Administrative Draft
Initial Study/Mitigated Negative Declaration

Halcyon 220-Unit Multi-Family Development at 7536 Sterling Avenue

LEAD AGENCY:

City of Highland
27215 Base Line
Highland, CA 92346
Contact: Mr. Ash Syed, Associate Planner

PREPARED BY:

Morse Planning Group

July 11, 2023

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MITIGATED NEGATIVE DECLARATION

Title of Project:	Halcyon 220-Unit Multi-Family Development at 7536 Sterling Avenue
Project Location:	The project site is generally located approximately 0.05 mile north of the 9th Avenue/Sterling Avenue intersection and approximately 0.30 mile south of the Baseline Road/Sterling Avenue intersection.
Project Proponent:	Helios Holdings, LLC 840 Ardmore Avenue Hermosa Beach, CA 92054
Brief Description of Project:	The Applicant proposes to construct 220 multi-family residential units on the 6.77 gross acre project site. Five percent of the base units (11 units) are designated for the very low income affordability category. Two four-story buildings will be constructed providing 220 residential units, totaling 274,951 square feet inclusive of non-residential building space . Building A will include 90 units and Building B will include 130 units. Additional details regarding the proposed project are provided in Section 2.4, Project Characteristics. The permits and approvals from lead, responsible, and trustee agencies that would be necessary include: ▪ City of Highland Design Review approval ▪ City of Highland Lot Line Adjustment approval ▪ City of Highland Minor Variance approval for increased height of perimeter walls ▪ City of Highland issuance of Grading, Building, Landscape & Irrigation, Electric, Mechanical, and Plumbing Permits ▪ City of Highland Fire Department approval of proposed site improvement ▪ East Valley Water District - Water and Sewer Connection Permit
Cortese List:	The proposed project is not on a site located on the Cortese list.
Project Impacts:	The Initial Study/Mitigated Negative Declaration found that the environmental impacts from the project would be less than significant with the incorporation of mitigation measures.
Mitigation Measures:	Mitigation measures or regulatory measures have been included for Air Quality, Biological Resources, Cultural and Tribal Cultural Resources; Geology and Soils; Hazards & Hazardous Materials; Noise; and Transportation.

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1.0 INTRODUCTION

The Halcyon 220-Unit Multi-Family Development at 7536 Sterling Avenue Project (herein referenced as the "project" or "proposed project") involves the development of 220 multi-family residential units. Following a preliminary review of the proposed project, the City of Highland has determined that the proposed project is subject to the guidelines and regulations of the *California Environmental Quality Act* (*CEQA*). This Initial Study addresses the direct, indirect, and cumulative environmental effects of the project, as proposed.

1.1. STATUTORY AUTHORITY AND REQUIREMENTS

This environmental document has been prepared in conformance with *CEQA* (*California Public Resources Code* [*PRC*] Section 21000 et seq.); *CEQA Guidelines* (*California Code of Regulations* [*CCR*], Title 14, Section 15000 et seq.); and the rules, regulations, and procedures for implementation of *CEQA*, as adopted by the City of Highland.

In accordance with the *CEQA Guidelines* Sections 15051 and 15367, the City of Highland (City) is identified as the Lead Agency for the proposed project. Under *CEQA* (*Public Resource Code* Sections 21000-21177) and pursuant to *CEQA Guidelines* Section 15063, the City is required to undertake the preparation of an Initial Study to determine if the proposed project would have a significant environmental impact. If, as a result of the Initial Study, the Lead Agency finds that there is evidence that any aspect of the project may cause a significant environmental effect, the Lead Agency shall further find that an Environmental Impact Report (EIR) is warranted to analyze project-related and cumulative environmental impacts. Alternatively, if the Lead Agency finds no evidence that the project, either as proposed or as modified to include the mitigation measures identified in the Initial Study, may cause a significant effect on the environment, the Lead Agency shall find that the proposed project would not have a significant effect on the environment and shall prepare a Negative Declaration. Such determination can be made only if "there is no substantial evidence in light of the whole record before the Lead Agency" that such impacts may occur (*Public Resources Code* Section 21080(c)).

The environmental documentation, which is ultimately selected by the City in accordance with *CEQA*, is intended as an informational document undertaken to provide an environmental basis for subsequent discretionary actions relevant to the project. The resulting documentation is not, however, a policy document and its approval and/or certification neither presupposes nor mandates any actions on the part of those agencies from whom permits and other discretionary approvals would be required.

The environmental documentation and supporting analysis are subject to a public review period. During this review, agency and public comments on the document relative to environmental issues should be addressed to the City. Following review of any comments received, the City will consider these comments as a part of the project's environmental review and include them with the Initial Study documentation for consideration by the City.

1.2. PURPOSE

The purposes of an Initial Study are to:

1. Identify environmental impacts;
2. Provide the lead agency with information to use as the basis for deciding whether to prepare an EIR or a negative declaration;
3. Enable an applicant or lead agency to modify a project, mitigating adverse impacts before an EIR is required to be prepared;
4. Facilitate environmental assessment early in the design of the project;
5. Document the factual basis of the finding in a negative declaration that a project would not have a significant environmental effect;
6. Eliminate needless EIRs;
7. Determine whether a previously prepared EIR could be used for the project; and
8. Assist in the preparation of an EIR, if required, by focusing the EIR on the effects determined to be significant, identifying the effects determined not to be significant, and explaining the reasons for determining that potentially significant effects would not be significant.

CEQA Guidelines Section 15063 identifies specific disclosure requirements for inclusion in an Initial Study. Pursuant to those requirements, an Initial Study shall include:

- A description of the project, including the location of the project
- Identification of the environmental setting
- Identification of environmental effects by use of a checklist, matrix, or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries
- Discussion of ways to mitigate significant effects identified, if any
- Examination of whether the project is compatible with existing zoning, plans, and other applicable land use controls
- The name(s) of the person(s) who prepared or participated in the preparation of the Initial Study

1.3. RESPONSIBLE AND TRUSTEE AGENCIES

Certain projects or actions undertaken by a Lead Agency require subsequent oversight, approvals, or permits from other public agencies in order to be implemented. Such other agencies are referred to as Responsible Agencies and Trustee Agencies. Pursuant to *CEQA Guidelines* Sections 15381 and 15386, as amended, Responsible Agencies and Trustee Agencies are respectively defined as follows:

> *"Responsible Agency" means a public agency, which proposes to carry out or approve a project, for which [a] Lead Agency is preparing or has prepared an EIR or Negative Declaration. For the purposes of CEQA, the term*

"responsible agency" includes all public agencies other than the Lead Agency, which have discretionary approval power over the project. (Section 15381)

"Trustee Agency" means a state agency having jurisdiction by law over natural resources affected by a project, which are held in trust for the people of the State of California. Trustee Agencies include; The California Department of Fish and Wildlife, The State Lands Commission; The State Department of Parks and Recreation and The University of California with regard to sites within the Natural Land and Water Reserves System. (Section 15386)

For this project, the City of Highland is the Lead Agency and has the principal responsibility of processing and approving the project.

Responsible Agencies and other entities that may use this Initial Study in their decision-making process or for informational purposes include, but may not be limited to, the following:

- Santa Ana Regional Water Quality Control Board
- South Coast Air Quality Management District

1.4. CONSULTATION

As soon as the Lead Agency has determined that an Initial Study would be required for a project, the Lead Agency is directed to consult informally with all Responsible Agencies and Trustee Agencies that are responsible for resources affected by the project, in order to obtain the recommendations of those agencies as to whether an EIR or a Negative Declaration should be prepared for the project. Following receipt of any written comments from those agencies, the Lead Agency considers any recommendations of those agencies in the formulation of the preliminary findings. Following completion of this Initial Study, the Lead Agency initiates formal consultation with these and other governmental agencies as required under *CEQA* and its implementing guidelines.

The City also complied with Tribal Cultural Resources consultation requirements under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal notification was sent to the list of three tribes that requested to be on the City's notification list per Public Resources Code Section 21010.3(b)(1). The City received one request for consultation.

1.5. INCORPORATION BY REFERENCE

Pertinent documents relating to this Initial Study have been cited in accordance with *CEQA Guidelines* Section 15150, which encourages incorporation by reference as a means of reducing redundancy and length of environmental reports. The following documents are hereby incorporated by reference into this EIR. Information contained within these documents has been utilized for this Initial Study. These documents are available for review at the City of Highland Planning Department, located at the City of Highland, 27215 Base Line, Highland, California 92346.

***The City of Highland General Plan (General Plan*), March 2006, January 2012, August 2012, January 2022**

The City of Highland General Plan is a long-range planning document that provides the City a framework for action and the direction in which to focus that action.

The Highland General Plan assesses and plans future uses for all property within the planning area, as well as establishes what the residents and businesses of Highland want to preserve and achieve. The Plan includes the following chapters:

1. Introduction
2. Land Use Element
3. Circulation Element
4. Public Services & Facilities Element
5. Conservation & Open Space Element
6. Public Health, Safety, and Environmental Justice Element
7. Noise Element
8. 6th Cycle Housing Element (2021-2029)
9. Economic Development Element
10. Community Design Element
11. Airport Element

2012 General Plan Implementation Report

Based on the City's Regional Housing Needs Assessment (RHNA) target for the 2021-2029 Housing Element, it is estimated that approximately 2,508 new houses, condominiums, or apartments will be necessary in the next eight years to keep up with the City's growing population and housing needs. In the 2021-2029 Housing Element, the City identified potentially developable land zoned for residential use to meet the City's new RHNA target and provided goals, objectives, policies, and programs to meet the housing needs of the City's citizens.

The Public Health and Safety Element was renamed in 2022 to the Public Health, Safety, and Environmental Justice Element and policies were added to address equity and safety throughout the City.

General Plan | Highland, CA (cityofhighland.org)

2012-General-Plan-Implementation-Report-PDF (cityofhighland.org)

6th Cycle Housing Element Update | Highland, CA (cityofhighland.org)

Public Health, Safety and Environmental Justice Element

***The City of Highland General Plan Final Environmental Impact Report* (EIR), Certified March 2006**

The City of Highland General Plan EIR analyzed potential environmental impacts associated with buildout of the City in accordance with *The City of Highland General Plan*.

Providing a blueprint for the future development of Highland is one of the primary purposes of the General Plan. The Land Use Plan, which includes areas within Highland's sphere of influence, identifies 6,395 acres of residential land uses, including Planned Development; 58 acres of mixed-use land uses; 754 acres of employment-generating land uses, not including commercial uses allowed in Planned Development areas; and 3,570 acres of open space and park uses.

The General Plan EIR reviewed the following topics:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Cultural Resources
- Cumulative Effects
- Drainage/Absorption
- Flood Plain/Flooding
- Geology/Soils
- Growth Inducement
- Hazards & Hazardous Materials
- Hydrology/Water Quality
- Land Use/Planning
- Mineral Resources
- Noise
- Population/Housing
- Public Services
- Recreation
- Schools/Universities
- Septic System
- Sewer Capacity
- Solid Waste
- Transportation
- Vegetation
- Wetland/Riparian
- Wildfire
- Wildlife

The Notice of Determination (NOD), dated March 14, 2006 concluded: 1) The project will have a significant impact on the environment, 2) An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA, 3) Mitigated measures were made a condition of the approval of the project, 4) A Statement of Overriding Considerations was adopted for this project, and 5) Findings were made pursuant to the provisions of CEQA.

The City of Highland General Plan EIR concluded that not all the project-related impacts could be feasibly mitigated and would result in significant unavoidable impacts or less than significant impacts with mitigation incorporated associated with implementation of the City of Highland General Plan for the following topics: Agricultural Resources, Air Quality, Cultural Resources, Mineral Resources, Noise, and Utilities and Services Systems.

