other noise-reducing design features does not generate the same level of noise emissions as that shown in this table.*

Source: United States Environmental Protection Agency, Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971.

Using the reference noise level data presented in Table 4.8-8, it is estimated that several pieces of construction equipment operating simultaneously would generate a noise level of approximately 94.6 dBA. As shown in Figure 4.8-2 the sensitive receptors within 500 feet of the Project Site are the residential communities bound by Market Street to the north, the single-family homes to the north at the terminus of Aden Avenue, the residences west of Railroad Avenue and north of Lyons Avenue, the Master's University Campus, and the Old Town Newhall Library. The estimated construction noise levels

impacting each receptor are identified in Table 4.8-9, below. As shown in Table 4.8-9, when factoring in attenuation rates for distance over a soft (i.e., vegetated) ground surface, the anticipated construction noise levels are expected to exceed the City's daytime noise standards for residential uses (see Table 4.8-3); although, temporary and episodic construction noise levels would be similar to the existing noise levels of passing trains (see Table 4.8-5). As such, construction noise would produce noise levels that are similar to existing temporary and episodic noise levels. Nevertheless, construction noise would exceed the threshold levels, and the construction noise levels would therefore constitute a significant impact.

Table 4.8-9
Estimated Exterior Construction Noise at Nearest Sensitive Receptors

Sensitive Land Uses[a]	Distance to Project Site (feet)	Reference Noise Level at the Sensitive Receptor	Estimated Peak Construction Noise Levels at Receptor Location (dBA L_{eq}) [a]	Threshold Level [b]	Significant Impact
1. Old Town Newhall Library (Noise Monitoring Location 3)	290	69.5	75.5	80	No
2. Residential uses on Aden Ave. (Noise Monitoring Location 5)	130	56.6	84.2	65	Yes
3. The Master's University Campus (Noise Monitoring Location 4)	490	56.6	69.8	65	Yes
4. Residential homes west of Railroad Avenue and north of Lyons Avenue (Noise Monitoring Location 2)	490	69.5	69.8	65	Yes
5. Residential uses south of Market Street (Noise Monitoring Location 4)	245	64.7	77.4	65	Yes

Notes:
[a] Calculations based on Federal Transit Administration, Transit Noise and Vibration Impact Assessment, Final Report, May 2006. It should be noted that the peak noise level increase at the nearby sensitive receptors during Project construction represents the highest composite noise level that would be generated periodically during a worst-case construction activity and does not represent continuous noise levels occurring throughout the construction day or period.
[b] This threshold level represents the lowest threshold applicable for the types of noise activities anticipated to occur over a typical 8-hour work day. See Table 4.8-3 for additional factors and circumstances.
Source: Parker Environmental Consultants, See Appendix H for construction noise calculation worksheets.

Construction-Related Groundborne Vibration

Construction activities that would occur at the Project Site would involve the use of heavy earthmoving equipment and vibratory rollers, which have the potential to generate low levels of groundborne vibration. Table 4.8-10, below, identifies various vibration velocity levels at specific distances for the types of construction equipment that would operate at the Project Site during construction.

Site clearing and grading activities would not occur within 100 feet of any occupied residential structure within the Project area. Based on the information in Table 4.8-10, the nearest homes to the north on Aden Avenue would be exposed to vibration levels in the range of 69 VdB, which is below the dividing line between barely perceptible and distinctly perceptible levels for many people. Also, as discussed previously, construction activities that would occur within 300 feet of a residential zone would be limited

to the hours of 7:00 A.M. through 7:00 P.M. Monday through Friday and 8:00 A.M. through 6:00 P.M. on Saturday. Therefore, vibration impacts would not occur during recognized sleep hours for residences. The Proposed Project would not generate vibration levels in excess of the 80 VdB threshold at any residences and/or buildings where people normally sleep. Thus, the Proposed Project's potential impact upon exposing persons to excessive groundborne vibration or groundborne noise levels would be less than significant.

Table 4.8-10
Vibration Source Levels for Construction Equipment

Equipment	Approximate PPV (in/sec)					Approximate RMS (VdB)				
	25 Feet	50 Feet	60 Feet	75 Feet	100 Feet	25 Feet	50 Feet	60 Feet	75 Feet	100 Feet
Large Bulldozer	0.089	0.031	0.024	0.017	0.011	87	78	76	73	69
Caisson Drilling	0.089	0.031	0.024	0.017	0.011	87	78	76	73	69
Loaded Trucks	0.076	0.027	0.020	0.015	0.010	86	77	75	72	68
Jackhammer	0.035	0.012	0.009	0.007	0.004	79	70	68	65	61
Small Bulldozer	0.003	0.001	0.0008	0.0006	0.0004	58	49	47	44	40

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, Final Report, 2006.

Operational Noise Levels –Off-Site Roadway Noise Impacts

The Proposed Project is anticipated to alter roadway traffic volumes, as the Proposed Project would create a new roadway segments and crossings, including removing the crossing at Railroad Avenue and 13th Street and connecting Lyons Avenue to Dockweiler Drive, which would also include extending Dockweiler Drive to connect with Arch Street. Locations in the vicinity of the Lyons Avenue/Dockweiler Drive Extension and the crossing closure at 13th Street portions of the Proposed Project could experience slight changes in noise levels as a result of the change in traffic patterns. The proposed roadway crossing would be located at the intersection of Railroad Avenue and Lyons Avenue, where Location 1T was monitored. The noise measurements recorded at Locations 2T and 4T are representative of what noise levels would be at the proposed railroad crossing at Lyons Avenue and Railroad Avenue, as these locations were proximate to the existing at grade crossings along Railroad Avenue at 13th Street and Market Streets. The highest 15-minute average Leq noise level experienced during a train event at either location was 72.3 dB at Location 4T, which is approximately 2.5 dB lower than the 15-minute Leq noise level at Location 1T (74.8 dB). A 2.5 dB change in the ambient noise level (either higher or lower) would be inaudible/imperceptible to the nearest sensitive receptors, which are the Old Town Newhall Library (located 290 feet west) and the residences west of Railroad Avenue and north of Lyons Avenue (located 490 feet northwest). Furthermore, it is also important to note that the highest noise level (L_{max}) at Location 1A (ambient noise level without a train crossing) was 92.0 dB which was attributable to heavy vehicle traffic such as transit buses, delivery trucks, and motorcycles. Therefore, heavy vehicle traffic is observed to contribute to higher noise levels than a passing train. The new noise sources from the proposed railroad crossing at Lyons Avenue and Railroad Avenue would have a less than significant impact on sensitive receptors.

The changes in future noise levels along the study-area roadway segments in the Project Site vicinity are identified in Table 4.8-11, below. As shown, the Proposed Project's near term (Year 2019) impacts would increase local noise levels by a maximum of 2.7 dBA CNEL (at the location of Dockweiler Drive (between Sierra Highway and Valle del Oro), which is inaudible/imperceptible to most people and would not exceed the identified thresholds of significance. At all other roadway segments, the resulting noise levels are anticipated to decrease. As such the Proposed Project's potential to generate a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project would be less than significant.

Table 4.8-11
Future (2019) Project Roadway Noise Impacts at Off-Site Locations

Roadway Segment	Future (2019) Without Project (dBA CNEL)	Future (2019) With Project (dBA CNEL)	Change Due to Project (dBA CNEL)	Significant Impact?
1. Arch St. (between 13th St. and 12th St.)	64.1	50.7	-13.4	No
2. Railroad Ave. (between 13th St. and Lyons Ave.)	75.2	74.7	-0.5	No
3. Lyons Ave. (between Newhall Ave. and Main St.)	68.9	69.3	0.4	No
4. Lyons Ave (between Main Street and Railroad Ave.)	68.0	68.6	0.6	No
5. Railroad Ave. (between Lyons Ave. and Market St.)	72.2	72.0	-0.2	No
6. Railroad Ave. (between Market St. and Newhall Ave.)	72.4	72.1	-0.3	No
7. Newhall Ave. (between Railroad Ave. and Race St.)	75.4	74.7	-0.7	No
8. Newhall Ave. (between Race St. and Valle Del Oro)	75.8	75.1	-0.7	No
9. Newhall Ave. (between Valle Del Oro and Sierra Hwy)	74.9	74.6	-0.3	No
10. Sierra Hwy. (between Newhall Ave. and Dockweiler Dr.)	68.6	68.4	-0.2	No
11. Dockweiler Dr. (between Sierra Hwy. and Valle Del Oro)	65.8	68.2	2.7	No

Source: Parker Environmental Consultants, 2017.
Noise measurement data is provided in Appendix H to this Draft EIR.

Operational Noise Levels – On-Site Roadway Noise Impacts

The Proposed Project improvements which includes the 13th Street crossing closure does not include modifications to roadway circulation and are not expected to affect on-site operational noise levels. This portion of the Proposed Project would result in a less than significant impact to on-site roadway operational noise.

The Lyons Avenue/Dockweiler Drive Extension portion of the Proposed Project would result in a future roadway segment over an existing creek bed and over an area that is largely vacant and undeveloped. The proposed roadway segment would connect Arch Street to the future planned extension of Dockweiler Drive and would provide a link from Lyons Avenue crossing the Newhall Creek to the proposed extension of Dockweiler Drive. As shown in Figure 4.8-2, the proposed alignment would construct a Secondary Highway roadway segment within 130 feet of existing residential homes on Aden Avenue, within 245 feet of the residential uses on Market and Race Streets, and within 490 feet of The Master's University. Based on the noise prediction modeling using the FHWA's Highway Noise Prediction Model

(FHWA-RD-77-108), the Future (2019) With Project noise levels on the new roadway segment from Lyons Avenue to Valle del Oro are expected to be 63.3 dBA (CNEL) within 50 feet of the centerline of the roadway. The resulting noise levels at the sensitive receptors identified in Table 4.8-12, below, would be below 52.9 dBA. It should be noted that the line of sight between the proposed roadway segment and Aden Avenue is blocked at its closest point by a ridgeline that extends approximately 20 feet higher than the roadway surface elevation. The residences are also located at a lower surface elevation than the roadway. Thus, the topography in this area will provide additional attenuation of approximately 5 dBA L_{eq}. In any case, the anticipated with Project noise levels at all off-site receptor locations would be within the "normally acceptable" range of noise for residential areas. Therefore, the Proposed Project's noise impacts would be less than significant.

Table 4.8-12
Estimated Roadway Noise at Nearest Sensitive Receptors

Sensitive Land Uses[a]	Distance to Project Site (feet)	Roadway Noise Level at 50 ft. From Centerline (dBA CNEL) [a]	Estimated Roadway Noise Level at Receptor Location (dBA CNEL)	Residential Threshold Level (dBA CNEL)[b]	Significant Impact
1. Residential uses on Aden Ave.	130	63.3	52.9	60	No
2. Residential neighborhood South of Market Street, East of Railroad Avenue, West of Race Street, and North of Park Street	245	63.3	46.0	60	No
3. The Master's University Campus	490	63.3	38.5	60	No
4. Residential homes west of Railroad Avenue and north of Lyons Avenue	490	63.3	38.5	60	No

Notes:
[a] The roadway noise volume is shown for the planned roadway segment of Dockweiler Drive between Lyons Avenue and Valle del Oro.
[b] See Figure 4.8-1 for a description of the Land Use Noise Compatibility Guidelines.
Source: Parker Environmental Consultants, See Appendix H for construction noise calculation worksheets.

Operational Noise Levels – Railroad Crossing Bells

The Proposed Project would result in the closure of the 13th Street railroad right-of-way crossing and the improvement of a new at-grade railroad crossing at Lyons Avenue and Railroad Avenue. The closure of the existing at grade railroad crossing at 13th Street would reduce the railroad warning signal bell levels in the vicinity of 13th Street and Railroad Avenue as the railroad crossing warning signal devices would be removed at this location and installed at a new at-grade crossing at Lyons Avenue and Railroad Avenue. As previously discussed and shown in Table 4.8-4 and 4.8-5 (ambient Noise Levels Without and With Train Events) and Figure 4.8-2, Noise Monitoring Location Map, the ambient noise levels with and without the railroad crossing signals activated produced a wide range of noise levels showing little to no effect at locations 1 through 3 (where local vehicle traffic noise was the dominant noise source) to an increase of up to 5.1 to 11.8 dBA L_{eq} at locations 5 and 4 respectively. The relocation of the existing

railroad crossing signal at 13th Street and Railroad Avenue approximately 1,150 feet south to the Lyons Avenue and Railroad Avenue crossing would not result in a noticeable change to the ambient noise levels during train events. Noise impacts from at-grade warning signals would be less than significant.

4.8.4 CUMULATIVE IMPACTS

Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. Cumulative impacts may be analyzed by considering a list of past, present, and probable future projects producing related or cumulative impacts.

For purposes of assessing the Project's cumulative roadway noise levels, the Future Year 2035 Traffic Analysis was applied to the Federal Highway Administration (FHWA) Highway Noise Prediction Model (FHWA-RD-77-108). The Future Year 2035 traffic volumes were provided by the City of Santa Clarita using the Santa Clarita Valley Consolidated Traffic Model (SCVCTM) for the Buildout Year. Other Area Projects anticipated to be constructed by Year 2035 have been incorporated into the SCVCTM, and account for expected growth. The buildout includes construction of future roadways Golden Valley Road between Newhall Ranch Road to Valley Center Drive, Magic Mountain Parkway from Railroad Avenue to Via Princessa, and Via Princessa between Claibourne Lane and Sheldon Avenue. The future buildout SCVTM model also includes the proposed conceptual development of the North Newhall Specific Plan area an 809 dwelling unit plus an approximate 11-acre commercial land use.

Based on this data, cumulative traffic-generated noise impacts were quantified based on the change in noise levels from the Future (2035) Without Project scenario and the Future (2035) With Project scenario, as shown in Table 4.8-13, below. As shown in Table 4.8-13, cumulative development with the Proposed Project would result in increased local noise levels by a maximum of 2.9 dBA CNEL at Lyons Avenue (between Main Street and Railroad Avenue), 2.3 dBA CNEL at Lyons Avenue (between Newhall Avenue and Main Street), and 2.4 dBA CNEL at Dockweiler Rd. (between Sierra Highway and Valle del Oro). At all other roadway segments, the noise levels are expected to remain unchanged or slightly decrease. This impact is largely due to the reduction in "cross valley" trip lengths and travel times and the diffusion of traffic volumes over the existing roadway segments. Because the resulting noise levels would be under 3 dBA, the resulting roadway noise level increase would not be considered substantial and, therefore, would not constitute a significant cumulative impact.

Table 4.8-13
Future (2035) Project Roadway Noise Impacts at Off-Site Locations

Roadway Segment	Future (2035) Without Project (dBA)	Future (2035) With Project (dBA)	Change Due to Project (dBA)	Significant Impact?
1. Arch St. (between 13th St. and 12th St.)	62.6	65.0	2.4	No
2. Railroad Ave. (between 13th St. and Lyons Ave.)	75.4	75.1	-0.3	No
3. Lyons Ave. (between Newhall Ave. and Main St.)	69.9	72.2	2.3	No
4. Lyons Ave (between Main Street and Railroad Ave.)	69.1	72.0	2.9	No
5. Railroad Ave. (between Lyons Ave. and Market St.)	72.3	71.9	-0.4	No
6. Railroad Ave. (between Market St. and Newhall Ave.)	72.3	71.7	-0.6	No
7. Newhall Ave. (between Railroad Ave. and Race St.)	76.1	75.0	-1.1	No
8. Newhall Ave. (between Race St. and Valle Del Oro)	76.5	75.4	-1.1	No
9. Newhall Ave. (between Valle Del Oro and Sierra Hwy)	75.9	75.3	-0.6	No
10. Sierra Hwy. (between Newhall Ave. and Dockweiler Dr.)	71.5	70.2	-1.3	No
11. Dockweiler Dr. (between Sierra Hwy. and Valle Del Oro)	70.7	73.1	2.4	No

Source: Parker Environmental Consultants, 2017.
Noise measurement data is provided in Appendix H to this Draft EIR.

4.8.5 MITIGATION MEASURES

The following measures are recommended to reduce the potential noise levels associated with construction activities to the maximum extent feasible.

4.8-1. Pursuant to Section 11.44.080 of the City's Noise Ordinance, no construction work shall occur within 300 feet of occupied residences except between the hours of 7:00 AM and 7:00 PM Monday through Friday, and between 8:00 AM and 6:00 PM on Saturday. No construction work shall occur on Sunday, New Year's Day, Independence Day, Thanksgiving Day, Christmas Day, Memorial Day, and Labor Day.

4.8-2. The construction schedule (including the various types of activities that would be occurring throughout the duration of construction phases, anticipated truck routes, and the potential for noise impacts along local roadways from construction-related vehicles) shall be prominently posted on-site during construction stages. When construction activities are anticipated to occur within 200 feet of residences, notice of the construction schedule shall be mailed to such residences two weeks prior to commencement of activity.

4.8-3. The phone number of the job superintendent shall be clearly posted at all construction entrances to allow for surrounding owners and residents to contact the job superintendent. If the job superintendent receives a complaint, the superintendent shall investigate, take appropriate corrective actions, and report the action taken to the reporting party. Contract specifications shall be included in the Project's construction document.

4.8-4. All internal combustion engine construction equipment shall be properly muffled or equipped with other noise attenuating devices capable of achieving a sound attenuation of at least 3 dB(A) at 50 feet of distance. Such equipment shall also be in good working condition.

4.8-5. As feasible, construction activities shall use specially quieted equipment, such as electric air compressors and similar power tools, rather than diesel equipment.

4.8-6. Construction staging areas shall be located away from sensitive land uses, particularly away from the single-family properties on Aden Street, the single-family residences near Market Street and Race Street, and dormitories on the Master's University Campus.

4.8-7. Construction and grading activities shall be scheduled in such a way so as to avoid operating several pieces of equipment simultaneously, which causes high noise levels.

4.8-8. Construction activities whose specific location on the site may be flexible (e.g., operation of compressors and generators, cement mixing, general truck idling) shall be conducted as far as possible from the nearest noise-sensitive land uses, particularly away from single-family residences.

4.8-9. Temporary construction noise barriers of sufficient height shall be erected in such a way so as to disrupt line-of-sight between the active construction noise sources and any residences within 500 feet of the Project Site.

4.8.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of the mitigation measures recommended in this report, the noise levels associated with Project-related construction activities would be reduced; although, they would continue to either exceed City standards and/or cause an increase of at least 10 dBA L_{eq} at the nearby residential areas. Therefore, this impact would continue to be significant and unavoidable regarding the exposure persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinances, or applicable standards of other agencies, and the creation of a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.

The Proposed Project's operational impacts would be less than significant prior to mitigation.

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4. ENVIRONMENTAL IMPACT ANALYSIS
9. TRANSPORTATION AND TRAFFIC

4.9.1 INTRODUCTION

The following section addresses the Proposed Project's impact on transportation and traffic based on the Traffic Study titled, *Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA*, prepared by David Evans and Associates, dated August 8, 2017. The scope and methodology of this analysis was determined in conjunction with the City of Santa Clarita. The complete Traffic Study is included in Appendix H to this Draft EIR.

The purpose of the Dockweiler Drive Alignment Project is to ascertain the feasibility of the General Plan alignment for Dockweiler Drive, which identifies the connection of Dockweiler Drive to Lyons Avenue at Railroad Avenue. The Project would extend Lyons Avenue from its existing terminus at Railroad Avenue on the west to future Master's University Master Plan Dockweiler extension to the east of railroad crossing consistent with the Circulation Element. This Project would include the consideration of a new at-grade rail crossing at Lyons Avenue and Railroad Avenue and includes the closure of the 13th Street rail crossing.

4.9.2 ENVIRONMENTAL SETTING

Existing Conditions

The City of Santa Clarita is one of the fastest growing cities in Los Angeles County. The City's General Plan includes several large developments in the area, and traffic volumes are expected to increase significantly. As such the City of Santa Clarita has identified a Project to extend Dockweiler Drive to Lyons Avenue. The proposed Dockweiler Drive Alignment Project is located in the City of Santa Clarita, approximately 35 miles northwest of the City of Los Angeles, within the Newhall community.

Sierra Highway and the SR-14 (Antelope Valley) Freeway provide a boundary for the study area along the eastern side. Through traffic access on Placerita Canyon Road is restricted with a gate entrance west of Sierra Highway. Placerita Canyon Road currently is the primary connection to the Master's University and residents to the north. Newhall Avenue on the southern boundary of the study area provides a direct connection for cross valley traffic and connects Sierra Highway and Railroad Avenue. The UP/Metrolink Railroad line restricts access to the west with three existing at-grade railroad crossings located at 13th Street, Market Street, and Newhall Avenue.

The extension of Lyons Avenue to Dockweiler Drive across the existing Metrolink line has been identified by the City as one of five key transportation projects. The alignment is part of the City's General Plan and consistent with the goals of the Old Town Newhall Specific Plan, Santa Clarita Valley Consolidated Traffic Model (SCVCTM), and the Compass Blueprint Plan.

Existing Street System

Dockweiler Drive is designated as an east-west Secondary Highway from Sierra Highway to Railroad Avenue on the City of Santa Clarita Circulation Map Joint Highway Plan. The existing portion of Dockweiler Drive consists of one and two lanes in each direction with a landscaped median and limited parking throughout the study area. Dockweiler Drive is used as the primary access to single- and multi-family residences.

State Route 14 Freeway (SR 14) provides regional access within the study area. The freeway is a four-lane (two in each direction) facility with interchange access at Placerita Canyon Road and Newhall Avenue.

Lyons Avenue is designated as an east-west major highway west of Railroad Avenue and Secondary Highway east of Railroad Avenue on the City of Santa Clarita Circulation Map Joint Highway Plan. Three lanes in each direction are provided with traffic signals and left turn channelization at major intersections.

Newhall Avenue is designated as a north-south secondary highway from Lyons Avenue to Railroad Avenue with one lane in each direction. From Railroad Avenue to SR-14, Newhall Avenue is designated as a major highway with three northbound lanes and three southbound lanes south of Railroad Avenue. Newhall Avenue roadway designation is identified on the City of Santa Clarita Circulation Map Joint Highway Plan.

Railroad Avenue (formerly San Fernando Road) is a north-south major highway from Magic Mountain Parkway to Lyons Avenue and a secondary highway from Lyons Avenue to Newhall Avenue. This roadway provides two lanes in each direction and limited parking throughout the study area. Railroad Avenue roadway designation is identified on the City of Santa Clarita Circulation Map Joint Highway Plan.

Sierra Highway is an old alignment of SR-14 from Los Angeles to Mojave. It is designated as a north-south major highway on the City of Santa Clarita Map Joint Highway Plan. It is a four lane (two in each direction) with traffic signals and left turn channelization at major intersections.

Placerita Canyon Road is an east-west local roadway. This roadway provides a gate at the eastern entrance. The gate provides restrictive access to residents of the Placerita Canyon neighborhood.

13th Street is an east-west unimproved local roadway. This roadway provides access to The Master's University and the Placerita Canyon neighborhood via its intersection with Railroad Avenue. One lane is provided in each direction.

Study Intersections

A total of seventeen study intersections have been identified for analysis based on potential traffic impacts to the area roadways. Figure 4.9-1 shows the locations of the study intersections. The intersections identified for analysis are as follows:

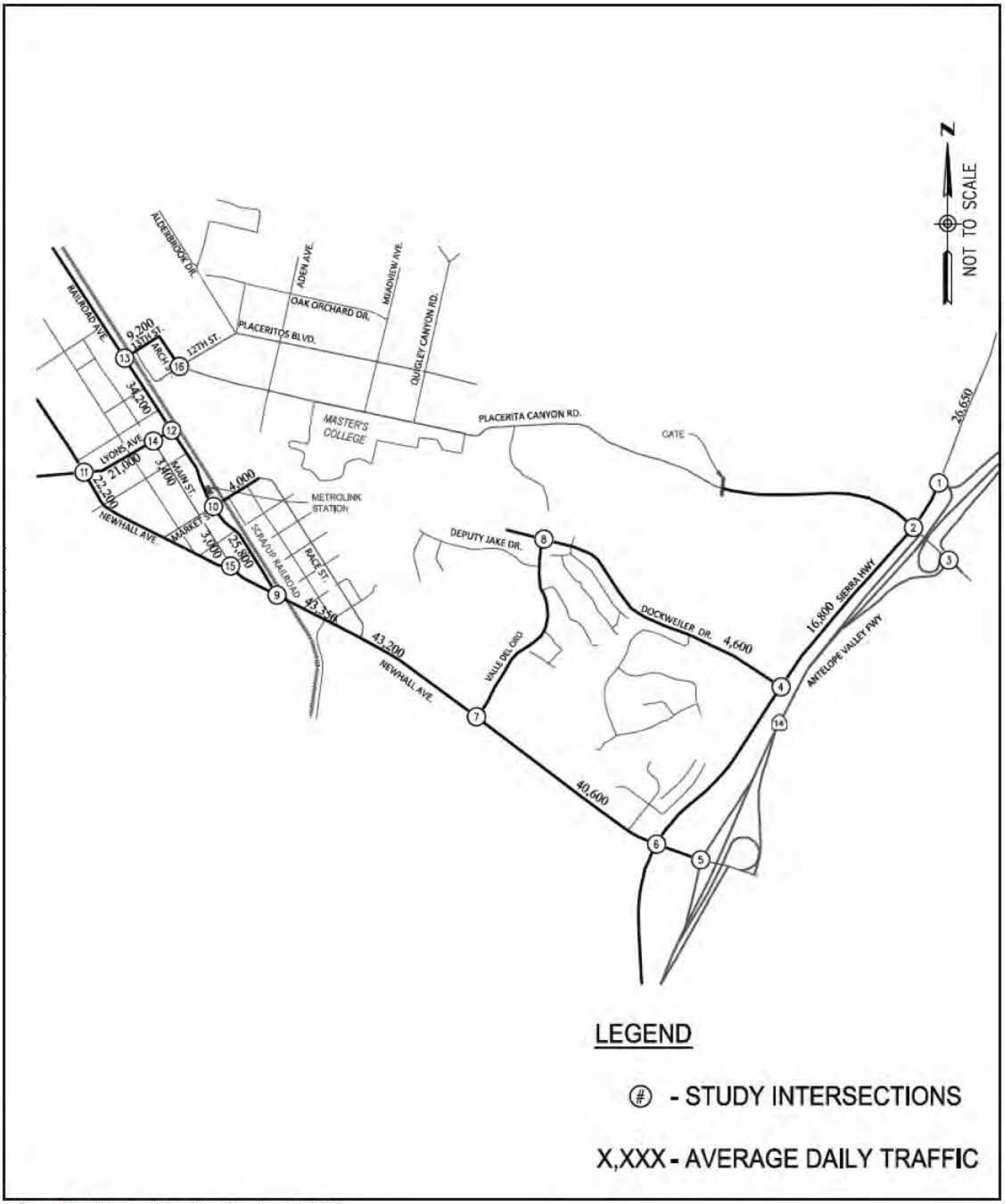
1. Sierra Highway and SR-14 Freeway Southbound Ramps
2. Sierra Highway and Placerita Canyon Road
3. SR-14 Freeway Northbound Ramps and Placerita Canyon Road
4. Sierra Highway and Dockweiler Drive
5. SR-14 Freeway Southbound Ramps and Newhall Avenue
6. Sierra Highway and Newhall Avenue
7. Valle Del Oro and Newhall Avenue
8. Valle Del Oro and Dockweiler Drive
9. Railroad Avenue and Newhall Avenue
10. Railroad Avenue and Market Street
11. Newhall Avenue and Lyons Avenue
12. Railroad Avenue and Lyons Avenue
13. Railroad Avenue and 13th Street
14. Main Street and Lyons Avenue
15. Main Street and Newhall Avenue
16. Arch Street and 12th Street/Placerita Canyon Road
17. Lyons Avenue and Dockweiler Drive (This intersection is a future intersection)

Existing Intersection Conditions

Existing Traffic Volumes

As referenced from the City of Santa Clarita Circulation Element, Average Daily Traffic (ADT) is a measurement of the average number of vehicles that travel a segment of roadway during a 24-hour period. The ADT is a useful benchmark for determining roadway capacities. Figure 4.9-1 illustrates the existing street system ADT and intersection locations.

Figure 4.9-2 illustrates the existing peak hour traffic volumes in the study area. As referenced from the City of Santa Clarita Circulation Element, Peak hour information, which is the highest volume of traffic to pass over a road in a one-hour period, allows for a more detailed method of evaluating traffic conditions along roadways and intersections, and is used whenever operational analysis is required. The traffic volume data used in the intersection capacity analysis were based on traffic counts conducted by Newport Traffic Studies, an independent traffic data collection company. Turn movement counts were collected during the AM (7-9 AM) and PM (4-6 PM) peak periods at the above-mentioned existing intersections identified for detailed analysis. These counts were conducted in December 2012. The resulting turning movement volumes are presented in the Intersection Capacity Analysis Appendix of the Traffic Study.



Source: David Evans and Associates, Inc., August 8, 2017.

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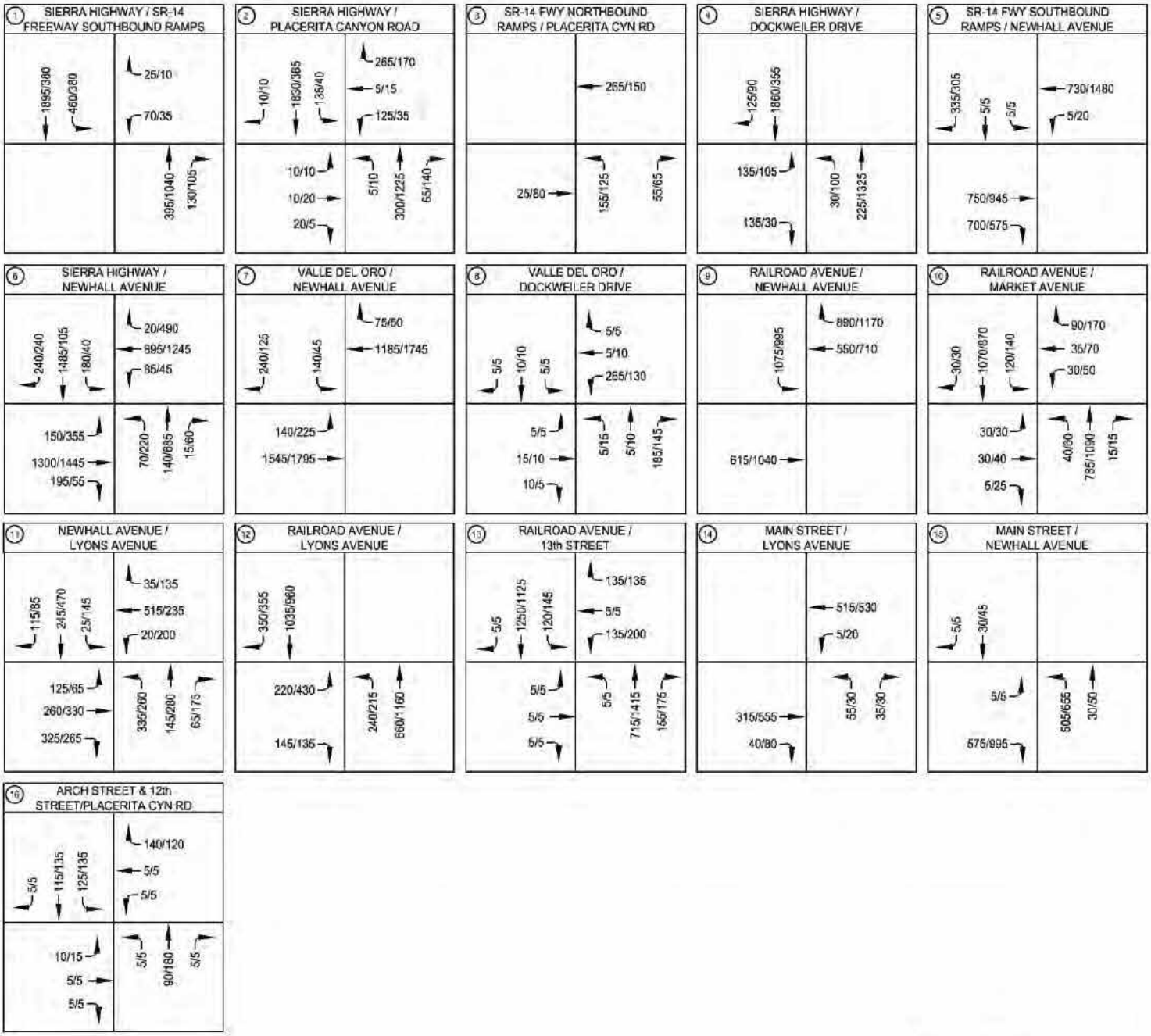
Figure 4.9-1
Existing Study Intersection Locations



LEGEND

(#) - STUDY INTERSECTIONS

XX/XX - AM/PM PEAK HOUR VOLUMES

Source: David Evans and Associates Inc, August 8, 2017.

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Figure 4.9-2
Existing Peak Hour Traffic Volumes

Levels of Service Methodology

Based on the existing intersection geometrics and traffic volumes during the AM and PM Peak Hour, the intersection capacity analyses were conducted for the signalized and un-signalized intersections. The analysis determines a level-of-service (LOS) which quantitatively describes the operating characteristics of signalized intersections and the maximum delay. The LOS ranges from "A" (the best) through "F" (system breakdown). The level-of-service is based on the average delay of vehicles at the intersections. Table 4.9-1 provides the LOS thresholds for signalized intersections per the HCM 2010 methodology.

Table 4.9-1
HCM 2010 – LOS Criteria for Signalized Intersections

LOS	Control Delay per Vehicle (s/veh)
A	≤ 10
B	> 10 and ≤ 20
C	> 20 and ≤ 35
D	> 35 and ≤ 55
E	> 55 and ≤ 80
F	> 80
Source: HCM 2010	

For un-signalized intersections the HCM measures the LOS based on the computed or measured control delay for Two Way Stop Controlled intersections (TWSC) and control delay for All Way Stop Controlled (AWSC) intersections. For a TWSC the LOS is computed for each movement and the most critical LOS is the one that describes the effectiveness of that intersection, which is typically the stop controlled left turn movement from the minor street. For an AWSC intersection the LOS defines the whole intersection. Table 4.9-2 provides the LOS thresholds for TWSC and AWSC intersections.

Table 4.9-2
HCM 2010 – LOS Criteria for TWSC, AWSC, and Roundabout Intersections

LOS	Control Delay per Vehicle (s/veh)
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50
Source: HCM 2010	

The intersection capacity analyses were conducted for the roundabout intersections. For the roundabout intersections the HCM measures the LOS based on the control delay and the LOS defines the whole intersection. The level-of-service is based on the average delay of vehicles at the intersections. Table 4.9-2 provides the LOS thresholds for roundabout intersections per the HCM 2010 methodology.

The City of Santa Clarita preferred maximum acceptable level of service on arterial roads is LOS E. The City of Santa Clarita desired maximum acceptable level of service on residential neighborhood roads is LOS C or better.

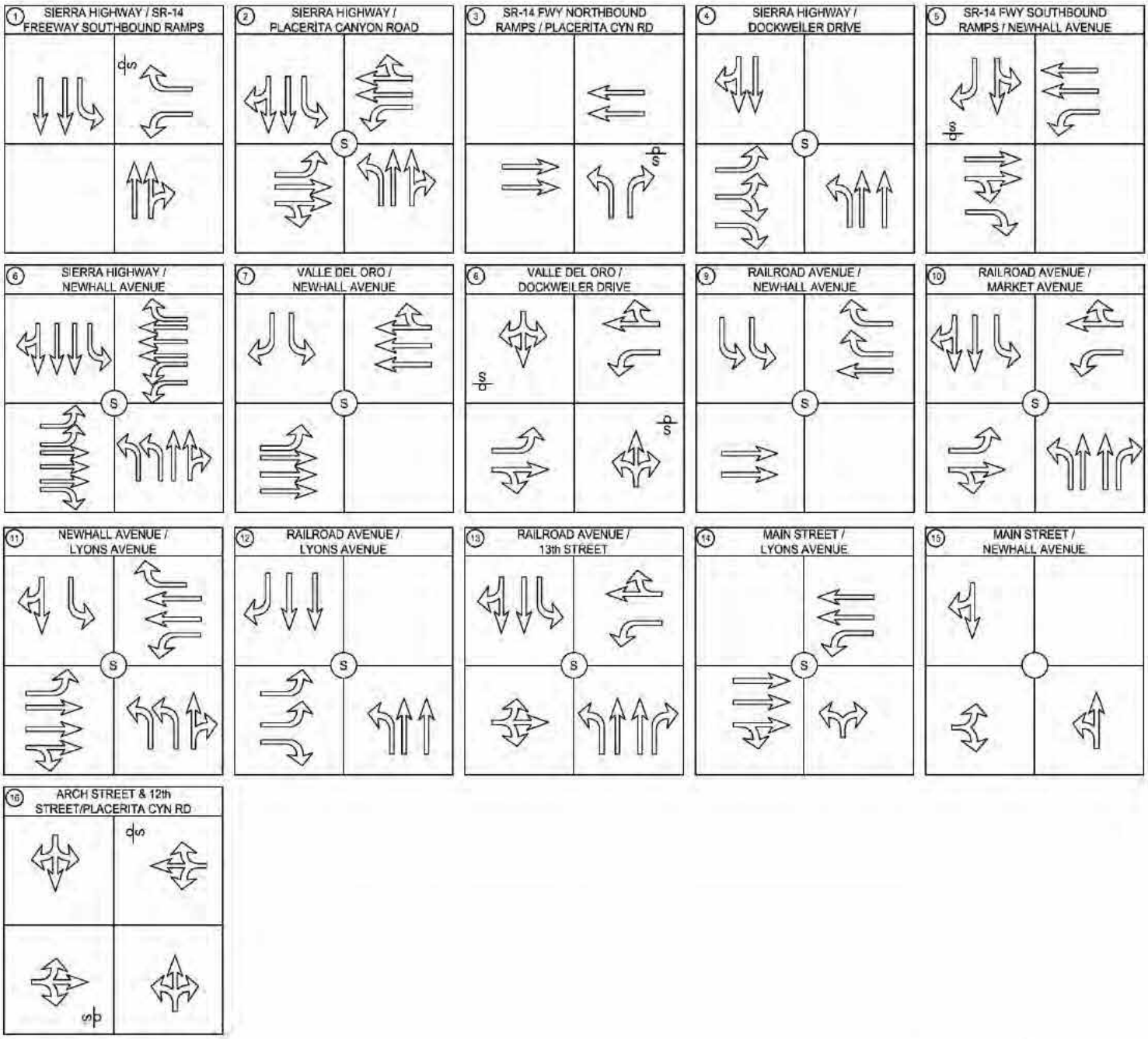
Existing Peak Hour Levels of Service

To determine the impacts of the Project to the study intersections, existing traffic intersection capacity analysis was conducted. The analysis was conducted with the existing intersection geometrics as illustrated in Figure 4.9-3, Existing Configurations of Study Intersections. As presented in Table 4.9-3, Intersection Capacity Analysis – Existing Conditions, under existing conditions, most intersections are operating at LOS E or better. There are two intersections that are currently operating at LOS F, they are: Sierra Highway and SR-14 Southbound Ramps and SR-14 Southbound Ramps and Newhall Avenue.

Table 4.9-3
Intersection Capacity Analysis - Existing Conditions

Intersection	AM		PM	
	Delay [a]	LOS [b]	Delay [a]	LOS [b]
1. Sierra Highway and SR-14 Southbound Ramps [c]	99.99 [e]	F	99.99 [e]	F
2. Sierra Highway and Placerita Canyon Road	46.8	D	24.1	C
3. SR-14 Northbound Ramps and Placerita Canyon Road [c]	10.7	B	10.7	B
4. Sierra Highway and Dockweiler Drive	12.6	B	7.0	A
5. SR-14 Southbound Ramps and Newhall Avenue [c]	20.3	A	69.1	F
6. Sierra Highway and Newhall Avenue	35.0	D	34.2	C
7. Valle Del Oro and Newhall Avenue	17.8	B	15.8	B
8. Valle Del Oro and Dockweiler Drive [c]	14.8	B	11.5	B
9. Railroad Avenue and Newhall Avenue	23.6	C	30.1	C
10. Railroad Avenue and Market Street	14.3	B	17.4	B
11. Newhall Avenue and Lyons Avenue	32.6	C	45.5	D
12. Railroad Avenue and Lyons Avenue	22.5	C	20.8	C
13. Railroad Avenue and 13th Street	19.8	B	23.1	C
14. Main Street and Lyons Avenue	10.8	B	8.2	A
15. Main Street and Newhall Avenue [d]	12.0	B	42.5	E
16. Arch Street and 12th Street/Placerita Canyon Road [c]	13.8	B	18.6	C

Notes:
[a] *Delay – In Seconds*
[b] *LOS – Level of Service*
[c] *Un-Signalized Intersection*
[d] *Roundabout Intersection*
[e] *99.99 – Intersection Delay Exceeds Level of Service Standard*
Source: David Evans and Associates, Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA, August 8, 2017.



Source: David Evans and Associates Inc, August 8, 2017.

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Figure 4.9-3
Existing Configurations of Study Intersections

Existing Transit Service

The Santa Clarita Valley's circulation system is a comprehensive transportation network of roadways, multi-use trails, bicycle paths, bus transit, and commuter rail. This network provides mobility options to Santa Clarita Valley residents and businesses. Figure 4.9-4 illustrates the portion of the Santa Clarita Valley Circulation Plan bounded by the study area.

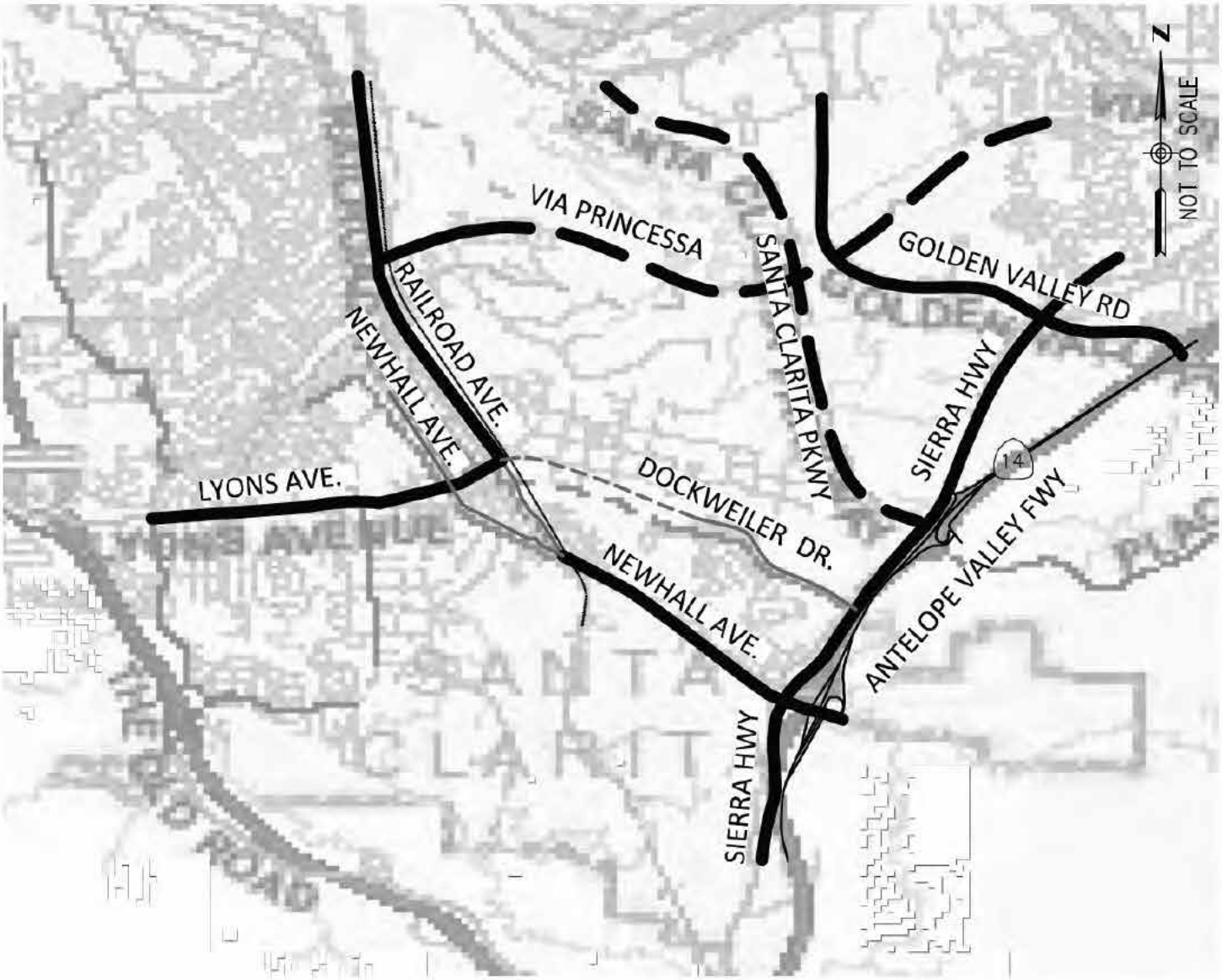
A major component in the development of the Santa Clarita Valley is the inclusion of alternative travel modes and support facilities. These facilities include efficiency and capacity of existing systems, by promoting mixed-use development near transit facilities. Bicycle lanes and accessibility of bike paths are a fundamental component to a comprehensive transportation network. Figure 4.9-5 illustrates a portion of the Santa Clarita Valley's Bicycle Master Plan bounded by the study area.