***Highland Municipal Code* (A Codification of the General Ordinances of the City of Highland, California through Ordinance 459, passed January 10, 2023)**

The *Highland Municipal Code* consists of regulatory, penal, and administrative ordinances of the City. It is the method the City uses to implement control of land uses, in accordance with General Plan goals and policies.

The *Health and Safety Code* (Title 8 of the *Highland Municipal Code*) specifies regulations relative to integrated waste management, mandatory organic waste disposal requirements, nuisances, heritage trees, mobile source emission reduction program, and noise control.

The *Vehicles and Traffic Code* (Title 10 of the *Highland Municipal Code*) specifies regulations relative to truck routes, handicapped parking, and local transportation control measures for new development.

The *Buildings and Construction Code* (Title 15 of the *Highland Municipal Code*) specifies rules and regulations for construction, alteration, and building for uses of human habitation.

The *Land Use and Development Code* (Title 16 of the *Highland Municipal Code*) identifies land uses permitted and prohibited according to the zoning category of particular parcels and establishes the development standards and regulations for each zone.

Highland Municipal Code (codepublishing.com)

2.0 PROJECT DESCRIPTION

2.1. PROJECT LOCATION

Regionally, the project site is located in the City of Highland, California. The City of Highland is located in the southwestern portion of San Bernardino County, and is bordered by the City of San Bernardino to the north, south, and west, the Cities of Redlands and Loma Linda to the south, and the San Bernardino National Forest to the north. Refer to *Exhibit 2-1, Regional Vicinity Map*.

Regional access to the City is provided via the following west-east freeways - State Route 210 (SR-210) and Interstate 10 (I-10), and via the following north-south freeways - I-215 and SR-330. Local access to the City is provided by various arterial streets within the City, including Baseline Street, 5th Street, East Highland Avenue, and North Del Rosa Street, among others.

Locally, the project site is generally located approximately 0.05 mile north of the 9th Avenue/Sterling Avenue intersection and approximately 0.30 mile south of the Base Line Road/Sterling Avenue intersection; refer to *Exhibit 2-2, Local Vicinity Map*.

2.2. ENVIRONMENTAL SETTING

2.2.1 EXISTING LAND USES

The project site is located on the west side of Sterling Avenue, north of 9th Avenue, and south of the terminus of Elm Street. The project site encompasses three parcels (Assessor Parcel Nos. 027813145, 027813146, 027813147) of vacant and undeveloped land totaling 6.77 acres:

- APN 027813145 – 4.25 acres
- APN 027813146 – 0.71 acres
- APN 027813147 – 1.81 acres

2.2.2 SURROUNDING LAND USES

The project site is surrounded by the following uses:

North: Immediately north of the project site is the Isdaofie Church, Sterling Christian School, and single-family residences. Single-family and multi-family residences are located north of the aforementioned uses.

West: West of the project site is a residential area with a mix of single-family and multi-family residences.

South: Immediately south of the project site are single-family residences and a commercial center. These uses are located to the north of 9th Avenue, which is classified as a Primary Arterial. An auto repair business, a church, tire shop, and single-family residences are located to the south of 9th Avenue, west of Sterling Avenue, which is classified as a Major Highway.

East: East of the project site is the Warm Springs Elementary School and single-family residences on Sterling Avenue, which is classified as a Major Highway.

2.3. EXISTING GENERAL PLAN AND ZONING

PROJECT SITE

General Plan: The project site has a General Plan land use designation of Planned Community (PC) with Residential High Density Special Overlay, which permits up to 30 units per gross acre.

Zoning: The project site has a Zoning designation of R-4 Multi-Family Residential (MF), which permits up to 30 units per gross acre. The primary purpose of the R-4 District is to provide for the development, by right, of multi-family attached residential dwelling units with enhanced amenities (common open space and recreation areas. Both the 2014-2021 Housing Element and the 2021-2029 Housing Element include the proposed project's three parcels and identify them as lower income sites. In addition, the project site is located within Airport Compatibility Zone E - Airport Influence Zone - Negligible Risk.

SURROUNDING USES

General Plan: The General Plan Land Use Plan designates the following uses:

- West of the site as Low Density Residential (2.1 to 6.0 dwelling units per acre)
- North of the site as Planned Community (PC) with Residential High Density Special Overlay, Medium Density Residential (6.1 to 12.0 dwelling units per acre), and General Commercial
- South of the site as Planned Commercial, Neighborhood Commercial, Low Density Residential, Medium Density Residential, and Public Institutional
- East of the site as Public Institutional, Neighborhood Commercial, General Commercial, Low Density Residential, and Medium Density Residential

Zoning: The Highland Zoning Map designates the following zoning districts:

- West of the site as R-1 (Single-Family Residential)
- North of the site as R-1 (Single-Family Residential), R-2 (Multi-Family Residential), and GC (General Commercial)
- South of the site as R-1 (Single-Family Residential), R-2 (Multi-Family Residential), PC (Planned Commercial), and NC (Neighborhood Commercial)
- East of the site as P/Q (Public/Quasi Public), NC (Neighborhood Commercial), GC (General Commercial), R-1 (Single-Family Residential), and R-2 (Multi-Family Residential)

All of the areas identified above are also located within Airport Compatibility Zone E - Airport Influence Zone - Negligible Risk.

2.4. PROJECT CHARACTERISTICS

2.4.1 DESCRIPTION OF PROJECT

The Applicant proposes to construct 220 multi-family residential units on the 6.77 gross acre project site. Refer to *Exhibit 2-3*, *Site Plan* and *Table 2-1*, *Proposed Uses*. Five percent of the base units (11 units) are designated for the very low income affordability category.

TABLE 2-1 PROPOSED USES

Proposed Use	Dwelling Units	Acres
Multi-Family Residential	220	6.77
Proposed Total	220	6.77

As shown in *Exhibit 2-3, Site Plan – Ground Floor* and *Exhibit 2-4*, *Site Plan – Floors Two to Four*, two four-story buildings will be constructed providing 220 residential units, totaling 274,951 square feet inclusive of non-residential building space. Building A will include 90 units (117,576 square feet) and Building B will include 130 units (152,726 square feet). The clubhouse building will be 4,649 square feet.

Table 2-2, *Building Unit Mix* provides a summary of the unit type, unit size, and quantity for Buildings A and B. The residential units range in size from approximately 445 to 1,109 square feet in size:

- Studio – 445 square feet
- One Bedroom – 705 square feet
- Two Bedroom- 975 square feet
- Three Bedroom – 1,109 square feet

TABLE 2-2 BUILDING UNIT MIX

Building	Unit Type				Total
	Studio	1 Bedroom	2 Bedroom	3 Bedroom	
Building A	6	28	49	7	90
Building B	8	42	54	26	130
Total	*14*	*70*	*103*	*33*	*220*
Unit Mix	6%	32%	47%	15%	100%
Unit Size (Square Feet)	544	704	975	1,110	
Source: Danielian Associates (December 2022)					

Each unit will have a private balcony. Studio units will have a 55 square foot balcony. One bedroom units will have a 71.5 square foot balcony. Two bedroom units will have a 71.5 square foot balcony. Three bedroom units will have a 82 square foot balcony.

The project will also include a leasing office (1,354 sf), lobby restrooms (292 sf), mailboxes, package room, and on-site amenities including a clubhouse (1,043 sf), pool, spa, showers, outdoor fireplace, and tot lot. In addition, the project includes co-working space (530 sf), fitness/gym (660 sf), and specialty fitness (590 sf).

DENSITY BONUS AND PROJECT PHASING

The Applicant is seeking an Affordable Housing/Inclusionary Housing Agreement with the City. The Agreement will be consistent with California Density Bonus Law. The project's base density is 204 units and 11 units are very low income units, representing a total of five percent (5%)

Table 2-3 below summarizes the quantity and types of units by project phase.

TABLE 2-3 UNIT TYPES BY PHASE

UNIT TYPES	PHASE 1				PHASE 2				TOTAL			
	Market Rate	Affordable	Sub-Total	% of Unit Total	Market Rate	Affordable	Sub-Total	% of Unit Total	Market Rate	Affordable	Sub-Total	% of Unit Total
Studio	5	1	6	7%	8		8	6%	13	1	14	6%
1 Bedroom	27	1	28	31%	39	3	42	32%	66	4	70	32%
2 Bedroom	47	4	49	54%	51	3	54	42%	98	5	103	47%
3 Bedroom	7		7	8%	25	1	26	20%	32	1	33	15%
TOTAL	*86*	*4*	*90*	*100%*	*123*	*7*		*100%*	*209*	*11*	*220*	*100%*

SITE ACCESS

Access to the project site will be from two gated driveway entries on Sterling Avenue. The southern driveway will be the main site driveway with full movement in and out of the site. The northern driveway will be a secondary driveway with movement only out of the site. An emergency access gate will be provided on the northern boundary of the site at the southern terminus of Elm Street.

PARKING

A total of 419 parking spaces will be provided for the multi-family residential development. This includes 43 designated spaces for Building A, 50 designated spaces for Building B, and 326 open spaces throughout the site. Six of the 419 parking spaces will be handicap spaces. Compact car spaces and electric vehicle (EV) charging areas will be provided throughout the site.

LANDSCAPING

Exhibit 2-5, *Landscape Plan* illustrates the various types of drought-tolerant trees, shrubs, succulents, grasses, and accents that will be installed throughout the site for the following areas, uses, and amenities:

- Entry Island, Keypad, and Monument Sign
- Gated Entries
- Pedestrian Security Gate
- Trash Enclosures
- Children Play Areas
- Community Spaces and Outdoor Cooking Area
- Dog Park
- Short-Term Bike Racks

The children's play areas includes a tot lot (0 to 5 age) and play equipment with rubber mat surface (age 5 to 12). The tot lot will include a shade structure and seating.

Community space areas include a dining table and chair with a shade structure, fire pit and lounge seating, barbeque, and a pool/spa with chaises, tables, and lounge seating.

The dog park will be fenced with artificial turf, shade structure, and seating.

All parking lot areas visible from adjoining properties and public rights-of- way (off-site) shall be effectively screened with landscaping. Screening shall include trees, dense evergreen shrubs, security walls, earth berms, or any combination thereof. In addition, all ground mounted electrical/mechanical/water equipment shall be effectively screened with landscaping.

WALLS AND FENCES

A variety of walls, fences, and gates will be provided throughout the site, as noted below.

Main Entry: A southern gated entrance (enter and exit) to/from Sterling Avenue.

Secondary Entry: A northern gated entrance (enter and exit) to/from Sterling Avenue.

Emergency/Utility Entry: An emergency/utility gated entrance to/from Elm Street.

Perimeter Wall: A 6-foot masonry wall along all project boundaries.

Pedestrian Security Gate: A gated pedestrian entrance into Building A and amenities.

OPEN SPACE

The project includes public open space areas totaling nine percent of the project site per the density bonus incentive for private and public open space, which will be located throughout the site (refer to *Exhibit 2-5*). In addition, the project includes private open space areas of 150 square feet for ground floor units, and 60 square feet for upper floor units.

SITE GRADING

The site requires grading to support the development and the import of earthwork. The earthwork quantities for the project include 4,300 cubic yard (cy) of cut and 9,600 cy of fill. In total, the project requires import of 5,300 cy of earthwork. The site grading and development construction is expected to start in February 2024 and will take place over 24 months.

INFRASTRUCTURE

Off-site utility easements include Southern California Edison (SCE) poles and overhead power lines in the public right-of-way (sidewalk) immediately east of the site and adjacent to Sterling Avenue. On-site utility easements encompass several SCE poles in the southeastern portion of the site.

The project will install the on-site water, wastewater, storm drain, street, electricity, and natural gas infrastructure to serve the proposed on-site residential uses. Proposed improvements include private streets and on-site water and sewer systems.

TRASH PICKUP

Specific locations have been designated for multi-bin trash enclosures for trash, recycling, and wet food compost. Building A will have one trash enclosure area and Building B will have two trash enclosure areas.