Opening Year (2019) Conditions Without Proposed Project

A Project year of 2019 has been identified as the opening year for the Dockweiler Drive Alignment Project. A major factor in distribution of traffic is the anticipated growth within the study area due to development. The Year 2019 traffic volumes were provided by the City of Santa Clarita using the Santa Clarita Valley Consolidated Traffic Model (SCVCTM) for the Interim Year. It is to be noted that Other Area Projects anticipated to be constructed by Year 2019, have been incorporated into the SCVCTM, and account for expected growth.

The Santa Clarita Valley Consolidated Traffic Model (SCVCTM) for Interim Year provided traffic volumes for the Project Year 2019 Condition. The model plots provided a No-Build Condition outlining the distribution of future traffic without the Project. The Project Year 2019 No-Build study intersections are provided in Figure 4.9-6 and the volumes are provided in Figure 4.9-7.

The intersections were analyzed using the capacity analysis methodology described in the above. The analysis was conducted with the existing intersection geometrics illustrated in Figure 4.9-8. The LOS for the study intersections presented in Table 4.9-4 represents the LOS for the critical movement. This is typically the stop controlled left turn from the minor street. As presented in Table 4.9-4 under Year 2019 No-Build Condition, most of the study intersections are anticipated to continue to operate at LOS E or better. There are four intersections that are anticipated to operate at LOS F, they are: Sierra Highway and SR-14 Southbound Ramps, Sierra Highway and Placerita Canyon Road, SR-14 Northbound Ramps and Placerita Canyon Road, and SR-14 Southbound Ramp and Newhall Avenue.



LEGEND:

- MAJOR HIGHWAY - EXISTING (6 LANES)
- MAJOR HIGHWAY - PROPOSED (6 LANES)
- SECONDARY HIGHWAY EXISTING (4 LANES)
- SECONDARY HIGHWAY PROPOSED (4 LANES)

Source: David Evans and Associates Inc, August 8, 2017.

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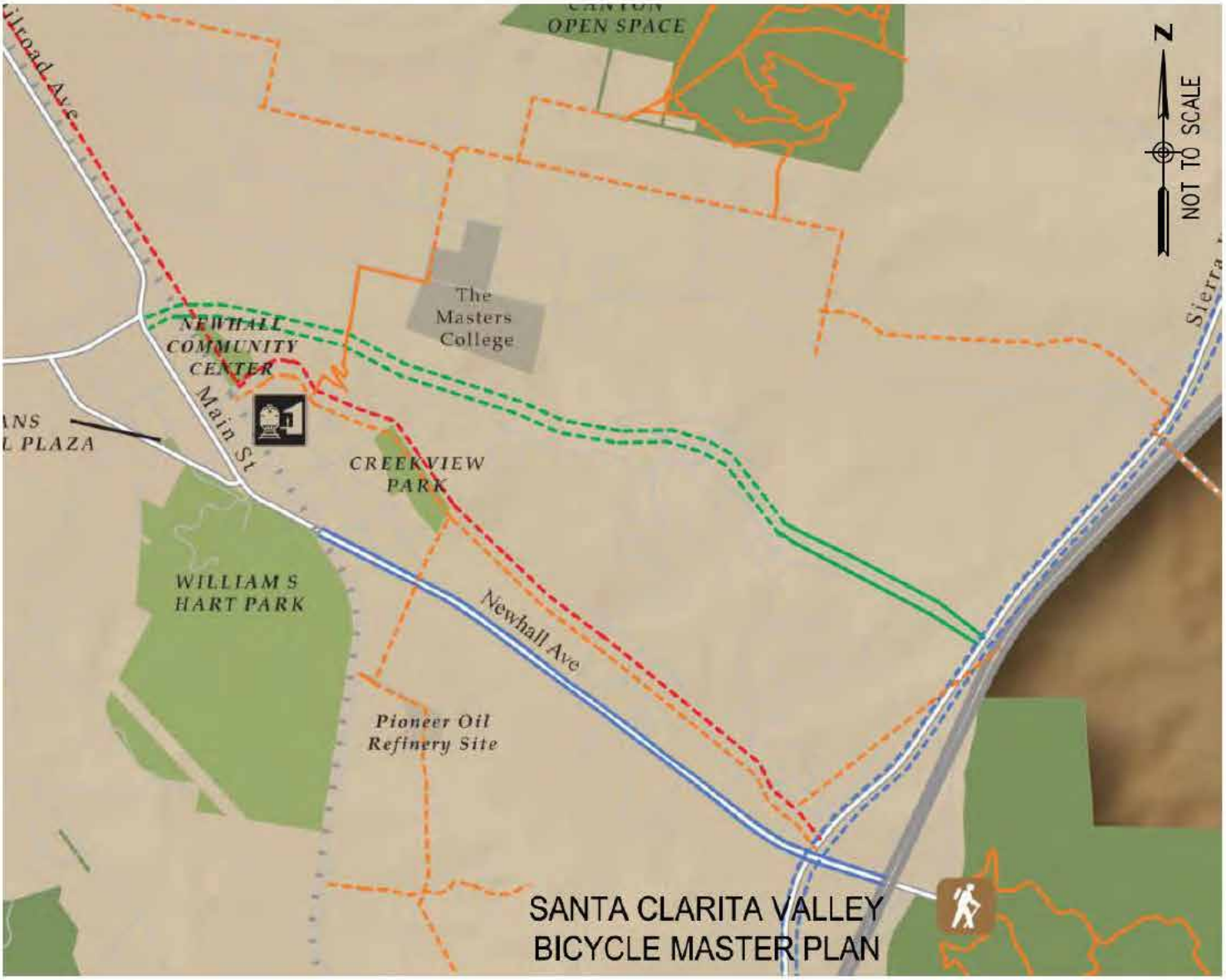
Figure 4.9-4
Santa Clarita Valley Circulation Plan



Legend

Visit the City trails website at www.santa-clarita.com/trails

- Existing Class I Bike Route
- Proposed Class I Bike Route
  Provides a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross-flow traffic minimized. Fencing encourages use of designated access points.
- Existing Class II Bike Route
- Proposed Class II Bike Route
  Provides a striped lane for one-way bike travel on a street or highway. Bike lanes are marked with signs and pavement striping.
- Existing Class III Bike Route
- Proposed Class III Bike Route
  Provides for shared use with pedestrian or motor vehicle traffic. Bike routes are marked with signs.
- Existing Multi-Purpose Use
- Proposed Multi-Purpose Use
  Located primarily in rural areas, these trails are unpaved and are available for equestrian, hiking, and mountain bike use. Trails are marked with lodgepole fencing.
- Trailhead
- Metrolink Station
- Railroad
- Paseos
- Mileage Between Markers
- Places of Interest
- Parks
- Golf Course
- Open Space
- Santa Clara River Open Space
- Santa Clara River

Revised July 2011

Source: David Evans and Associates Inc, August 8, 2017.

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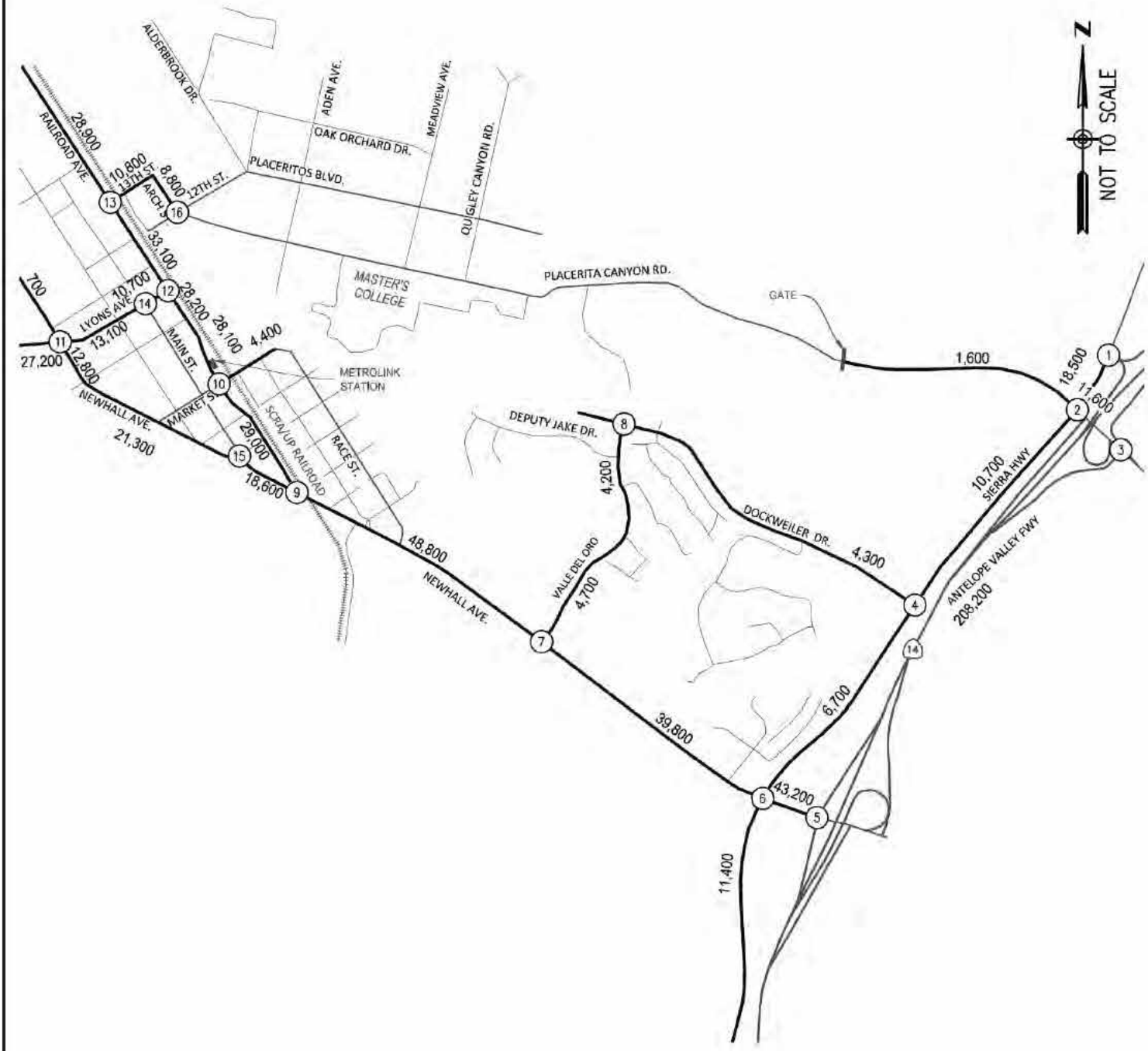
Figure 4.9-5
Santa Clarita Valley Bicycle Master Plan



Source: David Evans and Associates Inc, August 8, 2017.

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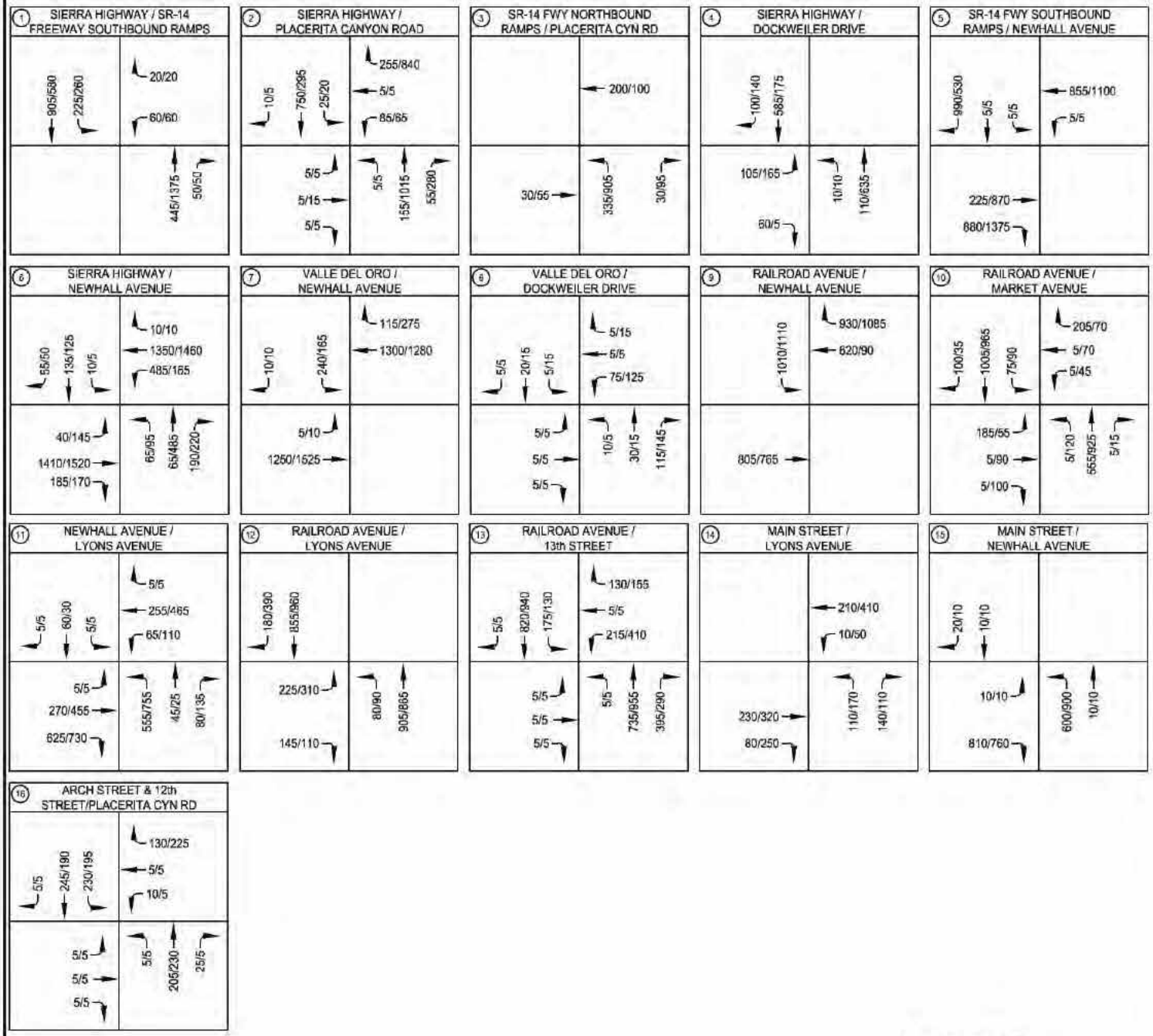
Figure 4.9-6
Project Year 2019 No Build Study Intersections



Source: David Evans and Associates Inc, August 8, 2017.

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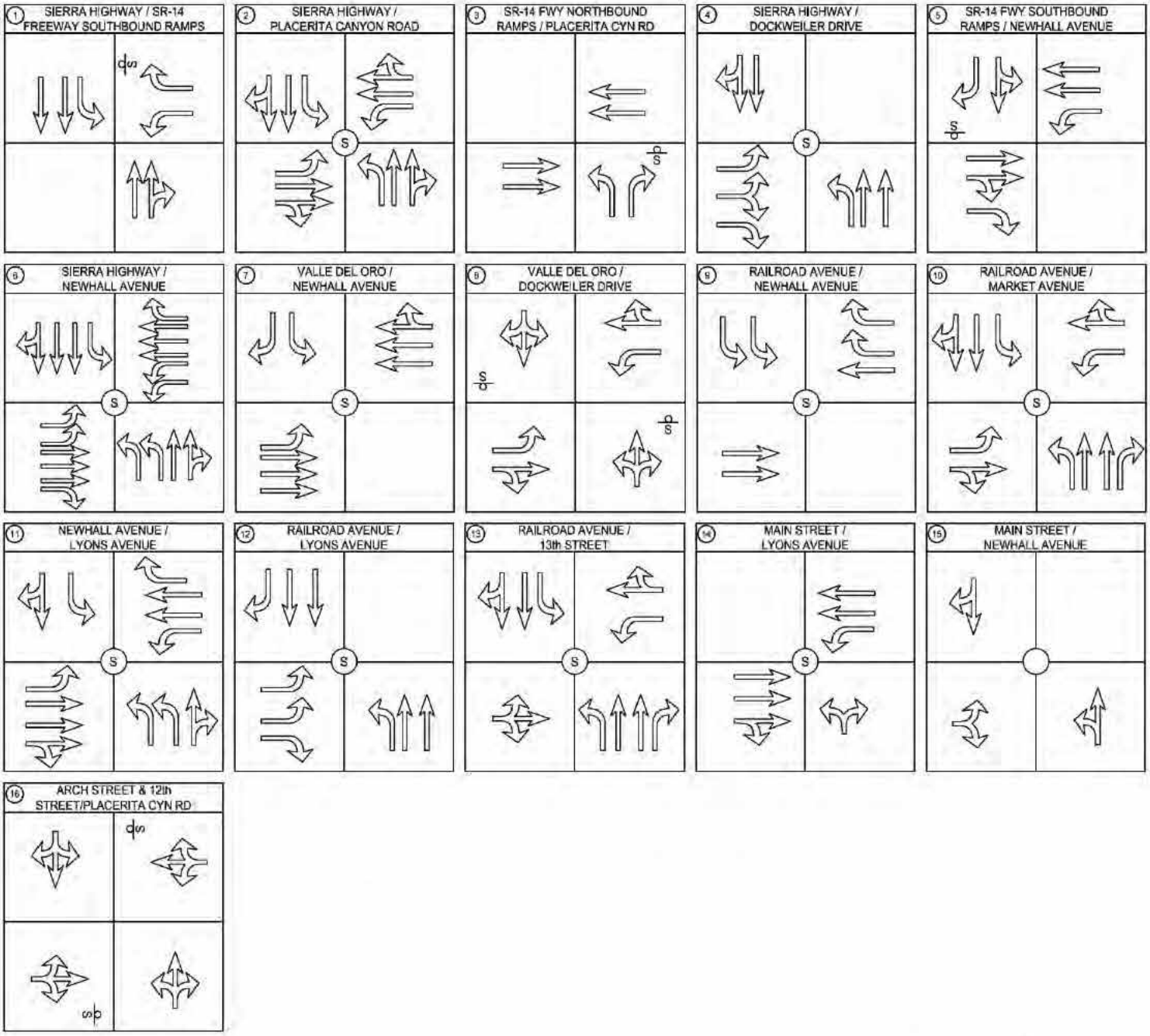
Figure 4.9-7
Project Year 2019 No Build Traffic Volumes



Source: David Evans and Associates Inc, August 8, 2017.

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Figure 4.9-8
Project Year 2019 No Build Intersection Configurations

Table 4.9-4
Intersection Capacity Analysis – Year 2019 No-Build Condition

Intersection	AM		PM	
	Delay [a]	LOS [b]	Delay [a]	LOS [b]
1. Sierra Highway and SR-14 Southbound Ramps [c]	28.9	D	99.99 [e]	F
2. Sierra Highway and Placerita Canyon Road	24.2	C	99.99 [e]	F
3. SR-14 Northbound Ramps and Placerita Canyon Road [c]	12.8	B	99.99 [e]	F
4. Sierra Highway and Dockweiler Drive	8.9	A	7.4	A
5. SR-14 Southbound Ramps and Newhall Avenue [c]	99.99 [e]	F	99.99 [e]	F
6. Sierra Highway and Newhall Avenue	27.2	C	29.6	C
7. Valle Del Oro and Newhall Avenue	15.2	B	11.7	B
8. Valle Del Oro and Dockweiler Drive [c]	10.7	B	12.3	B
9. Railroad Avenue and Newhall Avenue	23.3	C	40.8	D
10. Railroad Avenue and Market Street	30	C	17.5	B
11. Newhall Avenue and Lyons Avenue	56.5	E	66.6	E
12. Railroad Avenue and Lyons Avenue	15.9	B	16.7	B
13. Railroad Avenue and 13th Street	28.3	C	48.9	D
14. Main Street and Lyons Avenue	18.5	B	18.4	B
15. Main Street and Newhall Avenue [d]	23.7	C	25.8	D
16. Arch Street and 12th Street/Placerita Canyon Road [c]	22.2	C	25.3	D

Notes:
[a] *Delay – In Seconds*
[b] *LOS – Level of Service*
[c] *Un-Signalized Intersection*
[d] *Roundabout Intersection*
[e] *99.99 – Intersection Delay Exceeds Level of Service Standard*
Source: David Evans and Associates, Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA, August 8, 2017.

Future (2035) Conditions Without Proposed Project

Future Year 2035 traffic volumes were provided by the City of Santa Clarita using the Santa Clarita Valley Consolidated Traffic Model (SCVCTM) for the Buildout Year. The model plots provided a No-Build Condition outlining the distribution of future traffic without the Project. The analysis of No-Build Condition utilizes the traffic volume projections for the City of Santa Clarita's traffic model together with the existing traffic flow data. It is to be noted that Other Area Projects anticipated to be constructed by Year 2035, have been incorporated into the SCVCTM, and account for expected growth. The buildout includes construction of future roadways Dockweiler Drive between Railroad Avenue and Valle Del Oro, Magic Mountain Parkway from Railroad Avenue to Via Princessa, Via Princessa between Claibourne Lane and Sheldon Avenue, and Santa Clarita Parkway. This also includes the proposed conceptual development of the North Newhall area (809 dwelling unit plus an approximate 11-acre commercial land use).

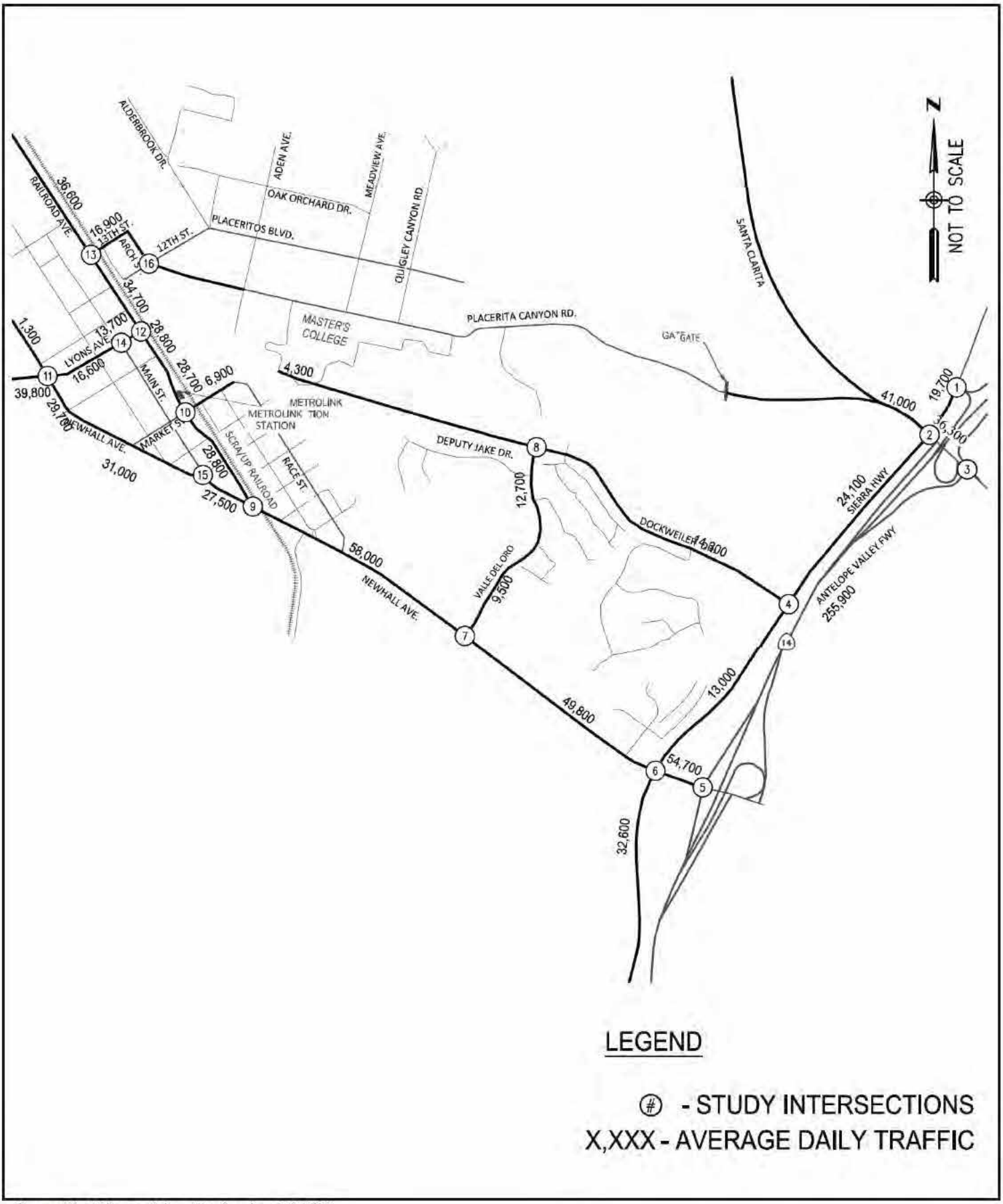
The Future Year 2035 No-Build study intersections provided in Figure 4.9-9, the volumes provided in Figure 4.9-10. The intersections were analyzed using the capacity analysis methodology described above. The analysis was conducted with the Future Year 2035 No-Build Condition existing and mitigated study intersection geometrics illustrated in Figure 4.9-11, Future Year 2035 No Build Intersection Configurations. The LOS for the study intersections presented in Table 4.9-5 represents the LOS for the critical movement. This is typically the stop controlled left turn from the minor street. As presented in Table 4.9-5 under Future Year 2035 No-Build Condition, eight intersections are anticipated to operate at

LOS F, these intersections are: Sierra Highway and SR-14 Southbound Ramps, Sierra Highway and Placerita Canyon Road, SR-14 Northbound Ramps and Placerita Canyon Road, SR-14 Southbound Ramps and Newhall Avenue, Sierra Highway and Newhall Avenue, Newhall Avenue and Lyons Avenue, and Main Street and Newhall Avenue.

Table 4.9-5
Intersection Capacity Analysis – Year 2035 No-Build Condition

Intersection	AM		PM	
	Delay [a]	LOS [b]	Delay [a]	LOS [b]
1. Sierra Highway and SR-14 Southbound Ramps [c]	99.99 [e]	F	99.99 [e]	F
2. Sierra Highway and Placerita Canyon Road	99.99 [e]	F	99.99 [e]	F
3. SR-14 Northbound Ramps and Placerita Canyon Road [c]	99.99 [e]	F	99.99 [e]	F
4. Sierra Highway and Dockweiler Drive	15.2	B	16.2	B
5. SR-14 Southbound Ramps and Newhall Avenue [c]	99.99 [e]	F	99.99 [e]	F
6. Sierra Highway and Newhall Avenue	60.9	E	99.99 [e]	F
7. Valle Del Oro and Newhall Avenue	19.1	B	16.3	B
8. Valle Del Oro and Dockweiler Drive [c]	91.2	F	9.7	A
9. Railroad Avenue and Newhall Avenue	32.0	C	63.1	E
10. Railroad Avenue and Market Street	40.7	D	21.3	C
11. Newhall Avenue and Lyons Avenue	88.3	F	99.99 [e]	F
12. Railroad Avenue and Lyons Avenue	18.7	B	17.3	B
13. Railroad Avenue and 13th Street	38.5	D	76.4	E
14. Main Street and Lyons Avenue	17.9	B	19.8	B
15. Main Street and Newhall Avenue [d]	77.6	F	99.99 [e]	F
16. Arch Street and 12th Street/Placerita Canyon Road [c]	12.7	B	17.0	C

Notes:
[a] *Delay – In Seconds*
[b] *LOS – Level of Service*
[c] *Un-Signalized Intersection*
[d] *Roundabout Intersection*
[e] *99.99 – Intersection Delay Exceeds Level of Service Standard*
Source: David Evans and Associates, Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA, August 8, 2017.



Source: David Evans and Associates Inc, August 8, 2017.

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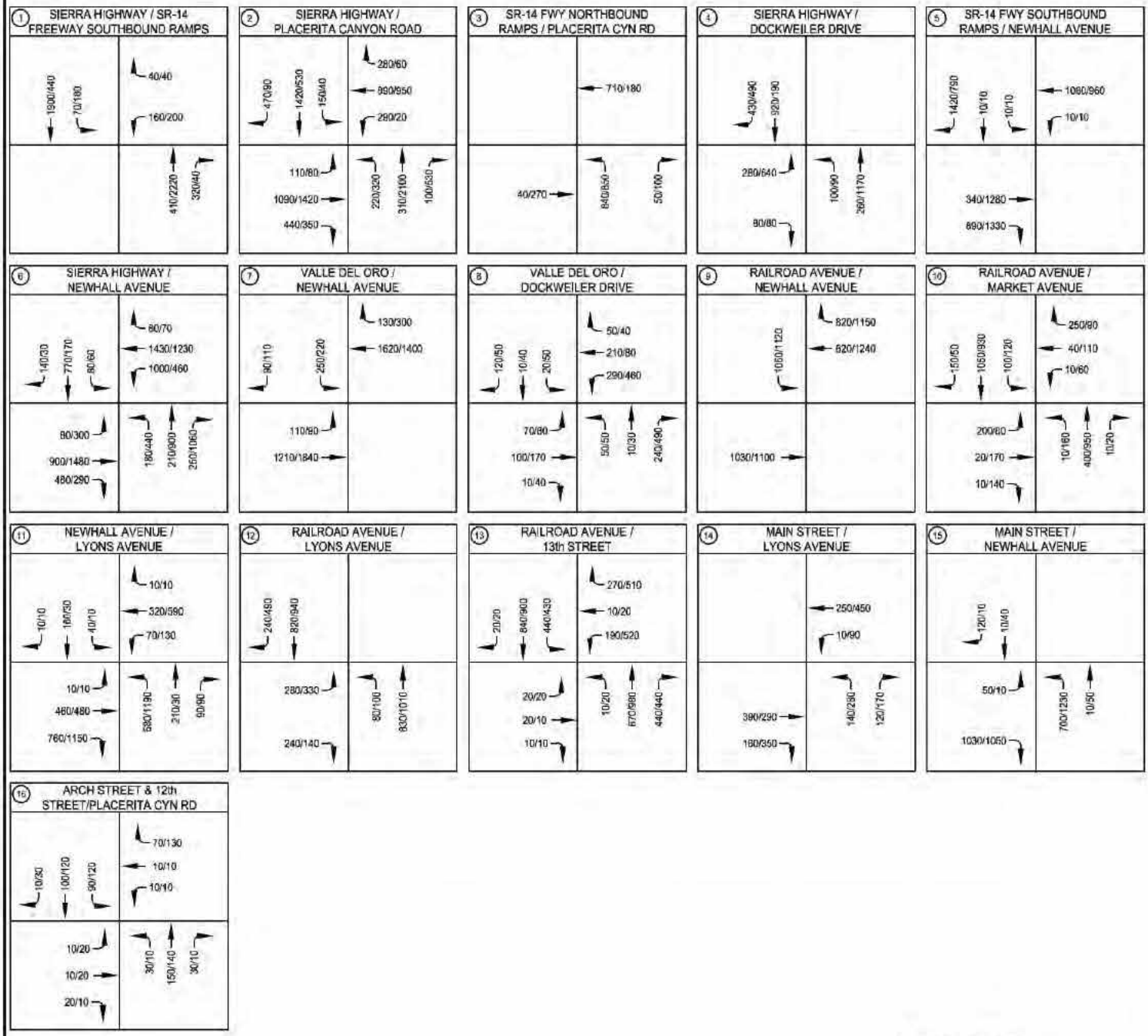
Figure 4.9-9
Project Year 2035 No Build Study Intersections



LEGEND

(#) - STUDY INTERSECTIONS
XX/XX - AM/PM PEAK HOUR VOLUMES

Source: David Evans and Associates Inc, August 8, 2017.

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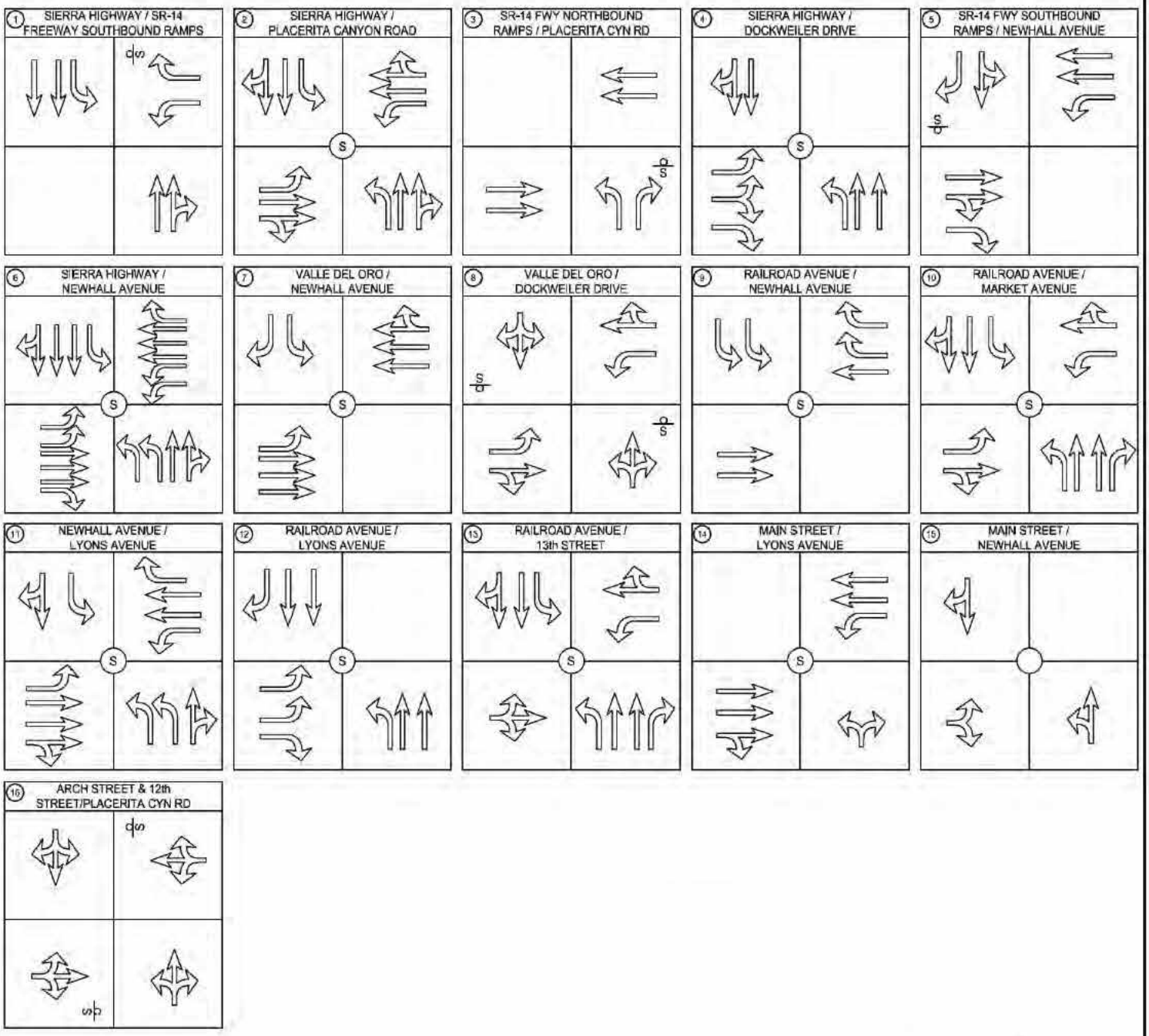
Figure 4.9-10
Project Year 2035 No Build Traffic Volumes



Source: David Evans and Associates Inc, August 8, 2017.

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Figure 4.9-11
Project Year 2035 No Build Intersection Configurations

4.9.3 ENVIRONMENTAL IMPACTS

Thresholds of Significance

A project would normally have a significant impact on intersection capacity if the operation of the project causes an increase in the control delay per vehicle for a given intersection's operating condition. As discussed above, the LOS ranges from "A" (the best) through "F" (system breakdown). The level-of-service is based on the average delay of vehicles at the intersections. View Tables 4.9-1 and 4.9-2, for the LOS criteria for signalized intersections and unsignalized intersections, respectively.

The City of Santa Clarita preferred maximum acceptable level of service on arterial roads is LOS E. The City of Santa Clarita desired maximum acceptable level of service on residential neighborhood roads is LOS C or better.

Project Impacts

Opening Year (2019) Conditions With Proposed Project

The Santa Clarita Valley Consolidated Traffic Model (SCVCTM) for Interim Year provided traffic volumes for the Project Year 2019 with Proposed Project Condition. The model plots outlined the distribution of future traffic with the construction of the Proposed Project. The Project Year 2019 Proposed Project study intersections are provided in Figure 4.9-12, and the volumes provided in Figure 4.9-13.

The analysis for the intersection of Arch Street/Dockweiler Drive and 12th Street/Placerita Canyon Road was conducted as a 5-leg all way stop controlled intersection. The analysis for the intersection of Lyons Avenue and Dockweiler Drive was conducted as a signalized intersection. The railroad crossing at the intersection of Railroad Avenue and 13th Street is proposed to be closed. The intersection will be modified, removing the northbound right turn lane and southbound left turn lane and restricting the eastbound through movement.

The intersections were analyzed using the capacity analysis methodology described above. The analysis was conducted with the Project Year 2019 with Proposed Project existing and mitigated study intersection geometrics illustrated in Figure 4.9-14. The LOS for the study intersections presented in Table 4.9-6 represents the LOS for the critical movement. This is typically the stop controlled left turn from the minor street.

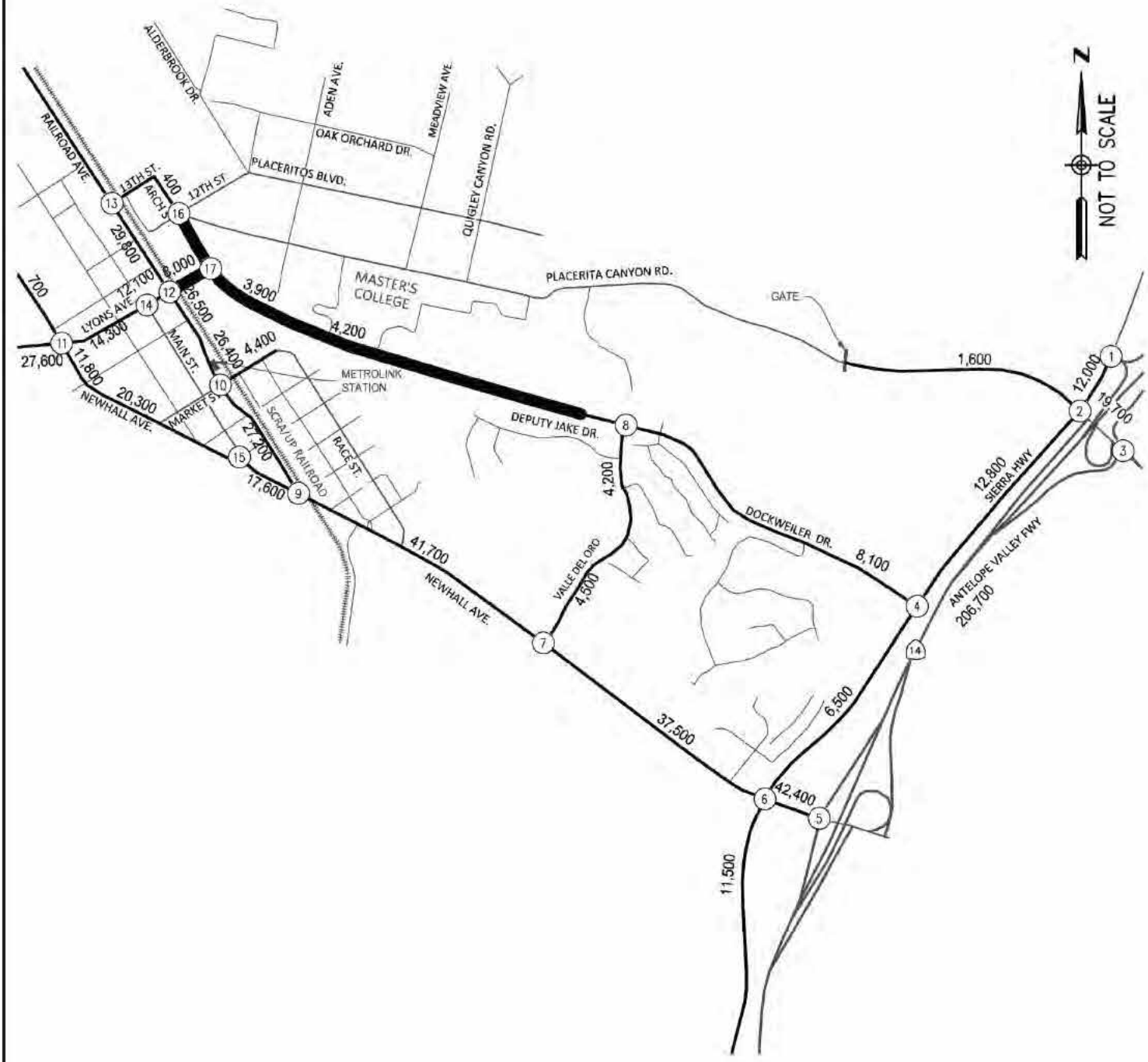
As presented in Table 4.9-6 under Year 2019 with Project Proposed Condition, most of the study intersections are anticipated to continue to operate at LOS E or better. There are four intersections that are anticipated to operate at LOS F, they are: Sierra Highway and SR-14 Southbound Ramps, Sierra Highway and Placerita Canyon Road, SR-14 Northbound Ramps and Placerita Canyon Road, SR-14 Southbound Ramps and Newhall Avenue. Mitigation measures are necessary to accommodate the anticipated Year 2019 traffic and reduce potential Project impacts.

With mitigation, the Sierra Highway and SR-14 Southbound Ramp intersection (Study Intersection 1) levels of service will increase to LOS B and LOS C during the AM and PM peak hours, respectively. With mitigation, the Sierra Highway and Placerita Canyon Road intersection (Study Intersection 2) level of service will remain the same at LOS C during the AM peak hour and will increase to LOS D during the PM peak hour. With mitigation, the SR-14 Northbound Ramps and Placerita Canyon Road intersection (Study Intersection 3) level of service will remain the same at LOS B during the AM peak hour and will increase to LOS B during the PM peak hour. With mitigation, the SR-14 Southbound Ramps and Newhall Avenue intersection (Study Intersection 5) levels of service will increase to LOS A during both AM and PM peak hours. With the implementation of the mitigation measures summarized at the end of this chapter, the Proposed Project's impacts during the 2019 build-out year will be less than significant.

Table 4.9-6
Intersection Capacity Analysis – Year 2019 with Proposed Project Condition

Intersection	AM		PM	
	Delay [a]	LOS [b]	Delay [a]	LOS [b]
1. Sierra Highway and SR-14 Southbound Ramps [c]	88.2	F	99.99 [e]	F
Mitigation (Traffic Signal and Lane Modification)	16.7	B	22.9	C
2. Sierra Highway and Placerita Canyon Road	23.1	C	99.99 [e]	F
Mitigation (Lane Modification)	20.6	C	51.8	D
3. SR-14 Northbound Ramps and Placerita Canyon Road [c]	12.8	B	99.99 [e]	F
Mitigation (Traffic Signal)	15.0	B	14.0	B
4. Sierra Highway and Dockweiler Drive	15.5	B	12.5	B
5. SR-14 Southbound Ramps and Newhall Avenue [c]	99.99 [e]	F	99.99 [e]	F
Mitigation (Traffic Signal and Lane Modification)	5.6	A	5.2	A
6. Sierra Highway and Newhall Avenue	26.4	C	29.5	C
7. Valle Del Oro and Newhall Avenue	15.7	B	12.1	B
8. Valle Del Oro and Dockweiler Drive [c]	12.6	B	14.7	B
9. Railroad Avenue and Newhall Avenue	21.4	C	23.4	C
10. Railroad Avenue and Market Street	24.6	C	17.9	B
11. Newhall Avenue and Lyons Avenue	48.2	D	55.5	E
Mitigation (Lane Modification)	28.8	C	33.7	C
12. Railroad Avenue and Lyons Avenue	31.7	C	33.4	C
13. Railroad Avenue and 13th Street	9.5	A	8.3	A
14. Main Street and Lyons Avenue	18.4	B	16.4	B
15. Main Street and Newhall Avenue [d]	20.9	C	17.3	C
16. Arch Street/Dockweiler, 12th Street, Placerita Canyon Road [c]	8.4	A	8.7	A
17. Lyons Avenue and Dockweiler Drive	19.7	B	22.9	B

Notes:
[a] *Delay – In Seconds*
[b] *LOS – Level of Service*
[c] *Un-Signalized Intersection*
[d] *Roundabout Intersection*
[e] *99.99 – Intersection Delay Exceeds Level of Service Standard*
Source: David Evans and Associates, Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA, August 8, 2017.



LEGEND

(#) - STUDY INTERSECTIONS

X,XXX - AVERAGE DAILY TRAFFIC

Source: David Evans and Associates Inc, August 8, 2017.

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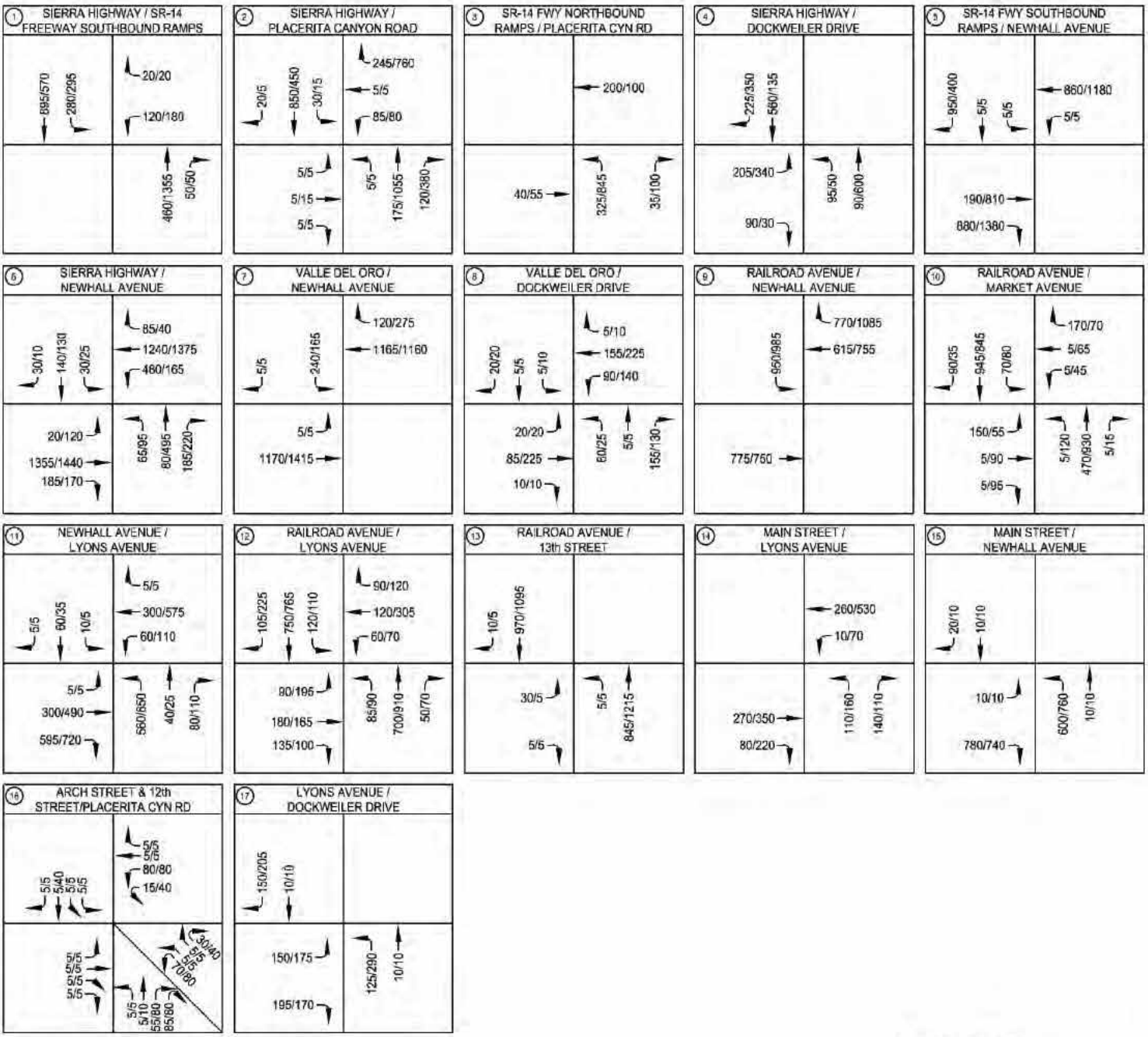
Figure 4.9-12
Project Year 2019 with Project Study Intersections



LEGEND

(#) - STUDY INTERSECTIONS
XX/XX - AM/PM PEAK HOUR VOLUMES

Source: David Evans and Associates Inc, August 8, 2017.

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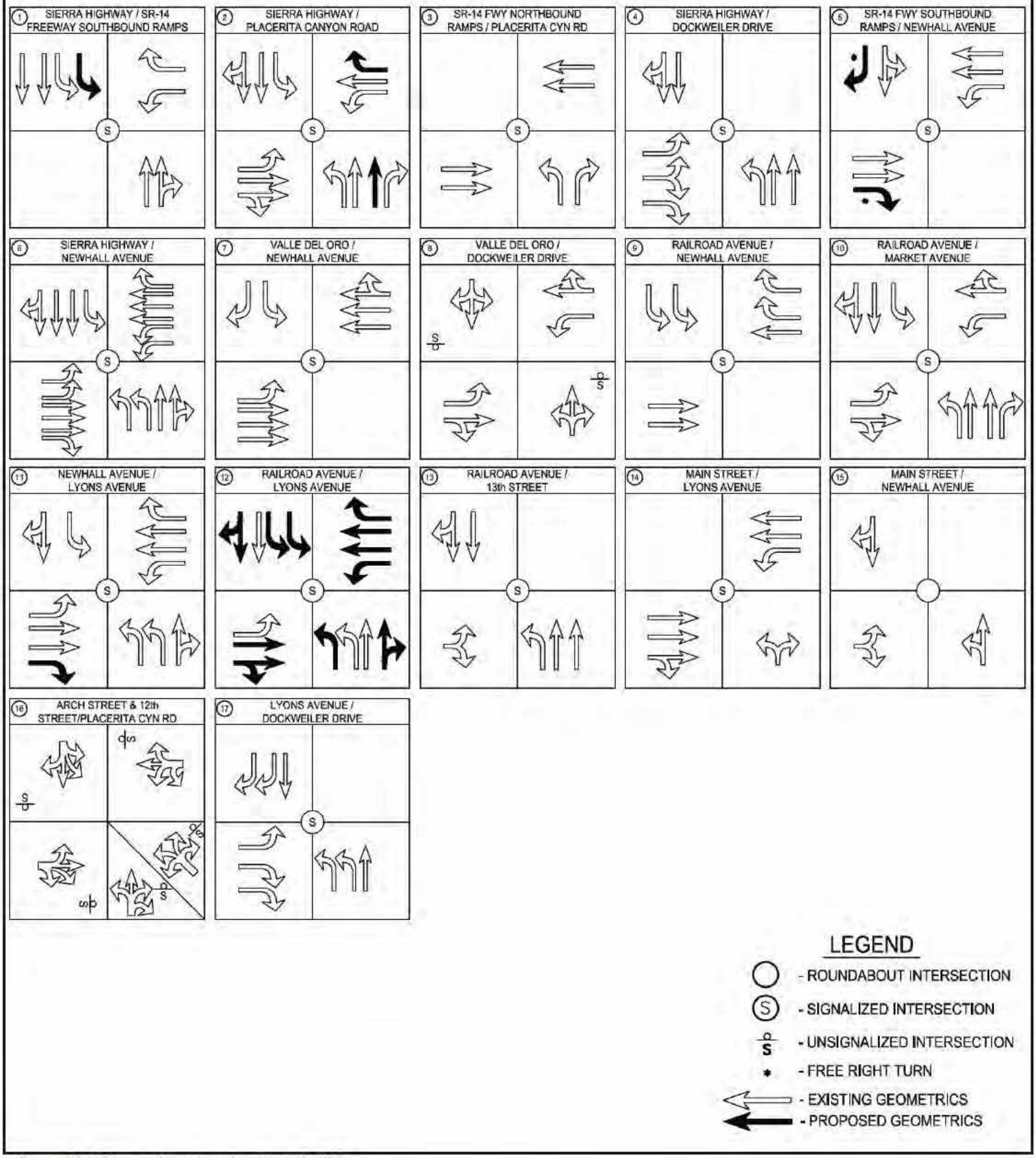
Figure 4.9-13
Project Year 2019 with Project Traffic Volumes



Source: David Evans and Associates Inc, August 8, 2017.

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Figure 4.9-14
Project Year 2019 with Project Intersection Configurations

Future (2035) Conditions With Proposed Project

The Santa Clarita Valley Consolidated Traffic Model (SCVCTM) for Build-Out Year provided traffic volumes for the Future Year 2035 with Proposed Project Condition. The model plots outlined the distribution of future traffic with the construction of the Proposed Project. The analysis of Proposed Project utilizes the traffic volume projections for the City of Santa Clarita's traffic model together with the existing traffic flow data. The traffic projections are based on the General Plan Buildout. The buildout includes construction of future roadways Dockweiler Drive between Railroad Avenue and Valle Del Oro,, Magic Mountain Parkway from Railroad Avenue to Via Princessa, and Via Princessa between Claibourne Lane and Sheldon Avenue. This also includes the proposed conceptual development of the North Newhall area (809 dwelling unit plus an approximate 11-acre commercial land use). The Future Year 2035 Proposed Project study intersections provided in Figure 4.9-15, the volumes provided in Figure 4.9-16.

The intersections were analyzed using the capacity analysis methodology described above. The analysis was conducted with the Future Year 2035 Proposed Project Condition existing and mitigated study intersection geometrics illustrated in Figure 4.9-17. The LOS for the study intersections presented in Table 4.9-7 represents the LOS for the critical movement. This is typically the stop controlled left turn from the minor street.

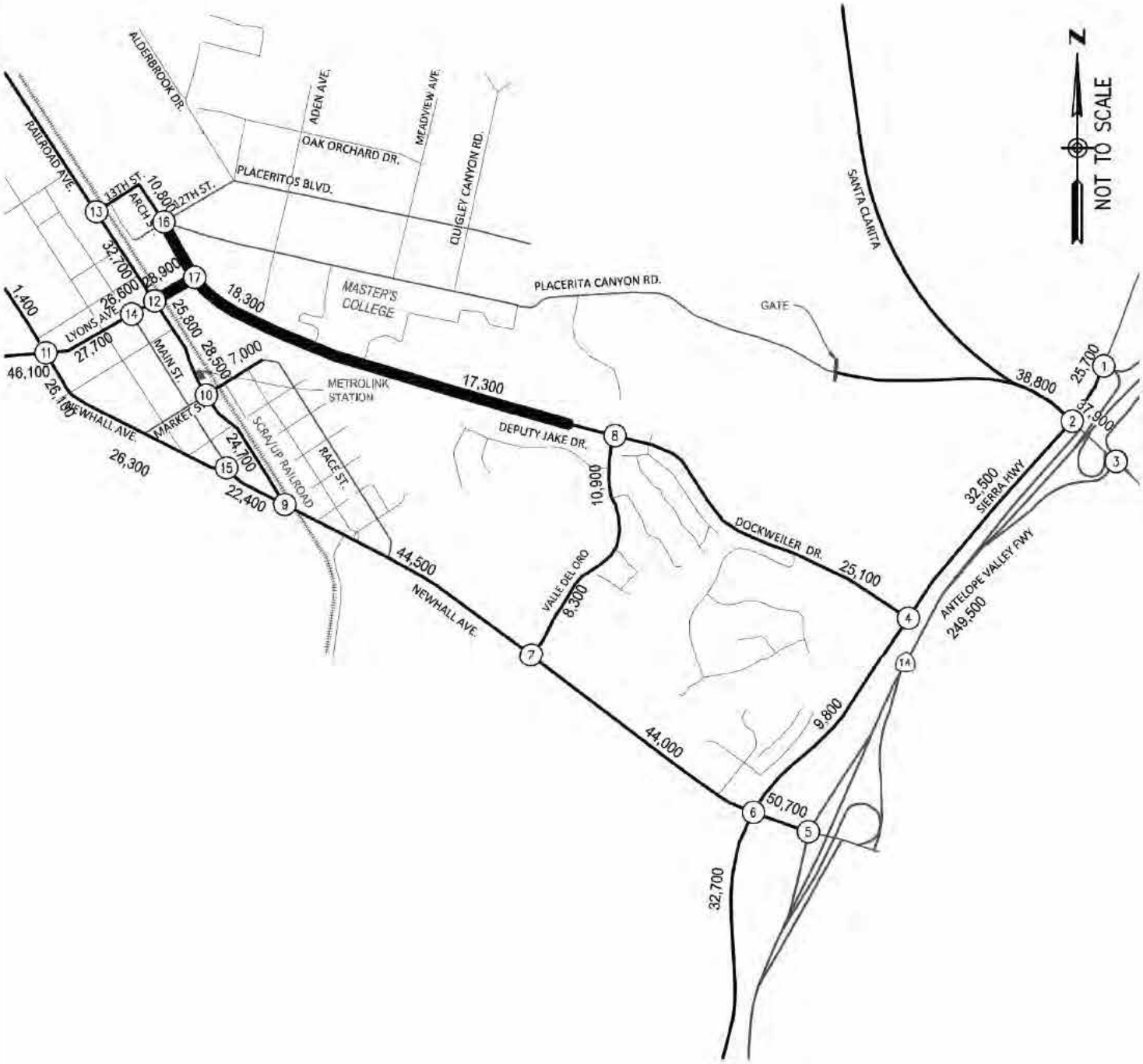
As presented in Table 4.9-7 under Future Year 2035 with Proposed Project Condition, most of the study intersections are anticipated to continue to operate at LOS E or better. There are four intersections that are anticipated to operate at LOS F, they are: Sierra Highway and Placerita Canyon Road, Sierra Highway and Newhall Avenue, Valle Del Oro and Dockweiler Drive, and Main Street and Newhall Avenue. Mitigation measures are necessary to accommodate the anticipated Future Year 2035 traffic and reduce potential Project impacts.

With mitigation, the Sierra Highway and Placerita Canyon Road intersection (Study Intersection 2) levels of service will increase to LOS D during both AM and PM peak hours. With mitigation, the Sierra Highway and Newhall Avenue intersection (Study Intersection 6) levels of service will increase from LOS E to LOS D during the AM peak hour and LOS F to LOS D during the PM peak hour. With mitigation, the Valle Del Oro and Dockweiler Drive intersection (Study Intersection 8) levels of service will increase to LOS C and LOS D during the AM and PM peak hours, respectively. With mitigation, the Main Street and Newhall Avenue intersection (Study Intersection 15) levels of service will increase from LOS F to LOS B during the AM peak hour and LOS E to LOS A during the PM peak hour. With the implementation of the mitigation measures summarized at the end of this chapter, the Proposed Project's impacts during the 2035 year will be less than significant.

Table 4.9-7
Intersection Capacity Analysis – Year 2035 with Proposed Project Condition

Intersection	AM		PM	
	Delay [a]	LOS [b]	Delay [a]	LOS [b]
1. Sierra Highway and SR-14 Southbound Ramps [c]	15.4	B	59.5	E
2. Sierra Highway and Placerita Canyon Road	99.99 [e]	F	99.99 [e]	F
Mitigation (Lane Modification)	53.5	D	51.1	D
3. SR-14 Northbound Ramps and Placerita Canyon Road [c]	26.2	C	18.4	B
4. Sierra Highway and Dockweiler Drive	18.9	B	78.0	E
5. SR-14 Southbound Ramps and Newhall Avenue [c]	6.4	A	6.3	A
6. Sierra Highway and Newhall Avenue	63.1	E	99.99 [e]	F
Mitigation (Lane Modification)	53.6	D	39.2	D
7. Valle Del Oro and Newhall Avenue	16.1	B	14.6	B
8. Valle Del Oro and Dockweiler Drive [c]	99.99 [e]	F	99.99 [e]	F
Mitigation (Traffic Signal and Lane Modification)	22.9	C	37.7	D
9. Railroad Avenue and Newhall Avenue	19.1	B	23.9	C
10. Railroad Avenue and Market Street	26.0	C	20.7	C
11. Newhall Avenue and Lyons Avenue	41.4	D	53.5	D
12. Railroad Avenue and Lyons Avenue	42.3	D	54.2	D
13. Railroad Avenue and 13th Street	12.1	B	10.1	B
14. Main Street and Lyons Avenue	16.3	B	17.1	B
15. Main Street and Newhall Avenue [d]	54.8	F	44.3	E
Mitigation (Lane Modification)	10.7	B	8.9	A
16. Arch Street/Dockweiler, 12th Street, Placerita Canyon Road [c]	21.0	C	39.4	E
17. Lyons Avenue and Dockweiler Drive	25.7	C	35.9	D

Notes:
[a] *Delay – In Seconds*
[b] *LOS – Level of Service*
[c] *Un-Signalized Intersection*
[d] *Roundabout Intersection*
[e] *99.99 – Intersection Delay Exceeds Level of Service Standard*
Source: David Evans and Associates, Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA, August 8, 2017.



Source: David Evans and Associates Inc, August 8, 2017.

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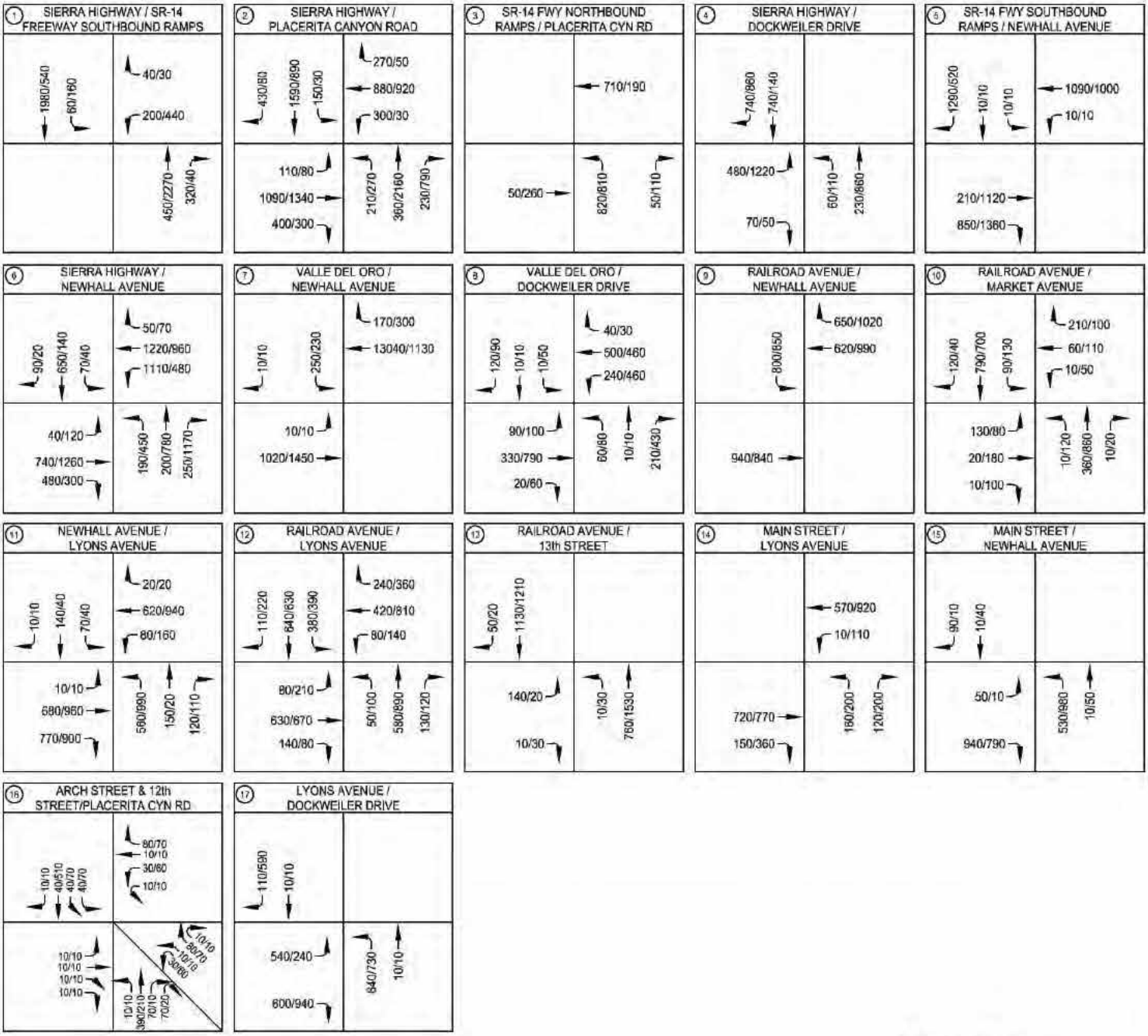
Figure 4.9-15
Project Year 2035 with Project Study Intersections



LEGEND

(#) - STUDY INTERSECTIONS

XX/XX - AM/PM PEAK HOUR VOLUMES

Source: David Evans and Associates Inc, August 8, 2017.

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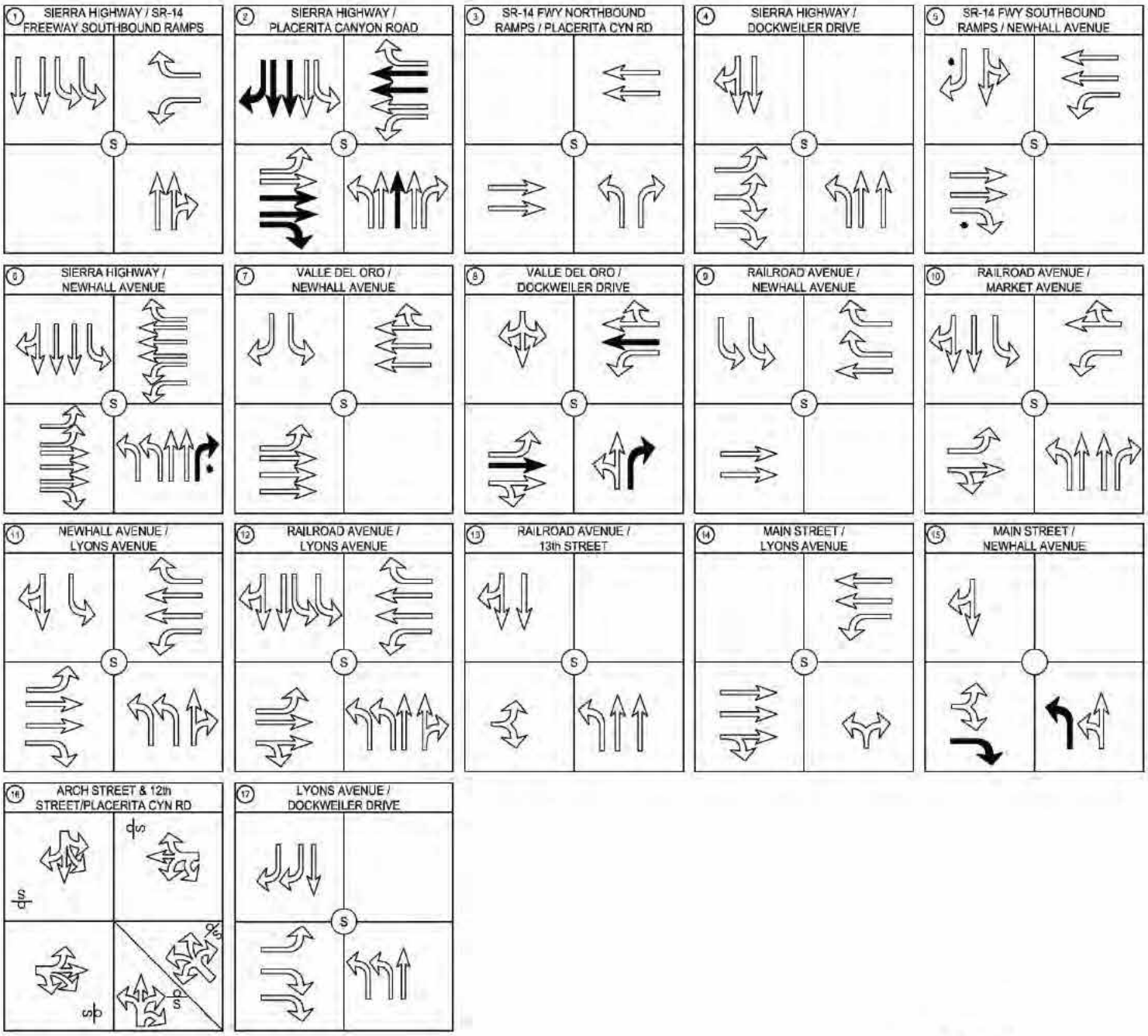
Figure 4.9-16
Project Year 2035 with Project Traffic Volumes



Source: David Evans and Associates Inc, August 8, 2017.

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Figure 4.9-17
Project Year 2035 with Project Intersection Configurations

Railroad Crossing Analysis

The existing Union Pacific/Metrolink rail line currently extends through the City of Santa Clarita, and is shared by both freight (Union Pacific) and passenger (Metrolink Antelope Valley line) trains. The nearest Metrolink train station to the Proposed Project is the Jan Heidt Newhall Station located at Railroad Avenue and Market Street, approximately 0.25 mile south of Lyons Avenue. Currently the rail line serves approximately eight freight trains per day with thirty Metrolink commuter trains per weekday; twelve on Saturday and six trains Sunday. Passenger service from the Newhall station southbound to Los Angeles is provided by fourteen trains per weekday starting at approximately 5:00 AM and ending at 7:30 PM. Passenger service northbound to Lancaster from the Newhall station is also provided by nine trains starting at 7:00 AM until approximately 10:00 PM.

Traffic Counts were compiled for the existing railroad crossings at 13th Street, Market Street, and Newhall Avenue. AM and PM peak hour traffic counts included the existing vehicles, pedestrians, and bicycle volumes. Table 4.9-8 presents the existing traffic counts.

For a comparison of the No Build scenario and the Proposed Project scenario, Daily and AM and PM Peak hour traffic volumes were compiled for the Year 2019 and 2035 conditions as presented in Table 4.9-9 and Table 4.9-10, respectively.

Table 4.9-8
Railroad Crossing Analysis – Existing Condition Traffic Impact Analysis

Existing Condition	1	2	3	4	Total
	13th Street	Lyons Avenue	Market Street	Newhall Avenue	
ADT [a]	9,200	N/A [e]	4,000	43,350	**56,550**
AUTO [b] (AM)	555		320	3,140	**4,015**
AUTO [b] (PM)	665		485	3,925	**5,075**
PED [c] (AM)	6	N/A [e]	47	11	**64**
PED [c] (PM)	5		59	15	**79**
Bicycles [d] (AM)	3	N/A [e]	5	3	**11**
Bicycles [d] (PM)	8		15	4	**27**

Notes:
(-) – Data not available.
[a] *ADT – Average Daily Traffic*
[b] *AUTO – Peak Hour Auto Traffic (Both Directions)*
[c] *PED – Peak Hour Pedestrian Traffic*
[d] *Bicycles – Peak Hour Bicycle Traffic*
[e] *N/A – Not Applicable Future Railroad Crossing*
Source: David Evans and Associates, Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA, August 8, 2017.

Table 4.9-9
Railroad Crossing Analysis – Project Year 2019 Condition

Year 2019		1 13th Street	2 Lyons Avenue	3 Market Street	4 Newhall Avenue	Total
No Build	ADT [a]	10,850	N/A [c]	4,410	47,550	**62,810**
	AM [b]	955		185	3,370	**4,510**
	PM [b]	1,050		375	3,860	**5,285**
Proposed Project	ADT [a]	N/A [c]	8,060	4,390	44,790	**57,240**
	AM [b]		620	185	3,115	**3,920**
	PM [b]		840	370	3,580	**4,790**

Notes:
[a] *ADT – Average Daily Traffic*
[b] *AUTO – Peak Hour Auto Traffic (Both Directions)*
[c] *N/A – Railroad Crossing Not Applicable to the Condition*
Source: David Evans and Associates, Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA, August 8, 2017.

As presented in Table 4.9-9 under Project Year 2019, the total average daily traffic is anticipated to be highest for the No Build Condition.

Table 4.9-10
Railroad Crossing Analysis – Future Year 2035 Condition

Year 2035		1 13th Street	2 Lyons Avenue	3 Market Street	4 Newhall Avenue	Total
No Build	ADT [a]	16,940	N/A [c]	6,920	56,300	**80,160**
	AM [b]	1,170		325	3,735	**5,230**
	PM [b]	1,525		575	4,605	**6,705**
Proposed Project	ADT [a]	N/A [c]	28,870	7,050	47,100	**83,020**
	AM [b]		1,880	330	3,015	**5,225**
	PM [b]		2,495	590	3,695	**6,780**

Notes:
[a] *ADT – Average Daily Traffic*
[b] *AUTO – Peak Hour Auto Traffic (Both Directions)*
[c] *N/A – Railroad Crossing Not Applicable to the Condition*
Source: David Evans and Associates, Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA, August 8, 2017.

As presented in Table 4.9-10 under Project Year 2035, the total average daily traffic is anticipated to be highest for the Proposed Project.

Bicycle and Pedestrian Facilities

The California State Government Code outlines that a city must develop a Circulation Plan included in its General Plan that shall include the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals and other local public utilities and facilities. Furthermore the City and County must coordinate with regional transportation plans. Regional plans affecting the Santa Clarita Valley included the California Department of Transportation (Caltrans) plan; the Regional Mobility Plan, prepared by the Southern California Association of Governments (SCAG); the Los Angeles Metropolitan Transportation Authority's (MTA or Metro) Congestion Management Program and bicycle way strategic plan; the Santa Clarita Transit's Transportation Development Plan (TDP); and the Los Angeles County's Airport Land Use Plan.

The Santa Clarita Valley's circulation system provides vital connections linking neighborhoods, services, and employment centers throughout the community and the region. A comprehensive transportation network of roadways, multi-use trails and bicycle paths, bus transit, and commuter rail provides mobility options to Valley residents and businesses. Planning for the ultimate location and capacity of circulation improvements will also enhance economic strength and quality of life in the Valley.

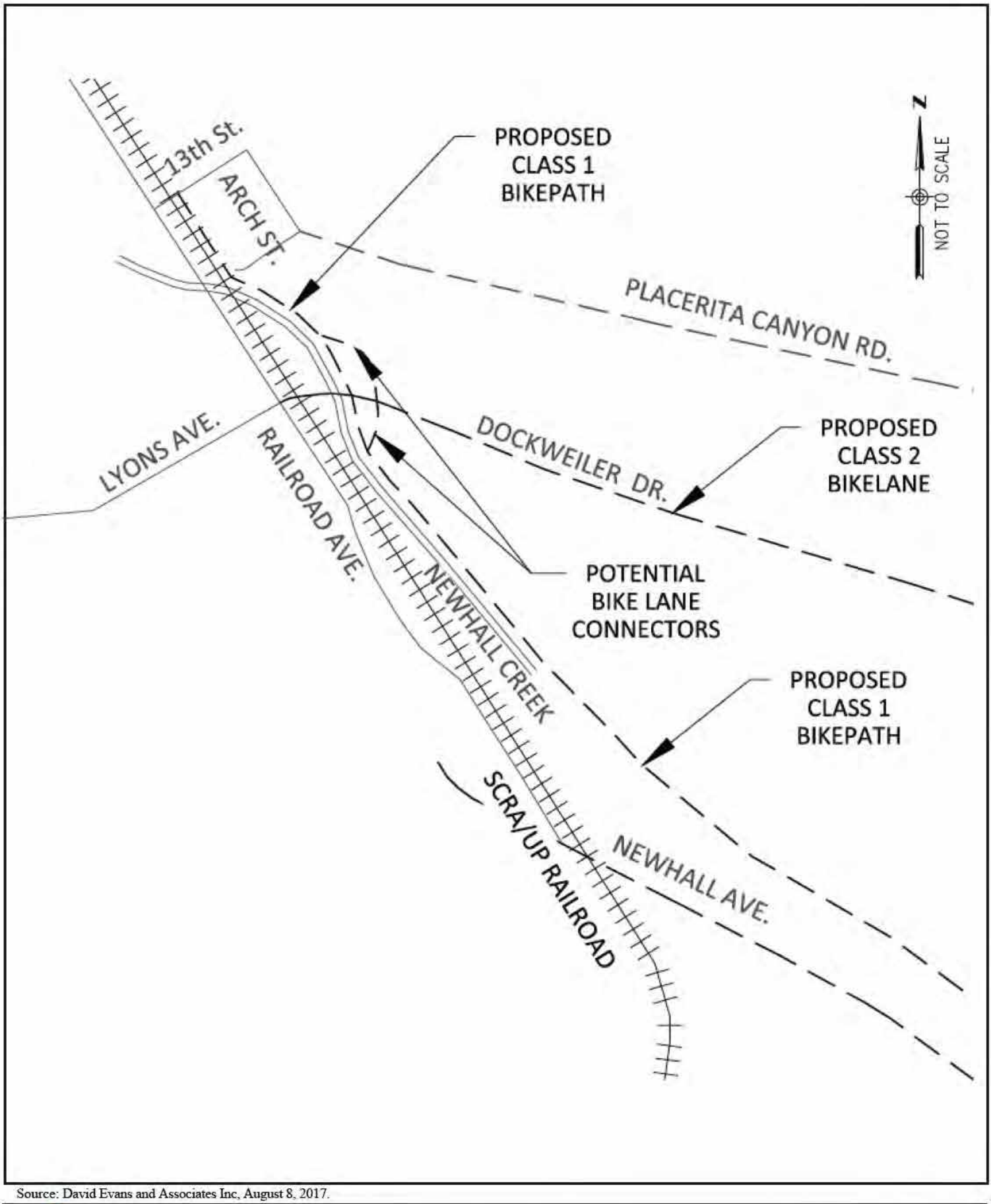
Consideration to the Santa Clarita Valley's continued development of efficient, cost-effective and comprehensive transportation systems that are consistent with regional plans, and local needs. The Circulation Plan identifies and promotes a variety of techniques for improving mobility that go beyond planning for construction of new streets and highways. A major component in the development of the Santa Clarita Valley is the inclusion of alternative travel modes and support facilities. These facilities increase efficiency and capacity of existing systems, by promoting mixed-use development near transit facilities. Bicycle lanes and accessibility to bicycle paths are fundamental to a comprehensive transportation network. The Santa Clarita Valley's Bicycle and Pedestrian Facilities is provided in Figure 4.9-18.

As illustrated in Figure 4.9-18, Potential Bike Lane connectors are proposed from Dockweiler Drive to connect to the Proposed Class I Bike Path along Railroad Avenue and the Proposed Class II Bike Path along Dockweiler Drive.

Vehicle Miles Traveled

California's Sustainable Communities and Climate Protection Act, also referred to as Senate Bill 375 (SB 375) became effective January 1, 2009. The goal of SB 375 is to help achieve AB 32's GHG emissions reduction goals by aligning the planning processes for regional transportation, housing, and land use. SB 375 requires CARB to develop regional reduction targets for GHGs, and prompts the creation of regional plans to reduce emissions from vehicle use throughout the state. California's 18 Metropolitan Planning Organizations (MPOs) have been tasked with creating "Sustainable Community Strategies" (SCS) in an effort to reduce the region's vehicle miles traveled (VMT) in order to help meet AB 32 targets through integrated transportation, land use, housing and environmental planning.

On April 6, 2016, SCAG's Regional Council adopted the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy: Towards a Sustainable Future (2016–2040 RTP/SCS). The SCAG 2016 RTP/SCS is an update to the 2012-2035 RTP/SCS that further integrates land use and transportation in certain areas so that the region as a whole can grow smartly and sustainably. Between 2015 and 2040, the SCAG region is anticipated to experience increases in population, households and jobs. The 2016 RTP/SCS includes land use strategies, based on local general plans, as well as input from local governments, to achieve the AB 32 state-mandated reductions in GHG emissions through decreases in regional per capita VMT. As part of the 2016-2040 RTP/SCS, transportation network improvements would be included, and more compact, infill, walkable and mixed-use development strategies to accommodate new region's growth would be encouraged to accommodate increases in population, households, employment, and travel demand.



Source: David Evans and Associates Inc, August 8, 2017.

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Figure 4.9-18
Santa Clarita Valley's Existing Bicycle and Pedestrian Facilities

The Proposed Dockwelier Drive Extension Project is identified as one of the financially constrained projects within the RTP/SCS, as shown in Appendix B, 2016 RTP/SCS Project List.[1] As such, the project is recognized as part of the regional strategy that is consistent with SCAG's policies to reduce VMTs. The Proposed Project is also identified in the City's Circulation Element as an addition route of travel connecting Lyons Avenue to Dockweiler Drive. Because no new land uses are being proposed, the Proposed Project would not generate any new vehicle trips and thus would not have the potential to increase VMTs on a per capita basis.

4.9.4 CUMULATIVE IMPACT

Development of the Proposed Project in conjunction with the related projects would increase the amount of traffic in the Proposed Project area within the City of Santa Clarita. Cumulative traffic impacts are addressed by comparing the Existing Conditions as presented in the "Environmental Setting" portion of this Section, to the Future with Project for 2019 and 2035 (which includes the Proposed Project plus ambient and related project growth), as presented in the "Project Impacts" portion of this Section. As discussed under "Project Impacts," the Proposed Project would not result in a significant impact at any of the analyzed intersections in the study area with the incorporation of mitigation measures.

With respect to traffic from each of the related projects, mitigation measures for each related project would be implemented individually in coordination with the Lead Agency. The Proposed Project would not result in a significant impact related to traffic, emergency access, design hazards, or alternative modes of transportation that currently serve the Project area. With respect to each of these areas, the design of each related project would be evaluated individually in coordination with the appropriate Lead Agency department to minimize any potential impacts. Overall, the Proposed Project's cumulative transportation and traffic impacts would be less than significant.

4.9.5 MITIGATION MEASURES

Year 2019 Project Mitigation Measures

4.9-1 Dockweiler Drive extension: Construct to full Secondary Highway Pavement width, from Aden Avenue to west of Valle Del Oro, providing two lanes eastbound (uphill) and one lane westbound (downhill), as necessary. May be striped for parking lane on both sides of roadway in interim condition. Class II Bike lanes and Pedestrian Sidewalks to be provided.

4.9-2 Railroad Avenue (North-South) and Lyons Avenue (East-West): Construct the railroad crossing and improve the intersection. The intersection improvements will include widening the northbound direction to accommodate an additional left turn lane and convert a through lane to a shared through-right lane and southbound direction to accommodate and additional left turn lane and convert the right turn lane to a shared through-right turn lane. The north and southbound directions will include two left turn lanes, a through lane, and a shared through-right turn lane. The eastbound direction will provide a left turn lane, a through lane, and a shared through-right turn lane. The westbound direction will provide a left turn lane, two through lanes and a right turn lane.

[1] *See 2016-20440 RTP/SCS, Appendix B, Table 2, at page 151.*

4.9-3 Arch Street (north leg) / Dockweiler Drive (south leg) / 12th Street (east and west legs) / Placerita Canyon Road (southeast leg): Convert intersection to a 5-leg all way stop controlled intersection including Dockweiler Drive as the 5th leg. Arch Street will include a shared left-through-right lane accommodating left turning movements to the west leg (12th Street) and Placerita Canyon Road. Dockweiler Drive will include a shared left-through right lane accommodating right turning movements to Placerita Canyon Road and the west leg (12th Street). The east leg (12th Street) will include a shared left-through-right lane accommodating left turning movements to Placerita Canyon Road and Dockweiler Drive. The west leg (12th Street) will include a shared left-through-right lane accommodating right turning movements to Dockweiler Drive and Placerita Canyon Road. Placerita Canyon Road will include a shared left-right lane accommodating left turning movements to Dockweiler Drive and west leg (12th Street) and right turning movements to the east leg (12th Street) and Arch Street.

4.9-4 Lyons Avenue (North-South) and Dockweiler Drive (East-West): Extend Lyons Avenue to intersect with Dockweiler Drive as a signalized T-intersection. The northbound direction will include two left turn lanes and a through lane. The southbound direction will include a through and two right turn lanes. The eastbound direction will include a left turn lane and two right turn lanes.

4.9-5 Railroad Avenue (North-South) and 13th Street (East-West): The railroad crossing to be closed. The intersection modifications include removing the northbound right turn lane and southbound left turn lane and restricting the eastbound through movement. The northbound direction will include a left turn lane and two through lanes. The southbound direction will include a through lane and a shared through-right turn lane. The eastbound direction will include a shared left-right turn lane.

Year 2019 Regional Mitigation Measures

4.9-6 Sierra Highway (North-South) and SR-14 Freeway Southbound Ramps (East-West): The intersection modifications include installing a traffic signal and widening the southbound direct to provide an additional left turn lane. The northbound direction will include a through lane, and a shared through-right turn lane. The southbound direction will include two left turn lanes, and two through lanes. The eastbound direction will include a left turn lane and a right turn lane.

4.9-7 Sierra Highway (North-South) and Placerita Canyon Road (East-West): The intersection modifications include lane modifications to provide an exclusive right turn westbound lane and right turn northbound lane. The northbound direction will include a left turn lane, two through lanes, and a right turn lane. The south and eastbound directions will include a left turn lane, a through lane, and a shared through-right turn lane. The westbound direction will include a left turn lane, a through lane, and a right turn lane.

4.9-8 SR-14 Freeway Northbound Ramps (North-South) and Placerita Canyon Road (East-West): The intersection modifications include installing a traffic signal. The northbound direction will include a left turn lane and a right turn lane. The east and westbound directions will include two through lanes.

4.9-9 SR-14 Freeway Southbound Ramps (North-South) and Newhall Avenue (East-West): The intersection modifications include converting the east and southbound right turn lanes to free right turns and signalizing the intersection. The eastbound direction will include two through lanes and a free right turn lane. The southbound direction will include a shared through-left turn lane and a free right turn lane. The westbound direction will include a left turn lane and two through lanes.

4.9-10 Newhall Avenue (North-South) and Lyons Avenue (East-West): The intersection modifications include converting the eastbound through-right lane to a right turn lane. The northbound direction will include two left turn lanes and a shared through-right lane. The southbound direction will include a left turn lane and a shared through-right lane. The east and westbound directions will include a left turn lane, two through lanes, and a right turn lane.

Year 2035 Project Mitigation Measures

4.9-11 Valle Del Oro (North-South) and Dockweiler Drive (East-West): Install a traffic signal. The Intersection modifications include signalizing the intersection and widening the east and west bound direction to accommodate an additional through lane and widening the northbound direction to accommodate an exclusive right turn lane. The northbound direction will include a shared left-through lane and a right turn lane. The southbound direction will include a shared left-through-right turn lane. The east and westbound directions will include a left turn lane, a through, and a shared through-right turn lane.

Year 2035 Regional Mitigation Measures

4.9-12 Sierra Highway (North-South) and Placerita Canyon Road (East-West): The Intersection modifications include widening to accommodate lane modifications to all approaches. Widen the northbound direction to accommodate an additional through lane. Widen the east and southbound directions to accommodate two additional through lanes and restripe the shared through-right lane to a right turn only lane. Widen the westbound direction to accommodate two additional through lanes. The north, east, south, and westbound direction will include a left turn lane, three through lanes, and a right turn lane.

4.9-13 Sierra Highway (North-South) and Newhall Avenue (East-West): Intersection modifications include converting the northbound through-right turn lane to a through lane and widening to accommodate a free right turn. The northbound direction will include two left turn lanes, two through lanes, and a free right turn. The southbound direction will include a left turn lane, two through lanes, and a shared through-right turn lane. The east and westbound directions will include two left turn lane, three through lanes, and a right turn lane.

4.9-14 Main Street (north leg) / Newhall Avenue (south leg) / Newhall Avenue (west leg): The intersection modifications include widening the northbound direction to accommodate a left turn lane and the eastbound direction to accommodate a right turn lane. Newhall Avenue (south leg) will include a left turn lane and a shared left-through lane. Main Street will include a shared right-through lane. Newhall Avenue (east leg) will include a shared left-right lane and a right

turn lane.

4.9.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the incorporation of mitigation measures, impacts upon transportation and circulation system would be less than significant.

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5. GENERAL IMPACT CATEGORIES
1. IMPACTS DETERMINED TO BE LESS THAN SIGNIFICANT

1. INTRODUCTION

In addition to the environmental impact categories analyzed in detail in the DEIR, the City of Santa Clarita has determined that the development and operation of the Proposed Project would not result in potentially significant impacts to the environmental impact topics listed below. Section 15128 of the CEQA Guidelines states:

> *"An EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. Such a statement may be contained in an attached copy of an Initial Study."*

It has been determined that there is no evidence that the Proposed Project would cause significant environmental effects in the following areas and that no further environmental review of these issues is necessary for the reasons described below.

Agricultural Resources

The California Department of Conservation, Division of Land Protection, lists Prime Farmland, Unique Farmland, and Farmland of Statewide Importance under the general category of "Important Farmland." The Extent of Important Farmland Map Coverage maintained by the Division of Land Protection indicates that the Project Site is not included in the Important Farmland category.[1] In addition, locally the Project Site is zoned for a mix of commercial and residential uses and not "agricultural" uses. Therefore, the Proposed Project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use. Additionally, there are no known Williamson Act Contract agreements associated with the Project Site. The Project Area contains the following land use and zoning designations: "SP(3)" (Old Town Newhall Specific Plan) and MXN (Mixed Use Neighborhood). Therefore, the Project site would have no impact associated with the conversion of agricultural uses or forested lands. No further analysis of this issue is required.