Green waste would disposed of by the management company's landscape contractor.

PROJECT PHASING AND CONSTRUCTION

The project will be constructed in two phases. Phase 1 will include demolition, mass grading, construction of perimeter walls, installation of Water Quality Management Plan Best Management Practices (BMPs) for the entire site, and the construction of the Building A and central amenities. Phase 2 will include the construction of Building B and associated landscaping and hardscape.

The site grading and development construction is expected to start in February 2024 and will take place over 24 months. The project is expected to be operational in 2026.

PERMITS AND APPPROVALS

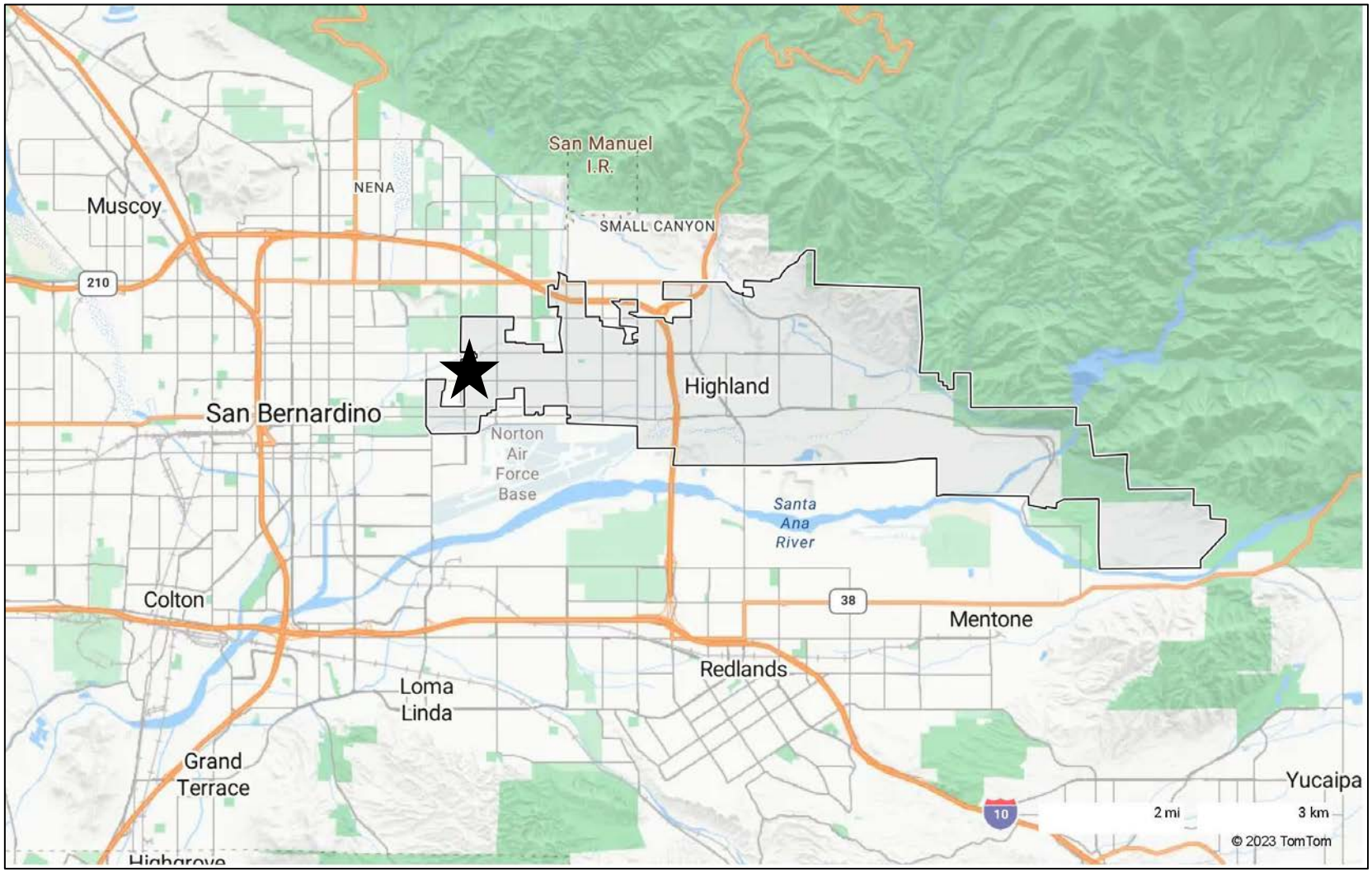
The City of Highland (lead agency under CEQA) will use this IS/MND in making decisions with regard to the approval of the 220-Unit Multi-Family Residential Development and the subsequent construction and development of the project.

Various permits, approvals, and actions by the City of Highland, San Bernardino County, and other agencies may be required in order to execute and implement the proposed project. The implementation of the proposed improvements would require the issuance of permits from various public agencies.

The permits and approvals from lead, responsible, and/or trustee agencies that are necessary include:

- City of Highland Design Review approval
- City of Highland Lot Line Adjustment approval
- City of Highland Minor Variance approval for increased height of perimeter walls
- City of Highland issuance of Grading, Building, Landscape & Irrigation, Electric, Mechanical, and Plumbing Permits
- City of Highland Fire Department approval of proposed site improvement
- East Valley Water District – Water and Sewer Connection Permits

EXHIBIT 2-1 REGIONAL LOCATION



★ **Project Site**

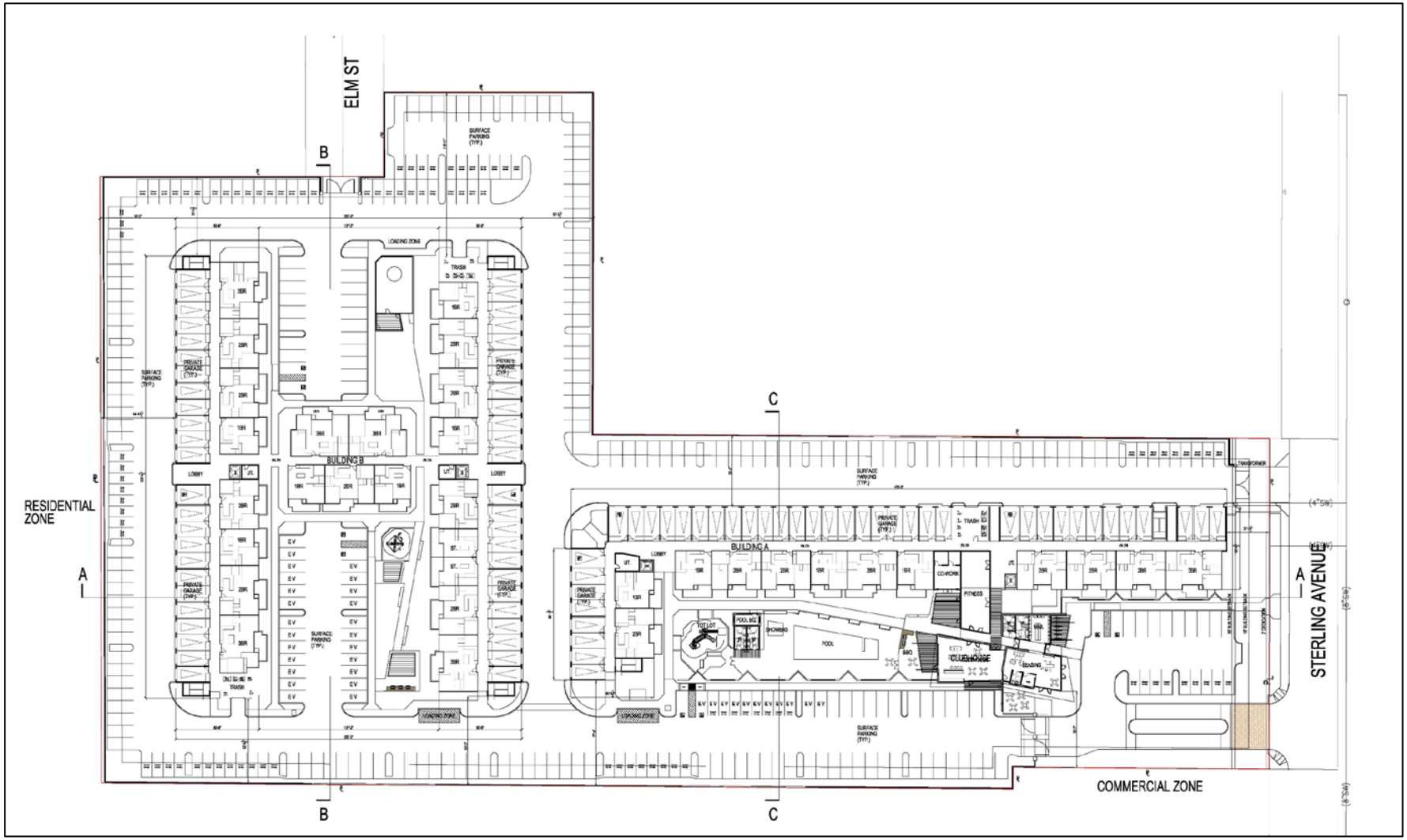
Source: Bing Maps (June 2023)

EXHIBIT 2-2 LOCAL VICINITY

Project Site

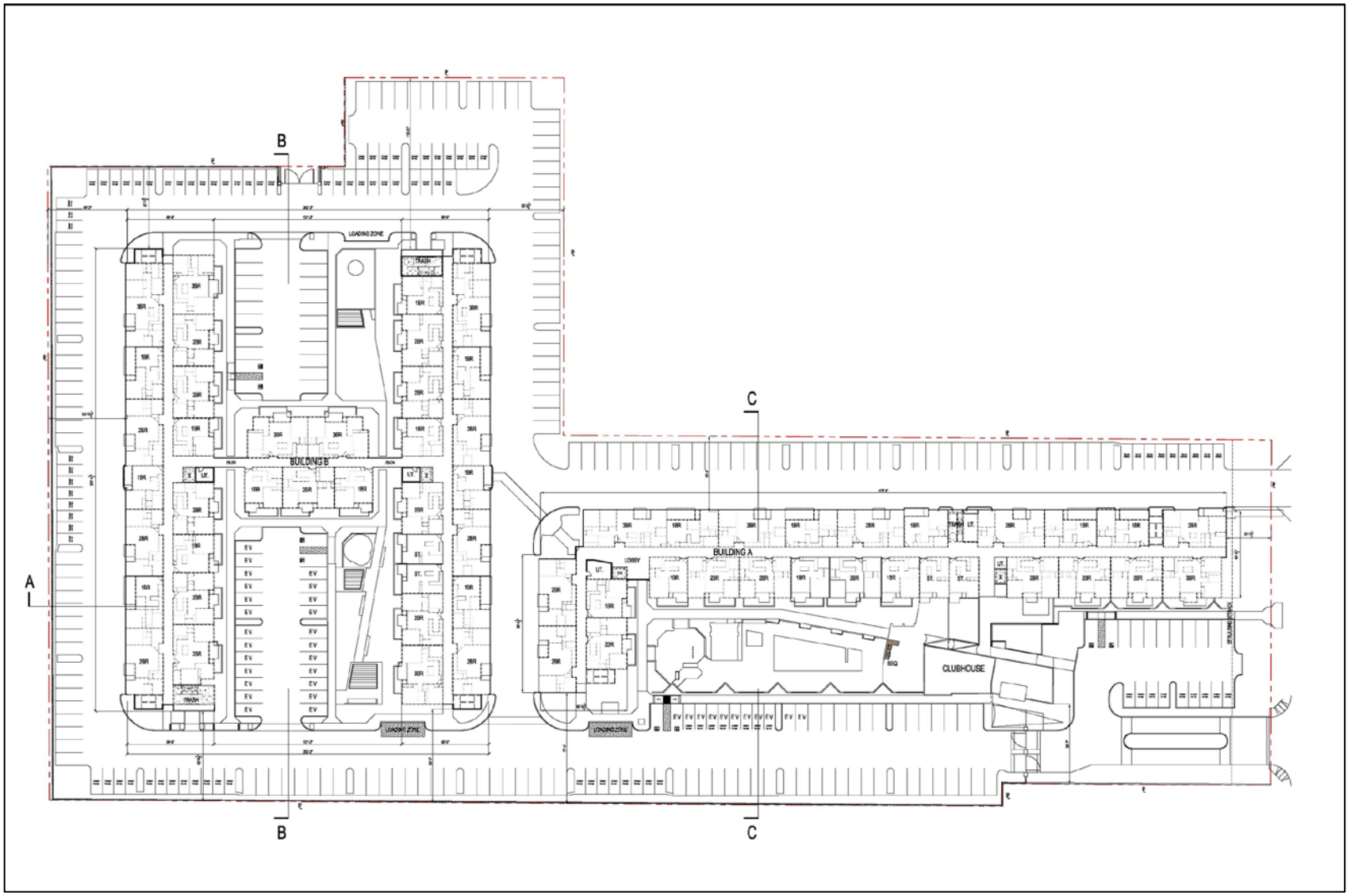
Source: Google Earth (2023)

EXHIBIT 2-3 SITE PLAN – GROUND FLOOR



Source: Danielian Associates (March 2023)

EXHIBIT 2-4 SITE PLAN/BUILDING PLAN – FLOORS TWO TO FOUR



Source: Danielian Associates (March 2023)

EXHIBIT 2-5 LANDSCAPE PLAN

Source: March Beall Associates (April 2023)

3.0 INITIAL STUDY CHECKLIST

3.1. BACKGROUND

1.	Project Title: Halcyon 220-Unit Multi-Family Development at 7536 Sterling Avenue
2.	Lead Agency Name and Address: City of Highland 27215 Base Line Highland, CA 92346
3.	Contact Person and Phone Number: Ash Syed, Associate Planner 909-864-6861 ext. 210
4.	Project Location: The project site is located at 7536 Sterling Avenue.
5.	Project Sponsor's Name and Address: Helios Holdings, LLC 18952 MacArthur Blvd Suite 210 Irvine, CA 92612
6.	General Plan Designation: Planned Community (PC) with Residential High Density Special Overlay
7.	Zoning: R-4 Multi-Family Residential (MF)
8.	Description of the Project: The Applicant proposes to construct 220 multi-family residential units (townhomes) on the 6.77 acre project site. Additional details regarding the proposed project are provided in Section 2.4, Project Characteristics.
9.	Surrounding Land Uses and Setting: Single-family residential is located to the west. Single-family residential, multi-family residential, and general commercial uses are located to north. Single-family residential, multi-family residential, planned commercial, and neighborhood commercial are located to the south. Public/quasi-public, neighborhood commercial, general commercial, single-family residential, and multi-family residential uses are located to the east. For additional details refer to Section 2.2.2, Surrounding Land Uses.
10.	Other public agencies whose approval is required (e.g., permits, financing approval or participation agreement). Refer to Section 2.5, Permits and Approvals.
11.	Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality? The City has complied with Tribal Cultural Resources consultation requirements under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal notification was sent to the list of three tribes that requested to be on the City's notification list per Public Resources Code Section 21010.3(b)(1). The City received one request for consultation.

3.2. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is "Less Than Significant Impact with Mitigation Incorporated," as indicated by the Initial Study Checklist questions in Section 4.1 through Section 4.20.

	Aesthetics		Land Use and Planning
	Agriculture and Forestry Resources		Mineral Resources
✓	Air Quality	✓	Noise
✓	Biological Resources		Population and Housing
✓	Cultural and Tribal Cultural Resources		Public Services
	Energy		Recreation
✓	Geology and Soils		Transportation
✓	Greenhouse Gas Emissions		Utilities and Service Systems
✓	Hazards and Hazardous Materials		Wildfire
	Hydrology and Water Quality	✓	Mandatory Findings of Significance

3.3. EVALUATION OF ENVIRONMENTAL IMPACTS

This section analyzes the potential environmental impacts associated with the proposed project. The issue areas evaluated in this Initial Study include:

- ❑ Aesthetics
- ❑ Agriculture and Forestry Resources
- ❑ Air Quality
- ❑ Biological Resources
- ❑ Cultural and Tribal Cultural Resources
- ❑ Energy
- ❑ Geology and Soils
- ❑ Greenhouse Gas Emissions
- ❑ Hazards and Hazardous Materials
- ❑ Hydrology and Water Quality
- ❑ Land Use and Planning
- ❑ Mineral Resources
- ❑ Noise
- ❑ Population and Housing
- ❑ Public Services
- ❑ Recreation
- ❑ Transportation
- ❑ Wildfire
- ❑ Utilities and Service Systems

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines* and used by the City of Highland (City) in its environmental review process. For the preliminary environmental assessment undertaken as part of this Initial Study's preparation, a determination that there is a potential for significant effects indicates the need to more fully analyze the development's impacts and to identify mitigation.

For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study. The analysis considers the long-term, direct, indirect, and cumulative impacts of the development. To each question, there are four possible responses:

- **No Impact.** The development will not have any measurable environmental impact on the environment.
- **Less Than Significant Impact.** The development will have the potential for impacting the environment, although this impact will be below established thresholds that are considered to be significant.
- **Less Than Significant Impact With Mitigation Incorporated.** The development will have the potential to generate impacts which may be considered as a significant effect on the environment, although mitigation measures or changes to the development's physical or operational characteristics can reduce these impacts to levels that are less than significant.
- **Potentially Significant Impact**. The development will have impacts, which are considered significant, and additional analysis is required to identify mitigation measures that could reduce these impacts to less than significant levels.

Where potential impacts are anticipated to be significant, mitigation measures would be required, so that impacts may be avoided or reduced to a less than significant level.

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4.0 ENVIRONMENTAL ANALYSIS

The following sections include a discussion of potential project impacts as identified in the Initial Study Checklist. Explanations are provided for each item. At the beginning of each section is a "Sources Cited," which identifies the sources utilized in that particular section.

4.1. AESTHETICS

Would the project except as provided in Public Resources Code Section (§) 21099:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?			✓	
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				✓
c. In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). In an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			✓	
d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?			✓	
Note: Certain projects within transit priority area need not evaluate aesthetics (Public Resources Code § 21099).				

Sources Cited in Section 4.1

City of Highland, *The City of Highland General Plan*, March 2006

California Department of Transportation, Scenic Highways; accessed June 14, 2023

S Y Lee Associates, Inc., Site Lighting Plan, June 2023

S Y Lee Associates, Inc., Site Photometric Plan, June 2023

A. WOULD THE PROJECT HAVE A SUBSTANTIAL ADVERSE EFFECT ON A SCENIC VISTA?

LESS THAN SIGNIFICANT IMPACT

Highland enjoys a beautiful and dramatic setting at the base of the San Bernardino Mountains. The views and vistas that this area affords are among Highland's most treasured assets and contribute greatly to its rural, natural character.

Per Caltrans State Scenic Highway Map, the project site is not located adjacent to or near an officially designated state scenic highway; nor an eligible state scenic highway.[1]

The western portion of the City is relatively flat. Existing buildings and adjacent roadways are the dominant visual elements in this portion of the City. Views from this location in the City include views to the north and east of the San Bernardino Mountains.

The project site is located in the western portion of the City and is surrounded by urban development on all sides. Existing views from the project site of adjacent urbanized uses include an elementary school to

[1] California Department of Transportation, Scenic Highways, Scenic Highways | Caltrans; accessed June 14, 2023.

the east, commercial uses and single-family residences to the south; church, school, and single- and multi-family residences to the north; and single-family and commercial uses to the east.

Given the project site's location on Sterling Avenue and the surrounding development, the site does have long distance views of the San Bernardino Mountains.

The proposed project involves the development of 220 multi-family residential units in an urbanized area of the City. The proposed project includes two four-story buildings with a height of 52 feet-8-inchesc(top of roof), which is taller than existing surrounding uses. While there is the limited potential to impede existing scenic views from adjacent uses north of the project site, the views of the San Bernardino Mountains would not be impeded on Sterling Avenue or 9th Street. Thus, less than significant would occur.

MITIGATION MEASURES

No mitigation measures are required.

B. WOULD THE PROJECT SUBSTANTIALLY DAMAGE SCENIC RESOURCES, INCLUDING, BUT NOT LIMITED TO, TREES, ROCK OUTCROPPINGS, AND HISTORIC BUILDINGS WITHIN A STATE SCENIC HIGHWAY?

NO IMPACT

There are currently no officially designated State Scenic Highways that traverse the City of Highland; however, SR-210 is an eligible state scenic highway (Caltrans 2019). In addition, the project site contains no trees, rock outcroppings, or historic building within a state scenic highway.

The *Highland General Plan* Circulation Element discusses scenic roadways and the importance of scenic resources within the City as viewed from city roadways. The Circulation Element identified the need for improvements along Boulder Avenue, Base Line and Palm Avenue for these proposed scenic routes, as well as considering local roadways as potential scenic routes that can be viewed from Greenspot Road and Base Line (from Boulder Avenue to Weaver Street).

Given there are no state scenic resources on-site, the development of 220 multi-family residential units would not damage any scenic resources within a state scenic highway. Thus, no impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

C. IN NONURBANIZED AREAS, WOULD THE PROJECT SUBSTANTIALLY DEGRADE THE EXISTING VISUAL CHARACTER OR QUALITY OF PUBLIC VIEWS OF THE SITE AND ITS SURROUNDINGS? (PUBLIC VIEWS ARE THOSE THAT ARE EXPERIENCED FROM PUBLICLY ACCESSIBLE VANTAGE POINT). IN AN URBANIZED AREA, WOULD THE PROJECT CONFLICT WITH APPLICABLE ZONING AND OTHER REGULATIONS GOVERNING SCENIC QUALITY?

LESS THAN SIGNIFICANT IMPACT

The project site is located in the western portion of the City and is surrounded by urban development on all sides. Existing views from the project site of adjacent urbanized uses include an elementary school to the east, commercial uses and single-family residences to the south; church, school, and single- and multi-family residences to the north; and single-family and commercial uses to the east.

The proposed project involves the development of 220 multi-family residential units in an urbanized area of the City. As such, it is not anticipated that the proposed project would degrade the existing visual

character or quality of public views of the project site and its surroundings. Thus, less than significant impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

D. WOULD THE PROJECT CREATE A NEW SOURCE OF SUBSTANTIAL LIGHT OR GLARE WHICH WOULD ADVERSELY AFFECT DAY OR NIGHTTIME VIEWS IN THE AREA?

LESS THAN SIGNIFICANT IMPACT

The project site is located in an urbanized area with existing sources of lighting. The project site is vacant and undeveloped with no on-site lighting sources. Additional lighting in the area includes vehicle headlights, traffic signals, illuminated signage, and lighting associated with residential, school, church, and commercial uses. Street lighting is currently provided on Sterling Avenue with street lights on the west and east sides of the road.

The proposed project would construct 220 multi-family residential units. Lighting sources for the proposed project would include exterior, interior, security lighting, and parking lot lighting. Project lighting would include light sources typically used in multi-family residential developments including outdoor lighting for security and wayfinding. The recreational, open space, and landscaped areas of the site would have lighting to allow for nighttime use of the amenity areas, lighting for security, and landscape accent lighting. All on-site lighting would be shielded and directed downward to minimize lighting impacts to adjacent residences.

Reflected light (glare) can be caused by sunlight or artificial light reflecting from finished surfaces such as window glass or other reflective materials. Materials known to cause glare, such as mirrored/reflective glass would not be used by the proposed project. Thus, the proposed project is not anticipated to generate noticeable glare.