Greenhouse Gas Emissions

On August 28, 2012, the City of Santa Clarita adopted a Climate Action Plan (CAP), which provides policies and identifies actions intended to reduce GHG emissions within the City and assist in the fight against Climate Change. Overall the goal of the CAP is to reduce Santa Clarita's community-wide GHG emissions below the 2005 baseline emissions by 2020. The CAP includes a set of strategies the City can use to reduce the amount of greenhouse gas emissions produced in the community. Implementation of the measures proposed in the Proposed CAP would result in an annual community-wide reduction in

[1] *Source: State of California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, Los Angeles County Important Farmland Map, 2002 Los Angeles Area Map.*

GHG emissions of approximately 193,000 MTCO2e by 2020 from local measures and an additional reduction of approximately 148,952 MTCO2e by 2020 from statewide measures. This would reduce GHG emissions from the Business-as-usual projections for 2020 by 17 percent and would exceed the GHG reduction targets of 16 percent established by CARB in its revised scoping plan. Implementation of the strategies identified in the CAP would also exceed the City's goal to reduce 2020 GHG emissions to a level below the 2005 GHG emissions baseline by 4 percent.

The CAP defines a local threshold of significance for green house gas emissions (GHG) for project level submittals that are subject to environmental review under CEQA. Goals, objectives and policies approved under the General Plan are forecast to meet the GHG emission reduction targets mandated by AB 32. Therefore, development projects that are able to demonstrate consistency with the General Plan and zoning ordinance are by association consistent with the CAP and are not subject to further environmental review. Development proposals that are not consistent with the City's General Plan and/or Unified Development Code (Zone Changes/General Plan Amendments) must demonstrate a 12 percent reduction in the GHG emissions from the Controlled 2020 Business as Usual Scenario, to be deemed consistent with the CAP. Development proposals that are not consistent with the City's General Plan and/or Unified Development Code and that can not demonstrate a 12 percent reduction in GHG emissions from the Controlled Business as Usual Scenario shall be deemed to have a significant impact on GHG emissions.

The Project is consistent with the Circulation Element of the General Plan and will not require a zone change or General Plan amendment. As such, the Project's potential to generate GHGs will be less than significant with respect to consistency with all applicable plans, policies or regulations adopted for the purpose of reducing the emissions of greenhouse gases, and no further analysis of this issue is warranted.

Hazards and Hazardous Materials

A significant impact may occur if a project involves the use or disposal of hazardous materials as part of its routine operations which may have the potential to generate toxic or otherwise hazardous emissions that could adversely affect sensitive receptors. Since the Project would not require the transport, use, and/or disposal of potentially hazardous materials, the potential for an impact to occur is considered low. In addition, California Government Code Section 65962.5 requires various state agencies to compile lists of hazardous waste disposal facilities, unauthorized releases from underground storage tanks, contaminated drinking water wells and solid waste facilities from which there is known migration of hazardous waste and submit such information to the Secretary for Environmental Protection on at least an annual basis. No properties within or immediately adjacent to the Project site appear on the State's list of hazardous materials sites. Therefore, further analysis of this issue is not warranted.

Mineral Resources

There are no known economic mineral resources located beneath the Project Site. The Project Site is not within a known source area for aggregate or other mineral resources. Additionally, the Project Site is not located in an area of potential petroleum resources. Therefore, development of the Proposed Project would not result in the loss of availability of a known mineral resource that would be of value to the

region and the residents of the state. In addition, development of the Proposed Project would not result in the loss of availability of a locally important mineral resource recovery site. As the Proposed Project would not result in any potentially significant impacts to mineral resources, no further analysis of this issue is warranted.

Population and Housing

The Project involves the buildout of a proposed roadway alignment that was identified within the City's Circulation Element of the General Plan. No residential, commercial, or industrial land uses are proposed. Therefore, the Project would not have the potential to induce substantial population growth in the area. As such, the Proposed Project would not significantly impact the existing housing stock. Additionally, the Project would not displace any existing housing units, necessitating the construction of replacement housing elsewhere. Therefore, no impact would occur and no further analysis is required.

Public Services (Fire and Police Protection, Schools, Parks, Libraries, and other Public Facilities)

Fire and Police Protection

A significant impact may occur if the County of Los Angeles Fire Department (LACoFD) and Los Angeles County Sherriff's Department (LASD) could not adequately serve the areas affected by the Project's circulation plan based upon response time, access, or fire hydrant/water availability. The Project would not directly increase the demands for fire and police protection as the Project does not include any new housing units or commercial uses. Emergency access to the Placerita Canyon community would be facilitated through the Project's alignment, which is consistent with the City's adopted Circulation Element. The Project's alignment would be an improvement to the current access route into the Placerita Canyon community via 13th Street. The potential upgrade or closure of the 13th Street at-grade crossing is a proposed safety feature aimed at reducing potential conflicts between pedestrians, vehicles and trains. The Project's impact upon fire and police services would be less than significant and no further analysis is warranted.

Schools

There are no residential properties on the Project Site and none are planned as part of the development of the Proposed Project. Therefore, development of the Proposed Project would not result in a direct increase in the resident population or in any associated school-aged children. Therefore, with respect to local schools, no impact would occur and no further analysis of this issue is warranted.

Parks

There are no residential properties on the Project Site and none are planned as part of the development of the Proposed Project. Therefore, development of the Proposed Project would not result in a direct increase in the resident population that would use park facilities. Therefore, no impacts on local parks would occur and no further analysis of this issue is warranted.

Libraries

As the Proposed Project does not include residential or commercial uses, no new residents or employees would utilize existing library services in the project area. Therefore, impacts on local libraries as a result of the development of the Proposed Project would not occur. No further analysis of this issue is warranted.

Other Public Facilities

Proposed Project operations would utilize and, to some extent, affect the maintenance of public roads. However, wear and tear on City streets resulting from project-related traffic is not expected to be excessive or beyond normal requirements. Furthermore, the City would be required to implement roadway improvements (including any required street repairs due to any relocation of public utilities, project construction damage, and traffic mitigation measures), as monitored and enforced by the City. Therefore, impacts to public facilities as a result of the development of the Proposed Project would be less than significant. No further analysis of this issue is warranted.

Recreation

The Proposed roadway alignment does not include the development of new residential or commercial uses. As such, the Proposed Project will not directly impact existing recreation facilities such that substantial physical deterioration of the facilities would occur or be accelerated in the existing neighborhood, regional parks or other recreational facilities. Therefore, no further analysis of this issue is warranted.

Utilities

The Proposed Project includes the development of a roadway alignment. The Proposed Project does not include the development of residential, commercial or industrial uses. As such the Proposed Project would not require any connections to a sanitary sewer. Thus, no impact to wastewater treatment facilities would be created. The drainage system of the Project will be developed so that post development peak runoff discharge rates are equal to or less than pre development peak runoff rates, as required by the City of Santa Clarita and the Countywide MS4 Permit. As such, the Project would not result in the construction of new stormwater drainage facilities or expansion of existing facilities. The Project would not create a demand for potable water or for solid waste resources. Therefore impacts associated with the Proposed Project, with respect to utilities, would be less than significant and no further analysis is warranted.

5. GENERAL IMPACT CATEGORIES
2. SIGNIFICANT UNAVOIDABLE IMPACTS

Section 15126.2(b) of the State CEQA Guidelines requires that an EIR describe any significant environmental impacts which cannot be avoided. Specifically, Section 15126.2(b) states:

> *"Describe any significant impacts, including those which can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reasons why the project is being proposed, notwithstanding their effect, should be described."*

Based on the analysis contained in Section 4.0. Environmental Impact Analysis, of this Draft EIR, implementation of the Proposed Project would result in significant and unavoidable environmental impacts associated with the following environmental issues:

- Construction air quality (localized PM_{10} and $PM_{2.5}$ emissions);
- Construction related noise impacts.

As discussed in greater detail in Section 4.2, Air Quality, the Proposed Project would result in significant localized air emissions in close proximity to residential land uses within 100 meters of the Project Site on a temporary and intermittent basis during construction. Localized NOx and CO emissions would be below the significance thresholds at all sensitive receptor locations. However, localized thresholds would be exceeded for PM_{10} and $PM_{2.5}$ emissions at two locations: (1) the single family residential land uses located immediately north of the Project Site (within a proximity of 100 meters) and (2) the residential land uses within 100 meters south of the Project Site in the vicinity of Market Street and Race Street. Localized emissions would be below the stated thresholds for any land use located further than 100 meters from the Project Site. Therefore, localized air quality impacts resulting from construction activities would be considered significant and unavoidable.

As discussed in greater detail in Section 4.8, Noise, the Proposed Project's construction noise impacts would exceed the maximum allowable exterior noise levels. Thus, the Proposed Project's construction noise impacts would be considered a significant impact on a short term and intermittent basis during the construction period.

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5. GENERAL IMPACT CATEGORIES
3. SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Section 15126.2(c) of the State CEQA Guidelines states that the "uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. . . . Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified."

IRREVERSIBLE ENVIRONMENTAL CHANGES

The Project would necessarily consume limited, slowly renewable and non-renewable resources, resulting in irreversible environmental changes. This consumption would occur during construction of the Project and would continue throughout its operational lifetime. The development of the Project would require a commitment of resources that would include: (1) building materials; (2) fuel and operational materials/resources; and (3) the transportation of goods and people to and from the Project Site.

Construction of the Project would require consumption of resources that are not replenishable or which may renew so slowly as to be considered non-renewable. These resources would include certain types of lumber and other forest products, aggregate materials used in concrete and asphalt (e.g., sand, gravel and stone), metals (e.g., steel, copper and lead), petrochemical construction materials (e.g., plastics), and water. Fossil fuels, such as diesel, gasoline and oil, would also be consumed in the use of construction vehicles and equipment.

The commitment of resources required for the type and level of proposed development would limit the availability of these resources for future generations for other uses during the operation of the Project. However, the consumption of natural resources associated with the Project would be of a relatively small scale and would be consistent with regional and local growth forecasts in the City of Santa Clarita and the Southern California region as a whole. Therefore, although irreversible environmental changes would result from the Project, such changes would be considered less than significant.

SECONDARY IMPACTS

To the extent the Project has the potential to result in secondary impacts to the environment, those impacts are addressed within the environmental impact analyses contained within Sections 4.1 through 4.9 of this Draft EIR. The extension of the proposed roadway (Lyons Avenue) was designated as a Secondary Highway per the City of Santa Clarita's General Plan. While the project is anticipated to have localized impacts with respect to air quality and construction noise, the construction of this roadway segment will reduce "cross valley" trip lengths and travel times, provide an alternate travel route and support a multi-modal "Complete Street" transportation network by reducing bus travel times in the City. Completion of this gap will also serve an increase in bike and pedestrian traffic, as well as close a vital gap in these facilities leading to the Newhall Metrolink station. The resultant decrease in congestion and encouragement of active transportation modes will have an enriching effect on the environment by

decreasing vehicle related pollutants and thereby improving community health and the quality of life. As such, secondary impacts associated with utilities and public services would be less than significant.

5. GENERAL IMPACT CATEGORIES
4. GROWTH INDUCING IMPACTS

Section 15126.2(d) of the State CEQA Guidelines requires a discussion of the ways in which a proposed project could be growth-inducing. This would include ways in which the project would foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Section 15126.2(d) requires an EIR to:

> *"Discuss the ways in which the proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects that would remove obstacles to population growth (a major expansion of a wastewater treatment plant might, for example, allow for more construction in service areas). Increases in the population may further tax existing community service facilities so consideration must be given to this impact. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed growth in any area is beneficial, detrimental, or of little significance to the environment."*

This project is part of the City of Santa Clarita's proposed 10 year plan to upgrade the city road network, as presented in the City's General Plan. This project would meet the anticipated demand for improved traffic circulation resulting from the growth of the City.

The extension of Dockweiler Drive from between 12th Street through the Master's University to the existing Dockweiler Drive roadway has been designated as a 4-lane secondary highway in the City's General Plan. Currently, Dockweiler Drive extends from Sierra Highway near State Route 14 and terminates approximately 0.8 miles to west near Valle Del Oro and Lyons Avenue extends from I-5 to Railroad Avenue. This proposed segment of the Lyons Avenue / Dockweiler Drive connection serves as a critical link in one of the City's major east-west arterial highways.

The City of Santa Clarita is one of the fastest growing cities in Los Angeles County. The City's General Plan Circulation Element includes the subject project. This roadway segment and its extension have been re-designated as a 4-lane secondary highway in the City's updated General Plan. The existing local roadway network including Newhall Avenue, Sierra Highway, State Route 14, and Interstate 5, cannot accommodate the forecasted increase in cross-valley traffic. As such, the City's adopted General Plan identifies a future Dockweiler Drive connection to Railroad Avenue as a needed roadway to accommodate future traffic levels. Lyons Ave / Dockweiler Drive improvements will provide this vital link by implementing a new east-west connection and will function as a Complete Streets corridor. The only other east-west roadway in the vicinity is Newhall Avenue which experiences significant peak-hour congestion. This results in increased motorist travel times, difficulty in keeping transit services on-time, delays in emergency vehicle response times (including wildfire suppression), and traffic safety concerns. Newhall Avenue is a heavily traveled corridor, exceeding 43,000 in daily traffic volumes as of April 2013. The current Level of Service (LOS) for the intersection of Newhall Avenue and Lyons Avenue is

LOS C during the AM peak hour and LOS D in the PM peak hour. If the proposed project is not built, the daily traffic volumes are anticipated to exceed 56,000 with the LOS for this intersection projected to be LOS E in the PM peak hour. The Proposed Project will provide a second east-west arterial and benefits all types of vehicular traffic (commuters, transit goods movement, and emergency responders) as an alternate to Newhall Avenue, ultimately reducing the peak hour delay from 115 to 75 vehicle-hours (a difference of 45 vehicle-hours) per day.

The Santa Clarita General Plan envirions several large developments in the area, and as such traffic volumes have the potential to increase significantly. The project is intended to serve as a major east-west corridor link segment in the area and to facilitate access to existing and planned development. The proposed segment of Dockweiler Drive must be improved to ultimate width prior to the City's build out (year 2030 and beyond) according to Santa Clarita's General Plan (adopted June 26, 1991 and amended in December 1997 and June 2011). With Construction of the Project,, this segment of the Lyons Avenue/Dockweiler Drive extension will connect with Lyons Avenue west of the railroad and to Dockweiler.

Construction of the proposed roadway segment will reduce "cross valley" trip lengths and travel times, provide an alternate travel route and support a multi-modal "Complete Street" transportation network by reducing bus travel times in the City. Completion of this gap will also serve an increase in bike and pedestrian traffic, as well as close a vital gap in these facilities leading to the Newhall Metrolink station. The resultant decrease in congestion and encouragement of active transportation modes will have an enriching effect on the environment by decreasing vehicle related pollutants and thereby improving community health and the quality of life. Thus the Proposed Project would accommodate the planned and anticipated growth within the City and would not create or induce substantial growth-inducing impacts that have not already been accounted for within the City's General Plan.

6. PROJECT ALTERNATIVES
1. INTRODUCTION

Pursuant to CEQA Guidelines Section 15126.6(a), an EIR is required to 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. The discussion of alternatives need not be exhaustive, but rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. An EIR must also evaluate a "no project" alternative. An EIR is not required to consider alternatives that are infeasible.

Analytical Assumptions and Methodology

The level of detail required in the alternatives analysis does not need to be as detailed as required for the environmental analysis of the Proposed Project. Rather, an EIR should include "sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project." As such, the alternatives analysis is presented as a comparative qualitative and quantitative analysis to the Proposed Project, and assumes that all applicable mitigation measures proposed for the Proposed Project would apply to each alternative. Impacts associated with each alternative are evaluated in comparison to the Proposed Project's impacts and are classified as increased, reduced, or essentially equivalent to the level of impact associated with the Proposed Project.

Alternatives Considered But Rejected From Further Study

CEQA Guidelines Section 15126.6(b) states that "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." Thus, the consideration of feasible alternatives was focused on lessening or avoiding the Project's significant unavoidable impacts associated with air quality and construction noise and vibration.

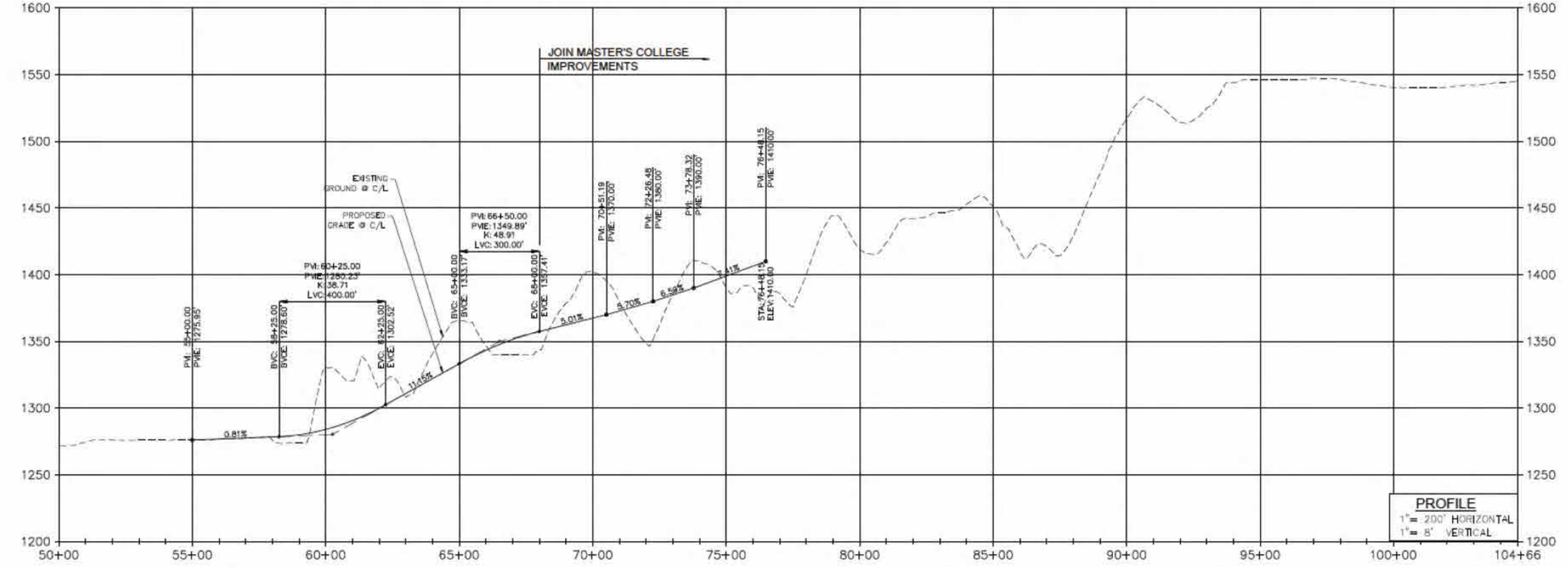
In accordance with CEQA Guidelines Section 15126.6(c), there were three alternative alignments that were considered by the Lead Agency but rejected as infeasible during the scoping process. The alternatives considered but rejected included (1) connecting Dockweiler Drive to Railroad Avenue via Market Street (2) extending Lyons Avenue to Dockweiler Drive with a bridge over the railroad right-of-way, and (3) extending Lyons Avenue to Dockweiler Drive with a below grade underpass under the railroad right-of-way. The physical constraints associated with each of these alternatives that led to them being rejected without further evaluation are addressed below.

Market Street Alignment

The Dockweiler Drive to Market Street alignment was considered as another option that would indirectly connect Dockweiler Drive to Lyons Avenue without resulting in an additional at-grade crossing. Under this alternative alignment, Dockweiler Drive would connect to Railroad Avenue via Market Street as shown in Figure 6.1-1, Market Street Alignment. This alignment would indirectly connect to Lyons Avenue via Railroad Avenue, Main Street, Walnut Street or Newhall Avenue. This alternative was rejected from further consideration due to the resulting 11.15% gradient of the roadway profile resulting from the existing topographical gradient between Market Street and Dockweiler Drive, the relatively sharp curve at the base of an include where the alignment would connect to Market Street. A gradient of 11.15% would not meet the street standards of a secondary highway and would potentially result in unsafe roadway conditions. Additionally, Market Street is a local residential street that directly abuts and provides access to single and multi-family residential land uses. The proposed alignment of Dockweiler Drive through this existing residential neighborhood would not be consistent with the alignment identified within the Circulation Element and would not be compatible with respect to public safety and local residential street standards. For this reason, this alternative alignment was rejected as infeasible.

Lyons Avenue Overpass Extension to Dockweiler Drive

The Lyons Avenue Overpass Extension to Dockweiler Drive was considered as a potential option to provide a direct connection from Lyons Avenue to Dockweiler Drive without an at-grade crossing. An illustration of the Lyons Avenue connection to Dockweiler Drive with an overpass crossing Railroad Avenue and the railroad right-of-way is shown in Figure 6.1-2, Lyons Avenue Overpass Alignment. As shown in Figure 6.1-2, Lyons Avenue starts ascending at the Chestnut Street / Lyons Avenue intersection at a 5% slope, passes above Railroad Avenue, the railroad tracks and Newhall Creek, and descends at a 5% grade to touch down on the existing ground approximately 600’ east of the creek. Lyons Avenue would need an overhead bridge over Railroad Avenue, the railroad tracks, and Newhall Creek. In order to provide sufficient vertical clearance for the passing trains, Lyons Avenue will be raised approximately 30’ above the railroad tracks. Two connections via Walnut Street / 9th Street and Walnut Street / 11th Street between Lyons Avenue and Railroad Avenue will be established to replace the existing intersection.



Source: David Evans & Associates, Inc. May 2017

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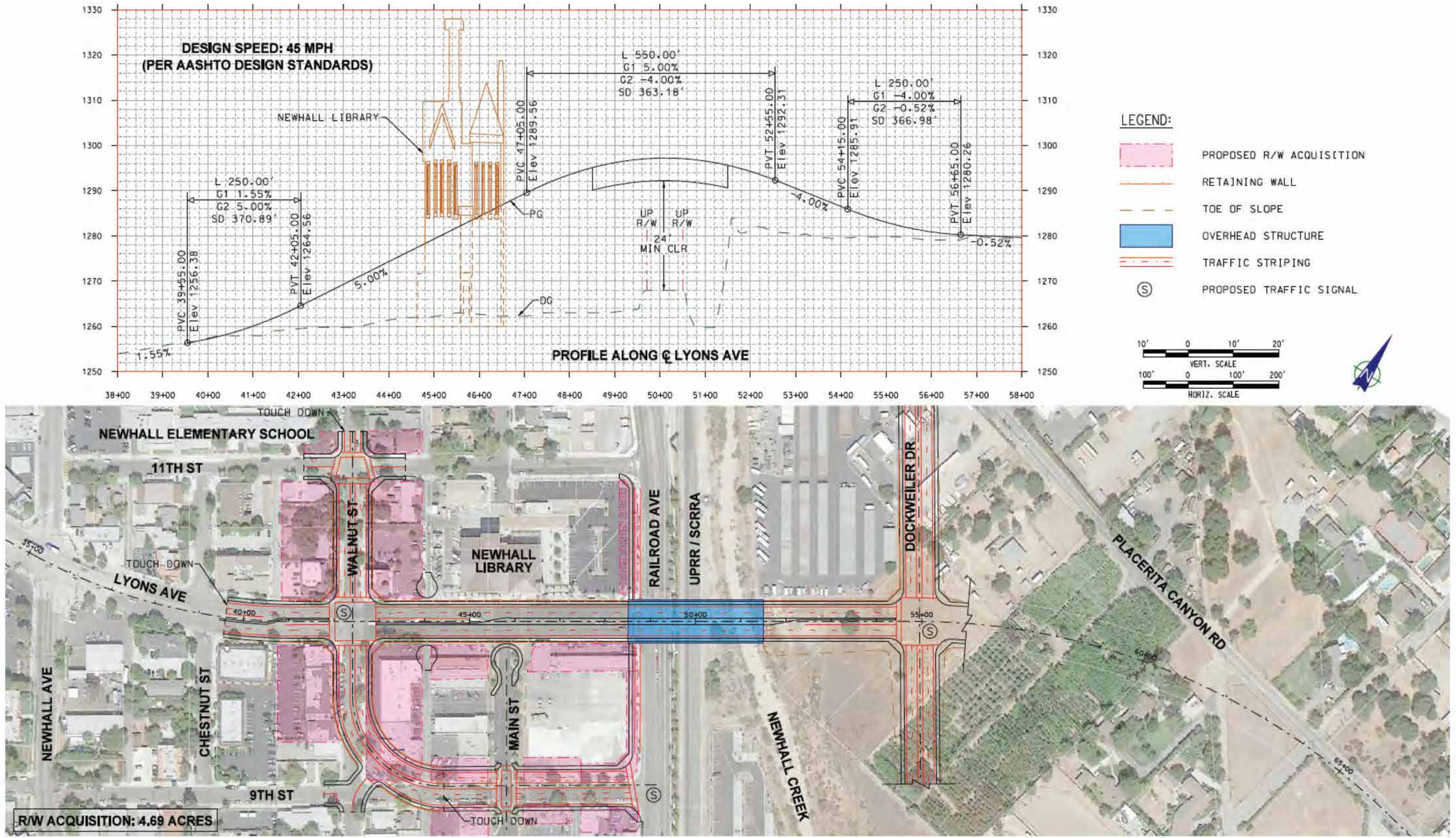
Figure 6.1-1
Market Street Alignment



Source: David Evans & Associates, Inc. May 2017

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Figure 6.1-2
Lyons Avenue Overcrossing

With respect to traffic circulation, the existing configuration of a direct intersection connection between Lyons Avenue and Railroad Avenue could not be kept for all of the grade separation alternatives. In order to maintain traffic circulation between the two major streets, two connector roads, one on each side of Lyons Avenue, would have to be established. Although the connection between the two major roads could be re-established, traffic would need to make additional turning movements to go from one street to another. This new configuration will provide unnecessary delays and will create congestion within the area.

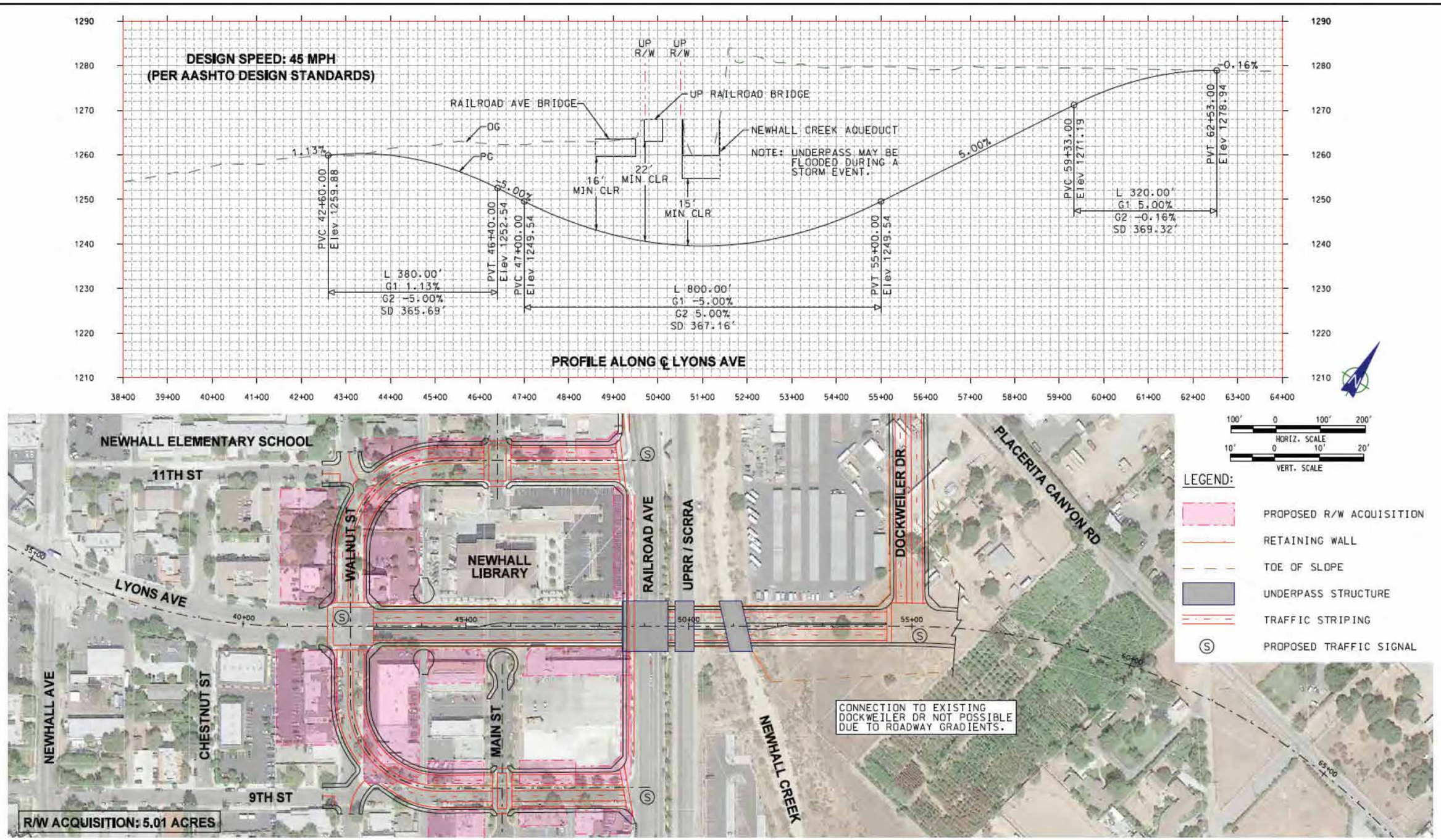
Different utilities such as sewer, water, gas, found within Lyons Avenue and Railroad Avenue would need to be relocated and/or abandoned. In order to build a grade separation with an overhead crossing, most of the utilities within the construction limits would be impacted and would need to be relocated at a significant cost.

With respect to impacts upon Newhall Elementary School, as shown in Figure 6.1-2, the southeast corner of Newhall Elementary School might be impacted by the reconfiguration of Walnut Street and 11th Street for the grade separation option. Walnut Street and 11th Street, which would be the necessary link between Lyons Avenue and Railroad Avenue for the grade separation, would have heavier traffic than their current configuration and this might potentially pose a risk to the nearby school route.

In regards to community impacts, most of the properties adjacent to Lyons Avenue, Walnut Street, 9th Street and 11th Street, shown as pink shading on Figure 6.1-2, would be fully acquired for the grade separation option due to change of grade on Lyons Avenue and loss of access routes. The adjacent residents and businesses would be relocated. In addition, the grade separation option is not consistent with the City's Old Town Newhall Specific Plan. The grade separation will divide the community and cause an unnecessary burden to the residents within the impacted area. Additionally, raising Lyons Avenue over Railroad Avenue, the railroad tracks, and Newhall Creek would physically bisect the existing Newhall community and create a disconnect to the properties on either side of Lyons Avenue. Especially for residents living south of Lyons Avenue, it would require more effort to get to the Old Town Newhall Library on the north side of Lyons Avenue. The front view of the library would be blocked by a retaining wall supporting the roadway embankment of the grade separation. Additionally, 24 parking stalls in the library parking lot would be lost due to the necessary widening on Railroad Avenue for the grade separation. Because this alternative would be disruptive to the existing established community of Old Town Newhall and for the reasons addressed above, this alternative was rejected from further consideration.

Lyons Avenue Underpass Extension to Dockweiler Drive

The Lyons Avenue Underpass Extension to Dockweiler Drive was considered as another alternative to provide a direct connection from Lyons Avenue to Dockweiler Drive without an at-grade crossing. An illustration of the Lyons Avenue connection to Dockweiler Drive with an underpass crossing Railroad Avenue, the railroad right-of-way, and Newhall Creek is shown in Figure 6.1-3, Lyons Avenue Underpass. As shown in Figure 6.1-3, Lyons Avenue starts descending from the Lyons Avenue / Walnut



Source: David Evans & Associates, Inc. May 2017

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Figure 6.1-3
Lyons Avenue Undercrossing

Street intersection at a 5% slope and goes beneath Railroad Avenue, the railroad tracks and Newhall Creek. After the new lowered Lyons Avenue passes below Newhall Creek, it starts ascending to existing ground level approximately 1,100' east of the creek. A roadway bridge for Railroad Avenue, a railroad bridge for railroad tracks and a water bridge for the creek are needed for the underpass. In order to maintain enough vertical clearance from the underpass to the soffits of the bridges, the underpass near the railroad tracks will be approximately 28' below the existing ground. To maintain traffic circulation between Lyons Avenue and Railroad Avenue, two loop connectors via Walnut Street and 11th Street to the north, and Walnut Street and 9th Street to the south, will be needed. Minor streets such as Main Street will be cul-de-sacs at Lyons Avenue.

For the underpass alternative, a bridge to carry storm water from Newhall Creek would be required so the lowered Lyons Avenue could pass underneath. However, Newhall Creek is a natural flood control channel, instead of a man-made water channel such as the California Aqueduct whose flow volume is controlled. The amount of storm water flowing though the bridge would be hard to predict. If a larger storm occurred than the bridge could handle, the underpass would be flooded and traffic would be interrupted. Moreover, the bridge or the underpass would be susceptible to damage during storm events.

Similar to the overpass alternative described above, the underpass alternative would be equally disruptive to the existing established community with respect to traffic circulation, relocation of utilities, impacts to Newhall Elementary School, and community disruption as described above for the Lyons Avenue overcrossing alternative. Therefore, for these reasons the underpass alternative was rejected from further consideration.

Selection of Alternatives

The objective of the project alternatives analysis, as directed by CEQA, is to identify alternatives that could 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. Based on this directive, the Project Alternatives evaluated within the scope of this EIR are as follows:

1. No Project Alternative;
2. Alternative 1 (Proposed Alignment With Improvements at the 13th Street Rail Crossing); and
3. Alternative 2 (Proposed Alignment to Arch Street Without Lyons At-Grade Crossing).

A detailed description and environmental analysis for each of these alternatives is provided within Section 6.2 through Section 6.4 The identification of the alternative that would be most capable of reducing the Proposed Project's adverse environmental impacts is presented in Section 6.5, Environmentally Superior Alternative.

6. PROJECT ALTERNATIVES
2. NO PROJECT ALTERNATIVE

The No Project Alternative is the circumstance under which the Proposed Project does not proceed. CEQA Guidelines (Section 15126.6(e)) provides that the "no project" analysis shall discuss the existing conditions at the time the Notice of Preparation is published, as well as what can reasonably be expected to occur in the foreseeable future if the project is not approved based on current plans and consistent with available infrastructure and community services. A Notice of Preparation (NOP) was prepared by the City of Santa Clarita and distributed to the State Clearinghouse, Office of Planning and Research, responsible agencies, and other interested parties on August 5, 2013. The Project Site consists of improved segments of Railroad Avenue and Lyons Avenue roadways and undeveloped land to the east extending towards The Master's University and Arch Street. The west end of the Project Site encompasses portions of Newhall Creek and traverses a storage yard utilized by Los Angeles County Department of Public Works. The portion of the Project Site that includes the intersection of Railroad Avenue and 13th Street is developed with existing road surface and an at-grade crossing. The UP/Metrolink Railroad line crosses the Project Site east of the intersection of Railroad Avenue and Lyons Avenue Railroad and at the intersection of Railroad Avenue and 13th Street. The proposed road alignments are located on the alluvial flood plain and hillside areas adjacent to Newhall Creek. The Project Site is covered with light to moderate growth of natural grasses and chaparral.

Under the No Project Alternative, the Project Site would remain in its current state, as no roadway extension would occur from Lyons Avenue to Dockweiler Drive and Arch Street. The 13th Street at-grade crossing would remain open.

ENVIRONMENTAL ANALYSIS

Aesthetics

The existing visual character of the Project Site would temporarily change from construction-related activities during the duration of the construction period of the Proposed Project. This impact would be considered significant but temporary. Additionally, upon completion of the Proposed Project, the aesthetic character of the Project Site and its immediate surroundings would be permanently altered as the Proposed Project would result in the permanent and irreversible grading and re-contouring of the westernmost segment of the ridgeline. The No Project Alternative would not involve any new construction or demolition associated with the Proposed Project. No improvements or physical modifications would occur and the Project Site would remain in its present form. Therefore, views of the Proposed Project would remain unchanged (for existing views of and from the Project Site refer to Figures 2-2, 12.3, 2.4, 2.7 and 2.8 in Section 2, Project Description, as well as Figures 4.1-2 and 4.1-3 in Section 4.1, Aesthetics). Additionally, the No Project Alternative would not alter any ridgelines in the Project Site vicinity, would not result in the loss of oak trees, and would retain the existing sources of lighting and glare on the Project Site and in the surrounding area. Since the No Project Alternative

includes no physical alterations to the current site, the No Project Alternative would have no impact when compared to the Proposed Project.

Air Quality

Construction

Construction-related emissions and their associated air quality impacts for the Proposed Project would be short-term in nature and limited only to the period when construction activity is actively taking place. The Proposed Project's construction emissions would be below SCAQMD's significance thresholds for all criteria pollutants. The No Project Alternative would not create any construction emissions, as grading, demolition and construction activities would not occur. The No Project Alternative would have no impact when compared to the Proposed Project with respect to air quality during the construction phase.

Operation

No operational air pollutant emissions are generated at the Project Site as the Project Site does not contain any buildings and consist largely of undeveloped land and road surface. Although the Proposed Project would not directly generate any new vehicle trips, the Proposed Project would result in changes to the traffic circulation in the vicinity and would alter the average daily traffic volumes and peak hour traffic volumes at local intersections. The similar utilization of the Project Site as compared to existing conditions would create similar air pollution emissions from mobile sources from existing roadways. The No Project Alternative would not violate any air quality standards. Compared to existing conditions, the No Project Alternative would result in no increased air quality impacts. The No Project Alternative would have reduced air quality impacts when compared to the Proposed Project.

Biological Resources

Construction-related activities, particularly site clearing, grading, and the implementation of the road surface, could have adverse effects on plant and wildlife habitat, and together, would be considered a significant impact. With implementation of mitigation measures, impacts from the Proposed Project would reduce these construction-related impacts to a less than significant level. Portions of the Project Site that are undeveloped and contain plant and wildlife habitat would be left undistributed by the No Project Alternative, as no development would occur. Therefore, no impact would occur with respect to biological resources under the No Project Alternative.

Cultural Resources

Historic Resources

As no cultural or historic habitable structures are located on-site, similar to the Proposed Project, the No Project Alternative would not have the potential to adversely impact any historic or cultural resources.

Archaeological Resources

Construction-related earthwork activities may result in the accidental discovery of prehistoric or historic archaeological resources or Native American burial sites. Implementation of mitigation measures would reduce impacts resulting from the Proposed Project to a less than significant level. As the No Project Alternative would not involve any earthwork or ground disturbing activities no adverse impacts would occur to archaeological resources.

Paleontological Resources

The Proposed Project includes construction-related earthwork activities may result in the accidental discovery of paleontological resources. Implementation of mitigation measures would reduce impacts resulting from the Proposed Project to a less than significant level. The No Project Alternative would not involve any earthwork or ground disturbing activities. As such there would be no potential for any adverse impacts to occur to paleontological resources.

Tribal Cultural Resources

The No Project Alternative would not involve any earthwork or ground disturbing activities. As such there would be no potential for any adverse impacts to occur to tribal cultural resources.

Geology and Soils

Under the No Project Alternative, the Project Site remains in its current condition and no new construction of any infrastructure would occur. As such, the No Project Alternative would not result in any new sources or increased risk of loss, injury, or death involving strong seismic ground shaking, liquefaction, landslides, or ground failure on-site. The No Project Alternative would have no impact to geology and soils. When compared to the Proposed Project, the No Project Alternative would have a reduced impact upon potential geotechnical hazards.

Hydrology And Water Quality

The Proposed Project would be required to prepare and implement a SWPPP prior to earthwork activities that will put best management practices and erosion control measures to prevent pollution in stormwater discharge. Additionally, in accordance with NPDES requirements, the Project Applicant would be required to have a Project-specific SUSMP in place during the operational life of the Project to address the management of runoff from the proposed roadway extension. Therefore, water quality impacts during the Project's construction and operation would be less than significant. The Proposed Project would also span the Newhall Creek. Roadway construction would include a new bridge across Newhall Creek and provide embankment protection to the roadway and creek.

Under the No Project Alternative, the Project Site remains in its current condition and no new construction of any infrastructure would occur. As such, the No Project Alternative would not result in any impacts to water quality or 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 which would result in flooding on- or off-site. When compared to the Proposed Project, the No Project Alternative would have a reduced impact upon water quality and inundation and flooding.

Land Use and Planning

Under the No Project Alternative, the Project Site would experience no changes in land uses or changes to the condition of the Project Site. The Project Site includes four land use categories that guide development on-site defined by the General Plan. Since the No Project Alternative would result in no changes to the current land use and zoning designations or to the physical condition of the Project Site, the No Project Alternative would have no impact to land use and planning. The extension of Dockweiler Drive is identified in the Circulation Element as a major new roadway. The extension would provide a connection from Railroad Avenue to Sierra Highway. Therefore, the No Project Alternative would be inconsistent with the Circulation Element. However, compared to the Proposed Project, the No Project Alternative would result in a reduced impact with regards to land use and planning as no permits or approvals would be required. As compared to the Proposed Project, which would require an Oak Tree Removal Permit for the removal of two oak trees and a Hillside Development Permit, the No Project Alternative would not require any land use approvals or entitlements. As such land use and zoning impacts would be less than significant.

Noise

Construction

Construction of the Proposed Project would require the use of heavy equipment for ground clearing, site grading, and roadway construction. Several pieces of construction equipment operating simultaneously would generate a noise level of approximately 94.6 dBA. The estimated construction noise levels impacting sensitive receptors are expected to exceed the City's daytime noise standards for residential uses (see Table 4.8-3). The construction noise levels would therefore constitute a significant impact. The No Project Alternative would involve no new construction. As such, no construction noise or vibration is anticipated to occur under this alternative. Under the No Project Alternative, impacts with respect to construction noise or vibration would be reduced as compared to the Proposed Project.

Operation

The Proposed Project is anticipated to alter roadway traffic volumes as the Proposed Project would create a new roadway segment connecting Lyons Avenue to Dockweiler Drive. Locations in the vicinity of the Project Site could experience slight changes in noise levels as a result of the change in traffic patterns.

The No Project Alternative would not introduce any new activities to the Project Site with the potential to create operational noise impacts or sensitive receptors with the potential to be impacted by noise impacts. Operation noise on-site would be consistent with existing uses on-site. Under the No Project Alternative, no increased impact would occur with respect to operational noise. Impacts with respect to operational noise would be reduced when compared to the Proposed Project's less than significant impact.

Transportation and Traffic

The Traffic Report analyzed sixteen intersections for existing year conditions (2014), opening year conditions (2019), and future year conditions (2035). Potential Project traffic impacts were found for opening year conditions and future year conditions. With the incorporation of the mitigation measures identified in Section 4.9, Traffic and Transportation, potential traffic impacts associated with the Proposed Project would be reduced to a less than significant level.

Opening Year (2019) Conditions Without Proposed Project

The Santa Clarita Valley Consolidated Traffic Model (SCVCTM) for Interim Year provided traffic volumes for the Project Year 2019 Condition. The model plots provided a No-Build Condition outlining the distribution of future traffic without the Project. The Project Year 2019 No-Build study intersections provided in Figure 4.9-6, the volumes provided in Figure 4.9-7.

The intersections were analyzed using the capacity analysis methodology described in Section 4.9. The analysis was conducted with the existing intersection geometrics illustrated in Figure 4.9-8. The LOS for the study intersections presented in Table 4.9-4 represents the LOS for the critical movement. This is typically the stop controlled left turn from the minor street. As presented in Table 4.9-4 under Year 2019 No-Build Condition, most of the study intersections are anticipated to continue to operate at LOS E or better. There are four intersections that are anticipated to operate at LOS F, they are: Sierra Highway and SR-14 Southbound Ramps, Sierra Highway and Placerita Canyon Road, SR-14 Northbound Ramps and Placerita Canyon Road, and SR-14 Southbound Ramp and Newhall Avenue.

Future (2035) Conditions Without Proposed Project

Future Year 2035 traffic volumes were provided by the City of Santa Clarita using the Santa Clarita Valley Consolidated Traffic Model (SCVCTM) for the Buildout Year. The model plots provided a No-Build Condition outlining the distribution of future traffic without the Project. The analysis of No-Build Condition utilizes the traffic volume projections for the City of Santa Clarita's traffic model together with the existing traffic flow data. It is to be noted that Other Area Projects anticipated to be constructed by Year 2035, have been incorporated into the SCVCTM, and account for expected growth. The buildout includes construction of future roadways Dockweiler Drive between Railroad Avenue and Valle Del Oro, Magic Mountain Parkway from Railroad Avenue to Via Princessa, Via Princessa between Claibourne Lane and Sheldon Avenue, and Santa Clarita Parkway. This also includes the proposed conceptual development of the North Newhall area (809 dwelling unit plus an approximate 11-acre commercial land use).