The area surrounding the project site is currently urbanized and contains various forms of on- and off-site lighting typical of residential, school, and commercial development. The proposed 220 multi-family residential units would increase the amount of light and glare as shown on the Site Lighting Plan and the Site Photometrics Plan, which have been designed in compliance with *Municipal Code* Section 16.40.160, Lighting, and Section 16.40.350, Street Lighting and Tree Planting. As such, the proposed project's light and glare would be consistent with adjacent development in the City. Thus, less than significant impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

CUMULATIVE IMPACTS

When evaluating cumulative aesthetic impacts, a number of factors must be considered. The cumulative study area for aesthetic impacts is the viewshed that includes the project site and surrounding areas. The context in which a project is being viewed will also influence the significance of the aesthetic impact. The contrast a project has with its surrounding environment may actually be reduced by the presence of other cumulative projects. For example, if most of an area becomes urbanized, the contrast of a project with the natural surroundings may be less since it would not stand out in contrast as much. In order for a cumulative aesthetic impact to occur, the proposed elements of the cumulative projects would need to

be seen together or in proximity to each other. If the projects are not near each other, the viewer would not perceive them in the same scene.

The project site is located adjacent to Sterling Avenue. There is existing development to the north, south, east, and west. However, there is no undeveloped property adjacent to or in the immediate vicinity or viewshed of the project site. Other potential future projects in the viewshed are anticipated to be primarily renovations or rehabilitations because the project site is bound on all sides by existing development. Although the proposed project – combined with past, present, and reasonably foreseeable future projects – has changed the visual character of the area, the proposed project is consistent with surrounding uses and maintains scenic views of the San Bernardino Mountains from Sterling Avenue. Thus, less than significant cumulative visual impacts would occur.

4.2. AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				✓
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				✓
d. Result in the loss of forest land or conversion of forest land to non-forest use?				✓
e. Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				✓

Sources Cited in Section 4.2

City of Highland, *Highland Zoning Map*, September 8, 2022

City of Highland, *The City of Highland General Plan*, March 2006, January 2012, August 2012, January 2022

State of California, California Natural Resources Agency, Department of Conservation, California Important Farmland Finder, DLRP Important Farmland Finder (ca.gov), accessed June 5, 2023

A. WOULD THE PROJECT CONVERT PRIME FARMLAND, UNIQUE FARMLAND, OR FARMLAND OF STATEWIDE IMPORTANCE (FARMLAND), AS SHOWN ON THE MAPS PREPARED PURSUANT TO THE FARMLAND MAPPING AND MONITORING PROGRAM OF THE CALIFORNIA RESOURCES AGENCY, TO NON-AGRICULTURAL USE?

NO IMPACT

The project site does not contain any land that is designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance on the California Important Farmland Finder (CIFF) and San Bernardino County Important Farmland Maps published by the State of California, Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program.

The CIFF designates the project site as Urban and Built-Up Land. This farmland category defines Urban and Built-Up Land as land developed at a density of at least 1 dwelling unit (du) per 1.5 acres, or approximately 6 structures to a 10-acre parcel. Land uses include but are not limited to residential, industrial, office/commercial, institutional, and public administration. As such, the proposed project would not result in the conversion of important farmland to non-agricultural uses. Thus, no impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

B. WOULD THE PROJECT CONFLICT WITH EXISTING ZONING FOR AGRICULTURAL USE, OR A WILLIAMSON ACT CONTRACT?

NO IMPACT

The project site and surrounding area are developed and urbanized. No agricultural land exists within the site vicinity, and the project site does not include any land under a Williamson contract. The project site is currently zoned R-4 Multi-Family (MF) Residential and the proposed project is consistent with the zoning. As such, the proposed project would not affect any land zoned for agricultural uses and would not conflict with a Williamson Act Contract. Thus, no impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

C. WOULD THE PROJECT CONFLICT WITH EXISTING ZONING FOR, OR CAUSE REZONING OF, FOREST LAND (AS DEFINED IN PUBLIC RESOURCES CODE SECTION 12220(G)), TIMBERLAND (AS DEFINED BY PUBLIC RESOURCES CODE SECTION 4526), OR TIMBERLAND ZONED TIMBERLAND PRODUCTION (AS DEFINED BY GOVERNMENT CODE SECTION 51104(G))?

NO IMPACT

Forestry operations do not occur on or within the vicinity of the project site. Also, the project site does not support any trees that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. Asu such, the proposed project would not result in the rezoning of forest land, timberland, or timberland zoned Timberland Production. Thus, no impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

D. WOULD THE PROJECT RESULT IN THE LOSS OF FOREST LAND OR CONVERSION OF FOREST LAND TO NON-FOREST USE?

NO IMPACT

Refer to Response 4.2.C.

MITIGATION MEASURES

No mitigation measures are required.

E. WOULD THE PROJECT INVOLVE OTHER CHANGES IN THE EXISTING ENVIRONMENT, WHICH, DUE TO THEIR LOCATION OR NATURE, COULD RESULT IN CONVERSION OF FARMLAND, TO NON-AGRICULTURAL USE OR CONVERSION OF FOREST LAND TO NON-FOREST USE?

NO IMPACT

The project site does not contain any forest land, nor is the site zoned for agriculture. The proposed project would not result in changes to the environment that would result in the conversion of farmland to a non-agricultural use or forest land to a non-forest use. As such, there would be no potential for the conversion of these resources. Thus, no impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

CUMULATIVE IMPACTS

The *Highland General Plan* does identify agricultural resources but no forestry resources within the City. The proposed project would have no impact on agricultural and forestry resources. Therefore, no cumulative impacts would occur.

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4.3. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.				
Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?			✓	
b. 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?			✓	
c. Expose sensitive receptors to substantial pollutant concentrations?			✓	
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			✓	

Sources Cited in Section 4.3

MAT Engineering, Inc., *Halcyon Residential Project Air Quality & Greenhouse Gas (GHG) Impact Analysis*, City of Highland, June 28, 2023 (refer to Technical Appendix A)

South Coast Air Quality Management District, *2022 Air Quality Management Plan*, December 2, 2022

South Coast Air Quality Management District, *CEQA Air Quality Handbook*, revised November 1993

Southern California Association of Governments, *2020-2045 Regional Transportation Plan/Sustainable Communities Strategy*, May 7, 2020

State of California, *California Code of Regulations*, Title 13

State of California, Office of Environmental Health Hazard Assessment, *Air Tox Hot Spots Program Risk Assessment Guidelines and Guidance Manual in the Preparation of Health Risk Assessment*, February 2015

A. WOULD THE PROJECT CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF THE APPLICABLE AIR QUALITY PLAN?

LESS THAN SIGNIFICANT IMPACT

REGULATORY SETTING

The South Coast Air Quality Management District (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. It has responded to this requirement by preparing a series of Air Quality Management Plans (*AQMP*). The most recent of these was adopted by the Governing Board of the SCAQMD on December 2, 2022. This AQMP, referred to as the *2022 AQMP*, was prepared to comply with the Federal and State Clean Air Acts and amendments, to accommodate growth, to reduce the high levels of pollutants in the South Coast Air Basin (SCAB or Basin) , to meet Federal and State air quality standards, and to minimize the fiscal impact that pollution control measures have on the local economy. The *2022 AQMP* identifies the control measures that will be implemented over a 15-year horizon to reduce major sources of pollutants. Implementation of control measures established in the previous AQMPs has substantially decreased the population's exposure to unhealthful levels of pollutants, even

while substantial population growth has occurred within the Basin. The future air quality levels projected in the *2022 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 the Southern California Association of Governments (SCAG) in its most current version of the R*egional Transportation Plan/Sustainable Communities Strategy* (*RTP/SCS*), which was adopted December 2, 2022. The *2022 AQMP* also assumes that general development projects will include strategies (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.

For general development projects, the SCAQMD recommends that consistency with the current AQMP be determined by comparing the population generated by the project to the population projections used in the development of the AQMP. Projects that are consistent with SCAG's applicable growth projections would not interfere with air quality attainment because this growth is included in the projections utilized in the formulation of the *2022 AQMP*. As such, 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.

IMPACT ANALYSIS

The project is located within the South Coast Air Basin, which is governed by the SCAQMD. On December 2, 2022, the SCAQMD Governing Board adopted the *2022 AQMP*. The *2022 AQMP* incorporates the latest scientific and technical information and planning assumptions, including the latest applicable growth assumptions, updated emission inventory methodologies for various source categories. Additionally, the *2022 AQMP* utilized information and data from SCAG and its *2020-2045 RTP/SCS*. According to the SCAQMD's CEQA Air Quality Handbook, projects are to be reviewed for consistency with two main criteria, as discussed below.

Criterion 1

With respect to the first criterion, SCAQMD methodologies require that an air quality analysis for a project include forecasts of project emissions in relation to contributing to air quality violations and delay of attainment.

a) Would the project result in an increase in the frequency or severity of existing air quality violations?

Since the consistency criteria identified under the first criterion pertain to pollutant concentrations, rather than to total regional emissions, an analysis of a project's pollutant emissions relative to localized pollutant concentrations associated with the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) is used as the basis for evaluating project consistency.

As discussed in Responses 4.3.B and 4.3.C, the proposed project's short-term construction emissions, long-term operational emissions, and localized concentrations of Carbon Monoxide (CO), NO_X, Particulate Matter 10 (PM_{10}), and Particulate Matter 2.5 ($PM_{2.5}$) would be less than significant. Due to the role Volatile Organic Compounds (VOC) plays in Ozone (O_3) formation, it is classified as a precursor pollutant and only a regional emissions threshold has been established. As such, the proposed project would not cause or contribute to localized air quality violations or delay the attainment of air quality standard or interim emissions reductions specified in the AQMP.

b) Would the project cause or contribute to new air quality violations?

As discussed in Responses 4.3.B and 4.3.C, construction and operation of the proposed project would result in emissions that would be below the SCAQMD construction and operational thresholds. Therefore, the proposed project would not cause or contribute to a violation of the ambient air quality standards.

c) Would the project delay timely attainment of air quality standards or the interim emissions reductions specified in the AQMP?

As discussed in Responses 4.3.B and 4.3.C, the proposed project would result in less than significant impacts with regard to localized concentrations during project construction and operations. As such, the proposed project would not delay the timely attainment of air quality standards or *2022 AQMP* emissions reductions.

Criterion 2

With respect to the second criterion for determining consistency with SCAQMD and SCAG air quality policies, it is important to recognize that air quality planning within the Basin focuses on attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends. Thus, the SCAQMD's second criterion for determining project consistency focuses on whether or not the project exceeds the assumptions utilized in preparing the forecasts presented in the *2022 AQMP*. Determining whether or not a project exceeds the assumptions reflected in the *2022 AQMP* involves the evaluation of the following criterion.

a) Would the project be consistent with the population, housing, and employment growth projections utilized in the preparation of the AQMP?

A project is consistent with the *2022 AQMP* in part if it is consistent with the population, housing, and employment assumptions that were used in the development of the *2022 AQMP*. In the case of the *2022 AQMP*, three sources of data form the basis for the projections of air pollutant emissions: *The City of Highland General Plan (Highland General Plan)*, SCAG's regional growth forecast, and the SCAG *2020-2045 RTP/SCS.* The *2020-2045 RTP/SCS* also provides socioeconomic forecast projections of regional population growth.

The project site is located within City of Highland and encompasses three parcels: the project site is designated as Residential High Density in the General Plan Land Use Map and zoned as Multifamily Residential (R-4). The proposed project consists of 220 multi-family residential units. The proposed project land use would be consistent with the City of Highland Municipal Code Zoning and General Plan land use designations. As such, the development associated with the proposed project is consistent with the growth projections in the *Highland General Plan*, and therefore is considered to be consistent with the *AQMP*.

The proposed project would not substantially induce population growth due to the increase in on-site employees, as the proposed project is a multi-family residential development that would result in the population increase of 770-persons. Therefore, the proposed project would not cause the *Highland General Plan* buildout population or employment forecast to be exceeded. Therefore, the proposed project is consistent with the types, intensity, and patterns of land use envisioned for the site vicinity and would be considered consistent with the *Highland General Plan*. Further, the population and housing projections, which are adopted by SCAG's Regional Council, are based on the local plans and policies applicable to

the City. As the SCAQMD has incorporated these same projections into the *2022 AQMP*, the proposed project would be consistent with the *2022 AQMP*.

b) Would the project implement all feasible air quality mitigation measures?

The proposed project would result in less than significant air quality impacts; refer to Responses 4.3.B and 4.3.C. In addition, the proposed project would comply with all applicable SCAQMD rules and regulations, including Rule 403 and Rule 403.1 that requires excessive fugitive dust emissions controlled by regular watering or other dust prevention measures, and Rule 1113 that regulates the Reactive Organic Gas (ROG) content of paint. Thus, the proposed project meets this AQMP consistency criterion.

c) Would the project be consistent with the land use planning strategies set forth in the AQMP?

Land use planning strategies set forth in the *2022 AQMP* are primarily based on the *2020-2045 RTP/SCS*. The project site is located less than 0.25-mile from a bus stop located at 9th Street and Sterling Avenue operated by Omnitrans. Thus, the proposed project would be consistent with the actions and strategies of the *2020-2045 RTP/SCS*.

Impact Conclusion

In conclusion, the determination of *2022 AQMP* consistency is primarily concerned with the long-term influence of a project on air quality in the Basin. The proposed project would not result in a long-term impact on the region's ability to meet State and Federal air quality. Also, the proposed project would be consistent with the goals and policies of the *2022 AQMP* for control of fugitive dust. As discussed above, the proposed project's long-term influence would also be consistent with the SCAQMD and SCAG's goals and policies and therefore is considered consistent with the *2022 AQMP*. Thus, impacts would be less than significant.

MITIGATION MEASURES

No mitigation measures are required.

B. WOULD THE PROJECT 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?

LESS THAN SIGNIFICANT IMPACT

Regulatory Setting

A significant impact may occur if a project adds a considerable cumulative contribution to a Federal or State non-attainment pollutant. Measurements of ambient concentrations of the criteria pollutants are used by the United States Environmental Protection Agency (US EPA) and the California Air Resources Board (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."

The S*outh Coast Air Quality Management Plan* (*AQMP*)[2] demonstrates attainment of the Federal *National Ambient Air Quality Standard*s. Currently the region is not in attainment of the ozone and two of the $PM_{2.5}$ standards, but the *AQMP* provides the latest control strategies to achieve attainment as expeditiously as practicable.

Attainment status of the South Coast Air Basin with regard to the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) are shown in *Table 4.3-1*, *Attainment Status for South Coast Air Basin*. As shown in *Table 4.3-1*, the Basin is in nonattainment for ozone (1 hour and 8 hour), PM_{10} and $PM_{2.5}$.

TABLE 4.3-1 ATTAINMENT STATUS FOR SOUTH COAST AIR BASIN

CRITERIA POLLUTANT	ATTAINMENT STATUS	
	NAAQS	CAAQS
Ozone (1-Hour and 8-Hour)	Non-Attainment (Extreme)	Non-Attainment
Carbon Monoxide	Attainment (Maintenance)	Attainment
Nitrogen Dioxide	Attainment (Maintenance)	Attainment
Sulfur Dioxide	Unclassifiable/Attainment	N/A (Attained)
PM_{10} (24-Hour)	Attainment (Maintenance)	Non-Attainment
$PM_{2.5}$ (24-Hour)	Non-Attainment (Serious)	Non-Attainment
Lead	Non-Attainment (Partial)	Attainment
Hydrogen Sulfide	---	Attainment
Sulfates	---	Attainment
Vinyl Chloride	---	Attainment

Source:
California Air Resources Board, naaqs-caaqs-feb2016.pdf (aqmd.gov), accessed June 29, 2023

Impact Analysis

Because the South Coast Air Basin is currently in nonattainment for ozone, PM_{10}, and $PM_{2.5}$, related projects may exceed an air quality standard or contribute to an existing or projected air quality exceedance. With respect to determining the significance of a project's contribution, the SCAQMD neither recommends quantified analyses of construction and/or operational emissions from multiple development projects nor provides methodologies or thresholds of significance to be used to assess the cumulative emissions generated by multiple cumulative projects. Instead, the SCAQMD recommends that a project's potential contribution to cumulative impacts be assessed utilizing the same significance criteria as those for project specific impacts. Furthermore, the SCAQMD states that if an individual development project generates less than significant construction or operational emissions impacts, then

[2] South Coast AQMD Air Quality Management Plan; accessed June 29, 2023.

the development project would not contribute to a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment.[3]

As discussed in Response 4.3.C, the proposed project would not exceed any of the SCAQMD's recommended mass daily thresholds of significance for construction or operation. Also, as discussed in Response 4.3.C, localized emissions generated by the proposed project would not exceed the SCAQMD's Localized Significance Thresholds (LSTs). Therefore, the proposed project would not contribute to a cumulatively considerable increase in emissions for the pollutants for which the Basin is in nonattainment. Thus, cumulative air quality impacts associated with the proposed project would be less than significant.

MITIGATION MEASURES

No mitigation measures are required.

C. WOULD THE PROJECT EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS?

Sensitive receptors are considered land uses or other types of population groups that are more sensitive to air pollution than others due to their exposure. Sensitive population groups include children, the elderly, the acutely and chronically ill, and those with cardio-respiratory diseases. For CEQA purposes, a sensitive receptor would be a location where a sensitive individual could remain for 24-hours or longer, such as residencies, hospitals, and schools.

Several sensitive land uses are located surrounding the project site. The closest existing sensitive receptors to the site area are residential uses located immediately to the northwest, east, west and south of the project site, and the Sterling Christian School located immediately to the north and Warm Springs Elementary School located approximately 85 feet to the east of the project site.

A significant impact may occur if a project were to generate pollutant concentrations to a degree that would significantly affect sensitive receptors. Land uses that are considered more sensitive to changes in air quality than others are referred to as sensitive receptors. Land uses such as primary and secondary schools, hospitals, and convalescent homes are considered to be sensitive to poor air quality because the very young, the old, and the infirm are more susceptible to respiratory infections and other air quality-related health problems than the general public. Residential uses are considered sensitive because people in residential areas are often at home for extended periods of time, so they could be exposed to pollutants for extended periods. Recreational areas are considered moderately sensitive to poor air quality because vigorous exercise associated with recreation places a high demand on the human respiratory function.

Significance Thresholds and Standards

Air Quality Regional Significance Thresholds

The SCAQMD has established air quality emissions thresholds for criteria air pollutants for the purposes of determining whether a project may have a significant effect on the environment per *CEQA Guidelines* Section 15002(g). By complying with the thresholds of significance, the project would be in compliance with the SCAQMD Air Quality Management Plan (AQMP) and the Federal and State air quality standards.

[3] South Coast Air Quality Management District, *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution, Appendix A*, August 2003.

Table 4.3-2 lists the air quality significance thresholds for the air pollutants analyzed in this report.

TABLE 4.3-2 SCAQMD REGIONAL SIGNIFICANCE THRESHOLDS

POLLUTANT	CONSTRUCTION (POUNDS/DAY)	OPERATION (POUNDS/DAY)
Nitrous Oxides (NOx)	100	55
Volatile Organic Compounds (VOC)	75	55
Particulate Matter <10 µg (PM10)	150	150
Particulate Matter <2.5 µg (PM2.5)	55	55
Sulfur Oxides (SOx)	150	150
Carbon Monoxide (CO)	550	550
Lead (Pb)	3	3
Sources: MAT Engineering, Inc. (June 2023) CalEEMod 2022.1 and SCAQMD's Mass Rate Look-up Tables for 2.5 acres in SRA 34 at 25 meters.		

Air Quality Localized Significance Thresholds

Table 4.3-3 lists the Localized Significance Thresholds (LST) used to determine whether a project may generate significant adverse localized air quality impacts. 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 standard.

TABLE 4.3-3 SCAQMD LOCALIZED SIGNIFICANCE THRESHOLDS

CRITERIA POLLUTANT	CONSTRUCTION (POUNDS/DAY)
NO_X	179.8
CO	1,083.8
PM_{10}	7.9
$PM_{2.5}$	4.8
Sources: MAT Engineering, Inc. (June 2023) CalEEMod 2022.1 and SCAQMD's Mass Rate Look-up Tables for 2.5 acres in SRA 34 at 25 meters.	

Air quality emissions were analyzed using the CALEEMod 2022.1 and SCAQMD's Mass Rate Localized Significant Threshold (LST) Look-Up Tables.

The nearest existing sensitive receptors are located along the property lines surrounding the project site, less than 25 meters from potential areas of on-site construction and operational activity. Although

receptors are located closer than 25 meters to the site, SCAQMD LST methodology states that projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters.

The daily disturbance area is calculated to be 2.5 acres, however LST thresholds are only based on 1, 2 and 5-acre sites. Therefore, a linear trend line was used to estimate the threshold for a 2.5-acre site based on the established LST thresholds.

Microscale Carbon Monoxide Concentration Standards

The significance of localized Carbon Monoxide (CO) impacts depends on whether ambient CO levels in the vicinity of a project are above or below Federal or State standards. If ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of the AAQS. If ambient levels already exceed Federal or State standards, project emissions are considered significant if they increase 1-hour CO concentrations by 1.0 ppm or more or 8-hour CO concentrations by 0.45 ppm or more.

Current CO levels in the SCAB are in attainment of both Federal and State standards, and local air quality monitoring data indicates there have not been any localized exceedances of CO over the past three years. Therefore, a project must not contribute to an exceedance of a Federal or State ambient air quality standard.

Short Term Air Quality Impacts - Construction

Regional Emissions - Construction

Regional air quality emissions include both on-site and off-site emissions associated with construction of the proposed project. Regional daily emissions of criteria pollutants are compared to the SCAQMD regional thresholds of significance. Refer to *Table 4.3-4, Regional Significance – Construction Emissions*.

TABLE 4.3-4 REGIONAL SIGNIFICANCE - CONSTRUCTION EMISSIONS

MAXIMUM DAILY EMISSIONS (POUNDS/DAY)[1]						
Activity	VOC	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Project Maximum Regional Daily Emissions[1]	30.1	36.1	37.0	0.05	6.94	4.15
SCAQMD Threshold	75	100	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No
Sources: MAT Engineering, Inc. (June 2023) CalEEMod 2022.1. Refer to Technical Appendix A, Appendix A.						
Notes: 1. Maximum daily emission during summer or winter; includes both on-site and off-site project emissions.						

The proposed project must follow all standard SCAQMD rules and requirements with regards to fugitive dust control, including but not limited to Rule 402 and Rule 403. *Table 4.3-4* shows that the proposed project's daily construction emissions would be below the applicable SCAQMD regional air quality standards and thresholds of significance. As a result, the proposed project would not contribute substantially to an existing or projected air quality violation.

Furthermore, by complying with the SCAQMD standards, the proposed project would not contribute to 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 releasing emissions which exceed quantitative thresholds for ozone precursors.

In conclusion, the regional construction emissions for the proposed project would not exceed the SCAQMD's daily emission thresholds at the regional level as demonstrated in *Table 4.3-4*. Thus, impacts would be less than significant.

Localized Emissions - Construction

Table 4.3-5 illustrates the construction-related localized emissions and compares the results to SCAQMD LST thresholds.