The Future Year 2035 No-Build study intersections are provided in Figure 4.9-9 and the volumes are provided in Figure 4.9-10. The intersections were analyzed using the capacity analysis methodology described above. The analysis was conducted with the Future Year 2035 No-Build Condition existing and mitigated study intersection geometrics illustrated in Figure 4.9-11, Future Year 2035 No Build Intersection Configurations. The LOS for the study intersections presented in Table 4.9-5 represents the LOS for the critical movement. This is typically the stop controlled left turn from the minor street. As

presented in Table 4.9-5 under Future Year 2035 No-Build Condition, several intersections are anticipated to operate at LOS F, these intersections are: Sierra Highway and SR-14 Southbound Ramps, Sierra Highway and Placerita Canyon Road, SR-14 Northbound Ramps and Placerita Canyon Road, SR-14 Southbound Ramps and Newhall Avenue, Sierra Highway and Newhall Avenue, Newhall Avenue and Lyons Avenue, and Main Street and Newhall Avenue.

Railroad Crossing Analysis

For a comparison of the No Build scenario and the Proposed Project scenario, Daily and AM and PM Peak hour traffic volumes were compiled for the Year 2019 and 2035 conditions as presented in Table 4.9-9 and Table 4.9-10, respectively. As presented in Table 4.9-9 under Project Year 2019, the total average daily traffic is anticipated to be highest for the No Build Condition. As presented in Table 4.9-10 under Project Year 2035, the total average daily traffic is anticipated to be highest for the Proposed Project. Therefore, when compared to the Proposed Project, the No Project Alternative would have an increased impact to railroad crossings for the 2019 conditions as compared to the Proposed Project.

Bicycle and Pedestrian Facilities

The No Project Alternative would be inconsistent with the Santa Clarita Valley's Bicycle and Pedestrian Facilities map, which is provided in Figure 4.9-18. As illustrated in Figure 4.9-18, Potential Bike Lane connectors are proposed from Dockweiler Drive to connect to the Proposed Class I Bike Path along Railroad Avenue and the Proposed Class I Bike Path along Railroad Avenue.

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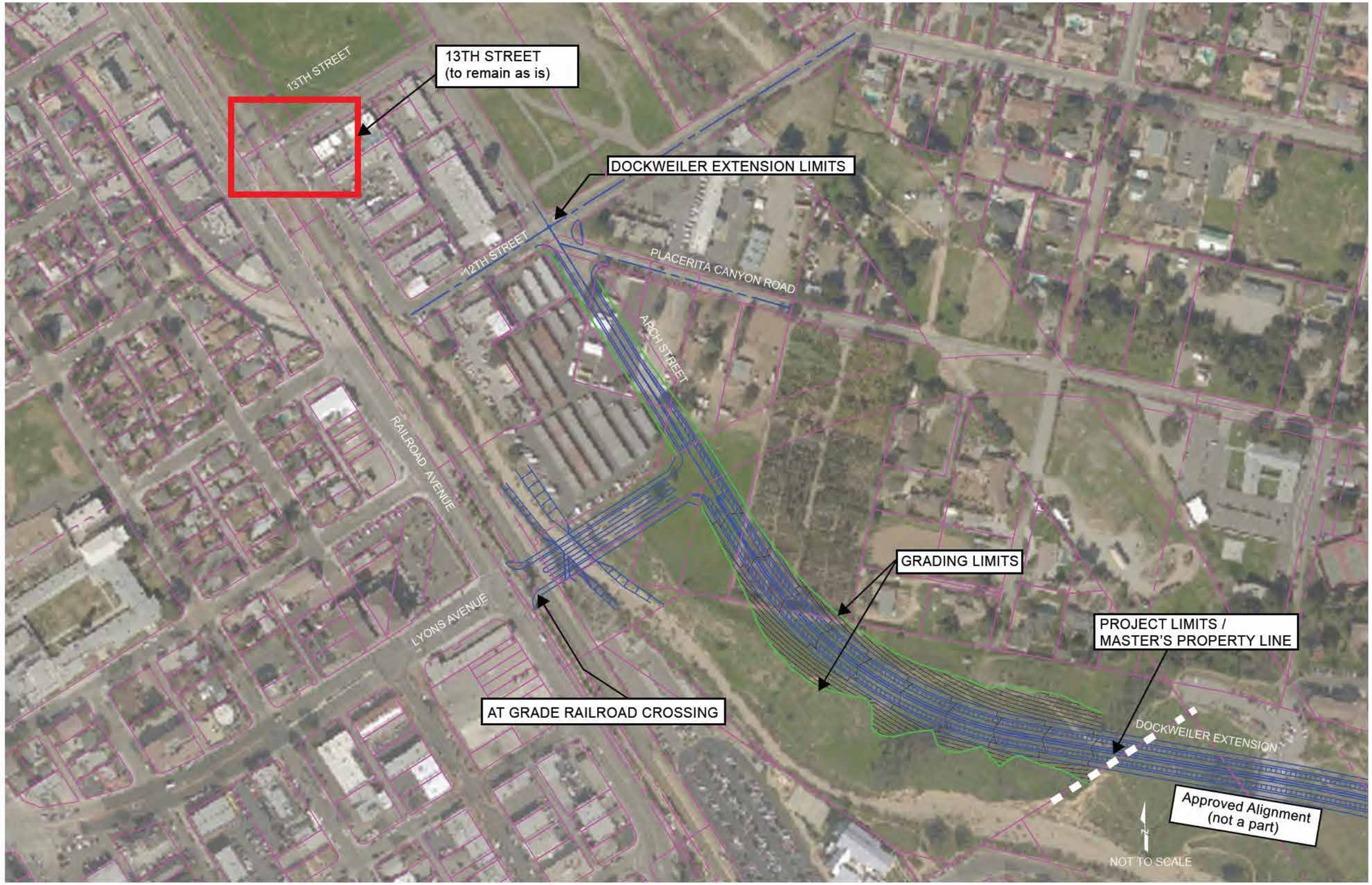
6. PROJECT ALTERNATIVES
3. ALTERNATIVE 1 (PROPOSED ALIGNMENT WITH THE 13TH STREET RAIL CROSSING)

Similar to the Proposed Project, the Alternative 1 Project would involve the development of the proposed roadway alignment and associated infrastructure, which would include a new at-grade crossing and a secondary east-west arterial roadway connecting Lyons Avenue to the proposed Dockweiler Drive extension that would connect Dockweiler Drive to a new five-leg intersection at the Arch Street/12th Street/Placerita Canyon intersection. The Alternative 1 Project differs from the Proposed Project by leaving the existing at-grade crossing at the intersection of 13th Street and Railroad Avenue as is instead of removing the crossing, as proposed by the Proposed Project. The proposed alignment of Dockweiler Drive under Alternative 1 is illustrated in Figure 6.3-1. Figure 6.2-2 provides an aerial photograph depicting the existing configuration of the at-grade railroad crossing at 13th Street and Railroad Avenue, which will remain in its current configuration without any future improvements.

Similar to the Proposed Project, the intersection of Arch Street, 12th Street, Placerita Canyon and Dockweiler Drive would be improved with one of three intersection design configurations. For an illustration of the proposed design configurations, see Figure 2-11, Option A - 5-Legged Intersection (Option A), Figure 2-12 - Option B – Traffic Circle, and Figure 2-13 – Option C - 3-Legged Intersection, respectively, in Section 2.0, Project Description.[1]

[1] *It should be noted that Figures 2-11, 2-12 and 2-13 are referred to for purposes of illustrating the three potential intersection configurations at the Arch Street/12th Street/Placerita Canyon/Dockweiler Drive intersection. Those figures show the closure of the 13th Street railroad crossing and intersection at Railroad Avenue, which would be retained in its current configuration under Alternative 1.*



Source: David Evans and Associates, May 2017.

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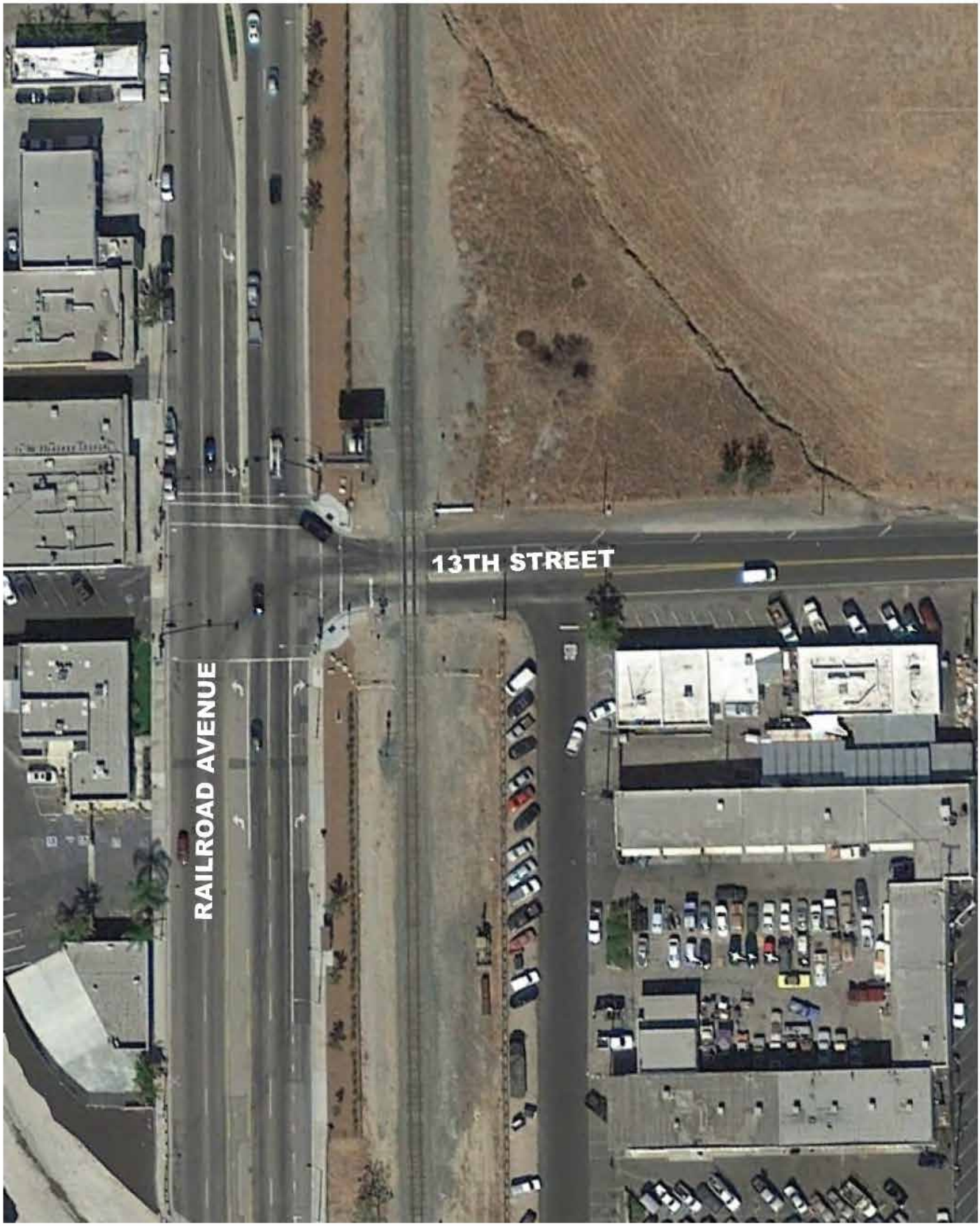
Figure 6.3-1
Alternative 1 Project



Source: Google Earch, 2017.

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Figure 6.3-2
13th Street and Railroad Avenue Existing Conditions (To Remain)

ENVIRONMENTAL ANALYSIS

Aesthetics

Temporary Construction Impacts

The Alternative 1 Project would similarly impact existing views and aesthetic character of the area by grading, stockpiles or debris and soil, building materials and construction equipment, all of which could occupy the field of view of passing motorists, pedestrians and nearby residents. The construction site would continue to be visible from the residential properties on Aden Avenue and from passing motorists on Lyons Avenue, Railroad Avenue, Market and Race Streets, and at the Arch Street/12th Street/Placerita Canyon intersection with the development of the Alternative 1 Project. Thus, the existing visual character of the approximate 5-acre Project Site would be adversely impacted throughout the duration of the construction period. Therefore, impacts related to aesthetic character of the area during construction would be the same as compared to the Proposed Project, where impacts would be considered significant but temporary. Implementation of Mitigation Measure 4.1-1 would also be recommended for the Alternative 1 Project.

Long Term Operational Impacts

Upon completion of the Alternative 1 Project the aesthetic character of the Project Site and its immediate surroundings would be permanently altered. Views of the intersection at Lyons Avenue and Railroad Avenue will be altered, as the Proposed Project includes re-profiling the intersection of Lyons Avenue and Railroad Avenue to allow the construction of a new SCRRA/Union Pacific railroad at-grade crossing east of Railroad Avenue and the addition of a new bridge crossing Newhall Creek. Views of the intersection of Lyons Avenue and Railroad Avenue and the hillside on the southeast portion of the Project Site will be altered by grading for the proposed roadway alignment. Views of the Project Site at the intersection of Railroad Avenue and 13th Street would be similar to existing views of the intersection, since the Alternative 1 Project includes the improvement of the at-grade railroad crossing. Like the Proposed Project, the roadway extension would be developed in accordance with the City's roadway standards and design guidelines to ensure the graded hillsides, medians, and walkways are landscaped in a manner that maintains the visual aesthetic quality and character of the City's roadway infrastructure. Therefore, impacts related to long-term operation would be the same as compared to the Proposed Project, which would have a less than significant impact.

Similar to the Proposed Project, Alternative 1 would require an oak tree permit for the loss of two oak trees that are located within the proposed grading limits and right-of-way alignment and a Hillside Review Permit for the grading of an existing hillside. Approval of the Oak Tree Permit and Hillside Review Permit would reduce aesthetic impacts to less than significant levels.

Alteration of A Significant Ridgeline

Similar to the Proposed Project, construction of the proposed roadway alignment under Alternative 1 will permanently alter a significant ridgeline as designated in the City of Santa Clarita General Plan. However, as noted in Section 4.1, Aesthetics, the eastern segment of the Dockweiler alignment was previously approved under a separate project entitlement for The Master's University in 2009, which included a Ridgeline Alteration Permit for the eastern segment of this ridgeline.[2] As part of the approved entitlements for The Master's University Master Plan in 2009, the irreversible grading and re-contouring of the ridgeline was approved to the western limit of the Master's University Campus. As shown in Figure 4.1-1, the grading limits of the Proposed Project would retain the gradual elevation profile of the base of the ridgeline leading to the Master's University Campus. Limited views of the altered portion of the ridgeline within the Proposed Project limits would be partially visible from the public rights-of-way along Market Street and Race Street to the south of the Project Site. As a project design feature the grading plan incorporates landform grading practices to blend the manufactured slopes and required drainage benches into the natural topography to the maximum extent feasible. Plant materials will be utilized to protect slopes from slippage and soil erosion and minimize the visual effects of grading and construction on a hillside area. With incorporation of the project design features to develop and improve a new roadway extension that is consistent with the City's roadway design standards, the Proposed Project would result in a less than significant impact with respect to the loss of an aesthetic natural feature. Therefore, impacts related to the loss of a significant ridgeline would be the same as compared to the less than significant impact anticipated for the Proposed Project. With approval of a Hillside Review Permit, aesthetic impacts associated with the grading of Alternative 1 would be reduced to less than significant levels.

Visual Character

Similar to the Proposed Project, the Alternative 1 Project would not introduce buildings or development that would block existing views or substantially degrade the visual character of the existing site. The Alternative 1 Project also includes pedestrian, equestrian, and bicycle improvements to Dockweiler Drive that would include wide sidewalks, Class II bike lanes on each side, and a multi-purpose trail on the east side. Class II bike routes will provide a striped lane for one-way bike travel and will be marked with signs and pavement striping. Multi-purpose trails are to be unpaved and will be available for equestrian, hiking, and mountain bike use. These project features would increase accessibility to scenic natural resources including the Newhall Creek and surrounding ridgelines and mountains. Therefore, impacts related to visual character would be less than significant.

Roadway Light and Glare

Ambient nighttime lighting for the Alternative 1 Project would be similar to that of the Proposed Project. The Alternative 1 Project would introduce nighttime lighting to the Project Area, which will include pole-mounted street lights at intersections, bollards along Dockweiler Drive, flashing safety lighting for the proposed at-grade crossing, and would contribute to additional light and glare from the headlights of

[2] *Ibid.*

vehicles utilizing the roadway. Lighting associated with the Alternative 1 Project uses is not anticipated to substantially impact any surrounding sensitive uses as the street lights would be installed with downward directional fixtures and would not create light trespass onto any adjacent properties. Light emanating from the Alternative 1 Project would be a relatively low-level indirect source of light illuminating the roadway and pedestrian walkways and would not adversely impact other properties in the immediate area. Additionally, the steep terrain and orientation of the southeastern portion of the Project Site would shield vehicle headlights, signage lighting and street lights from impacting the residential properties within the Placerita Canyon community to the east and along Market and Race Streets to the west. Overall, the Alternative 1 Project would be expected to slightly increase ambient lighting in the area, but compliance with the design standards and requirements established in the Santa Clarita Municipal Code Section 17.51.050 would mitigate lighting impacts to a less than significant level. Therefore, impacts related to roadway light and glare would be less than significant.

Air Quality

Construction

Construction of the Alternative 1 Project would occur over an approximately 12-month timeframe and would involve clearing, grading, excavation, trenching, and asphalt paving. Similar to the Proposed Project, construction of the Alternative 1 Project would require 4,990 cubic yards (cy) of cut, 2,760 cy of fill, and 2,230 cy of soil export associated with grading and excavation. Sources of emissions during construction include: stationary and mobile uses of construction equipment, construction vehicles (heavy-duty construction vehicles and worker vehicles), and energy use. Additionally, earthwork and construction activities would generate fugitive dust emissions. These construction-related emissions and their associated air quality impacts would be short-term in nature and limited only to the period when construction activity is actively taking place. The Alternative 1 Project's construction emissions would be below SCAQMD's significance thresholds for all criteria pollutants. Therefore, the Alternative 1 regional construction air quality emissions would be less than significant.

AQMP Consistency

The Alternative 1 Project would not exceed the AQMD's significance thresholds for regional construction emissions and thus would not increase the frequency or severity of existing air quality violations or cause or contribute to new air quality violations within the Basin. The Alternative 1 Project is consistent with the AQMP and would not interfere with attainment of air quality levels identified in the AQMP. Similar to the Proposed Project, the Alternative 1 Project would help reduce congestion and vehicles per miles travelled by providing sidewalks and bicycle lanes and by providing direct access from the residential area and Master's University area to the Jan Heidt Newhall Metrolink Station and Old Town Newhall. The Alternative 1 Project encourages alternative modes of transportation other than motor vehicles and would be consistent with the goals and objectives of the AQMP to reduce vehicle emissions throughout the Basin.

Localized Construction Emissions

Similar to the Proposed Project, the Alternative 1 Project would result in significant localized air emissions in close proximity to residential land uses within 100 meters of the Project Site on a temporary and intermittent basis during construction. Localized NOx and CO emissions would be below the significance thresholds at all sensitive receptor locations. However, localized thresholds would be exceeded for PM10 and PM2.5 emissions at two locations: (1) the single family residential land uses located immediately north of the Project Site (within a proximity of 100 meters) and (2) the residential land uses within 100 meters south of the Project Site in the vicinity of Market Street and Race Street. Localized emissions would be below the stated thresholds for any land use located further than 100 meters from the Project Site. Therefore, notwithstanding implementation of mitigation measures 4.2-1 through 4.2-4, localized air quality impacts resulting from construction activities would be considered significant and unavoidable.

Operational Emissions

Although the Alternative 1 Project would not directly generate any new vehicle trips, it would result in changes to the traffic circulation in the vicinity and would alter the average daily traffic volumes and peak hour traffic volumes at local intersections. A CO hotspot analysis was conducted for the Proposed Project, and as the Alternative 1 Project is within the same envelope as the Proposed Project, it was found that, under worst-case conditions, future CO concentrations at each intersection would not exceed the state 1-hour and 8-hour standards with or without the development of the Proposed Project. Therefore, no significant project-related impact would occur relative to future carbon monoxide concentrations of the Alternative 1 Project. The Alternative 1 Project would have a less than significant impact with respect to this criterion.

Biological Resources

Habitat Modification

Vegetation

The Alternative 1 Project Site grading plans for the roadway extension of Lyons Avenue to Dockweliler drive to the south, and Arch Street to the north, would be identical to the Proposed Project. The grading plans indicate that within the Project Site 2.32 acres of vegetation would be removed (100 percent of the vegetation resources present). Of the vegetation communities impacted Disturbed California Sagebrush-California Buckwheat Scrub is the dominant plant community present by area and approximately 0.63 acre of this habitat would be lost through site grading and project implementation. The loss of 2.32 acres of vegetation is considered adverse; although, due to the Site's disturbance history, its small size, the lack of sensitive plant communities, the lack of structure for wildlife, and high percentage of invasive and non-native plant species generally associated with disturbed areas, impacts associated with the loss of 2.32 acres of vegetation present on-site is considered less than significant. Similar to the Proposed Project, this alternative would require the removal of two oak trees, which would be considered a significant impact under both the City of Santa Clarita and CEQA. Replacement oak trees would be planted in the

number necessary to comply with the requirements stipulated in the Oak Tree Permit issued by the City. With approval of the required oak tree permits, and implementation of Mitigation Measure 4.3-7, impacts upon the loss or pruning of any oak tree would be reduced to less than significant levels.

Wildlife

Similar to the Proposed Project, construction activity and grading operations of the Project Site for the Alternative 1 Project would disturb and/or threaten the survival of common wildlife species present on-site. It is expected that species of low mobility, particularly small mammals, amphibians, and reptiles, would be lost during site preparation, grading, and construction. Site grading and project implementation would eliminate approximately 2.32 acres of natural habitat present on-site, and would result in an incremental reduction in native wildlife species abundance and diversity. However, due to nearby urban development and the associated human disturbance, field investigations indicate wildlife diversity and abundance on the Project Site is relatively low. Most the species of mammals, birds, and reptiles observed on-site or thought to occur on-site are relatively common. Project implementation is not expected to cause current wildlife population of common species on or adjacent to the Project Site to drop below self-sustaining levels. Therefore, impacts to common wildlife species are not considered significant.

Project-related activities associated with site preparation and construction could result in the direct loss of individuals of one special-status wildlife species (the silvery legless lizard) and of active nests or the abandonment of active nests by adult birds should grading occur during nesting season. The loss of a California species of special concern and active bird nests would be a considered significant without mitigation. Implementation of mitigation measures 4.3-2 and 4.3-3 would reduce impacts to the silvery legless lizard and nesting birds to a less than significant level.

Federally Protected Wetlands

Based on field investigations, two CDFW jurisdictional features occur within the Project Site, the Newhall Creek and a small ephemeral drainage that is a tributary to Newhall Creek. There is also a small area of narrow-leaf willow thicket, which probably does not qualify as a Federally jurisdictional wetland. The Alternative 1 Project would result in both temporary and permanent impacts to the areas of the Newhall Creek and its associated tributary and are classified as “riverine and related permanent water, with continuous flow at least seasonally.” With the implementation of MM 4.3-3, impacts to jurisdictional resources would be reduced to a less than significant level.

Wildlife Movement and Corridors

The Project Site for Alternative 1 is generally surrounded on three sides by development and road networks. However, Newhall Creek does extend through the Site and provides passage through developed areas between the Santa Clarita River and the Angeles National Forest to the southeast and is considered a part of a wildlife movement or migration corridor. To limit impacts to wildlife movement, four 25-foot wide and 8-foot deep openings in a concrete box bridge with 80-foot wide soft base and 2:1 protected side slopes is proposed where the proposed roadway extension crosses Newhall Creek. As designed, this bridge would not result in any barrier to wildlife movement and would serve to protect Newhall Creek as

a functioning wildlife movement corridor. The Alternative 1 Project as proposed would not result in significant impacts to wildlife movement.

Construction Activity

Construction-related activities, particularly site clearing, grading, and the implementation of the road surface, could have adverse effects on plant and wildlife habitat, and together, would be considered a significant impact. Implementation of Mitigation Measure 4.3-4 would reduce these construction-related impacts to a less than significant level.

Operation

Increase in Populations of Non-Native Species

Non-native plants and wildlife are expected to increase on-site, because these species are more adapt to urban environments and can out-compete native species. Historical and ongoing development in the vicinity of the Project Site has already supported continual and ongoing increase and proliferation of non-native plant and wildlife species in the vicinity of the Project Site. Development of the Alternative 1 Project is not expected to substantially increase the distribution of non-native plants and wildlife. With compliance to the mitigation measure 4.3-5, Project impacts would be less than significant.

Increased Light and Glare

It is anticipated that nighttime lighting would increase in areas adjacent to the Project Site, which can disturb breeding and foraging behavior, movement, and can potentially alter breeding cycles of birds, mammals, and nocturnal invertebrates. Because of surrounding development around the Project Site, nearby natural areas already receive some nighttime lighting. The Alternative 1 Project would increase light and glare effects near to the Newhall Creek corridor. Implementation of mitigation measure 4.3-6 would decrease this impact to a less than significant level.

Stormwater and Urban Runoff

Similar to the Proposed Project, it is expected that stormwater runoff from the Alternative 1 Project would be limited to pavement runoff during periodic storm events. It is reasonable to assume runoff could substantially affect special-status species potentially occurring downstream from the Project Site (i.e. Newhall Creek), incrementally diminish habitat, and degrade the quality of the environment. With the compliance to City's standard stormwater requirements and required design criteria, impacts to Newhall Creek resulting from Stormwater runoff would be less than significant.

Cultural Resources

Cultural and Historic Resources

No cultural or historic habitable structures are located on-site, and as such, the Alternative 1 Project would not have the potential to adversely impact any historic or cultural resources.

Archaeological Resources

No known archeological sites are identified within the Project Site for the Alternative 1 Project. While, portions of the Project Site are improved with roadways, the Alternative 1 Project will consist of earthwork activities, such as grading and excavation, in areas that are currently undeveloped. Construction-related earthwork activities may result in the accidental discovery of prehistoric or historic archaeological resources or Native American burial sites. Implementation of mitigation measures 4.4-1 will reduce impacts to a less than significant level.

Paleontological Resources

The records search conducted by the Vertebrate Paleontology Department of the Natural History Museum of Los Angeles County yielded no known fossil localities within the Project Site. The closest vertebrate fossil localities are from the Saugus Formation, located directly north of the Proposed Project Site. While it is possible that fossilized materials may be discovered during site preparation and construction, specifically grading and excavation activities, precautionary measures set forth in mitigation measure 4.4-2 would reduce any potential adverse impacts to paleontological resources to a less than significant level.

Tribal Cultural Resources

Similar to the Proposed Project, Alternative 1 would not have a direct impact upon known tribal cultural resources. Nevertheless, provisions for the identification and evaluation of accidentally discovered archeological resources would be implemented in accordance with mitigation measure 4.4-1. With the incorporation of mitigation measure 4.4-1, impacts upon tribal resources would be less than significant.

Geology And Soils

The Project Site is underlain by Saugus Formation, Pacoima Formation, Quaternary alluvium and artificial fill and has historic high groundwater elevations greater than 50 feet in depth. The Project Site is located in the State of California Seismic Hazard Zone map for the Newhall Quadrangle. Hazards related to seismic-related ground failures (including ground rupture and liquefaction) are considered low.

All slopes should be evaluated by the Project Geotechnical engineer at the planning and design stages. The hillside area of the site is designated on the State of California Seismic Hazard Zone Map to have earthquake-induced slope instability. No landslides have been mapped on the Project Site. Remedial measures will be required where ascending or descending cut slopes are not stable as determined by geologic or geotechnical stability analyses. The potential for earthquake-induced slope failures is considered low provided that future geologic and geotechnical evaluations and recommendations for slope stability is incorporated into design and construction.

Additionally, specific recommendations for design and construction should be provided to address soil stability, including: hydro-compression, expansive soils, rippability, the handling of oversized material, soil corrosivity, shirking and bulking of materials, and the handling of the need for retaining wall.

No oil wells have been drilled on or immediately adjacent to the Project Site. If any undocumented oil wells are encountered during future construction operations at the site, their location(s) should be surveyed and the current well conditions evaluated. Water wells have been drilled in the vicinity of the proposed road alignments. If one of these water well is within the proposed road alignment, or if a water well is encountered during future construction operations at the site, the location should be surveyed and the potential impacts to well conditions should be evaluated. The implementation of mitigation measure 4.5-1 would insure that potential Alternative 1 Project impacts would be reduced to a less than significant level.

Hydrology And Water Quality

Construction

During the construction phase, the typical pollutants that affect surface water quality are: sediment from soil erosion, petroleum products (gasoline, diesel, kerosene, oil and grease), hydrocarbons from asphalt paving, construction equipment leaks, paints and solvents, detergents, fertilizers, and pesticides. Similar to the Proposed Project, the Alternative 1 Project would be required to prepare and implement a SWPPP prior to earthwork activities that will put best management practices and erosion control measures to prevent pollution in stormwater discharge. All project construction activities would comply with the City's grading permit regulations, which require the implementation of grading and dust control measures, including a wet weather erosion control plan if construction occurs during rainy season, as well as inspections to ensure that sedimentation and erosion is minimized. Therefore, through compliance with NPDES requirements and City grading regulations, the Alternative 1 Project's construction impacts related to water quality would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality. Construction-related impacts to hydrology and water quality would therefore be less than significant.

Operation

Once the Alternative 1 Project has been constructed, urban runoff could include the aforementioned contaminants, trace metals, landscape maintenance debris, dry product spills, and "nuisance flows" from landscape irrigation during the dry-season. In accordance with NPDES requirements, the Project Applicant would be required to have a Project-specific SUSMP in place during the operational life of the Project to address the management of runoff from the proposed roadway extension. The SUSMP would include site design, source control, low-impact development, and best management practices. Therefore, implementation of the storm water quality plan would reduce water quality impacts during the Alternative 1 Project's operation to less than significant.

Inundation and Flooding

A post-Project hydraulic model was analyzed for the Proposed Project to understand the impacts of inundation and flooding. The result of the post-Project hydraulic model indicate that the proposed bridge and channel improvements can accommodate the Capital Flood and will not create any flood hazard for the adjacent railroad and proposed street improvements. Riprap and vegetation linings are recommended

for the high and moderate shear zones, respectively. As the Alternative 1 Project is generally the same as the Proposed Project, with respect to the roadway extension from Lyons Avenue to Dockweiler Drive to the south and Arch Street to the north, the same aforementioned conclusions and recommendations are applicable to the Alternative 1 Project.

Land Use And Planning

Implementation of the Alternative 1 Project would not disrupt or physically divide an established community. Monument signage will properly guide traffic and identify the entrance to the Placerita Canyon community as a residential community with no through access. Additionally, similar to the Proposed Project, the Alternative 1 Project will provide increased pedestrian and vehicular access in the area.

The Alternative 1 Project would not conflict with any applicable land use plans, policies, or regulations, including: the Regional Transportation Plan / Sustainable Communities Strategy, City of Santa Clarita Municipal Code, City of Santa Clarita General Plan (including the Circulation Element), the Placerita Canyon Special Standards District and North Newhall Area, Old Town Newhall Specific Plan, and the Compass Blueprint Concept Plan. As such, implementation of Project Alternative 1 would create a less than significant impact with regards to land use and planning.

Similar to the Proposed Project, Alternative 1 would require an oak tree permit for the loss of two oak trees that are located within the proposed grading limits and right-of-way alignment and a Hillside Review Permit for the grading of an existing hillside. Approval of the Oak Tree Permit and Hillside Review Permit would reduce land use impacts to less than significant levels.

Noise

Construction

Similar to the Proposed Project, construction of the Alternative 1 Project would require the use of heavy equipment for ground clearing, site grading, and roadway construction. Several pieces of construction equipment operating simultaneously would generate a noise level of approximately 94.6 dBA. The estimated construction noise levels impacting sensitive receptors are expected to exceed the City's daytime noise standards for residential uses (see Table 4.8-8). The construction noise levels would therefore constitute a significant impact.

Operational

Similar to the Proposed Project, the Alternative 1 Project is anticipated to alter roadway traffic volumes as the Alternative 1 Project would create a new roadway segment connecting Lyons Avenue to Dockweiler Drive. Locations in the vicinity of the Project Site could experience slight changes in noise levels as a result of the change in traffic patterns. The changes in future noise levels along the study-area roadway segments in the project vicinity are for the Proposed Project's near term (Year 2019) impacts would increase local noise levels by a maximum of 2.7 dBA CNEL (at the location of Dockweiler Drive

(between Sierra Highway and Valle del Oro). This increase would be inaudible/imperceptible to most people and would not exceed the identified thresholds of significance. At all other roadway segments, the resulting noise levels are anticipated to decrease. As such the Alternative 1 Project's potential to generate a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project would be less than significant.

The Future (2019) With Project noise levels on the new roadway segment from Lyons Avenue to Valle del Oro are expected to be 63.3 dBA (CNEL) within 50 feet of the centerline of the roadway. The resulting noise levels at the three identified sensitive receptors would be below 52.9 dBA. Thus, the anticipated with project noise levels at all off-site receptor locations would be within the "normally acceptable" range of noise for residential areas. Therefore, the Alternative 1 Project's noise impacts would be less than significant.

Transportation and Traffic

Alternative 1 to the Proposed Project utilizes the City of Santa Clarita's General Plan proposed alignment for Dockweiler Drive, which identifies the connection of Dockweiler Drive to extend to Arch Street. The Alternative 1 Project would extend Lyons Avenue from its existing terminus at Railroad Avenue, eastward to Dockweiler Drive to provide a T-intersection. Included in the Alternative 1 is re-profiling the intersection of Lyons Avenue and Railroad Avenue to allow the construction of a new SCRA/UP railroad grade crossing east of Railroad Avenue. Alternative 1 is illustrated in Figure 6.3-1. Alternative 1 differs from the Proposed Project by retaining the existing railroad crossing at 13th Street instead of removing it.

The following section addresses Alternative 1 Project's impact on transportation and traffic based on the Traffic Study titled, *Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA*, prepared by David Evans and Associates, dated August 8, 2017. The complete Traffic Study is included in Appendix H to this Draft EIR.

Opening Year (2019) Conditions With Alternative 1 Project

The Santa Clarita Valley Consolidated Traffic Model (SCVCTM) for Interim Year provided traffic volumes for the Project Year 2019 with the Alternative 1 Project Condition. The model plots outlined the distribution of future traffic with the construction of the Alternative 1 Project. The Project Year 2019 Alternative 1 study intersections are provided in Figure 6.3-3, and the volumes provided in Figure 6.3-4.

The analysis for the intersection of Arch Street/Dockweiler Drive and 12th Street/Placerita Canyon Road was conducted as a 5-leg all way stop controlled intersection. The analysis for the intersection of Lyons Avenue and Dockweiler Drive was conducted as a signalized intersection. Unlike the Proposed Project, the intersection of Railroad Avenue and 13th Street would continue to operate.

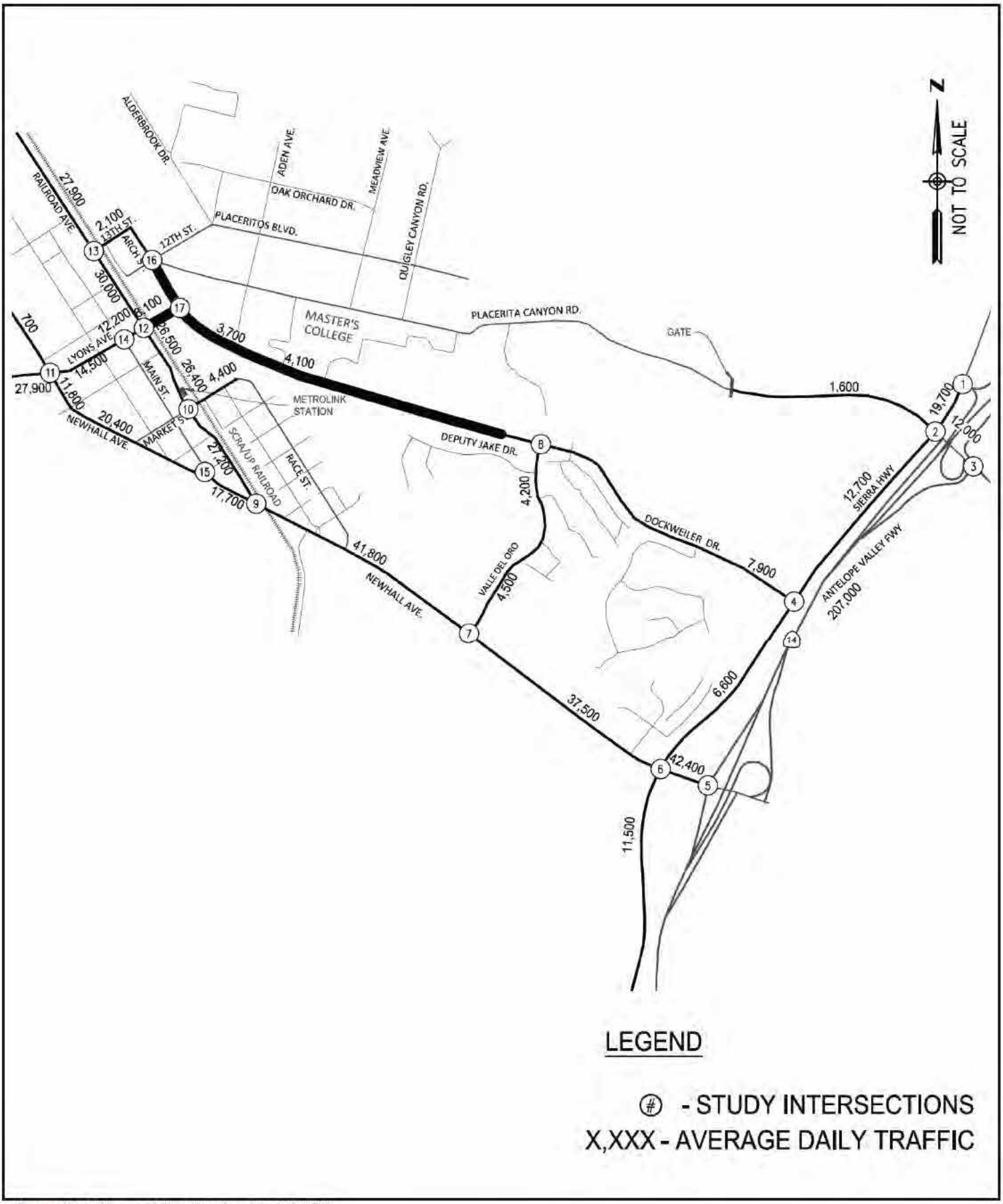
The intersections were analyzed using the capacity analysis methodology. The analysis was conducted with the Project Year 2019 with Alternative 1 Project existing and mitigated study intersection geometrics illustrated in Figure 6.3-5. The LOS for the study intersections presented in Table 6.3-1 represents the LOS for the critical movement. This is typically the stop controlled left turn from the minor street.

As presented in Table 6.3-1 under Year 2019 with Alternative 1 Condition, most of the study intersections are anticipated to continue to operate at LOS E or better. Like the Proposed Project, the same four intersections are anticipated to operate at LOS F, they are: Sierra Highway and SR-14 Southbound Ramps, Sierra Highway and Placerita Canyon Road, SR-14 Northbound Ramps and Placerita Canyon Road, SR-14 Southbound Ramps and Newhall Avenue. The same mitigation measures presented for the Proposed Project would generally be necessary to accommodate the anticipated Year 2019 traffic and reduce potential impacts for the Alternative 1 Project.

Table 6.3-1
Intersection Capacity Analysis – Year 2019 with Alternative 1 Project Condition

Intersection	AM		PM	
	Delay [a]	LOS [b]	Delay [a]	LOS [b]
1. Sierra Highway and SR-14 Southbound Ramps [c]	75.1	F	99.99 [e]	F
Mitigation (Traffic Signal and Lane Modification)	16.6	B	22.3	C
2. Sierra Highway and Placerita Canyon Road	26.6	C	100.0 [e]	F
Mitigation (Lane Modification)	22.8	C	48.8	D
3. SR-14 Northbound Ramps and Placerita Canyon Road [c]	12.9	B	99.99 [e]	F
Mitigation (Traffic Signal)	14.8	B	14.7	B
4. Sierra Highway and Dockweiler Drive	15.5	B	12.1	B
5. SR-14 Southbound Ramps and Newhall Avenue [c]	99.99 [e]	F	99.99 [e]	F
Mitigation (Traffic Signal and Lane Modification)	5.6	A	5.1	A
6. Sierra Highway and Newhall Avenue	27.2	C	29.4	C
7. Valle Del Oro and Newhall Avenue	15.8	B	12.4	B
8. Valle Del Oro and Dockweiler Drive [c]	12.8	B	15.8	C
9. Railroad Avenue and Newhall Avenue	21.3	C	23.1	C
10. Railroad Avenue and Market Street	26.7	C	18.0	B
11. Newhall Avenue and Lyons Avenue	50.0	D	59.2	E
Mitigation (Lane Modification)	29.4	C	33.4	C
12. Railroad Avenue and Lyons Avenue	31.3	C	33.7	C
13. Railroad Avenue and 13th Street	11.6	B	14.2	B
14. Main Street and Lyons Avenue	18.4	B	16.4	B
15. Main Street and Newhall Avenue [d]	21.8	C	18.2	C
16. Arch Street/Dockweiler, 12th Street, Placerita Canyon Road [c]	8.5	A	8.9	A
17. Lyons Avenue and Dockweiler Drive	21.7	C	25.4	C

Notes:
[a] *Delay – In Seconds*
[b] *LOS – Level of Service*
[c] *Un-Signalized Intersection*
[d] *Roundabout Intersection*
[e] *99.99 – Intersection Delay Exceeds Level of Service Standard*
Source: David Evans and Associates, Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA, August 8, 2017.



Source: David Evans and Associates Inc, August 8, 2017.

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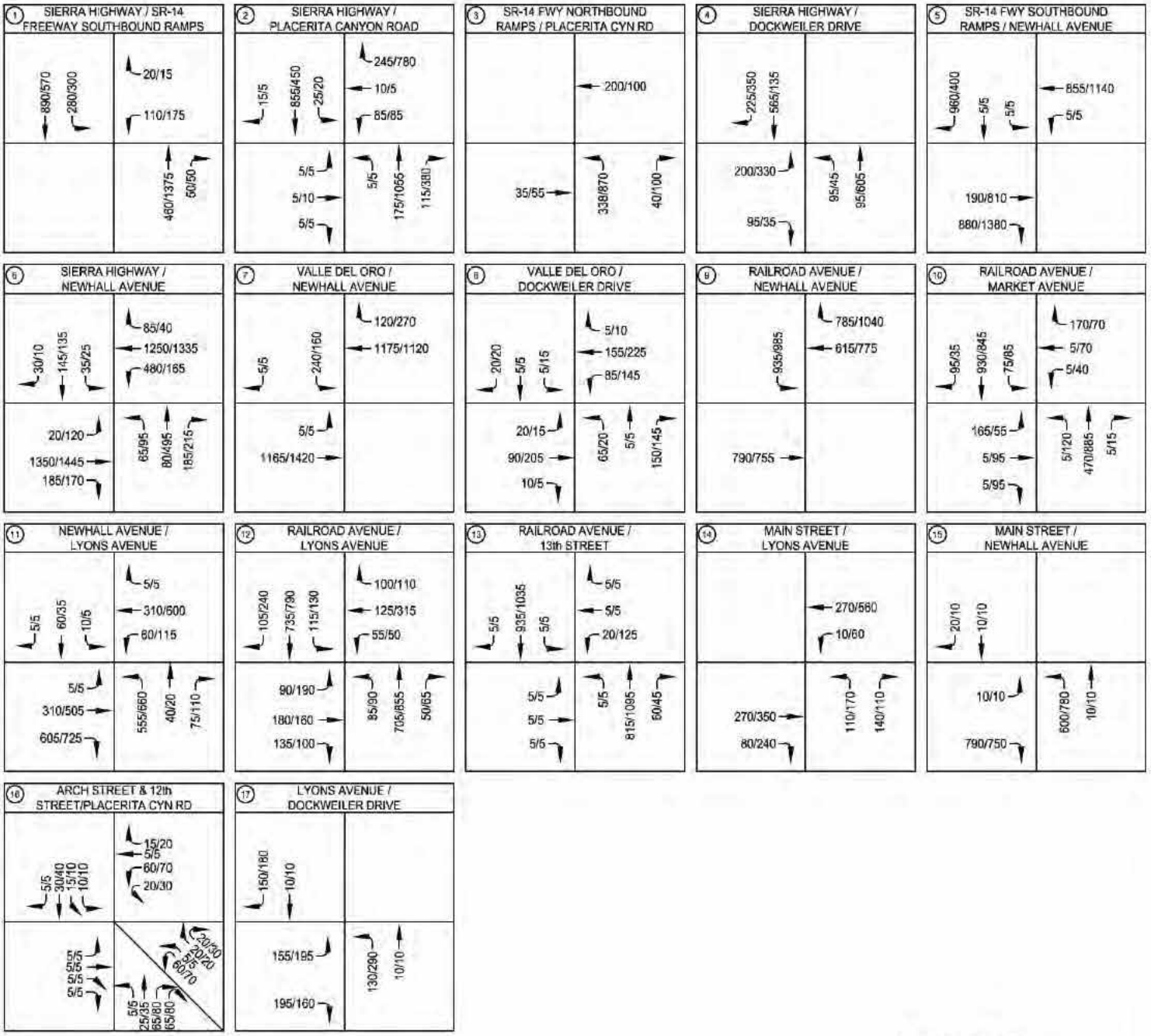
Figure 6.3-3
Project Year 2019 Alternative 1 Study Intersections



LEGEND

(#) - STUDY INTERSECTIONS

XX/XX - AM/PM PEAK HOUR VOLUMES

Source: David Evans and Associates Inc, August 8, 2017.