TABLE 4.3-5 LOCALIZED SIGNIFICANCE - CONSTRUCTION EMISSIONS

MAXIMUM DAILY EMISSIONS (POUNDS/DAY)[1]				
Criteria Pollutants	NO_x	CO	PM_{10}	$PM_{2.5}$
Maximum On-Site Emissions	36.0	32.9	6.71	4.1
SCAQMD Construction Threshold	179.8	1,083.8	7.9	4.8
Exceeds Threshold?	No	No	No	No
Source: MAT Engineering, Inc. (June 2023) Source: CalEEMod 2022.1 and SCAQMD's Mass Rate Look-up Tables for 2.5 acres in SRA 34 at 25 meters. Source: CalEEMod 2022.1. See Technical Appendix A, Appendix A.				
Notes: 1. Maximum daily summer or winter on-site emissions.				

As shown in *Table 4.3-5*, the emissions would be below the SCAQMD thresholds of significance for localized construction emissions at the nearest sensitive receptors. The proposed project must follow all standard SCAQMD rules and requirements, including but not limited to Rule 402 and Rule 403, with regards to fugitive dust control. Thus, the proposed project's short-term construction impact on localized air resources would be less than significant.

Construction – Toxic Air Contaminants

The greatest potential for toxic air contaminant emissions would be related to diesel particulate emissions associated with heavy equipment operations during construction of the proposed project. The Office of Environmental Health Hazard Assessment (OEHHA) has issued the A*ir Toxic Hot Spots Program Risk Assessment Guidelines and Guidance Manual for the Preparation of Health Risk Assessments* (February 2015) to provide a description of the algorithms, recommended exposure variates, cancer and noncancer health values, and the air modeling protocols needed to perform a health risk assessment (HRA) under the Air Toxics Hot Spots Information and Assessment Act of 1987. Hazard identification includes identifying all substances that are evaluated for cancer risk and/or non-cancer acute, 8-hour, and chronic health impacts. In addition, identifying any multi-pathway substances that present a cancer risk or chronic non-cancer hazard via non-inhalation routes of exposure.

Given the short-term construction schedule, the proposed project's construction activity is not expected to be a long-term (i.e., 30 years) substantial source of toxic air contaminant emissions and corresponding

individual cancer risk. It should be noted that a quantified health risk assessment was not prepared for the proposed project, as it is not required by *CEQA*.

In order to ensure the level of Diesel Particular Matter (DPM) exposure is reduced as much as possible, the proposed project would implement the best available pollution control strategies to minimize potential health risks. The follow DPM control measures include:

- Utilize low emission "clean diesel" equipment with new or modified engines (Tier 4 or better) that include diesel oxidation catalysts, diesel particulate filters or Moyer Program retrofits that meet CARB best available control technology.
- Establish staging areas for the construction equipment that are as distant as possible from adjacent sensitive receptors.
- Establish an electricity supply to the construction site and use electric powered equipment instead of diesel-powered equipment or generators, where feasible,
- Use haul trucks with on-road engines instead of off-road engines for on-site hauling.

Thus, the proposed project's short-term construction impact from toxic air contaminants would be less than significant.

Long Term Air Quality Impacts - Operation

Regional Emissions - Operation

Long-term operational air pollutant impacts associated with the proposed project are shown in *Table 4.3-6*. CalEEMod daily emissions outputs are provided in Technical Appendix A, Appendix A.

The proposed project's daily operational emissions would be below the applicable SCAQMD regional air quality standards and thresholds of significance, and as such, would not contribute substantially to an existing or projected air quality violation. Furthermore, by complying with the SCAQMD standards, the proposed project would not contribute to 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 releasing emissions which exceed quantitative thresholds for ozone precursors. Thus, the proposed project's regional operational emissions impacts would be less than significant.

Localized Emissions - Operation

According to the SCAQMD LST methodology, LSTs would apply to the operational phase of a project, if the project includes stationary sources, or attracts mobile sources (i.e., heavy-duty trucks) that may spend long periods queuing and idling at a site, such as industrial warehouse/transfer facilities.

The proposed project consists of a 220-unit multi-family residential development and does not include such uses identified in the previous paragraph. Due to the lack of such emissions, no long-term localized significance thresholds analysis is necessary. Thus, operational LST impacts would be less than significant.

TABLE 4.3-6 REGIONAL OPERATIONAL EMISSIONS

MAXIMUM DAILY EMISSIONS (POUNDS/DAY)[1]						
Activity	VOC	NOx	CO	SO_2	PM_{10}	$PM_{2.5}$
SUMMER						
Mobile Sources[1]	3.67	2.91	27.20	0.06	5.61	1.46
Energy Sources[2]	6.19	3.22	12.80	0.02	0.26	0.26
Area Sources[3]	0.04	0.61	0.26	<0.01	0.05	0.05
Summer Total Emissions	*9.89*	*6.75*	*41.20*	*0.09*	*5.92*	*1.76*
WINTER						
Mobile Sources[1]	3.40	3.12	23.20	0.06	5.61	1.46
Energy Sources[2]	5.08	3.10	1.32	0.02	0.25	0.25
Area Sources[3]	0,04	0.61	0.26	<0.01	0.05	0.05
Winter Total Emissions	*8.52*	*6.84*	*24.80*	*0.08*	*5.91*	*1.76*
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold?	Summer -No Winter – No	Summer -No Winter – No	Summer -No Winter – No	Summer -No Winter – No	Summer -No Winter – No	Summer -No Winter – No

Sources:
MAT Engineering, Inc. (June 2023)
CalEEMod 2022.1

Notes:
1. Mobile sources consist of emissions from vehicles and road dust.
2. Energy usage consists of emissions from on-site natural gas usage.
3. Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.

Toxic Air Contaminants – Operations

Given that the proposed project consists of multi-family residential uses, the proposed project would not include any land uses that would involve the use, storage, or processing of carcinogenic or non-carcinogenic toxic air contaminants and no toxic airborne emissions would typically result from project implementation. This type of project does not include major sources of toxic air contaminants (TAC) emissions that would result in significant exposure of sensitive receptors to substantial pollutant concentrations. As such, toxic air contaminant operational impacts would not result in significant health impacts to sensitive receptors. Thus, impacts would be less than significant.

CO Hot Spot Emissions

Carbon Monoxide (CO) is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential local air quality

impacts. Local air quality impacts can be assessed by comparing future without and with project CO levels to the Federal and State CO standards.

To determine if the proposed project could cause emission levels in excess of the CO standards, a sensitivity analysis is typically conducted to determine the potential for CO "hot spots" at a number of intersections in the general project vicinity. Because of reduced speeds and vehicle queuing, "hot spots" potentially can occur at high traffic volume intersections with a Level of Service E or worse.

Micro-scale air quality emissions have traditionally been analyzed in environmental documents where the air basin was a non-attainment area for CO. However, the SCAQMD has demonstrated in the CO attainment redesignation request to the US EPA that there are no "hot spots" anywhere in the air basin, even at intersections with much higher volumes, much worse congestion, and much higher background CO levels than anywhere else. If the worst-case intersections in the air basin have no "hot spot" potential, any local impacts would also be below the thresholds.

The *1992 Federal Attainment Plan for Carbon Monoxide* (*1992 CO Plan*) showed that an intersection which has a daily traffic volume of approximately 100,000 vehicles per day would not violate the CO standard.

According to the project *Traffic Study*, the proposed project would generate a total of 999 daily vehicle trips. The volume of traffic at project buildout with cumulative projects would be well below 100,000 vehicles, and as such would not result in a violation of the CO standard. As such, no CO "hot spot" modeling was conducted for the proposed project. Thus, CO Hot Spot impacts would be less than significant.

Air Quality Health Effects

The following discussion is for informational purposes only. Health effects were addressed previously in Section 4.3.C. As such, a qualified health risk assessment was not prepared for the proposed project, as it is not required by CEQA.

Adverse health effects induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, and the number and character of exposed individual [e.g., age, gender]). In particular, ozone precursors VOCs and NOx affect air quality on a regional scale. Health effects related to ozone are therefore the product of emissions generated by numerous sources throughout a region. Existing models have limited sensitivity to small changes in criteria pollutant concentrations, and, as such, translating project-generated criteria pollutants to specific health effects or additional days of nonattainment would produce meaningless results. In other words, the proposed project's less than significant increases in regional air pollution from criteria air pollutants would have nominal or negligible impacts on human health.

As noted in the Brief of Amicus Curiae by the SCAQMD, the SCAQMD acknowledged it would be extremely difficult, if not impossible to quantify health impacts of criteria pollutants for various reasons including modeling limitations as well as where in the atmosphere air pollutants interact and form. Further, as noted in the Brief of Amicus Curiae by the San Joaquin Valley Air Pollution Control District (SJVAPCD), SJVAPCD has acknowledged that currently available modeling tools are not equipped to provide a meaningful analysis of the correlation between an individual development project's air emissions and specific human health impacts.

The SCAQMD acknowledges that health effects quantification from ozone, as an example is correlated with the increases in ambient level of ozone in the air (concentration) that an individual person breathes.

SCAQMD's Brief of Amicus Curiae states that it would take a large amount of additional emissions to cause a modeled increase in ambient ozone levels over the entire region. The SCAQMD states that based on their own modeling in the SCAQMD's 2012 Air Quality Management Plan, a reduction of 432 tons (864,000 pounds) per day of NOX and a reduction of 187 tons (374,000 pounds) per day of VOCs would reduce ozone levels at highest monitored site by only nine parts per billion. As such, the SCAQMD concludes that it is not currently possible to accurately quantify ozone-related health impacts caused by NOX or VOC emissions from relatively small projects (defined as projects with regional scope) due to photochemistry and regional model limitations.

Impact Conclusion

The *Highland General Plan EIR* analyzed construction, operational, and cumulative emissions impacts associated with buildout of the *Highland General Plan*, which were concluded to be significant and unavoidable. In March 2006, the City Council certified The *Highland General Plan EIR*, adopting a Statement of Facts and Findings, adopting a Statement of Overriding Considerations for significant and unavoidable agricultural resources, air quality, mineral resources, and noise impacts, and adopted a Mitigation Monitoring and Reporting Program.

The *Highland General Plan EIR* accounted for additional residential growth in the City. Thus, the proposed project would not result in the emissions beyond those analyzed in the *Highland General Plan EIR*.

To ensure that all short-term and long-term quality impacts remain at or can be mitigated to less than significant levels, the proposed project would be required to implement applicable SCAQMD rules. Thus, proposed project short-term and long-term quality impacts are concluded to be less than significant.

MITIGATION MEASURES

No mitigation measures are required.

D. WOULD THE PROJECT RESULT IN OTHER EMISSIONS (SUCH AS THOSE LEADING TO ODORS) ADVERSELY AFFECTING A SUBSTANTIAL NUMBER OF PEOPLE?

LESS THAN SIGNIFICANT IMPACT

A project-related significant adverse effect could occur if construction or operation of the proposed project would result in generation of odors that would be perceptible in adjacent sensitive areas. According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project involves the construction and operation of residential uses, which are not typically associated with odor complaints.

The proposed project does not include any uses identified by the SCAQMD as being associated with odors. However, certain odors may emanate from construction operations if diesel-powered construction equipment is used during the construction period for the proposed project. These odors would be limited to the City's specified construction period and would disperse quickly.

Construction activities associated with the proposed project may generate detectable odors from heavy-duty equipment exhaust and architectural coatings. However, construction-related odors would be short-term in nature and cease upon completion of the proposed project.

In addition, the proposed project would be required to comply with the *California Code of Regulations*, Title 13, sections 2449(d)(3) and 2485, which minimizes the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to no more than five minutes. This would further reduce the detectable odors from heavy-duty equipment exhaust. The proposed project would also comply with the SCAQMD Regulation XI, *Rule 1113 – Architectural Coating*, which would minimize odor impacts from ROG emissions during architectural coating.

On-site trash receptacles would have the potential to create adverse odors; however, trash receptacles would be located and maintained in a manner that would promote odor control to reduce potential odor impacts and would be removed from the site at least once per week.