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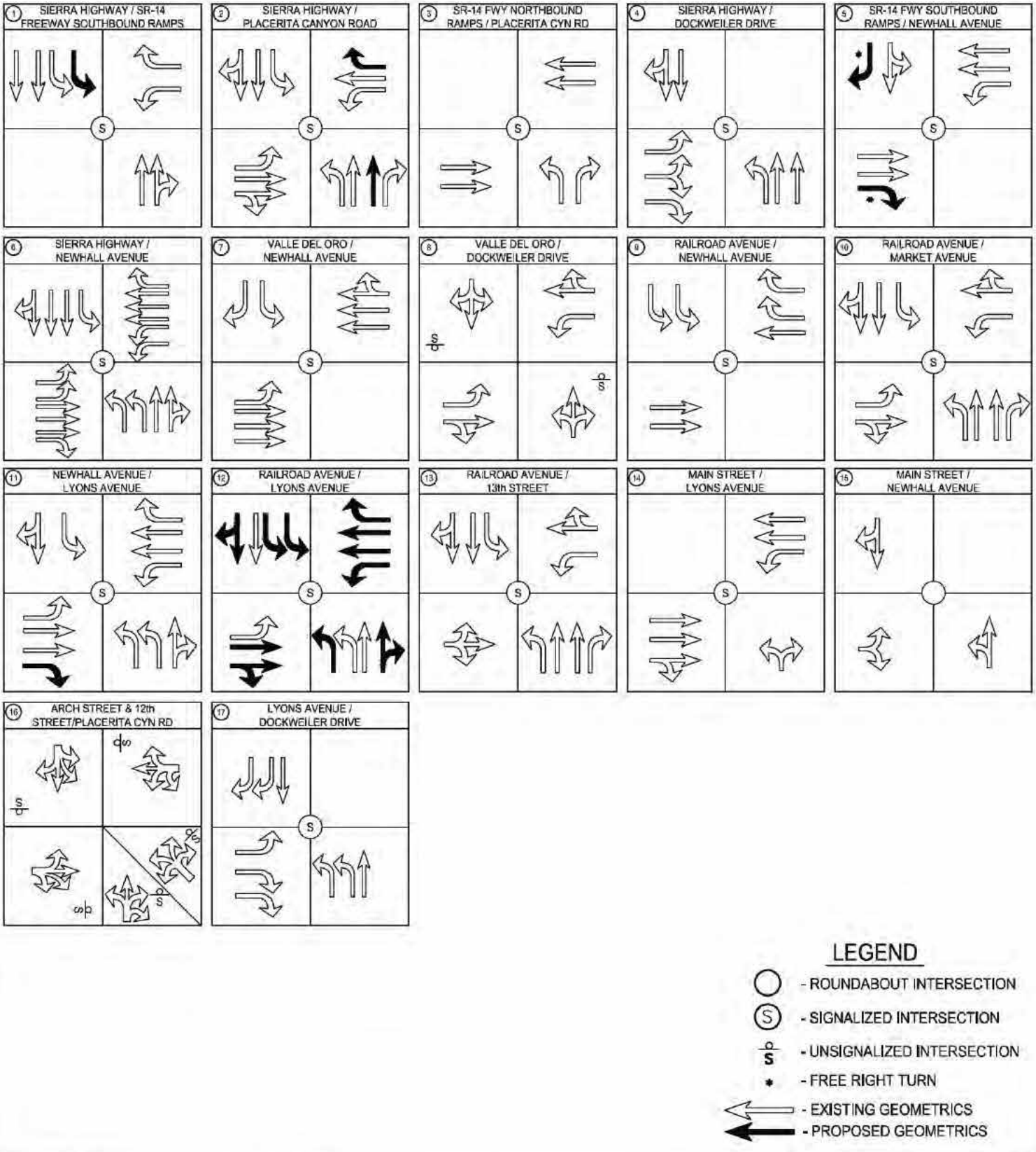
Figure 6.3-4
Project Year 2019 Alternative 1 Traffic Volumes



Source: David Evans and Associates Inc, August 8, 2017.

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Figure 6.3-5
Project Year 2019 Alternative 1 Intersection Configurations

With mitigation, the Sierra Highway and SR-14 Southbound Ramp intersection (Study Intersection 1) levels of service will increase from LOS F to LOS B and LOS C during the AM and PM peak hours, respectively. With mitigation, the Sierra Highway and Placerita Canyon Road intersection (Study Intersection 2) level of service will remain the same at LOS C during the AM peak hour and would increase from LOS F to LOS D during the PM peak hour. With mitigation, the SR-14 Northbound Ramps and Placerita Canyon Road intersection (Study Intersection 3) level of service will remain the same at LOS B during the AM peak hour and would increase from LOS F to LOS B during the PM peak hour. With mitigation, the SR-14 Southbound Ramps and Newhall Avenue intersection (Study Intersection 5) levels of service will increase to LOS A from LOS F during both AM and PM peak hours. With the implementation of the mitigation measures summarized in Section 4.9, Traffic and Traffic, Alternative 1 Project's impacts during the 2019 build-out year would also be less than significant. However, Alternative1 would not require implementation of mitigation measures 4.9-5 and 4.9-10, as compared to the Proposed Project. Therefore, the Proposed Project and the Alternative 1 Project would both result in a less than significant impact after mitigation.

Future (2035) Conditions With Alternative 1 Project

The Santa Clarita Valley Consolidated Traffic Model (SCVCTM) for Build-Out Year provided traffic volumes for the Future Year 2035 with Alternative 1 Condition. The model plots outlined the distribution of future traffic with the construction of the Alternative 1 Project. The analysis of Alternative 1 utilizes the traffic volume projections for the City of Santa Clarita's traffic model together with the existing traffic flow data. The traffic projections are based on the General Plan Buildout. Like the Proposed Project, the buildout includes construction of future roadways Dockweiler Drive between Railroad Avenue and Valle Del Oro, Magic Mountain Parkway from Railroad Avenue to Via Princessa, Via Princessa between Claibourne Lane and Sheldon Avenue, and Santa Clarita Parkway. This also includes the proposed conceptual development of the North Newhall area (809 dwelling unit plus an approximate 11-acre commercial land use). The Future Year 2035 Alternative 1 study intersections are provided in Figure 6.3-6 and the volumes are provided in Figure 6.3-7.

The intersections were analyzed using the capacity analysis methodology. The analysis was conducted with the Future Year 2035 Alternative 1 Project Condition existing and mitigated study intersection geometrics illustrated in Figure 6.3-8. The LOS for the study intersections presented in Table 6.3-2 represents the LOS for the critical movement. This is typically the stop controlled left turn from the minor street.

As presented in Table 6.3-2 under Future Year 2035 with Alternative 1 Project Condition, several of the study intersections are anticipated to operate at LOS F. There are four intersections that are anticipated to operate at LOS F, they are: Sierra Highway and Placerita Canyon Road, Sierra Highway and Newhall Avenue, Valle Del Oro and Dockweiler Drive, and Main Street and Newhall Avenue. Similar to the Proposed Project, mitigation measures are necessary to accommodate the anticipated Future Year 2035 traffic and reduce potential Alternative 1 Project impacts.

With mitigation, the Sierra Highway and Placerita Canyon Road intersection (Study Intersection 2) levels of service will increase to LOS D during both AM and PM peak hours. With mitigation, the Sierra Highway and Newhall Avenue intersection (Study Intersection 6) levels of service will increase from LOS E to LOS D during the AM peak hour and LOS F to LOS D during the PM peak hour. With mitigation, the Valle Del Oro and Dockweiler Drive intersection (Study Intersection 8) levels of service will increase to LOS C and LOS D during the AM and PM peak hours, respectively. With mitigation, the Main Street and Newhall Avenue intersection (Study Intersection 15) levels of service will increase from LOS F to LOS B during the AM peak hour and LOS E to LOS A during the PM peak hour. With the implementation of the mitigation measures identified in Section 4.9, Transportation and Traffic, the Alternative 1 Project's impacts during the 2035 year will be less than significant. Therefore, the Proposed Project and the Alternative 1 Project would both result in a less than significant impact after mitigation.

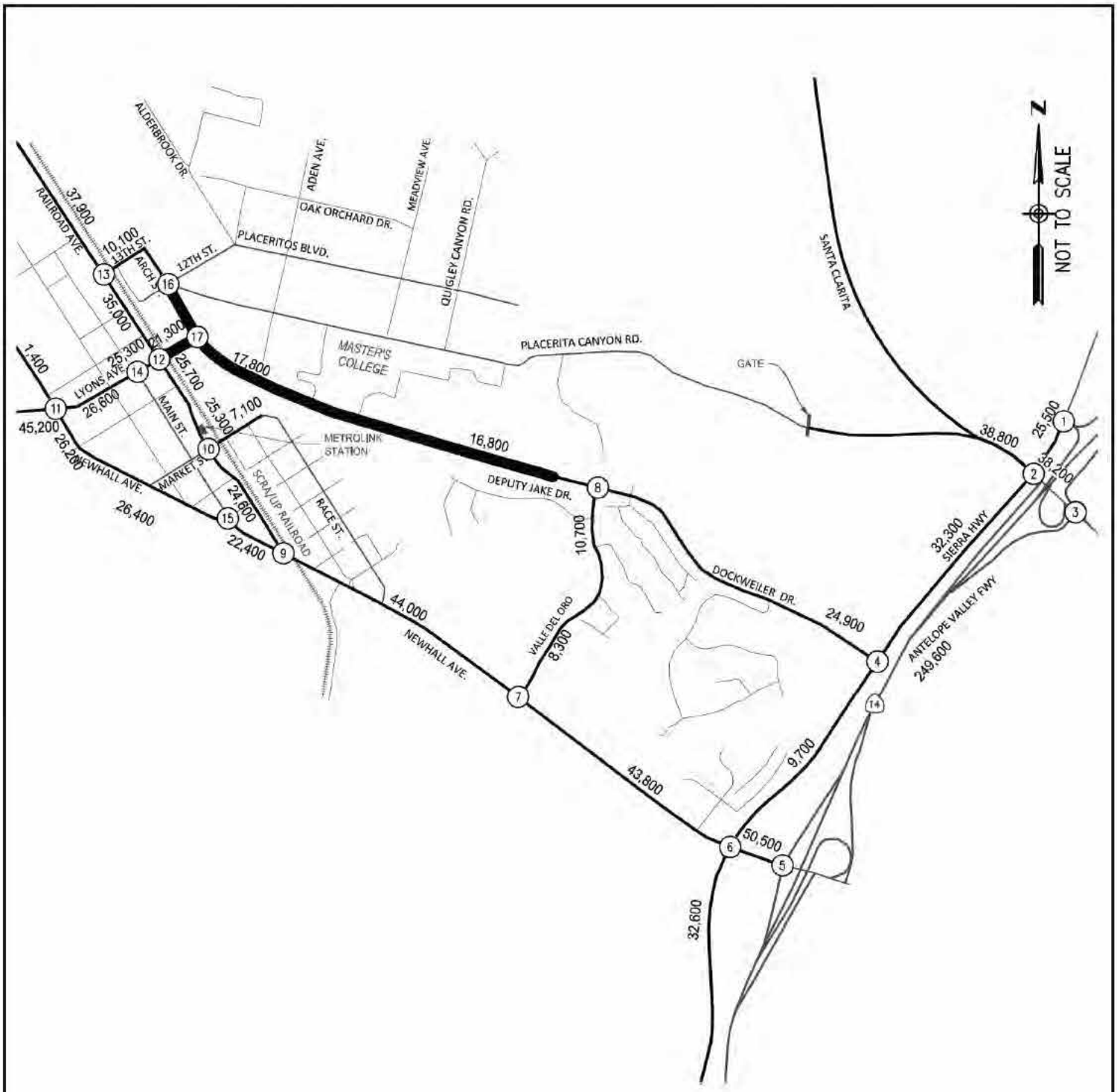
Table 6.3-2
Intersection Capacity Analysis – Year 2035 with Alternative 1 Project Condition

Intersection	AM		PM	
	Delay [a]	LOS [b]	Delay [a]	LOS [b]
1. Sierra Highway and SR-14 Southbound Ramps [c]	41.4	D	44.3	D
2. Sierra Highway and Placerita Canyon Road	99.99 [e]	F	99.99 [e]	F
Mitigation (Lane Modification)	39.0	D	40.7	D
3. SR-14 Northbound Ramps and Placerita Canyon Road [c]	23.9	C	58.3	E
4. Sierra Highway and Dockweiler Drive	18.8	B	69.5	E
5. SR-14 Southbound Ramps and Newhall Avenue [c]	6.4	A	6.3	A
6. Sierra Highway and Newhall Avenue	61.8	E	99.99 [e]	F
Mitigation (Lane Modification)	53.6	D	39.1	D
7. Valle Del Oro and Newhall Avenue	16.0	B	14.7	B
8. Valle Del Oro and Dockweiler Drive [c]	99.99 [e]	F	99.99 [e]	F
Mitigation (Traffic Signal and Lane Modification)	22.7	C	39.6	D
9. Railroad Avenue and Newhall Avenue	19.0	B	24.1	C
10. Railroad Avenue and Market Street	26.4	C	20.6	C
11. Newhall Avenue and Lyons Avenue	39.5	D	56.1	E
12. Railroad Avenue and Lyons Avenue	37.8	D	47.9	D
13. Railroad Avenue and 13th Street	21.3	C	44.4	D
14. Main Street and Lyons Avenue	16.8	B	17.4	B
15. Main Street and Newhall Avenue [d]	57.5	F	48.2	E
Mitigation (Lane Modification)	10.8	B	9.0	A
16. Arch Street/Dockweiler, 12th Street, Placerita Canyon Road [c]	8.3	A	8.6	A
17. Lyons Avenue and Dockweiler Drive	21.7	C	25.8	C

Notes:

[a] *Delay – In Seconds*
[b] *LOS – Level of Service*
[c] *Un-Signalized Intersection*
[d] *Roundabout Intersection*
[e] *99.99 – Intersection Delay Exceeds Level of Service Standard*

Source: David Evans and Associates, Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA, August 8, 2017.



Source: David Evans and Associates Inc, August 8, 2017.

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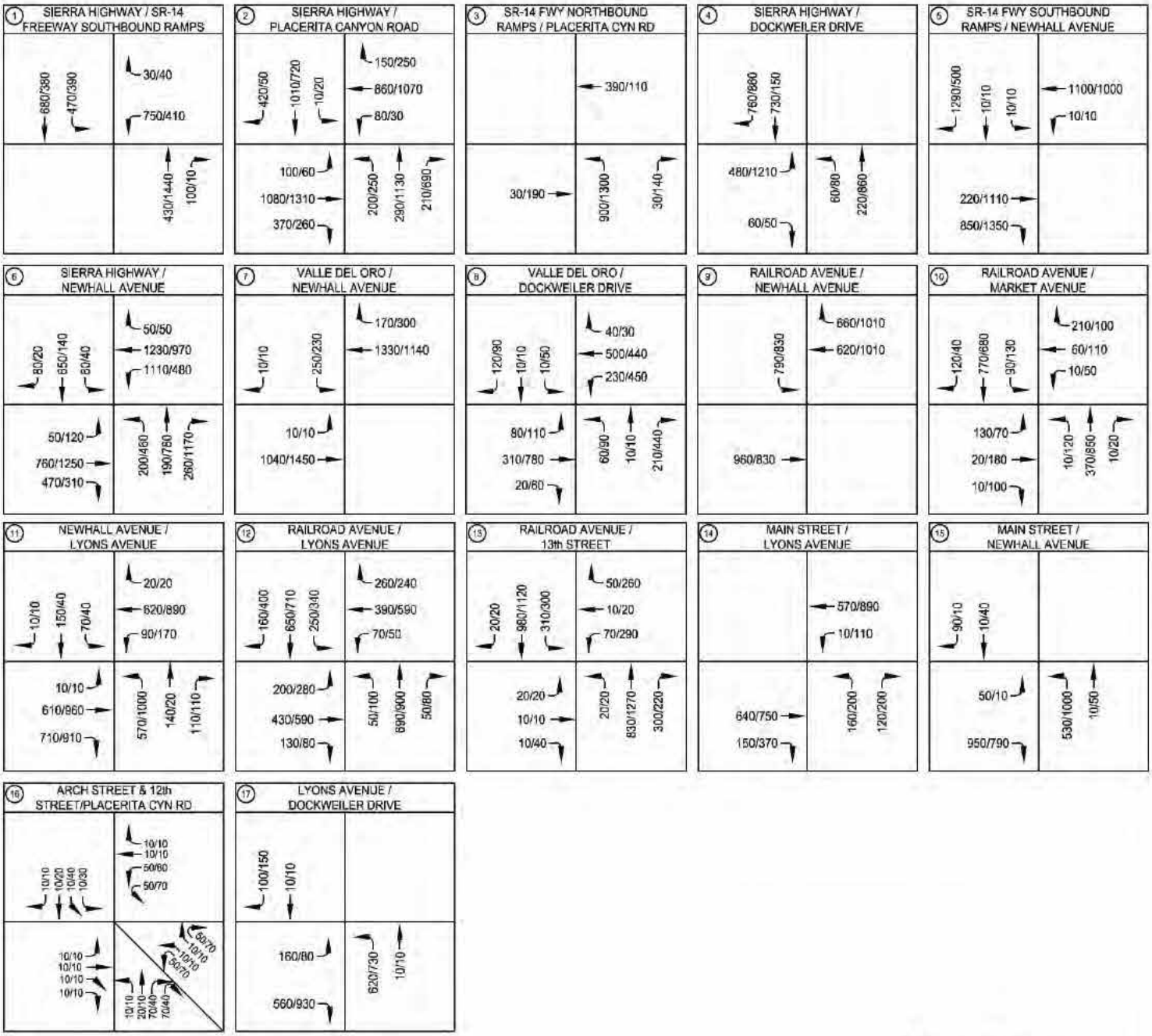
Figure 6.3-6
Project Year 2035 Alternative 1 Study Intersections



LEGEND

(#) - STUDY INTERSECTIONS

XX/XX - AM/PM PEAK HOUR VOLUMES

Source: David Evans and Associates Inc, August 8, 2017.

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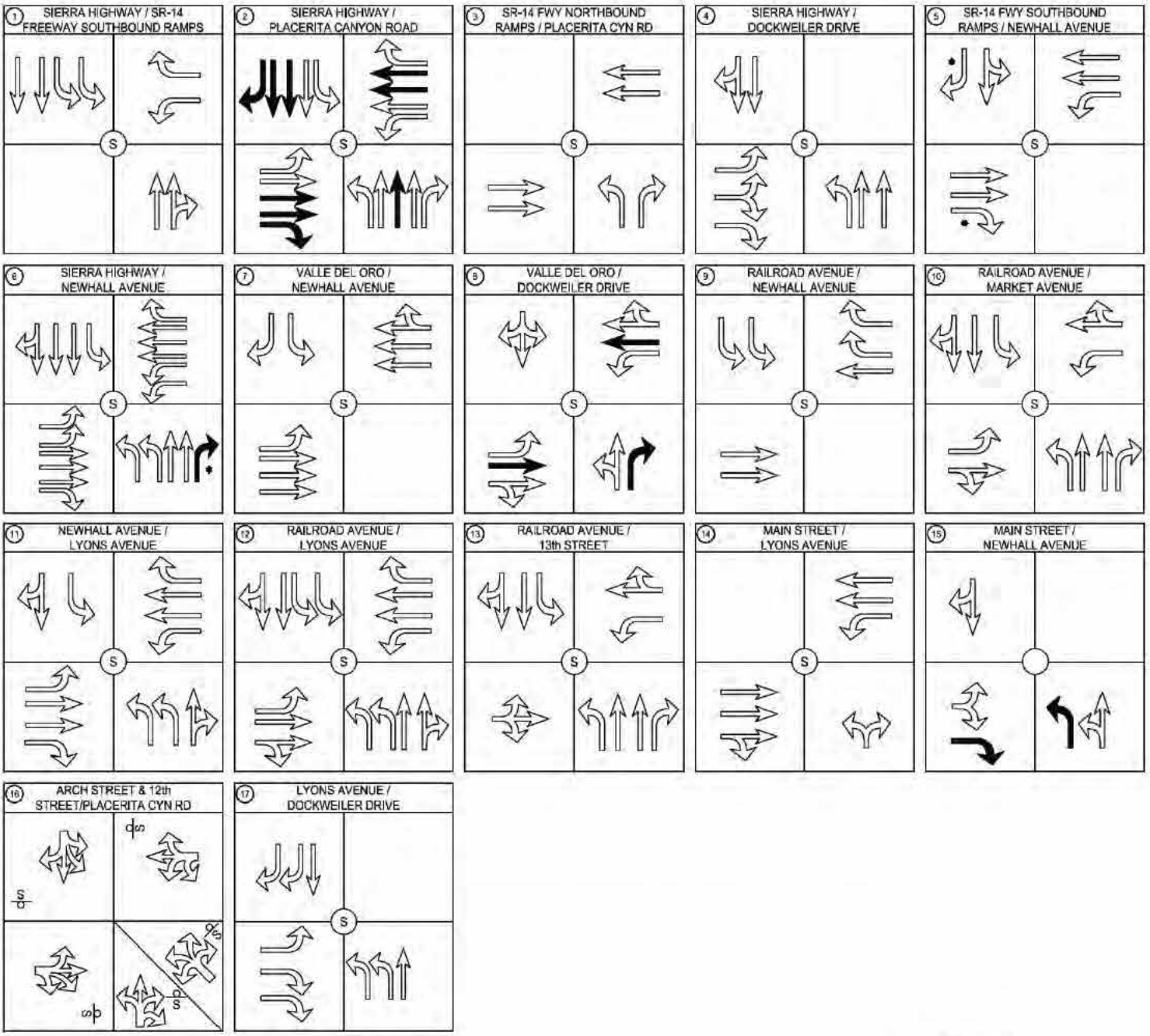
Figure 6.3-7
Project Year 2035 Alternative 1 Traffic Volumes



Source: David Evans and Associates Inc, August 8, 2017.

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Figure 6.3-8
Project Year 2035 Alternative 1 Intersection Configurations

Railroad Crossing Analysis

Similar to the Proposed Project, a comparison of the No Build scenario, the Proposed Project scenario, and the Alternative 1 Project scenario for Daily, AM and PM Peak hour traffic volumes were compiled for the Year 2019 and 2035 conditions as presented in Table 6.3-3 and Table 6.3-4, respectively. Existing conditions remain the same as reported in Section 4.9, Transportation and Traffic. As presented in Table 6.3-3 under Alternative 1 Year 2019, the total average daily railroad crossings is anticipated to be higher under the No Build Condition as compared to the Proposed Project and Alternative 1. Alternative 1 total average daily railroad crossings would result in 3,230 fewer crossings than the No Build condition but would result in 2,340 more railroad crossings than the Proposed Project condition. As presented in Table 6.3-4 under Alternative 1 Year 2035, the total average daily traffic is anticipated to be highest for the Alternative 1 condition as compared to the Proposed Project and No Build Scenario. Alternative 1 total average daily railroad crossings would result in 5,370 more crossings than the No Build condition and 2,510 more railroad crossings as compared to the Proposed Project condition. Accordingly, Alternative 1 would not be preferable over the Proposed Project with respect to minimizing railroad crossings.

Bicycle and Pedestrian Facilities

Similar to the Proposed Project, the Alternative 1 would comply with Santa Clarita's circulation goals and enhancing the circulation system by providing bicycle lanes and accessibility to bicycle paths that are fundamental for a comprehensive transportation network.

Table 6.3-3
Railroad Crossing Analysis –Year 2019 Condition

Year 2019		1	2	3	4	Total
		13th Street	Lyons Avenue	Market Street	Newhall Avenue	
No Build	ADT [a]	10,850	N/A [c]	4,410	47,550	**62,810**
	AM [b]	955		185	3,370	**4,510**
	PM [b]	1,050		375	3,860	**5,285**
Proposed Project	ADT [a]	N/A [c]	8,060	4,390	44,790	**57,240**
	AM [b]		620	185	3,115	**3,920**
	PM [b]		840	370	3,580	**4,790**
Alternative 1	ADT [a]	2,130	8,110	4,430	44,910	**59,580**
	AM [b]	105	625	190	3,130	**4,050**
	PM [b]	190	840	375	3,560	**4,965**

Notes:

[a] *ADT – Average Daily Traffic*
[b] *AUTO – Peak Hour Auto Traffic (Both Directions)*
[c] *N/A – Railroad Crossing Not Applicable to the Condition*

Source: David Evans and Associates, Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA, August 8, 2017.

Table 6.3-4
Railroad Crossing Analysis – Future Year 2035 Condition

Year 2035		1	2	3	4	Total
		13th Street	Lyons Avenue	Market Street	Newhall Avenue	
No Build	ADT [a]	16,940	N/A [c]	6,920	56,300	**80,160**
	AM [b]	1,170		325	3,735	**5,230**
	PM [b]	1,525		575	4,605	**6,705**
Proposed Project	ADT [a]	N/A [c]	28,870	7,050	47,100	**83,020**
	AM [b]		1,880	330	3,015	**5,225**
	PM [b]		2,495	590	3,695	**6,780**
Alternative 1	ADT [a]	10,150	21,270	7,060	47,050	**85,530**
	AM [b]	625	1,435	320	3,025	**5,405**
	PM [b]	865	1,885	600	3,680	**7,030**

Notes:

[a] *ADT – Average Daily Traffic*
[b] *AUTO – Peak Hour Auto Traffic (Both Directions)*
[c] *N/A – Railroad Crossing Not Applicable to the Condition*

Source: David Evans and Associates, Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA, August 8, 2017.

MITIGATION MEASURES (ALTERNATIVE 1)

Year 2019 Project Mitigation Measures

6.3-1 Dockweiler Drive extension: Construct to full Secondary Highway Pavement width, from Aden Avenue to west of Valle Del Oro, providing two lanes eastbound (uphill) and one lane westbound (downhill), as necessary. May be striped for parking lane on both sides of roadway in interim condition. Class II Bike lanes and Pedestrian Sidewalks to be provided.

6.3-2 Railroad Avenue (North-South) and Lyons Avenue (East-West): Construct the railroad crossing and improve the intersection. The intersection improvements will include widening the northbound direction to accommodate an additional left turn lane and convert a through lane to a shared through-right lane and southbound direction to accommodate and additional left turn lane and convert the right turn lane to a shared through-right turn lane. The north and southbound directions will include two left turn lanes, a through lane, and a shared through-right turn lane. The eastbound direction will provide a left turn lane, a through lane, and a shared through-right turn lane. The westbound direction will provide a left turn lane, two through lanes and a right turn lane.

6.3-3 Arch Street (north leg) / Dockweiler Drive (south leg) / 12th Street (east and west legs) / Placerita Canyon Road (southeast leg): Convert intersection to a 5-leg all way stop controlled intersection including Dockweiler Drive as the 5th. Arch Street will include a shared left-through-right lane

accommodating left turning movements to the west leg (12th Street) and Placerita Canyon Road. Dockweiler Drive will include a shared left-through right lane accommodating right turning movements to Placerita Canyon Road and the west leg (12th Street). The east leg (12th Street) will include a shared left-through-right lane accommodating left turning movements to Placerita Canyon Road and Dockweiler Drive. The west leg (12th Street) will include a shared left-through-right lane accommodating right turning movements to Dockweiler Drive and Placerita Canyon Road. Placerita Canyon Road will include a shared left-right lane accommodating left turning movements to Dockweiler Drive and west leg (12th Street) and right turning movements to the east leg (12th Street) and Arch Street.

6.3-4 Lyons Avenue (North-South) and Dockweiler Drive (East-West): Extend Lyons Avenue to intersect with Dockweiler Drive as a signalized T-intersection. The northbound direction will include a left turn lane and a through lane. The southbound direction will include a through and a right turn lane. The eastbound direction will include a left turn lane and a right turn lane.

Year 2019 Regional Mitigation Measures

6.3-5 Sierra Highway (North-South) and SR-14 Freeway Southbound Ramps (East-West): Install a traffic signal and provide an additional southbound left turn lane. The northbound direction will include a through lane, and a shared through-right turn lane. The southbound direction will include two left turn lanes, and two through lanes. The eastbound direction will include a left turn lane and a right turn lane.

6.3-6 Sierra Highway (North-South) and Placerita Canyon Road (East-West): Lane modifications to provide an exclusive right turn westbound lane and right turn northbound lane. The northbound direction will include a left turn lane, two through lanes, and a right turn lane. The south and eastbound directions will include a left turn lane, a through lane, and a shared through-right turn lane. The westbound direction will include a left turn lane, a through lane, and a right turn lane.

6.3-7 SR-14 Freeway Northbound Ramps (North-South) and Placerita Canyon Road (East-West): Install a traffic signal. The northbound direction will include a left turn lane and a right turn lane. The east and westbound directions will include two through lanes.

6.3-8 SR-14 Freeway Southbound Ramps (North-South) and Newhall Avenue (East-West): Intersection modifications include converting the east and southbound right turn lanes to free right turns and signalizing the intersection. The eastbound direction will include two through lanes and a free right turn lane. The southbound direction will include a shared through-left turn lane and a free right turn lane. The westbound direction will include a left turn lane and two through lanes.

Year 2035 Project Mitigation Measures

6.3-9 Valle Del Oro (North-South) and Dockweiler Drive (East-West): Install a traffic signal. The Intersection modifications include signalizing the intersection and widening the east and west bound direction to accommodate an additional through lane and widening the northbound

direction to accommodate an exclusive right turn lane. The northbound direction will include a shared left-through lane and a right turn lane. The southbound direction will include a shared left-through-right turn lane. The east and westbound directions will include a left turn lane, a through, and a shared through-right turn lane.

Year 2035 Regional Mitigation Measures

6.3-10 Sierra Highway (North-South) and Placerita Canyon Road (East-West): The Intersection modifications include widening to accommodate lane modifications to all approaches. Widen the northbound direction to accommodate an additional through lane. Widen the east and southbound directions to accommodate two additional through lanes and restripe the shared through-right lane to a right turn only lane. Widen the westbound direction to accommodate two additional through lanes. The north, east, south, and westbound direction will include a left turn lane, three through lanes, and a right turn lane.

6.3-11 Sierra Highway (North-South) and Newhall Avenue (East-West): Intersection modifications include converting the northbound through-right turn lane to a through lane and widening to accommodate a free right turn. The northbound direction will include two left turn lanes, two through lanes, and a free right turn. The southbound direction will include a left turn lane, two through lanes, and a shared through-right turn lane. The east and westbound directions will include two left turn lane, three through lanes, and a right turn lane.

6.3-12 Main Street (north leg) / Newhall Avenue (south leg) / Newhall Avenue (west leg): Widen the south leg to accommodate a left turn lane and the west leg to accommodate a right turn lane. Newhall Avenue (south leg) will include a left turn lane and a shared left-through lane. Main Street will include a shared right-through lane. Newhall Avenue (east leg) will include a shared left-right lane and a right turn lane.

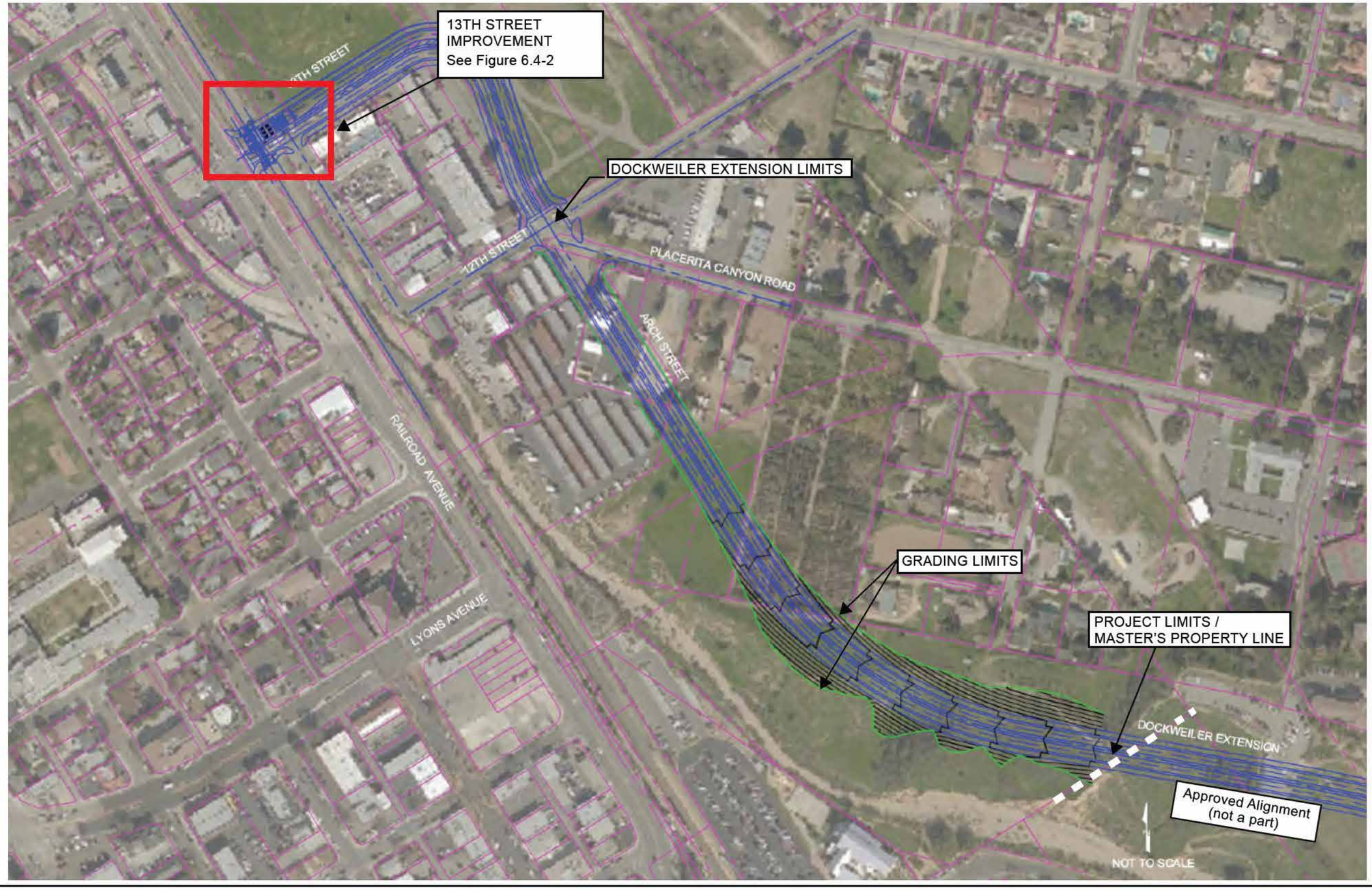
6. PROJECT ALTERNATIVES
4. ALTERNATIVE 2 (PROPOSED ALIGNMENT TO ARCH STREET WITHOUT LYONS AT GRADE CROSSING)

Similar to the Proposed Project, the Alternative 2 Project would involve the development of the proposed roadway alignment and associated infrastructure for Dockweiler Drive, which would extend Dockweiler Drive to Arch Street. The route would continue along Arch Street to 13th Street to link the Railroad Avenue. Unlike the Proposed Project, Alternative 2 does not include the roadway segment between the Dockweiler extension and Lyons Avenue, which spans a portion of the Newhall Creek. Additionally, Alternative 2 proposes to maintain and improve the 13th Street rail crossing. The proposed alignment of Dockweiler Drive under Alternative 2 is illustrated in Figure 6.4-1.

The proposed street improvements at 13th Street are depicted in Figure 6.4-2, Alternative 2 13th Street Improvements. As shown in Figure 6.4-2, the existing westbound travel lanes on 13th Street approaching Railroad Avenue would be improved with two westbound lanes and a median, with one dedicated left turn lane, one shared through lane and left turn lane, and one dedicated right turn lane. The eastbound traffic lanes on 13th Street would be improved to provide two through travel lanes. The existing median nose on Railroad Avenue would be removed to reconfigure the four southbound lanes to provide two protected left turn lanes, one dedicated through lane and one shared right turn lane and through lane. The northbound lanes on Railroad Avenue would provide two through lanes, one protected left turn lane and one protected right turn lane.

Similar to the Proposed Project, the intersection of Arch Street, 12th Street, Placerita Canyon and Dockweiler Drive would be improved with one of three intersection design configurations. For an illustration of the proposed design configurations for Alternative 2, see Figure 6.4-3, Alternative 2 Option A - 5-Legged Intersection, Figure 6.4-4 – Alternative 2 Option B – Traffic Circle, and Figure 6.4-5 Alternative 2 Option C - 3-Legged Intersection, respectively.

The Alternative 2 Project would require improvements to Arch Street and 13th Street to accommodate traffic from the extension of Dockweiler Drive to Arch Street. Roadway improvements would require increasing the width of Arch Street and 13th Street, which would affect several surrounding properties. Figure 6.4-6 depicts the properties that would be impacted at 13th Street at Arch Street under the Alternative 2 Project. The portion of the Project Site to the east of the intersection of Railroad Avenue and 13th Street is bounded by one-story commercial buildings to the west, across Railroad Avenue (See Figure 4.1-3, View 9), industrial and commercial uses to the east (See Figure 2-4, Views 9 and 12), undeveloped land to the north (See Figure 4.1-2, View 5), and Newhall Creek to the south. Photographs of existing surrounding land uses at Railroad Avenue and Lyons Avenue are depicted in Figures 2-3 through 2-4 of the Project Description.



Source: David Evans and Associates, May 2017.

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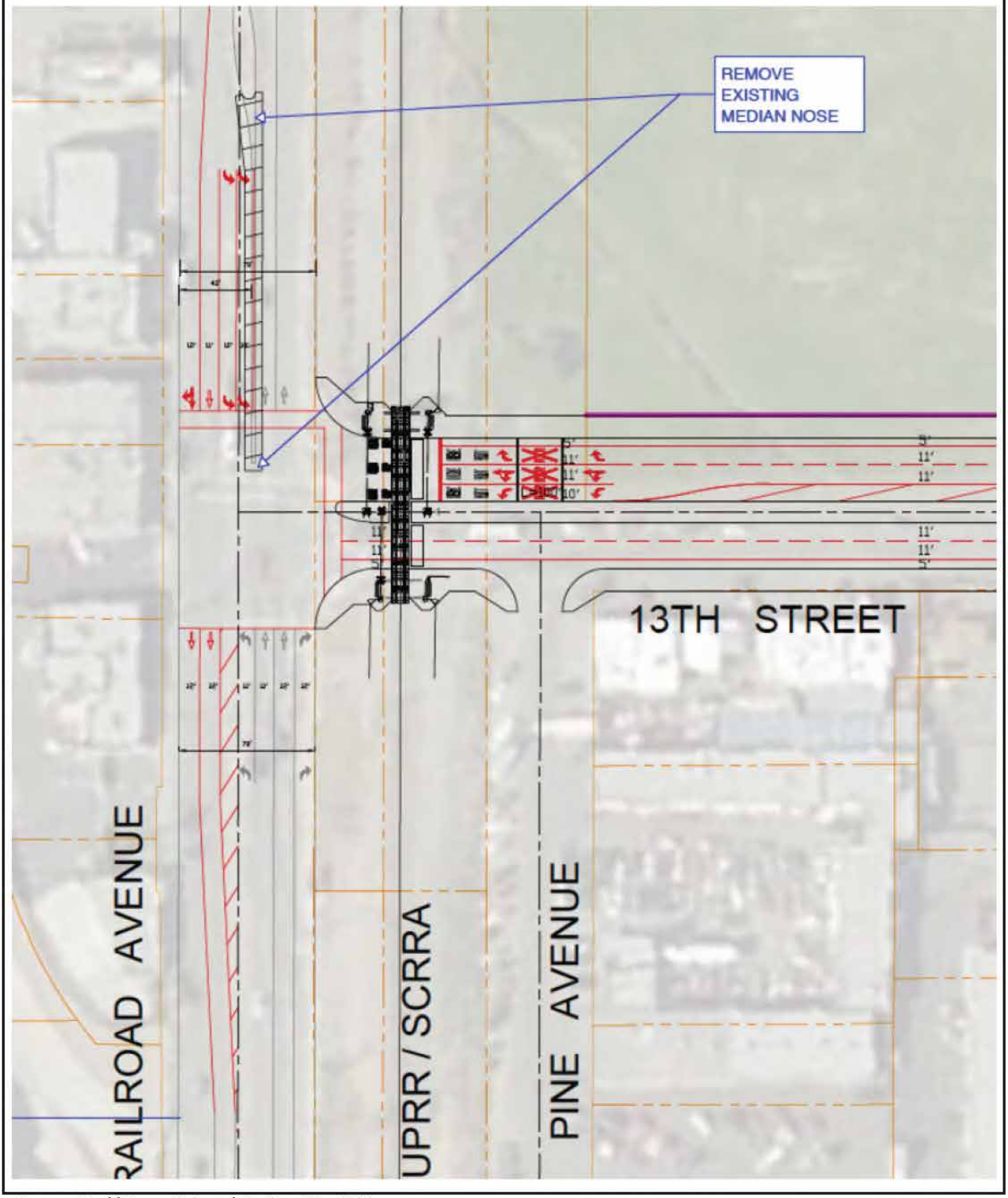
Figure 6.4-1
Alternative 2 Project



Source: David Evans & Associates Inc., May 2017.

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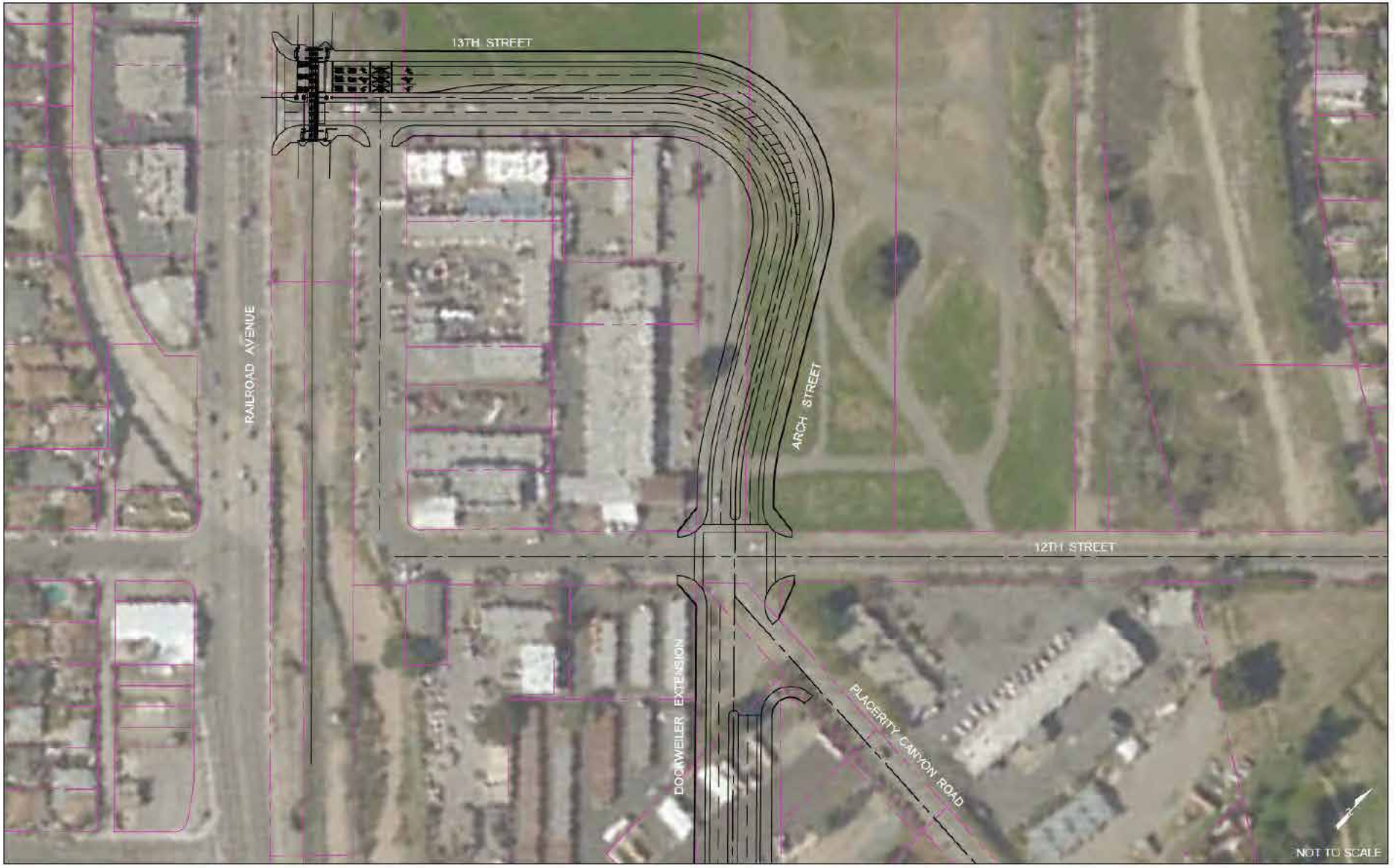
Figure 6.4-2
Alternative 2 13th Street Improvements



Source: David Evans & Associates Inc., May 2017.

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Figure 6.4-3
Alternative 2 Option A - 5 Legged Intersection

Source: David Evans & Associates Inc., May 2017.

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Figure 6.4-4
Alternative 2 Option B - Traffic Circle

Source: David Evans & Associates Inc., May 2017.

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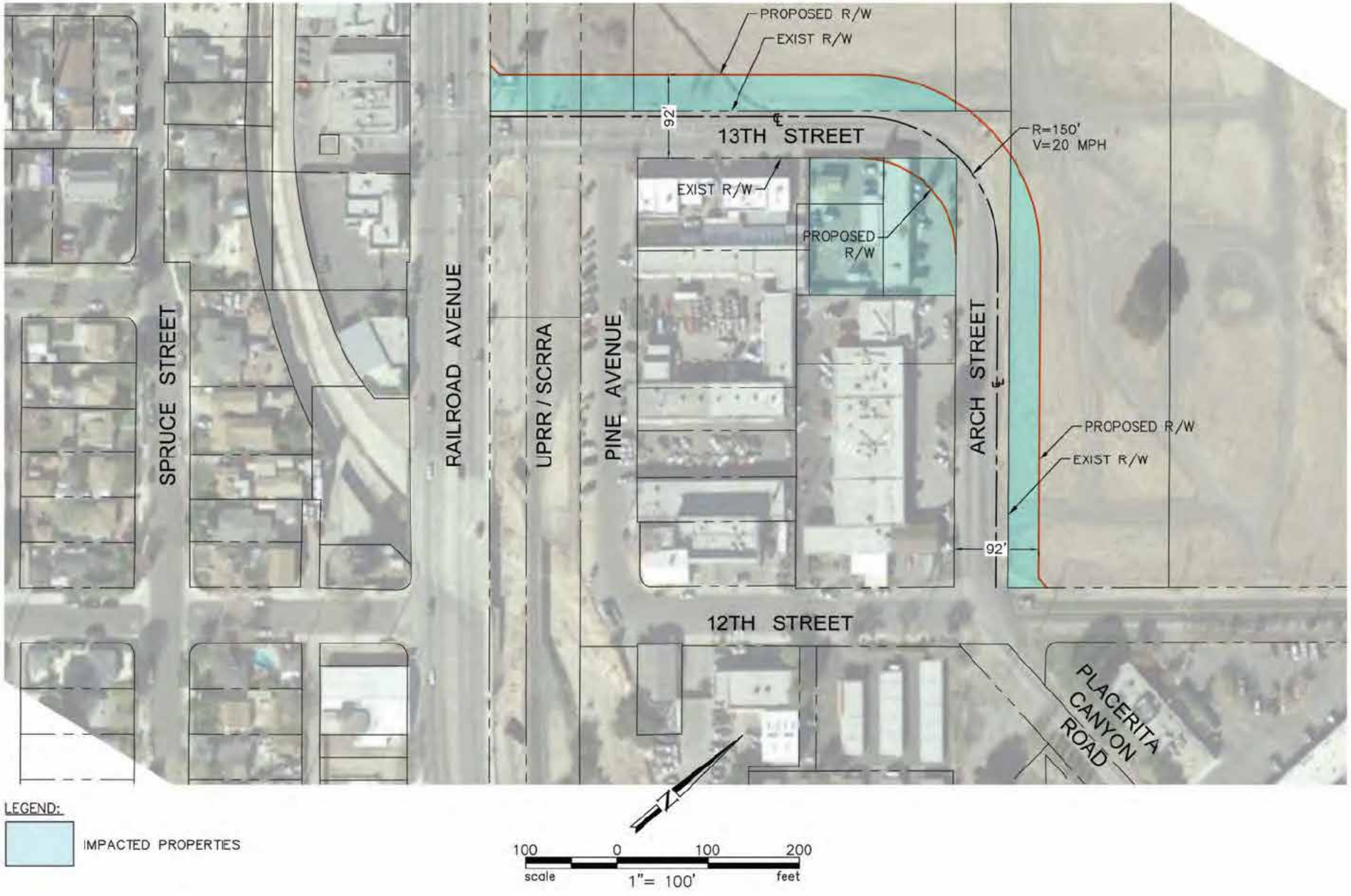
Figure 6.4-5
Alternative 2 Option C - 3 Legged Intersection



Source: David Evans and Associates, August 22, 2016

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Figure 6.4-6
Impacted Properties at 13th Street

Properties to the north of the Project Site at 13th Street and Railroad Avenue are zoned MX-N with a General Plan land use designation of Mixed Use Neighborhood. Properties to the south of this portion of the Project Site are zoned SP with a General Plan land use designation of Specific Plan. Properties to the east of this portion of the Project Site are zoned UR1, UR3 and PI, with a General Plan land use designation of Urban Residential One, Urban Residential Three and Public Institutional, respectively. Properties to the west, across Railroad Avenue are zoned SP with a General Plan land use designation of Specific Plan. (See Figure 2-4, Zoning and Land Use Map of Project Site and Surrounding Area).

ENVIRONMENTAL ANALYSIS

Aesthetics

Temporary Construction Impacts

The Alternative 2 Project would similarly impact existing views and aesthetic character of the area by grading, stockpiles or debris and soil, building materials and construction equipment, all of which could occupy the field of view of passing motorists, pedestrians and nearby residents. The construction site would continue to be visible from the residential properties on Aden Avenue and from passing motorists on Lyons Avenue, Railroad Avenue, Market and Race Streets, and at the Arch Street/12th Street/Placerita Canyon intersection with the development of the Alternative 2 Project. Thus, the existing visual character of the Project Site would be adversely impacted throughout the duration of the construction period. Therefore, impacts related to aesthetic character of the area during construction would be the same as compared to the Proposed Project, where impacts would be considered significant but temporary. Implementation of Mitigation Measure 4.1-1 would also be recommended for the Alternative 2 Project.

Long Term Operational Impacts

Upon completion of the Alternative 2 Project the aesthetic character of the Project Site and its immediate surroundings would be permanently altered, but to a lesser extent than the Proposed Project. Views of the hillside on the southeast portion of the Project Site would be similarly altered by grading for the proposed roadway extension.

Views of the Project Site at the intersection of Railroad Avenue and 13th Street would be similar to existing views of the intersection, since the Alternative 2 Project includes the improvement of the at-grade railroad crossing. A visual simulation of the views at the Arch Street/12th Street/Placerita Canyon/Dockweiler Drive Intersection is depicted in Figure 4.1-6 in Section 4.1, Aesthetics. The resulting aesthetic impacts under the Alternative 2 Project would be similar to the proposed project and would be as shown in Figure 4.1-6. As the proposed infrastructure improvements would be made in accordance with the City's roadway standards and would be attractively landscaped, aesthetic impacts would be less than significant. Additionally, as noted in Section 2.0, Project Description, the loss of the oak tree at this location (See Figure 4.1-6, Before View, Looking South) would require an oak tree permit and would require replacement tree to be planted as part of the permit approval process, aesthetic impacts associated with the loss of oak trees would be reduced to less than significant levels.

As the Alternative 2 Project does not include the roadway extension between Dockweiler Drive and Lyons Avenue, views of this intersection would largely remain unchanged, as compared to the Proposed Project. Like the Proposed Project, the roadway extension would be developed in accordance with the City's roadway standards and design guidelines to ensure the graded hillsides, medians, and walkways are landscaped in a manner that maintains the visual aesthetic quality and character of the City's roadway infrastructure. Therefore, impacts related to long-term operation would be the same as compared to the less than significant impact anticipated for the Proposed Project.

Alteration of A Significant Ridgeline

Similar to the Proposed Project, construction of the proposed roadway alignment between Dockweiler Drive and Arch Street would permanently alter a significant ridgeline as designated in the City of Santa Clarita General Plan. However, as noted in Section 4.1, Aesthetics, the eastern segment of the Dockweiler alignment was previously approved under a separate project entitlement for The Master's University in 2009, which included a Ridgeline Alteration Permit for the eastern segment of this ridgeline.[1] As part of the approved entitlements for The Master's University Master Plan in 2009, the irreversible grading and re-contouring of the ridgeline was approved to the western limit of the Master's University Campus. As shown in Figure 4.1-1, the grading limits of the Proposed Project (which would be the same under this Alternative) would retain the gradual elevation profile of the base of the ridgeline leading to the Master's University Campus. Limited views of the altered portion of the ridgeline within the Proposed Project limits would be partially visible from the public rights-of-way along Market Street and Race Street to the south of the Project Site (see Figure 4.1-5 in Section 4.1, Aesthetics). As a project design feature under this Alternative the grading plan would incorporate landform grading practices to blend the manufactured slopes and required drainage benches into the natural topography to the maximum extent feasible. Plant materials will be utilized to protect slopes from slippage and soil erosion and minimize the visual effects of grading and construction on a hillside area. With approval of a Hillside Review Permit, aesthetic impacts associated with the grading of Alternative 2 would be reduced to less than significant levels.

Visual Character

Similar to the Proposed Project, the Alternative 2 Project would not introduce buildings or development that would block existing views or substantially degrade the visual character of the existing site. The Alternative 2 Project also includes pedestrian, equestrian, and bicycle improvements to Dockweiler Drive that would include wide sidewalks, Class II bike lanes on each side, and a multi-purpose trail on the east side. Class II bike routes will provide a striped lane for one-way bike travel and will be marked with signs and pavement striping. Multi-purpose trails are to be unpaved and will be available for equestrian, hiking, and mountain bike use. These project features would increase accessibility to scenic natural resources including the Newhall Creek and surrounding ridgelines and mountains. Therefore, impacts related to visual character would be the less than significant.

[1] *Ibid.*

Roadway Light and Glare

Ambient nighttime lighting for the Alternative 2 Project would be similar to that of the Proposed Project. The Alternative 2 Project would introduce nighttime lighting to the Project Area, which will include pole-mounted streetlights at intersections and lighted bollards along Dockweiler Drive, and would contribute to additional light and glare from the headlights of vehicles utilizing the roadway. Compared to the Proposed Project, Alternative 2 would introduce less lighting and glare sources, as Alternative 2 does not include the roadway connection between Dockweiler Drive and Lyons Avenue.

Lighting uses associated with the Alternative 2 Project are not anticipated to substantially impact any surrounding sensitive uses as the streetlights would be installed with downward directional fixtures and would not create light trespass onto any adjacent properties. Light emanating from the Alternative 2 Project would be a relatively low-level indirect source of light illuminating the roadway and pedestrian walkways and would not adversely impact other properties in the immediate area. Additionally, the steep terrain and orientation of the southeastern portion of the Project Site would shield vehicle headlights, signage lighting and streetlights from impacting the residential properties within the Placerita Canyon community to the east and along Market and Race Streets to the west. Overall, the Alternative 2 Project would be expected to slightly increase ambient lighting in the area, but compliance with the design standards and requirements established in the Santa Clarita Municipal Code Section 17.51.050 would mitigate lighting impacts to a less than significant level. Therefore, impacts related to roadway light and glare would be less than significant.

Air Quality

Construction

Construction of the Alternative 2 Project would occur over an approximately 12-month timeframe and would involve clearing, grading, excavation, trenching, and asphalt paving. Sources of emissions during construction include: stationary and mobile uses of construction equipment, construction vehicles (heavy-duty construction vehicles and worker vehicles), and energy use. Additionally, earthwork and construction activities would generate fugitive dust emissions. These construction-related emissions and their associated air quality impacts would be short-term in nature and limited only to the period when construction activity is actively taking place. The Alternative 2 Project's construction emissions would similar to the emissions generated under the Proposed Project, but slightly reduced as this alternative would involve less mass grading. The increased emissions associated with the Arch Street to 13th Street improvements would be offset by the avoidance of grading associated with the Dockweiler to Lyons connection. As the Proposed Project emissions would be below SCAQMD's significance thresholds for all criteria pollutants, the Alternative 2 regional construction air quality emissions would be less than significant.

AQMP Consistency

The Alternative 2 Project would not exceed the AQMD's significance thresholds for regional construction emissions and thus would not increase the frequency or severity of existing air quality violations or cause or contribute to new air quality violations within the Basin. The Alternative 2 Project is consistent with

the AQMP and would not interfere with attainment of air quality levels identified in the AQMP. Similar to the Proposed Project, the Alternative 2 Project would help reduce congestion and vehicles per miles travelled by providing sidewalks and bicycle lanes and by providing direct access from the residential area and Master's University area to the Jan Heidt Newhall Metrolink Station and Old Town Newhall. The Alternative 2 Project encourages alternative modes of transportation other than motor vehicles and would be consistent with the goals and objectives of the AQMP to reduce vehicle emissions throughout the Basin.

Localized Construction Emissions

Similar to the Proposed Project, the Alternative 2 Project would result in significant localized air emissions in close proximity to residential land uses within 100 meters of the Project Site on a temporary and intermittent basis during construction. Localized NOx and CO emissions would be below the significance thresholds at all sensitive receptor locations. However, localized thresholds would be exceeded for PM_{10} and $PM_{2.5}$ emissions at two locations: (1) the single family residential land uses located immediately north of the Project Site (within a proximity of 100 meters) and (2) the residential land uses within 100 meters south of the Project Site in the vicinity of Market Street and Race Street. Localized emissions would be below the stated thresholds for any land use located further than 100 meters from the Project Site. Therefore, notwithstanding implementation of mitigation measures 4.2-1 through 4.2-4, localized air quality impacts resulting from construction activities would be considered significant and unavoidable.

Operational Emissions

Although the Alternative 2 Project would not directly generate any new vehicle trips, it would result in changes to the traffic circulation in the vicinity and would alter the average daily traffic volumes and peak hour traffic volumes at local intersections. A CO hotspot analysis was conducted for the Proposed Project, and as the Alternative 2 Project is within the same envelope as the Proposed Project, it was found that, under worst-case conditions, future CO concentrations at each intersection would not exceed the state 1-hour and 8-hour standards with or without the development of the Proposed Project. Therefore, no significant project-related impact would occur relative to future carbon monoxide concentrations of the Alternative 2 Project. The Alternative 2 Project would have a less than significant impact with respect to this criterion.

Biological Resources

Habitat Modification

Vegetation

The Alternative 2 Project Site grading plans for the roadway extension of Dockweiler Drive to the to Arch Street would be similar to the Proposed Project; however, the Alternative 2 Project would not include the roadway extension of Lyons Avenue to Dockweiler Drive. As such, the Alternative 2 Project would be within the envelope of the Project Site analyzed for the Proposed Project; however, less acres of

vegetation would be removed as compared to the Proposed Project. Of the vegetation communities impacted by the Alternative 2 Project, Disturbed California Sagebrush-California Buckwheat Scrub would be the dominant plant community present by area and approximately less than 0.63 acre of this habitat would be lost through site grading and project implementation. The loss of less than 2 acres of vegetation is considered adverse; although, due to the Site's disturbance history, its small size, the lack of sensitive plant communities, the lack of structure for wildlife, and high percentage of invasive and non-native plant species generally associated with disturbed areas, impacts associated with the loss of less than 2 acres of vegetation present on-site is considered less than significant. The only special-status plants observed during the field investigation were two coast live oaks. No other special-status plants are considered to have a high potential for occurrence within the Project Site. A permit is required for the encroachment into the Protected Zone.

Wildlife

Similar to the Proposed Project, construction activity and grading operations of the Project Site for the Alternative 2 Project would disturb and/or threaten the survival of common wildlife species present on-site. It is expected that species of low mobility, particularly small mammals, amphibians, and reptiles, would be lost during site preparation, grading, and construction. Site grading and project implementation would eliminate approximately less than approximately 2 acres of natural habitat present on-site, and would result in an incremental reduction in native wildlife species abundance and diversity. However, due to nearby urban development and the associated human disturbance, field investigations indicate wildlife diversity and abundance on the Project Site is relatively low. Most the species of mammals, birds, and reptiles observed on-site or thought to occur on-site are relatively common. Project implementation is not expected to cause current wildlife population of common species on or adjacent to the Project Site to drop below self-sustaining levels. Therefore, impacts to common wildlife species are not considered significant.

Project-related activities associated with site preparation and construction could result in the direct loss of individuals of one special-status wildlife species (the silvery legless lizard) and of active nests or the abandonment of active nests by adult birds should grading occur during nesting season. The loss of a California species of special concern and active bird nests would be a considered significant without mitigation. Implementation of mitigation measures 4.3-2 and 4.3-3 would reduce impacts to the silvery legless lizard and nesting birds to a less than significant level.

Federally Protected Wetlands

Based on field investigations, two CDFW jurisdictional features occur within the Project Site for the Proposed Project, the Newhall Creek and a small ephemeral drainage that is a tributary to Newhall Creek. There is also a small area of narrow-leaf willow thicket, which probably does not qualify as a Federally jurisdictional wetland. As the Alternative 2 Project does not include the extension of Lyons Avenue to Dockweiler Drive, the Alternative 2 Project would not result in either temporary or permanent impacts to the areas of the Newhall Creek and its associated tributary and are classified as "riverine and related

permanent water, with continuous flow at least seasonally." As such no impacts to jurisdictional resources would occur.

Wildlife Movement and Corridors

Similar to the Proposed Project, the Project Site for Alternative 2 is generally surrounded on three sides by development and road networks. Although the Newhall Creek is located to the west of the Project Site for the Alternative 2 Project, the Project would not would not result in any barrier to wildlife movement and would not impede the ability of Newhall Creek to function as a wildlife movement corridor. The Alternative 2 Project as proposed would not result in significant impacts to wildlife movement.

Construction Activity

Similar to the Proposed Project, construction-related activities, particularly site clearing, grading, and the implementation of the road surface, could have adverse effects on plant and wildlife habitat, and together, would be considered a significant impact. Implementation of Mitigation Measure 4.3-4 would reduce these construction-related impacts to a less than significant level.

Operation

Increase in Populations of Non-Native Species

Similar to the Proposed Project, non-native plants and wildlife are expected to increase on-site, because these species are more adapt to urban environments and can out-compete native species. Historical and ongoing development in the vicinity of the Project Site has already supported continual and ongoing increase and proliferation of non-native plant and wildlife species in the vicinity of the Project Site. Development of the Alternative 2 Project is not expected to substantially increase the distribution of non-native plants and wildlife. With compliance to Mitigation Measure 4.3-5, Alternative 2 Project impacts would be less than significant.

Increased Light and Glare

Similar to the Proposed Project, it is anticipated that nighttime lighting would increase in areas adjacent to the Project Site, which can disturb breeding and foraging behavior, movement, and can potentially alter breeding cycles of birds, mammals, and nocturnal invertebrates. Because of surrounding development around the Project Site, nearby natural areas already receive some nighttime lighting. The Alterantive 2 Project would increase light and glare effects near to the Newhall Creek corridor. Implementation of Mitigation Measure 4.3-6 would decrease this impact to a less than significant level.

Stormwater and Urban Runoff

Similar to the Proposed Project, it is expected that stormwater runoff would be limited to pavement runoff during periodic storm events. It is reasonable to assume runoff could substantially affect special-status species potentially occurring downstream from the Project Site (i.e. Newhall Creek), incrementally diminish habitat, and degrade the quality of the environment. With the compliance to City's standard

stormwater requirements and required design criteria, impacts to Newhall Creek resulting from Stormwater runoff would be less than significant.

Cultural Resources

Cultural and Historic Resources

No cultural or historic habitable structures are located on-site, and as such, similar to the Proposed Project the Alternative 2 Project would not have the potential to adversely impact any historic or cultural resources.

Archaeological Resources

No known archeological sites are identified within the Project Site for the Alternative 2 Project. While, portions of the Project Site are improved with roadways, the Alternative 2 Project will consist of earthwork activities, such as grading and excavation, in areas that are currently undeveloped. Construction-related earthwork activities may result in the accidental discovery of prehistoric or historic archaeological resources or Native American burial sites. Implementation of mitigation measures 4.4-1 will reduce impacts to a less than significant level.

Paleontological Resources

The Alternative 2 Project is within the envelope of the Project Site for the Proposed Project. The records search conducted by the Vertebrate Paleontology Department of the Natural History Museum of Los Angeles County yielded no known fossil localities within the Project Site for the Proposed Project. The closest vertebrate fossil localities are from the Saugus Formation, located directly north of the Project Site. While it is possible that fossilized materials may be discovered during site preparation and construction, specifically grading and excavation activities, precautionary measures set forth in mitigation measure 4.4-2 would reduce any potential adverse impacts to paleontological resources to a less than significant level.

Tribal Cultural Resources

Similar to the Proposed Project, Alternative 2 would not have a direct impact upon known tribal cultural resources. Nevertheless, provisions for the identification and evaluation of accidentally discovered archeological resources would be implemented in accordance with mitigation measure 4.4-1. With the incorporation of mitigation measure 4.4-1, impacts upon tribal resources would be less than significant.

Geology And Soils

The Project Site is underlain by Saugus Formation, Pacoima Formation, Quaternary alluvium and artificial fill and has historic high groundwater elevations greater than 50 feet in depth. The Project Site is located in the State of California Seismic Hazard Zone map for the Newhall Quadrangle. Hazards related to seismic-related ground failures (including ground rupture and liquefaction) are considered low.

All slopes should be evaluated by the Project Geotechnical engineer at the planning and design stages. The hillside area of the site is designated on the State of California Seismic Hazard Zone Map to have earthquake-induced slope instability. No landslides have been mapped on the Project Site. Remedial measures will be required where ascending or descending cut slopes are not stable as determined by geologic or geotechnical stability analyses. The potential for earthquake-induced slope failures is considered low provided that future geologic and geotechnical evaluations and recommendations for slope stability is incorporated into design and construction.

Additionally, specific recommendations for design and construction should be provided to address soil stability, including: hydro-compression, expansive soils, rippability, the handling of oversized material, soil corrosivity, shirking and bulking of materials, and the handling of the need for retaining wall.

No oil wells have been drilled on or immediately adjacent to the Project Site. If any undocumented oil wells are encountered during future construction operations at the site, their location(s) should be surveyed and the current well conditions evaluated. Water wells have been drilled in the vicinity of the proposed road alignments. If one of these water well is within the proposed road alignment, or if a water well is encountered during future construction operations at the site, the location should be surveyed and the potential impacts to well conditions should be evaluated. The implementation of mitigation measure 4.5-1 would insure that potential Alternative 2 Project impacts would be reduced to a less than significant level.

Hydrology And Water Quality

Construction

During the construction phase, the typical pollutants that affect surface water quality are: sediment from soil erosion, petroleum products (gasoline, diesel, kerosene, oil and grease), hydrocarbons from asphalt paving, construction equipment leaks, paints and solvents, detergents, fertilizers, and pesticides. Similar to the Proposed Project, the Alternative 2 Project would be required to prepare and implement a SWPPP prior to earthwork activities that will put best management practices and erosion control measures to prevent pollution in stormwater discharge. All project construction activities would comply with the City's grading permit regulations, which require the implementation of grading and dust control measures, including a wet weather erosion control plan if construction occurs during rainy season, as well as inspections to ensure that sedimentation and erosion is minimized. Therefore, through compliance with NPDES requirements and City grading regulations, the Alternative 2 Project's construction impacts related to water quality would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality. Construction-related impacts to hydrology and water quality would therefore be less than significant.

Operation

Once the Alternative 2 Project has been constructed, urban runoff could include the aforementioned contaminants, trace metals, landscape maintenance debris, dry product spills, and "nuisance flows" from landscape irrigation during the dry-season. In accordance with NPDES requirements, the Project Applicant would be required to have a Project-specific SUSMP in place during the operational life of the Project to address the management of runoff from the proposed roadway extension. The SUSMP would include site design, source control, low-impact development, and best management practices. Therefore, implementation of the storm water quality plan would reduce water quality impacts during the Alternative 2 Project's operation to less than significant.

Inundation and Flooding

Unlike the Proposed Project, the Alternative 2 Project does include the roadway extension from Lyons Avenue to Dockweiler Drive, which spans a portion of the Newhall Creek. As such, the Alternative 2 Project would not include the development of a new bridge across Newhall Creek or require embankment protection to the roadway and creek and this alternative would not have any impacts upon hydrologic flows within Newhall Creek.

Land Use And Planning

Implementation of the Alternative 2 Project would not disrupt or physically divide an established community. Monument signage will properly guide traffic and identify the entrance to the Placerita Canyon community as a residential community with no through access. Additionally, similar to the Proposed Project, the Alternative 2 Project will provide increased pedestrian and vehicular access in the area.

The Alternative 2 Project would not conflict with any applicable land use plans, policies, or regulations, including: the Regional Transportation Plan / Sustainable Communities Strategy, City of Santa Clarita Municipal Code, City of Santa Clarita General Plan (including the Circulation Element), the Placerita Canyon Special Standards District and North Newhall Area, Old Town Newhall Specific Plan, and the Compass Blueprint Concept Plan. As such, implementation of Project Alternative 2 would create a less than significant impact with regards to land use and planning.

Similar to the Proposed Project, Alternative 2 would require an oak tree permit for the loss of two oak trees that are located within the proposed grading limits and right-of-way alignment and a Hillside Review Permit for the grading of an existing hillside. Approval of the Oak Tree Permit and Hillside Review Permit would reduce land use impacts to less than significant levels.

Noise

Construction

Similar to the Proposed Project, construction of the Alternative 2 Project would require the use of heavy equipment for ground clearing, site grading, and roadway construction. Several pieces of construction equipment operating simultaneously would generate a noise level of approximately 94.6 dBA. The estimated construction noise levels impacting sensitive receptors are expected to exceed the City's daytime noise standards for residential uses (see Table 4.8-8). The construction noise levels would therefore constitute a significant impact.

Operational

Similar to the Proposed Project, the Alternative 2 Project is anticipated to alter roadway traffic volumes as the Proposed Project would create a new roadway segment connecting Lyons Avenue to Dockweiler Drive. Locations in the vicinity of the Project Site could experience slight changes in noise levels as a result of the change in traffic patterns. The changes in future noise levels along the study-area roadway segments in the project vicinity are for the Proposed Project's near term (Year 2019) impacts would increase local noise levels by a maximum of 2.7 dBA CNEL (at the location of Dockweiler Drive (between Sierra Highway and Valle del Oro). This increase would be below the identified thresholds of significance. At all other roadway segments, the resulting noise levels are anticipated to decrease. As such the Alternative 2 Project's potential to generate a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project would be less than significant.

The Future (2019) With Project noise levels on the new roadway segment from Lyons Avenue to Valle del Oro are expected to be 63.3 dBA (CNEL) within 50 feet of the centerline of the roadway. The resulting noise levels at the three identified sensitive receptors would be below 52.9 dBA. Thus, the anticipated with project noise levels at all off-site receptor locations would be within the "normally acceptable" range of noise for residential areas. Therefore, the Alternative 2 Project's noise impacts would be less than significant.

The Alternative 2 Project would direct more traffic through Arch Street and 13th Street in lieu of the Dockweiler/Lyons Extension, which would not be constructed as part of this alternative. The land uses along Arch Street and 13th Street are commercial properties and are not considered sensitive land uses for purposes of evaluating noise impacts. Thus noise impacts associated with the change of traffic flows under this alternative would be less than significant.

Transportation and Traffic

Alternative 2 to the Proposed Project utilizes the City of Santa Clarita's General Plan proposed alignment for Dockweiler Drive, which identifies the connection of Dockweiler Drive to extend to Arch Street. The route will continue along Arch Street to 13th Street to link to Railroad Avenue. Unlike the Proposed Project, Alternative 2 does not include the roadway segment between the Dockweiler extension and Lyons Avenue. Additionally, Alternative 2 proposes to maintain and improve the 13th Street rail crossing.

Compared to the Proposed Project, the Alternative 2 Project includes sixteen study intersections and does not contain Intersection 17, which is Lyons Avenue and Dockweiler Drive. Alternative 2 is illustrated in Figure 6.4-1.

The following section addresses Alternative 2 Project's impact on transportation and traffic based on the Traffic Study titled, *Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA*, prepared by David Evans and Associates, dated August 8, 2017. The complete Traffic Study is included in Appendix H to this Draft EIR.

Opening Year (2019) Conditions With Alternative 2 Project

The Santa Clarita Valley Consolidated Traffic Model (SCVCTM) for Interim Year provided traffic volumes for the Project Year 2019 with Alternative 2 Project Condition. The model plots outlined the distribution of future traffic with the construction of the Alternative 2 Project. The Project Year 2019 Alternative 2 study intersections are provided in Figure 6.4-7, and the volumes provided in Figure 6.4-8.

The analysis for the intersection of Arch Street/Dockweiler Drive and 12th Street/Placerita Canyon Road was conducted as a 5-leg all way stop controlled intersection.

The intersections were analyzed using the capacity analysis methodology. The analysis was conducted with the Project Year 2019 with Alternative 2 Project existing and mitigated study intersection geometrics illustrated in Figure 6.4-9. The LOS for the study intersections presented in Table 6.4-1 represents the LOS for the critical movement. This is typically the stop controlled left turn from the minor street.

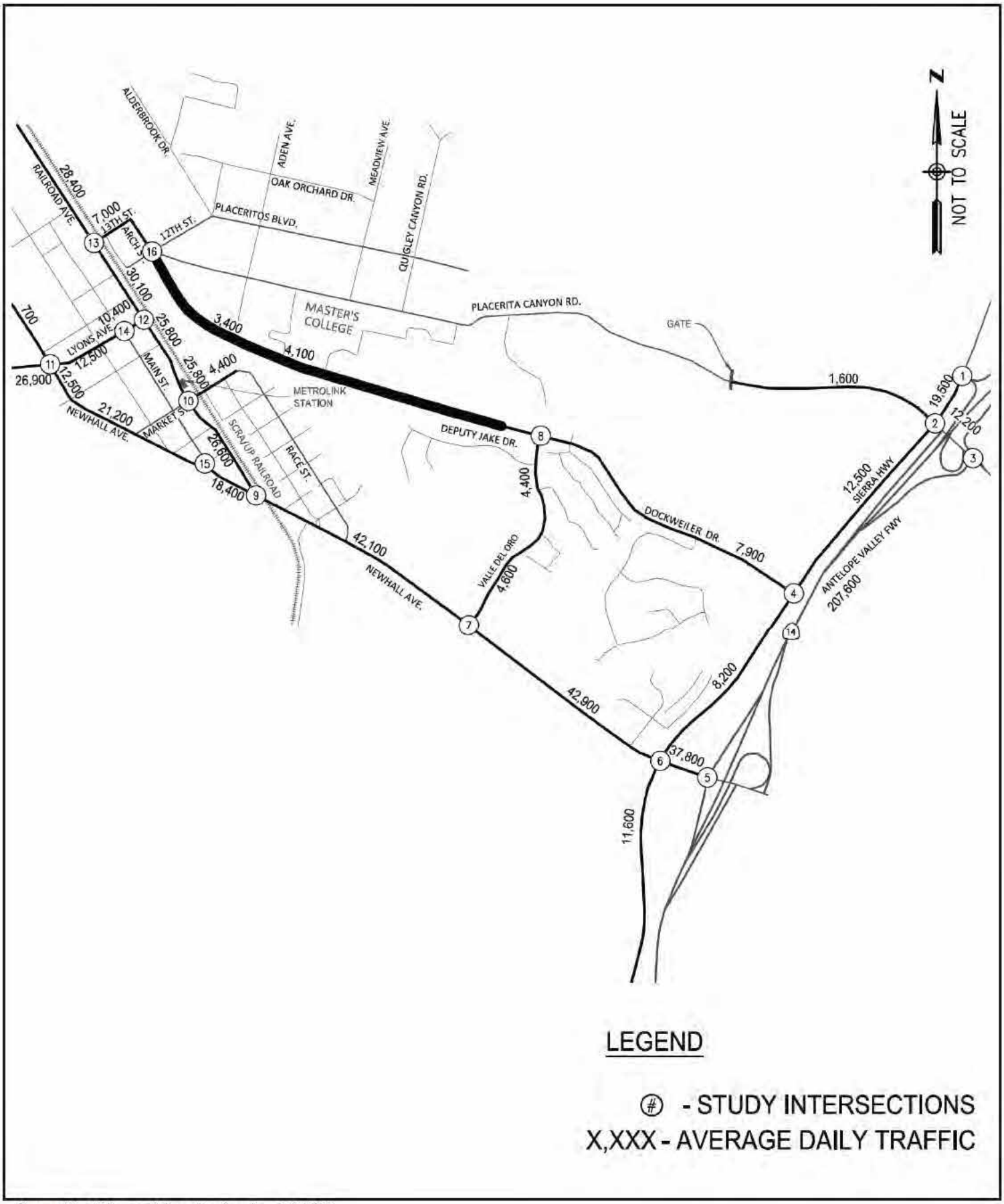
As presented in Table 6.4-1 under Year 2019 with Alternative 2 Condition, most of the study intersections are anticipated to continue to operate at LOS E or better. Four intersections are anticipated to operate at LOS F, they are: Sierra Highway and SR-14 Southbound Ramps, Sierra Highway and Placerita Canyon Road, SR-14 Northbound Ramps and Placerita Canyon Road, SR-14 Southbound Ramps and Newhall Avenue. The same mitigation measures presented for the Proposed Project would generally be necessary to accommodate the anticipated Year 2019 traffic and reduce potential impacts for the Alternative 2 Project.

Table 6.4-1
Intersection Capacity Analysis – Year 2019 with Alternative 2 Project Condition

Intersection	AM		PM	
	Delay [a]	LOS [b]	Delay [a]	LOS [b]
1. Sierra Highway and SR-14 Southbound Ramps [c]	89.7	F	99.99 [e]	F
Mitigation (Traffic Signal and Lane Modification)	16.6	B	21.1	C
2. Sierra Highway and Placerita Canyon Road	23.1	C	99.99 [e]	F
Mitigation (Lane Modification)	23.1	C	51.5	D
3. SR-14 Northbound Ramps and Placerita Canyon Road [c]	12.9	B	99.99 [e]	F
Mitigation (Traffic Signal)	15.0	B	15.1	B
4. Sierra Highway and Dockweiler Drive	17.3	B	13.6	B
5. SR-14 Southbound Ramps and Newhall Avenue [c]	99.99 [e]	F	99.99 [e]	F
Mitigation (Traffic Signal and Lane Modification)	5.6	A	5.1	A
6. Sierra Highway and Newhall Avenue	28.5	C	30.9	C
7. Valle Del Oro and Newhall Avenue	15.8	B	12.2	B
8. Valle Del Oro and Dockweiler Drive [c]	14.2	B	17.1	C
9. Railroad Avenue and Newhall Avenue	20.7	C	23.5	C
10. Railroad Avenue and Market Street	26.7	C	18.0	B
11. Newhall Avenue and Lyons Avenue	58.5	E	74.2	E
Mitigation (Lane Modification)	29.5	C	35.3	D
12. Railroad Avenue and Lyons Avenue	16.7	B	18.5	B
13. Railroad Avenue and 13th Street	18.2	B	24.4	C
14. Main Street and Lyons Avenue	18.3	B	17.6	B
15. Main Street and Newhall Avenue [d]	23.8	C	23.0	C
16. Arch Street/Dockweiler, 12th Street, Placerita Canyon Road [c]	10.1	B	10.5	B

Notes:
[a] *Delay – In Seconds*
[b] *LOS – Level of Service*
[c] *Un-Signalized Intersection*
[d] *Roundabout Intersection*
[e] *99.99 – Intersection Delay Exceeds Level of Service Standard*

Source: David Evans and Associates, Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA, August 8, 2017.



Source: David Evans and Associates Inc, August 8, 2017.

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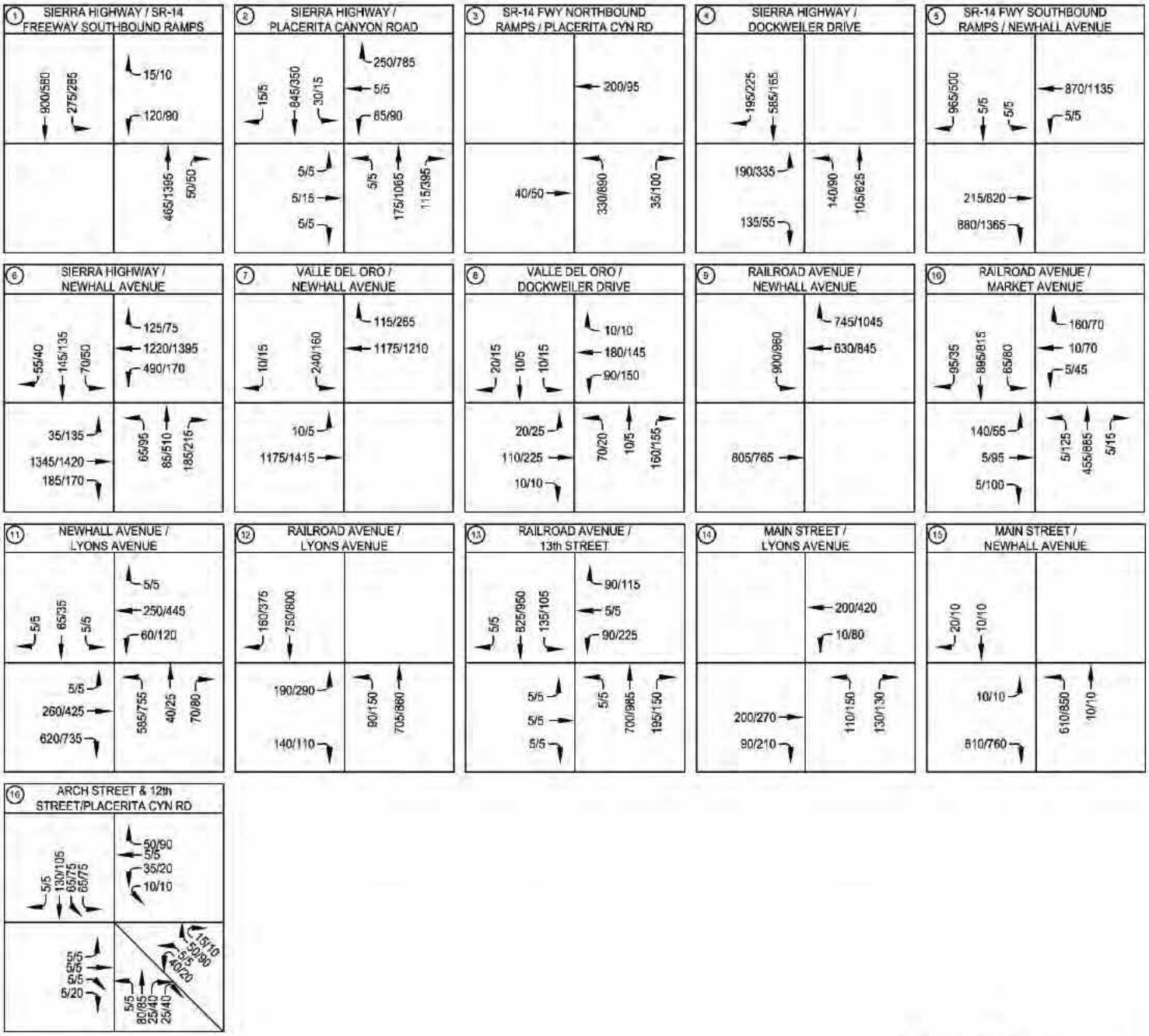
Figure 6.4-7
Project Year 2019 Alternative 2 Study Intersections



LEGEND

(#) - STUDY INTERSECTIONS

XX/XX - AM/PM PEAK HOUR VOLUMES

Source: David Evans and Associates Inc, August 8, 2017.

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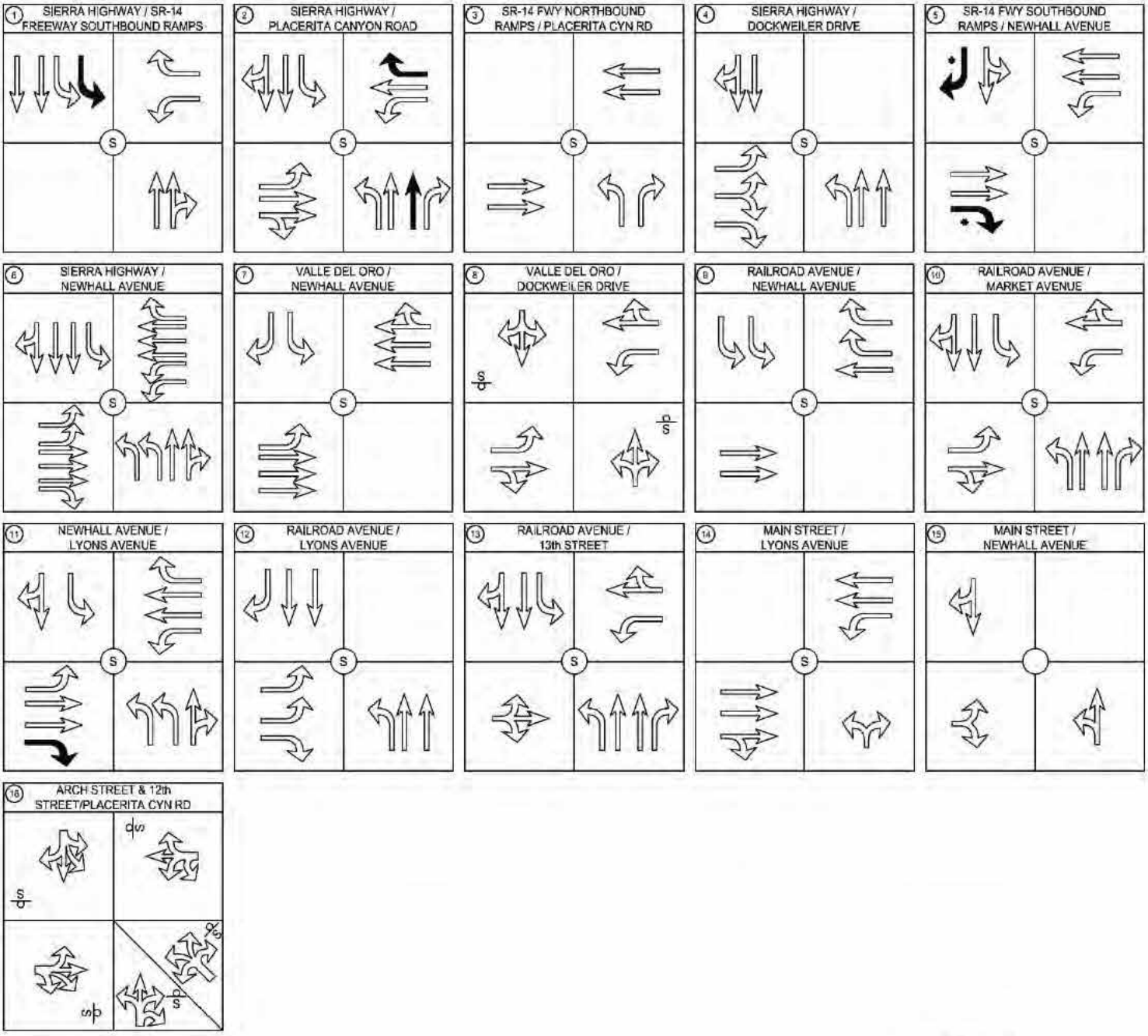
Figure 6.4-8
Project Year 2019 Alternative 2 Traffic Volumes



Source: David Evans and Associates Inc, August 8, 2017.

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Figure 6.4-9
Project Year 2019 Alternative 2 Intersection Configurations

With mitigation, the Sierra Highway and SR-14 Southbound Ramp intersection (Study Intersection 1) levels of service will increase to LOS B and LOS C during the AM and PM peak hours, respectively. With mitigation, the Sierra Highway and Placerita Canyon Road intersection (Study Intersection 2) level of service will remain the same at LOS C during the AM peak hour and will increase to LOS D during the PM peak hour. With mitigation, the SR-14 Northbound Ramps and Placerita Canyon Road intersection (Study Intersection 3) level of service will remain the same at LOS B during the AM peak hour and will increase to LOS B during the PM peak hour. With mitigation, the SR-14 Southbound Ramps and Newhall Avenue intersection (Study Intersection 5) levels of service will increase to LOS A during both AM and PM peak hours. With the implementation of the mitigation measures summarized in Section 4.9, Traffic and Circulation, Alternative 2 Project's impacts during the 2019 build-out year would also be less than significant. However, Alternative 2 would not require implementation of mitigation measures 4.92-2. 4.9-4 and 4.9-5, as compared to the Proposed Project. Therefore, the Proposed Project and the Alternative 2 Project would both result in a less than significant impact after mitigation.

Future (2035) Conditions With Alternative 2 Project

The Santa Clarita Valley Consolidated Traffic Model (SCVCTM) for Build-Out Year provided traffic volumes for the Future Year 2035 with Alternative 2 Condition. The model plots outlined the distribution of future traffic with the construction of the Alternative 2 Project. The analysis of Alternative 2 utilizes the traffic volume projections for the City of Santa Clarita's traffic model together with the existing traffic flow data. The traffic projections are based on the General Plan Buildout. The buildout includes construction of future roadways Dockweiler Drive between 13th Street and Valle Del Oro, Magic Mountain Parkway from Railroad Avenue to Via Princessa, Via Princessa between Claibourne Lane and Sheldon Avenue, and Santa Clarita Parkway. This also includes the proposed conceptual development of the North Newhall area (809 dwelling unit plus an approximate 11-acre commercial land use). The Future Year 2035 Alternative 2 study intersections provided in Figure 6.4-10, the volumes provided in Figure 6.4-11.

The intersections were analyzed using the capacity analysis methodology. The analysis was conducted with the Future Year 2035 Alternative 2 Project Condition existing and mitigated study intersection geometrics illustrated in Figure 6.4-12. The LOS for the study intersections presented in Table 6.4-2 represents the LOS for the critical movement. This is typically the stop controlled left turn from the minor street.

As presented in Table 6.4-2 under Future Year 2035 with Alternative 2 Project Condition, several of the study intersections are anticipated to operate at LOS F. There are five intersections that are anticipated to operate at LOS F, they are: Sierra Highway and Placerita Canyon Road, Sierra Highway and Newhall Avenue, Valle Del Oro and Dockweiler Drive, Railroad Avenue and 13th Street, and Main Street and Newhall Avenue. Mitigation measures are necessary to accommodate the anticipated Future Year 2035 traffic and reduce potential Alternative 2 Project impacts.

With mitigation, the Sierra Highway and Placerita Canyon Road intersection (Study Intersection 2) levels of service will increase from a LOS F to LOS D during both AM and PM peak hours. With mitigation, the Sierra Highway and Newhall Avenue intersection (Study Intersection 6) levels of service will increase from LOS E to LOS D during the AM peak hour and LOS F to LOS D during the PM peak hour. With

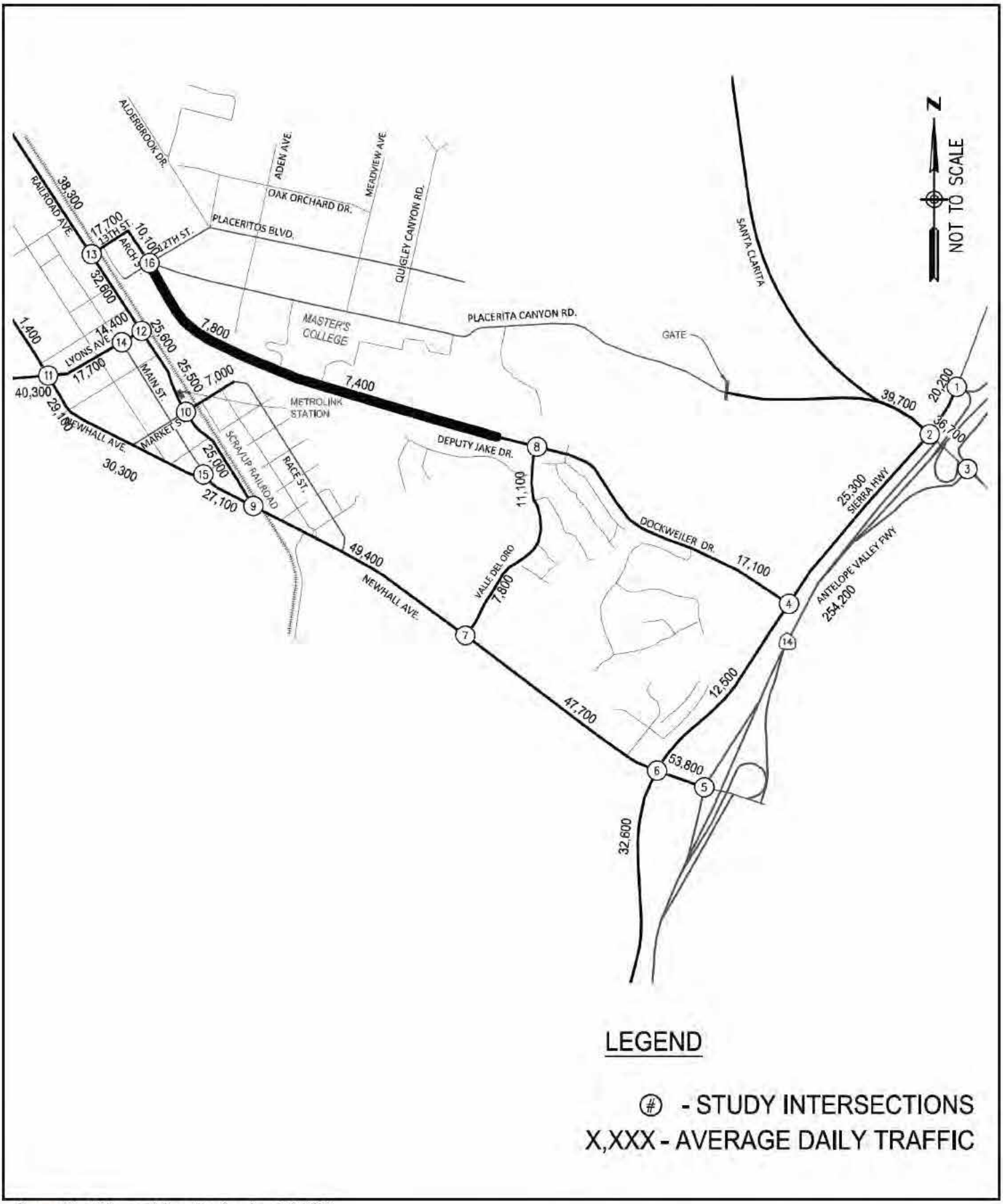
mitigation, the Valle Del Oro and Dockweiler Drive intersection (Study Intersection 8) levels of service will increase from a LOS F to LOS C during the AM peak hour and remain at a LOS C during the PM peak hour. With mitigation, the Railroad Avenue and 13th Street intersection (Study Intersection 13) levels of service will remain at a LOS D during the AM peak hour and increase from an LOS F to LOS D during the PM peak hour. With mitigation, the Main Street and Newhall Avenue intersection (Study Intersection 15) levels of service will increase from LOS F to LOS A during the AM peak hour and LOS F to LOS B during the PM peak hour. With the implementation of the mitigation measures identified in Section 4.9, Traffic and Circulation, the Alternative 2 Project's impacts during the 2035 year will be less than significant. Therefore, the Proposed Project and the Alternative 2 Project would both result in a less than significant impact after mitigation.

Table 6.4-2
Intersection Capacity Analysis – Year 2035 with Alternative 2 Project Condition

Intersection	AM		PM	
	Delay [a]	LOS [b]	Delay [a]	LOS [b]
1. Sierra Highway and SR-14 Southbound Ramps [c]	14.2	B	40.6	D
2. Sierra Highway and Placerita Canyon Road	99.99 [e]	F	99.99 [e]	F
Mitigation (Lane Modification)	51.8	D	43.4	D
3. SR-14 Northbound Ramps and Placerita Canyon Road [c]	26.5	C	18.6	B
4. Sierra Highway and Dockweiler Drive	19.1	B	22.7	C
5. SR-14 Southbound Ramps and Newhall Avenue [c]	6.3	A	6.5	A
6. Sierra Highway and Newhall Avenue	61.6	E	99.99 [e]	F
Mitigation (Lane Modification)	54.4	D	44.2	D
7. Valle Del Oro and Newhall Avenue	16.2	B	14.1	B
8. Valle Del Oro and Dockweiler Drive [c]	99.99 [e]	F	17.3	C
Mitigation (Traffic Signal and Lane Modification)	27.0	C	25.1	C
9. Railroad Avenue and Newhall Avenue	23.8	C	36.4	D
10. Railroad Avenue and Market Street	27.8	C	21.4	C
11. Newhall Avenue and Lyons Avenue	71.4	E	67.9	E
12. Railroad Avenue and Lyons Avenue	18.8	B	17.7	B
13. Railroad Avenue and 13th Street	50.5	D	99.99 [e]	F
Mitigation (Lane Modification)	55.0	D	43.4	D
14. Main Street and Lyons Avenue	17.2	B	19.3	B
15. Main Street and Newhall Avenue [d]	63.9	F	99.99 [e]	F
Mitigation (Lane Modification)	9.8	A	11.1	B
16. Arch Street/Dockweiler, 12th Street, Placerita Canyon Road [c]	18.4	C	39.1	E

Notes:
- [a] *Delay – In Seconds*
- [b] *LOS – Level of Service*
- [c] *Un-Signalized Intersection*
- [d] *Roundabout Intersection*
- [e] *99.99 – Intersection Delay Exceeds Level of Service Standard*

Source: David Evans and Associates, Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA, August 8, 2017.



Source: David Evans and Associates Inc, August 8, 2017.

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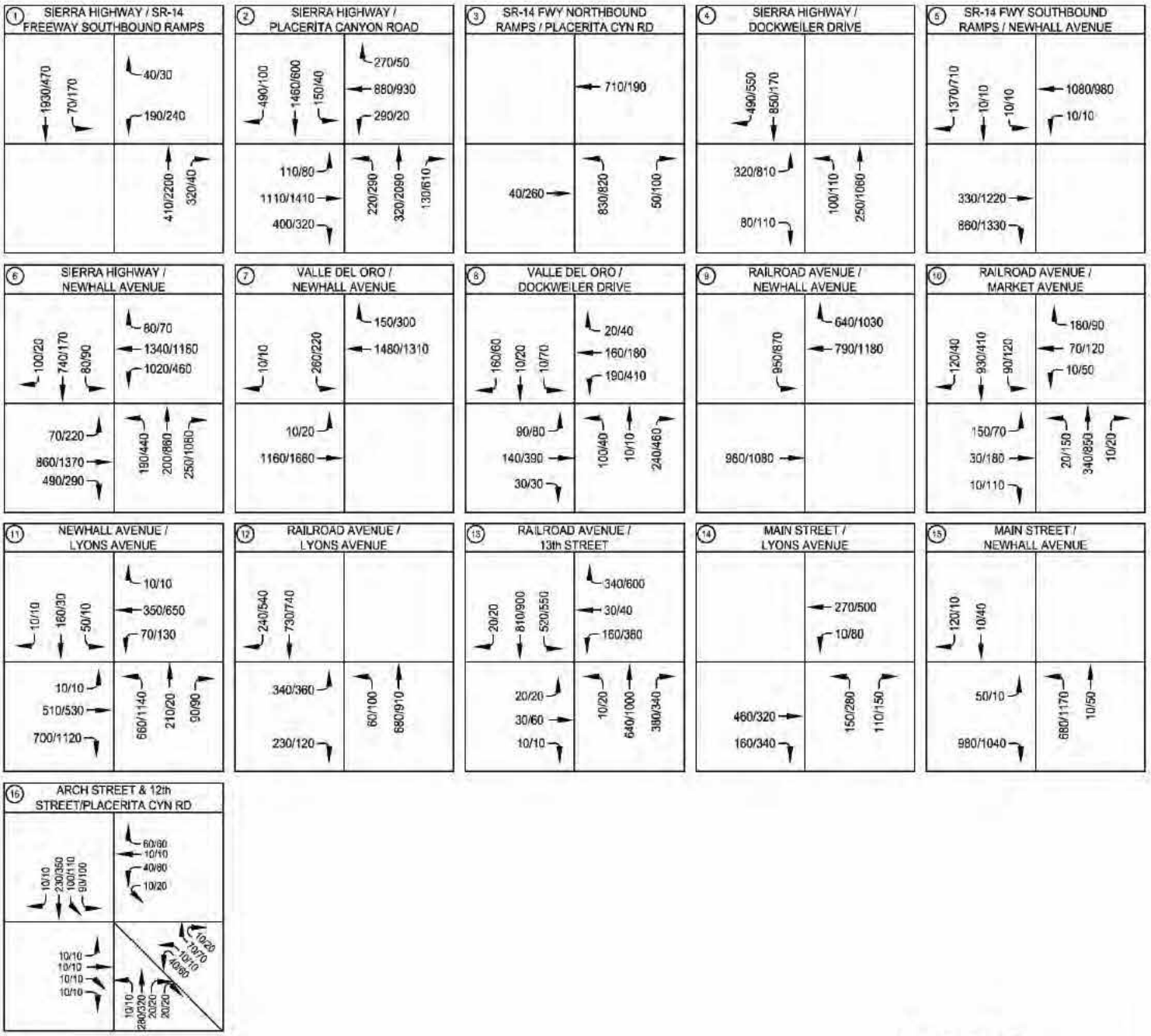
Figure 6.4-10
Project Year 2035 Alternative 2 Study Intersections



LEGEND

(#) - STUDY INTERSECTIONS

XX/XX - AM/PM PEAK HOUR VOLUMES

Source: David Evans and Associates Inc, August 8, 2017.

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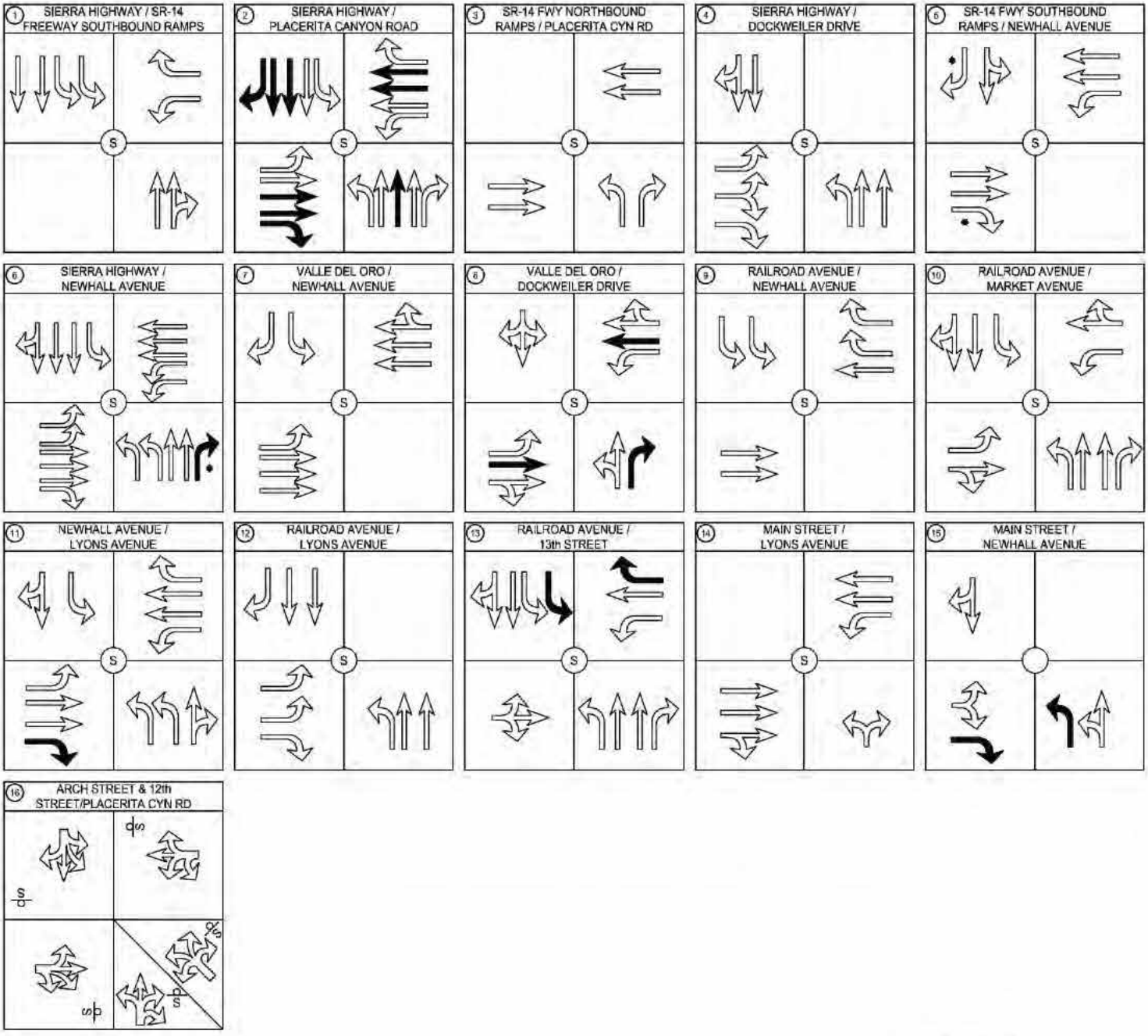
Figure 6.4-11
Project Year 2035 Alternative 2 Traffic Volumes



Source: David Evans and Associates Inc, August 8, 2017.

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Figure 6.4-12
Project Year 2035 Alternative 2 Intersection Configurations

Railroad Crossing Analysis

Similar to the Proposed Project, a comparison of the No Build scenario, the Proposed Project scenario, and the Alternative 2 Project scenario for Daily, AM and PM Peak hour traffic volumes were compiled for the Year 2019 and 2035 conditions as presented in Table 6.4-3 and Table 6.4-4, respectively. Existing conditions remain the same as the ones reported in Section 4.9, Traffic and Circulation.

Table 6.4-3
Railroad Crossing Analysis –Year 2019 Condition

Existing Condition		1	2	3	4	Total
		13th Street	Lyons Avenue	Market Street	Newhall Avenue	
No Build	ADT [a]	10,850	N/A [c]	4,410	47,550	**62,810**
	AM [b]	955		185	3,370	**4,510**
	PM [b]	1,050		375	3,860	**5,285**
Proposed Project	ADT [a]	N/A [c]	8,060	4,390	44,790	**57,240**
	AM [b]		620	185	3,115	**3,920**
	PM [b]		840	370	3,580	**4,790**
Alternative 2	ADT [a]	6,990	N/A [c]	4,420	45,010	**56,420**
	AM [b]	530		180	3,085	**3,795**
	PM [b]	650		380	3,615	**4,645**

Notes:
[a] *ADT – Average Daily Traffic*
[b] *AUTO – Peak Hour Auto Traffic (Both Directions)*
[c] *N/A – Railroad Crossing Not Applicable to the Condition*
Source: David Evans and Associates, Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA, August 8, 2017.

Table 6.4-4
Railroad Crossing Analysis – Future Year 2035 Condition

Year 2035		1	2	3	4	Total
		13th Street	Lyons Avenue	Market Street	Newhall Avenue	
No Build	ADT [a]	16,940	N/A [c]	6,920	56,300	**80,160**
	AM [b]	1,170		325	3,735	**5,230**
	PM [b]	1,525		575	4,605	**6,705**
Proposed Project	ADT [a]	N/A [c]	28,870	7,050	47,100	**83,020**
	AM [b]		1,880	330	3,015	**5,225**
	PM [b]		2,495	590	3,695	**6,780**
Alternative 2	ADT [a]	17,670	N/A [c]	6,980	52,140	**76,790**
	AM [b]	1,295		330	3,370	**4,995**
	PM [b]	1,585		580	4,165	**6,330**

Notes:
[a] *ADT – Average Daily Traffic*
[b] *AUTO – Peak Hour Auto Traffic (Both Directions)*
[c] *N/A – Railroad Crossing Not Applicable to the Condition*
Source: David Evans and Associates, Traffic Impact Analysis: Dockweiler Drive Alignment Project, Santa Clarita, CA, August 8, 2017.

As presented in Table 6.4-3 under Alternative 2 Year 2019, the total average daily traffic is anticipated to be higher under the No Build Condition as compared to the Proposed Project and Alternative 2. Alternative 2's total average daily railroad crossings would result in 6,390 fewer crossings as compared to the No Build condition and 820 fewer railroad crossings as compared to the Proposed Project condition. For the Year 2035 Condition, the total average daily traffic is anticipated to be highest under the Proposed Project Condition. Alternative 2 would result in 3,370 fewer crossings under Alternative 2 as compared to the No Build condition and 6,230 fewer crossings than the Proposed Project condition. As such, Alternative 2 would be preferable over the No Build and Proposed Project scenarios.

Bicycle and Pedestrian Facilities

Similar to the Proposed Project, the Alternative 2 would comply with Santa Clarita's circulation goals and enhancing the circulation system by providing bicycle lanes and accessibility to bicycle paths that are fundamental for a comprehensive transportation network.

MITIGATION MEASURES (ALTERNATIVE 2)

Year 2019 Project Mitigation Measures

6.4-1 Dockweiler Drive extension: Construct to full Secondary Highway Pavement width, from Aden Avenue to west of Valle Del Oro, providing two lanes eastbound (uphill) and one lane westbound (downhill), as necessary. May be striped for parking lane on both sides of roadway in interim condition. Class II Bike lanes and Pedestrian Sidewalks to be provided.

6.4-2 Arch Street (north leg) / Dockweiler Drive (south leg) / 12th Street (east and west legs) / Placerita Canyon Road (southeast leg): Convert intersection to a 5-leg all way stop controlled intersection including Dockweiler Drive as the 5th leg. Arch Street will include a shared left-through-right lane accommodating left turning movements to the west leg (12th Street) and Placerita Canyon Road. Dockweiler Drive will include a shared left-through right lane accommodating right turning movements to Placerita Canyon Road and the west leg (12th Street). The east leg (12th Street) will include a shared left-through-right lane accommodating left turning movements to Placerita Canyon Road and Dockweiler Drive. The west leg (12th Street) will include a shared left-through-right lane accommodating right turning movements to Dockweiler Drive and Placerita Canyon Road. Placerita Canyon Road will include a shared left-right lane accommodating left turning movements to Dockweiler Drive and west leg (12th Street) and right turning movements to the east leg (12th Street) and Arch Street.

Year 2019 Regional Mitigation Measures

6.4-3 Sierra Highway (North-South) and SR-14 Freeway Southbound Ramps (East-West): The intersection modifications include installing a traffic signal and widening the southbound direct to provide an additional left turn lane. The northbound direction will include a through lane, and a shared through-right turn lane. The southbound direction will include two left turn lanes, and two through lanes. The eastbound direction will include a left turn lane and a right turn lane.

6.4-4 Sierra Highway (North-South) and Placerita Canyon Road (East-West): The intersection modifications include lane modifications to provide an exclusive right turn westbound lane and right turn northbound lane. The northbound direction will include a left turn lane, two through lanes, and a right turn lane. The south and eastbound directions will include a left turn lane, a through lane, and a shared through-right turn lane. The westbound direction will include a left turn lane, a through lane, and a right turn lane.

6.4-5 SR-14 Freeway Northbound Ramps (North-South) and Placerita Canyon Road (East-West): The intersection modifications include installing a traffic signal. The northbound direction will include a left turn lane and a right turn lane. The east and westbound directions will include two through lanes.

6.4-6 SR-14 Freeway Southbound Ramps (North-South) and Newhall Avenue (East-West): The intersection modifications include converting the east and southbound right turn lanes to free right turns and signalizing the intersection. The eastbound direction will include two through lanes and a free right turn lane. The southbound direction will include a shared through-left turn lane and a free right turn lane. The westbound direction will include a left turn lane and two through lanes.

6.4-7 Newhall Avenue (North-South) and Lyons Avenue (East-West): The intersection modifications include converting the eastbound through-right lane to a right turn lane. The northbound direction will include two left turn lanes and a shared through-right lane. The southbound direction will include a left turn lane and a shared through-right lane. The east and westbound directions will include a left turn lane, two through lanes, and a right turn lane.

Year 2035 Project Mitigations

6.4-8 Railroad Avenue (North-South) and 13th Street (East-West): The intersection modifications include widening the south and westbound direction to include a left turn lane. The northbound direction will include a left turn lane, two through lanes and a right turn lane. The southbound direction will include two left turn lanes, through lane, and a shared through-right turn lane. The eastbound direction will include a shared left-through-right turn lane. The westbound direction will include a left turn lane, a through, and a right turn lane.

Year 2035 Regional Mitigations

6.4-9 Sierra Highway (North-South) and Placerita Canyon Road (East-West): The Intersection modifications include widening to accommodate lane modifications to all approaches. Widen the northbound direction to accommodate an additional through lane. Widen the east and southbound directions to accommodate two additional through lanes and restripe the shared through-right lane to a right turn only lane. Widen the westbound direction to accommodate two additional through lanes. The north, east, south, and westbound direction will include a left turn lane, three through lanes, and a right turn lane.

6.4-10 Sierra Highway (North-South) and Newhall Avenue (East-West): Intersection modifications include converting the northbound through-right turn lane to a through lane and widening to accommodate a free right turn. The northbound direction will include two left turn lanes, two through lanes, and a free right turn. The southbound direction will include a left turn lane, two through lanes, and a shared through-right turn lane. The east and westbound directions will include two left turn lane, three through lanes, and a right turn lane.

6.4-11 Main Street (north leg) / Newhall Avenue (south leg) / Newhall Avenue (west leg): The intersection modifications include widening the northbound direction to accommodate a left turn lane and the eastbound direction to accommodate a right turn lane. Newhall Avenue (south leg) will include a left turn lane and a shared left-through lane. Main Street will include a shared right-through lane. Newhall Avenue (east leg) will include a shared left right lane and a right turn lane.

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6. PROJECT ALTERNATIVES
5. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Section 15126.6 of the State CEQA Guidelines requires that an "environmentally superior" alternative be selected among the alternatives that are evaluated in the EIR. In general, the environmentally superior alternative is the alternative that would be expected to generate the fewest adverse impacts. The environmentally superior alternative would be the No Project Alternative. The No Project Alternative would eliminate the Project's significant and unavoidable impacts related to localized construction emissions, and construction noise and vibration impacts. However, the No Project Alternative would not achieve any of the stated Project Objectives, as it would maintain the status quo.

As required by CEQA, when the No Project Alternative is shown to be environmentally superior over the Proposed Project, a separate Environmentally Superior Project Alternative shall be identified among the alternatives analyzed within the EIR. Based on a review of the project alternatives identified in this EIR, neither of the alternatives would be effective in eliminating the Project's significant and unavoidable impacts. Table 6.5-1, Environmentally Superior Alternative Matrix presents a summary of the impact conclusions for each alternative relative to the impact statements for each impact areas evaluated in the EIR for the Proposed Project.

Of the alternatives evaluated, the Alternative 2 Project would reduce the footprint of the Project Site, as it excludes the Lyons Avenue Extension to Dockweiler Drive, and maintains the at-grade crossing at 13th Street. A comparison of the Alternative 1 Project to the Alternative 2 Project is provided below in Table 6.5-1. As shown in the table below, although both alternatives are very similar with respect to environmental impacts; however, the Alternative 2 Project's reduced Project Site footprint has the potential to reduce impacts more so than the Alternative 1 Project. For that reason, the Alternative 2 Project is identified as the environmentally superior alternative. A discussion of the changes to impacts between the Alternative 1 Project and the Alternative 2 Project are further discussed below.

Similar to the Proposed Project, the Alternative 1 Project would involve the development of the proposed roadway alignment and associated infrastructure, which would include a new at-grade crossing and a secondary east-west arterial roadway connecting Lyons Avenue to the proposed Dockweiler Drive extension that would connect Dockweiler Drive to a new five-leg intersection at the Arch Street/12th Street/Placerita Canyon intersection. The Alternative 1 Project differs from the Proposed Project by improving the existing at-grade crossing at the intersection of 13th Street and Railroad Avenue instead of removing the crossing, as proposed by the Proposed Project.

Table 6.5-1
Environmentally Superior Alternative Matrix

Environmental Impacts	Proposed Project	No Project Alternative	Alternative 1	Alternative 2
Aesthetics	LTS	NI	LTS (same)	LTS (reduced)
Air Quality	SU	NI	SU (same)	SU (same)
Biological Resources	LTS	NI	LTS (same)	LTS (reduced)
Cultural Resources	LTS	NI	LTS (same)	LTS (reduced)
Geology/Soils	LTS	NI	LTS (same)	LTS (reduced)
Hydrology/Water Quality	LTS	NI	LTS (same)	LTS (reduced)
Land Use and Planning	LTS	NI	LTS (same)	LTS (same)
Noise	SU	NI	SU (same)	SU (same)
Traffic	LTS	NI	LTS (same)	LTS (reduced)

Notes: LTS = Less Than Significant Impact after mitigation (where mitigation is needed); SU= Significant and Unavoidable Impact; NI = No Impact.
All impact conclusions refer to the level of impact after mitigation. Impact comparisons as to the same, increased or reduced refers to the level of impact as compared to the Proposed Project.

The Alternative 2 Project would involve the development of the proposed roadway alignment and associated infrastructure for Dockweiler Drive, which would extend Dockweiler Drive to Arch Street. The route would continue along Arch Street to 13th Street to link the Railroad Avenue. Unlike the Proposed Project, Alternative 2 does not include the roadway segment between the Dockweiler extension and Lyons Avenue, which spans a portion of the Newhall Creek. Additionally, Alternative 2 proposes to maintain and improve the 13th Street rail crossing. Therefore, as further discussed below, the Alternative 2 Project would result in slightly reduced impacts with respect to aesthetics, biological resources, hydrology and water quality impacts, and traffic and transportation.

Aesthetics

With respect to aesthetics, both project alternatives would result in less than significant impacts with respect to the loss of a significant ridgeline, as both alternatives would extend south to the extension of Dockweiler Drive to the westerly limits of the approved segment of the Master's University Campus. As noted in Section 4.1, Aesthetics, the eastern segment of the Dockweiler alignment was previously approved under a separate project entitlement for The Master's University in 2009, which included a

Ridgeline Alteration Permit for the eastern segment of this ridgeline.[1] As part of the approved entitlements for The Master's University Master Plan in 2009, the irreversible grading and re-contouring of the ridgeline was approved to the western limit of the Master's University Campus. However, the Alternative 2 Project would not alter existing views of the Lyons Avenue and Railroad Avenue intersection and would therefore have a slightly reduced impact to existing views as compared to the Proposed Project and Alternative 1. Additionally, while Alternative 2 would still require a Hillside Review Permit and an Oak Tree Permit for the loss of one oak tree that is located within the proposed alignment, this Alternative would require the removal of one less oak tree than the Proposed Project and Alternative 1.

Air Quality

Both the Alternative 1 Project and Alternative 2 Project would result in significant localized air emissions in close proximity to residential land uses within 100 meters of the Project Site on a temporary and intermittent basis during construction. However, notwithstanding implementation of mitigation measures 4.2-1 through 4.2-4, localized air quality impacts resulting from construction activities would be considered significant and unavoidable for all both project alternatives.

With respect to operational Air Quality impacts, although neither project alternatives would directly generate new vehicle trips, both alternatives would result in changes to the traffic circulation in the vicinity and would alter the average daily traffic volumes and peak hour traffic volumes at local intersections. However, as discussed in Section 4.2 Air Quality, under worst-case conditions, future CO concentrations at each intersection of the CO hot spot analysis conducted for the Proposed Project would not exceed the state 1-hour and 8-hour standards with or without the development of the Proposed Project. Therefore, no significant project-related impact would occur relative to future carbon monoxide concentrations. As the both alternative projects are within the envelope of the Proposed Project, the alternative projects would have a less than significant impact with respect to operational air quality impacts.

Biological Resources

As the Alternative 2 Project does not include the extension of Lyons Avenue to Dockweiler Drive, it would not result in either temporary or permanent impacts to the two CDFW jurisdictional features that occur within the Project Site for the Proposed Project and Alternative 1 Project, which includes the Newhall Creek and a small ephemeral drainage that is a tributary to Newhall Creek. As such, the Alternative 2 Project would have no impact with respect to federally protected wetland and implementation of mitigation Measures 4.3-3 would not be applicable to the Alternative 2 Project. Although all three alternatives would result in a less than significant impact with respect to biological resources with implementation of mitigation measures 4.3-1 through 4.3-6, Alternative 2 would result in slightly reduced impacts, as it would not require implementation of mitigation measure 4.3-3.

[1] *Ibid.*

Cultural Resources

No cultural or historic habitable structures are located on-site, and as such, neither Alternative would have the potential to adversely impact any known historic or cultural resources. Additionally, no known archeological or paleontological sites are identified within the Project Site. While, portions of the Project Site are improved with roadways, both alternatives will consist of earthwork activities, such as grading and excavation, in areas that are currently undeveloped. Construction-related earthwork activities may result in the accidental discovery of prehistoric or historic archaeological or paleontological resources or Native American burial sites. Implementation of mitigation measures 4.4-1 and 4.4-2 would reduce impacts to a less than significant level for both alternatives. However, because Alternative 2 would involve less grading, and would avoid grading within the floodplain, it would have a reduced potential for inadvertent finds associated with archaeological, paleontological and tribal cultural resources.

Geology and Soils

The Project Site is underlain by Saugus Formation, Pacoima Formation, Quaternary alluvium and artificial fill and has historic high groundwater elevations greater than 50 feet in depth. The Project Site is located in the State of California Seismic Hazard Zone map for the Newhall Quadrangle. Hazards related to seismic-related ground failures (including ground rupture and liquefaction) are considered low. Therefore, with implementation of mitigation measure 4.5-1, both alternatives would result in a less than significant impact with respect to geology and soils. However, because Alternative 2 would involve less grading, and would avoid grading within the floodplain, it would have a reduced potential for soil erosion, loss of topsoil and potential for altering natural landforms.

Hydrology and Water Quality

Unlike the Proposed Project and Alternative 1 Project, the Alternative 2 Project does not include the roadway extension from Lyons Avenue to Dockweiler Drive, which spans a portion of the Newhall Creek. As such, the Alternative 2 Project would not include the development of a new bridge across Newhall Creek or require embankment protection to the roadway and creek. Although all three project scenarios would result in a less than significant impacts with respect to hydrology and water quality, as all the three projects would be required to comply with the current regulatory and State permitting agencies, under the Alternative 2 Project, impacts related to hydrology and water quality would be reduced as Alternative 2 would avoid grading within the floodplain. As such the potential to alter existing storm flows through Newhall Creek would be avoided.

Land Use and Planning

Implementation of the both alternative projects would not disrupt or physically divide an established community. Monument signage will properly guide traffic and identify the entrance to the Placerita Canyon community as a residential community with no through access. Additionally, similar to the Proposed Project, both alternative projects will provide increased pedestrian and vehicular access in the area. Both alternatives would not conflict with any applicable land use plans, policies, or regulations, including: the Regional Transportation Plan / Sustainable Communities Strategy, City of Santa Clarita

Municipal Code, City of Santa Clarita General Plan (including the Circulation Element), the Placerita Canyon Special Standards District and North Newhall Area, Old Town Newhall Specific Plan, and the Compass Blueprint Concept Plan. As such, implementation of either alternative would create a less than significant impact with regards to land use and planning.

Noise

Construction

Similar to the Proposed Project, construction of both alternatives would require the use of heavy equipment for ground clearing, site grading, and roadway construction. Several pieces of construction equipment operating simultaneously would generate a noise level of approximately 94.6 dBA. The estimated construction noise levels impacting sensitive receptors are expected to exceed the City's daytime noise standards for residential uses (see Table 4.8-8). The construction noise levels would therefore constitute a significant impact with respect to both alternative projects.

Operational

Similar to the Proposed Project, the Alternative 2 Project is anticipated to alter roadway traffic volumes as the Proposed Project would create a new roadway segment connecting Lyons Avenue to Dockweiler Drive. Locations in the vicinity of the Project Site could experience slight changes in noise levels as a result of the change in traffic patterns. The changes in future noise levels along the study-area roadway segments in the project vicinity are for the Proposed Project's near term (Year 2019) impacts would increase local noise levels by a maximum of 2.7 dBA CNEL (at the location of Dockweiler Drive (between Sierra Highway and Valle del Oro). This increase would be below the identified thresholds of significance. At all other roadway segments, the resulting noise levels are anticipated to decrease. As such the Proposed Project's potential to generate a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project would be less than significant.

The Future (2019) With Project noise levels on the new roadway segment from Lyons Avenue to Valle del Oro are expected to be 63.3 dBA (CNEL) within 50 feet of the centerline of the roadway. The resulting noise levels at the three identified sensitive receptors would be below 52.9 dBA. Thus, the anticipated with project noise levels at all off-site receptor locations would be within the "normally acceptable" range of noise for residential areas. Therefore, the Alternative 2 Project's noise impacts would be less than significant.

The Alternative 2 Project would direct more traffic through Arch Street and 13th Street in lieu of the Dockweiler/Lyons Extension, which would not be constructed as part of this alternative. The land uses along Arch Street and 13th Street are commercial properties and are not considered sensitive land uses for purposes of evaluating noise impacts. Thus noise impacts associated with the change of traffic flows under this alternative would be less than significant.

Transportation and Traffic

Opening Year (2019) Conditions

As presented in Table 6.3-1 under Year 2019 with Alternative 1 Condition and Table 6.4-1 under Year 2019 with Alternative 2 Condition, most of the study intersections are anticipated to continue to operate at LOS E or better. Like the Proposed Project, the same four intersections are anticipated to operate at LOS F, they are: Sierra Highway and SR-14 Southbound Ramps, Sierra Highway and Placerita Canyon Road, SR-14 Northbound Ramps and Placerita Canyon Road, SR-14 Southbound Ramps and Newhall Avenue. The same mitigation measures presented for the Proposed Project would generally be necessary to accommodate the anticipated Year 2019 traffic and reduce potential impacts for the Alternative 1 Project and Alternative 2 Project. Alternative 1 Project would not require implementation of mitigation measures 4.9-5 and 4.9-10, as compared to the Proposed Project. Alternative 2 would not require implementation of mitigation measures 4.9-2. 4.9-4 and 4.9-5, as compared to the Proposed Project.

Future (2035) Conditions

As presented in Table 6.3-2 under Future Year 2035 with Alternative 1 Project Condition, several of the study intersections are anticipated to operate at LOS F. There are four intersections that are anticipated to operate at LOS F, they are: Sierra Highway and Placerita Canyon Road, Sierra Highway and Newhall Avenue, Valle Del Oro and Dockweiler Drive, and Main Street and Newhall Avenue. Similar to the Proposed Project, mitigation measures are necessary to accommodate the anticipated Future Year 2035 traffic and reduce potential Alternative 1 Project impacts.

As presented in Table 6.4-2 under Future Year 2035 with Alternative 2 Project Condition, several of the study intersections are anticipated to operate at LOS F. There are five intersections that are anticipated to operate at LOS F, they are: Sierra Highway and Placerita Canyon Road, Sierra Highway and Newhall Avenue, Valle Del Oro and Dockweiler Drive, Railroad Avenue and 13th Street, and Main Street and Newhall Avenue. Mitigation measures are necessary to accommodate the anticipated Future Year 2035 traffic and reduce potential Alternative 2 Project impacts

With the implementation of the mitigation measures identified in Section 6.3 and 6.4, the Alternative 1 Project and Alternative 2 Project's impacts during the 2035 year will be less than significant. Therefore, the Proposed Project and two alternatives would both result in a less than significant impact after mitigation.

Railroad Crossing Analysis

As presented in Table 6.3-3 under Alternative 1 Year 2019, the total average daily traffic is anticipated to be highest for the No Build Condition. Alternative 1 total average daily traffic is lower than the No Build condition but higher than the Proposed Project condition. As presented in Tables 6.3-3 and 6.4-3, the total average daily railroad crossings is anticipated to be lowest for the Alternative 2 Project condition in Year 2019. In 2019, Alternative 2 would result in 820 fewer crossings than the proposed Project and 3,160 fewer crossings than Alternative 1. For the Year 2035 buildout scenario, the total average daily railroad

crossings is also anticipated to be lowest for the Alternative 2 Project condition. In 2035, Alternative 2 would result in 6,230 fewer crossings than the proposed Project and 8,740 fewer crossings as compared to Alternative 1. As such the Alternative 2 alignment would minimize railroad crossing events and would therefore be environmentally superior to the proposed Project.

Bicycle and Pedestrian Facilities

Similar to the Proposed Project, both the Alternative 1 and Alternative 2 would comply with Santa Clarita's circulation goals and enhancing the circulation system by providing bicycle lanes and accessibility to bicycle paths that are fundamental for a comprehensive transportation network.

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VIII. REFERENCES AND ACRONYMS

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2. ACRONYMS AND ABBREVIATIONS

AAM	Annual Arithmetic Mean
AB	Assembly Bill
ACM	Asbestos-containing materials
AEP	Association of Environmental Professionals
AFY	Acre-feet per year
APN	Assessor Parcel Number
AQMP	Air Quality Management Plan
ASTM	American Society of Testing and Materials
ASTs	above-ground storage tanks
ATCS	Adaptive Traffic Control System
Basin	South Coast Air Basin
BMPs	Best Management Practices
C/D	construction/demolition
CAA	Clean Air Act
CAAQS	California ambient air quality standards
Cal/EPA	California Environmental Protection Agency
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CAT	Climate Action Team
CBC	California Building Code (2007)
CCAA	California Clean Air Act
CCAR	California Climate Action Registry
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CDMG	California Division of Mines and Geology
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
Cf	Cubic feet
CFC	Chlorofluorocarbons
CGS	California Geological Survey
CH_4	Methane
CHMIRS	California Hazardous Material Incident Report System
CMP	Congestion Management Plan
CNEL	Community Noise Exposure Level
CO	carbon monoxide
CO_2	carbon dioxide
CO2e	carbon dioxide equivalent
COHb	carboxyhemoglobin

COPC	Chemical of Potential Concern
CORRACTS	Corrective Action Treatment, Storage, and Disposal Facilities
CPT	cone penetrometer test
CWA	Clean Water Act
CWC	California Water Code
cy	cubic yards
dB	decibel
dBA	A-weighted decibel scale
d/D	flow level
DHS	California Department of Health and Services
DWR	California Department of Water Resources
du	dwelling unit
EIR	Environmental Impact Report
EMS	Emergency Medical Service
EOO	Emergency Operations Organization
EPA	Environmental Protection Agency
ERNS	Emergency Response Notification System
FAR	Floor Area Ratio
FCAA	Federal Clean Air Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
GBCI	Green Building Certification Institute
GHG	greenhouse gas
gpd	gallons per day
gpm	gallons per minute
GWP	Global Warming Potential
HFC	hydrofluorocarbons
HSA	Hyperion Service Area
HTP	Hyperion Treatment Plant
HVAC	Heating, Ventilation and Air Conditioning
I-10	Santa Monica Freeway
I-101	Hollywood Freeway
ISO	Interim Control Ordinance
ITE	Institute of Transportation Engineers
km	kilometers
kV	kilovolt
kWh	kilowatt-hours
LAA	Los Angeles Aqueduct
LBP	Lead-based paint
lbs/day	pounds per day
LCFS	Low Carbon Fuel Standard
L_{dn}	day-night average noise level

LEED	Leadership in Energy and Environmental Design
L_{eq}	equivalent energy noise level/ambient noise level
LOS	Level of Service
LST	localized significance thresholds
LUST	leaking underground storage tank
LUTP	Land Use/Transportation Policy
MBTA	Migratory Bird Treaty Act
MCE	Maximum Considered Earthquake
MEP	maximum extent practicable
Metro	Los Angeles County Metropolitan Transit Authority
mgd	million gallons per day
mi	miles
MPO	Metropolitan Planning Organization
MS4	medium and large municipal separate storm sewer systems
msl	mean sea level
mm	millimeters
M_{max}	maximum moment magnitude
MWD	Metropolitan Water District
MWh	Mega-Watt hours
N_2O	nitrous oxide
NAAQS	National ambient air quality standards
NFRAP	No Further Remedial Action Planned Sites
NO_2	nitrogen dioxide
NOP	Notice of Preparation
NOx	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
O_3	Ozone
OAL	California Office of Administrative Law
OPR	Office of Planning and Research
Pb	lead
PEC	Potential environmental concern
PFC	perfluorocarbons
PGA	peak horizontal ground acceleration
PM	particulate matter
PM_{10}	respirable particulate matter
$PM_{2.5}$	fine particulate matter
ppd	pounds per day
ppm	parts per million
PRC	Public Resources Code
psi	pounds per square inch
RCP	Regional Comprehensive Plan

RCPG	Regional Comprehensive Plan and Guide
RCRA	Resource Conservation Recovery Act
RD	Reporting District
REC	Recognized Environmental Condition
ROG	Reactive Organic Gases
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCG	Southern California Gas Company
SCH	State Clearinghouse
sf	square feet
SF_6	sulfur hexafluoride
SIP	State Implementation Plan
SLIC	Spills, Leaks, Investigation and Cleanup
SO_2	sulfur dioxide
SO_4	sulfates
SOx	sulfur oxides
SOPA	Society of Professional Archeologist
SPT	Standard Penetration Test
SR-110	Harbor Freeway
SRA	source receptor area
SRRE	Source Reduction and Recycling Element
SWAT	Solid Waste Assessment Test
SWF/LF	Solid Waste Information System
SWFP	Solid Waste Facility Permit
SWMP	stormwater management plan
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resource Control Board
TAC	Toxic Air Contaminants
TOD	Transit Oriented District
TPH	total petroleum hydrocarbons
TSD	Treatment, Storage, and Disposal
TSP	Transportation Specific Plan
ULSD	Ultra Low Sulfur Diesel
US-101	Hollywood Freeway
USEPA/ U.S. EPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGBC	United States Green Building Council

USGS	U.S. Geological Survey
UST	underground storage tank
UWMP	Urban Water Management Plan
V/C	Volume-to-Capacity
VCP	Voluntary Cleanup Plan
VdB	Vibration decibels
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound
WMA	Watershed Management Area
WMUDS	Waste Management Unit Database System
WSA	Water Supply Assessment
µg/m3	micrograms per cubic meter