In conclusion, odor impacts to existing adjacent land uses from proposed project construction and operation would be required to comply with applicable State and SCAQMD regulations. Thus, impacts would be less than significant.

MITIGATION MEASURES

No mitigation measures are required.

CUMULATIVE IMPACTS

A project that has a significant impact on air quality with regard to emissions of PM_{10}, $PM_{2.5}$, NOx, SO_2, VOC, and/or ROGs as determined above would have a significant cumulative effect. In the event direct impacts from a project are less than significant, a project may still have a cumulatively considerable impact on air quality if the emissions from the project, in combination with the emissions from other proposed, or reasonably foreseeable future projects are in excess of thresholds, and the project's contribution accounts for more than an insignificant proportion of the cumulative total emissions. With regard to past and present projects, the background ambient air quality includes the concentrations of pollutants from existing sources. Past and present project impacts are therefore included in the background ambient air quality data. As discussed above, the proposed project emissions would be below the significance thresholds during both construction and operations. Thus, the proposed project's contribution is not considered cumulatively considerable.

4.4. BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. 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 California Department of Fish and Game or U.S. Fish and Wildlife Service?				✓
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				✓
c. 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?				✓
d. 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?		✓		
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			✓	
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				✓

Sources Cited in Section 4.4

City of Highland, *The Highland General Plan Final Environmental Impact Report* (*Highland General Plan EIR, Highland GP EIR*), March 2006

Hamilton Biological, Inc., *Biological Resources Analysis, Halcyon Project, 7536 Sterling Avenue, APN Nos: 0278-131-45, 0278-131-46, 0278-131-47, Highland, California*, March 27, 2023 (Refer to Technical Appendix B)

BIOLOGICAL RESOURCES METHODOLOGY

On March 2, 2023, Hamilton Biological accessed the Consortium of California Herbaria web page (https://ucjeps.berkeley.edu/consortium/georef_search.php) and California Native Plant Society's (CNPS) Online Inventory of Rare and Endangered Plants (www.rareplants.cnps.org) and searched for sensitive plant species known from the Highland area.

On March 2, 2023 Hamilton Biological accessed the California Natural Diversity Data Base (2023a, 2023b, 2023c) for information on special-status plant and wildlife taxa recorded on the Redlands and Harrison Mountain 7.5′ USGS topographic quadrangles.

On March 3, 2023, Robert Hamilton conducted a field visit from 9:50 am to 10:50 am. The temperature was 51–54 degrees F; wind was 1–3 miles per hour; and skies were clear. Mr. Hamilton recorded all plant species and all vertebrate wildlife species detected on the project site and within the study area, and examined the project site and study area for tracks, scat, and other sign. He also characterized the

ecological communities on the project site and in the study area, and evaluated the potential for wildlife to move through the project site and study area.

SITE BIOLOGICAL SETTING

In the following discussions, scientific names are provided only for plant species, and for wildlife species not recorded during the surveys. The attached species lists provide the scientific names of all species recorded during the surveys.

Topography and Surrounding Land Uses

The project site is nearly flat, ranging in elevation between approximately 1,100 and 1,110 feet, and lacks any creeks or other drainage features. The site lies within an existing residential neighborhood characterized by low- and medium-density housing. In addition to the surrounding housing, the project vicinity includes an elementary school to the east, a church to the north, and a small commercial/retail center to the south.

Soils

According to Soilweb (https://casoilresource.lawr.ucdavis.edu/gmap/), soils on the project site consist of Hanford coarse sandy loam, 2 to 9 percent slopes. The Hanford series consists of very deep, well drained soils that formed in moderately coarse textured alluvium dominantly from granite. Hanford soils are on stream bottoms, floodplains and alluvial fans and have slopes of 0 to 15 percent. The soils are well drained, with negligible to low runoff and moderately rapid permeability. The on-site soils are considered prime farmland.

Ecological Community

The approximately seven-acre project site consists of disturbed rangeland, with remnants of old building foundations and landscaping in the eastern part. The ecological community across the entire site is characterized as "ruderal/disturbed" (refer to Technical Appendix B, Figure 3, Photos 1–5). The term "ruderal" refers to weedy vegetation growing in areas where the natural vegetational cover has been disturbed by human actions. The entire site had been disked for weed control within approximately one week prior to the field visit, and review of historical aerial photos shows that the site has been disked regularly to at least as far back as 1994. A relatively small number of widespread, disturbance-adapted herbaceous plant species were recorded on the site, with the most abundant species being Common Fiddleneck (*Amsinckia intermedia*), Cheeseweed (*Malva parviflora*), Ripgut Brome (*Bromus diandrus*), Storksbill (*Erodium cicutarium*), Wild Radish (*Raphanus sativus*), Nettle-leaved Goosefoot (*Chenopodium murale*), and Indian Hedge Mustard (*Sisymbrium orientale*).

In the northeastern corner of the site, near Sterling Avenue, is California Sycamore (*Platanus racemosa*) that stands approximately 50 feet tall with a trunk of diameter approximately 25 inches at 4.5 feet above ground level. This lone tree does not comprise an ecological community; it may have been planted there long ago as part of landscaping of the residence that once existed in this part of the site. The only other native woody plant observed on the site is an 18-foot-tall Blue Elderberry (*Sambucus nigra* ssp. *caerulea*) growing along the eastern project boundary. Refer to Technical Appendix B, Figure 3.

Wildlife

Reptiles and Amphibians

No reptiles or amphibians were observed during the field surveys. The widespread Side-blotched Lizard (*Uta stansburiana*) and Western Fence Lizard (*Sceloperus occidentalis*) may occur there. A small number of snakes could also occur, such as the Pacific Gophersnake (*Pituophis catenifer catenifer*) and California Kingsnake (*Lampropeltis californiae*). Amphibians that may have potential to occur are limited to common and widespread species, such as the Western Toad (*Anaxyrus boreas*) and Baja California Treefrog (*Pseudacris hypochondriaca*). No special-status reptiles or amphibians are likely to occur on the site due to its disturbed condition and surrounding development.

Birds

Fifteen native bird species were recorded in and adjacent to the study area: Rock Pigeon, Eurasian Collared-Dove, Anna's Hummingbird, Turkey Vulture, Cassin's Kingbird, Common Raven, Bushtit, European Starling, Northern Mockingbird, Cedar Waxwing, House Sparrow, House Finch, Lesser Goldfinch, White-crowned Sparrow, and Yellow-rumped Warbler. No special-status bird species are likely to occur the site except occasionally during migration.

Mammals

The diggings of Botta's Pocket Gopher (*Thomomys botta*) were observed throughout the site. Other common species likely to occur on the site include the Coyote (*Canis latrans*), Raccoon (*Procyon lotor*), Virginia Opossum (*Didelphis virginiana*), and California Ground Squirrel (*Otospermophilus beecheyi*). No special-status mammals are likely to occur on the site due to its disturbed condition and surrounding development.

IMPACT ANALYSIS

A. WOULD THE PROJECT 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 CALIFORNIA DEPARTMENT OF FISH AND GAME OR U.S. FISH AND WILDLIFE SERVICE?

NO IMPACT

The project site is located within an urbanized area. The project site is currently undeveloped and vacant.

No special-status plants were observed on the site during the site visit, and no such plants are expected to occur there. In addition, no special-status wildlife species were observed on the site during the site visit, although birds may occasionally fly over the site or land there during migration or winter.

Because the project site has little conservation value for any special-status species, implementation of the proposed project would have no impacts to any special-status species. Thus, no impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

B. WOULD THE PROJECT HAVE A SUBSTANTIAL ADVERSE EFFECT ON ANY RIPARIAN HABITAT OR OTHER SENSITIVE NATURAL COMMUNITY IDENTIFIED IN LOCAL OR REGIONAL PLANS, POLICIES, REGULATIONS OR BY THE CALIFORNIA DEPARTMENT OF FISH AND GAME OR U.S. FISH AND WILDLIFE SERVICE?

NO IMPACT

Riparian habitats, within woodlands and forest communities, occur in the foothill and mountain portions of the City. The Biological Assessment did not identify that the project site is located within a riparian habitat or the presence other sensitive natural community.

Because the project site is undeveloped and vacant, and is surrounded urban development, implementation of the proposed project would have no impacts to any riparian habitat or sensitive communities. Thus, no impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

C. WOULD THE PROJECT 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?

NO IMPACT

There are no Federally protected wetlands present within or adjacent to the project site. The project site has been previously disturbed and is void of water features, including wetlands. Thus, no impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

D. WOULD THE PROJECT 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?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED

The project site consists of approximately seven acres of vacant land surrounded by existing urban land uses. The lack of adjacent open spaces means that the project vicinity lacks source habitat areas for wildlife to move out of, or destination habitat areas for wildlife to move into. As such, no impacts would occur.

However, there is the potential for impacts on nesting birds. If vegetation removal takes place between February 1 to August 31, which is the typical nesting season for birds in the local area, there is the potential to disrupt nesting birds in potential violation of State and/or Federal laws. Implementation of Mitigation Measure BIO-1 ensures that impacts to nesting birds are mitigated. Thus, impacts would be less than significant with mitigation incorporated with mitigation incorporated.

MITIGATION MEASURES

MM BIO-1 If vegetation removal must be conducted during the nesting bird season. February 1 to August 31, a qualified biologist should first conduct a survey to determine whether any native birds are nesting in the area. If an active nest is found (i.e., a complete nest with at least one egg), the nest and an appropriate buffer, to be determined by the biologist, should be avoided until after all young have fledged from the nest. Alternatively, work may be monitored by a biologist to ensure against disruption of nesting.

E. WOULD THE PROJECT CONFLICT WITH ANY LOCAL POLICIES OR ORDINANCES PROTECTING BIOLOGICAL RESOURCES, SUCH AS A TREE PRESERVATION POLICY OR ORDINANCE?

LESS THAN SIGNIFICANT IMPACT

Highland Municipal Code Chapter 8.36 applies to all heritage trees on all private property within the City, except as set forth in this chapter. As defined in Section 8.36.020, Definitions:

"Heritage tree" means any live tree, shrub or plant which meets at least one of the following criteria:

A. All woody plants in excess of 15 feet in height and having a single trunk circumference of 24 inches or more, as measured four and one-half feet above ground level; or

B. Multitrunk tree(s) having a total circumference of 30 inches or more, measured four and one-half feet from ground level; or

C. A stand of trees, the nature of which makes each dependent upon the others for survival; or

D. Any other tree as may be deemed historically or culturally significant by the community development director or designee because of size, condition, location, or aesthetic qualities.

There is one large California Sycamore in the eastern part of the site that may qualify as a Heritage Tree, as defined in *Highland Municipal Code* Chapter 8.36. Although removal of this tree would represent a less than significant impact to biological resources, removal of this tree may require a permit from the City as described in *Highland Municipal Code* Section 8.36.040, Requirements for Permit, and Section 8.36.100, Tree Replacement Policy.

Compliance with the requirements stipulated in *Highland Municipal Code* Chapter 8.36 ensures impacts to heritage trees would be less than significant.

MITIGATION MEASURES

No mitigation measures are required.

F. WOULD THE PROJECT CONFLICT WITH THE PROVISIONS OF AN ADOPTED HABITAT CONSERVATION PLAN, NATURAL COMMUNITY CONSERVATION PLAN, OR OTHER APPROVED LOCAL, REGIONAL, OR STATE HABITAT CONSERVATION PLAN?

NO IMPACT

The project site is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plan.[4,5] Thus, no impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

CUMULATIVE IMPACTS

Past, present, and reasonably foreseeable future projects are required to implement measures, as set forth in their respective CEQA documents, consistent with Federal, State, and local regulations to avoid adverse effects to existing biological resources or to mitigate for significant impacts to these resources. The types of measures required for projects impacting protected habitat, species, and regulated resources can include avoidance, project design features, regulatory approvals, best management practices, and mitigation measures. The proposed project would not cause a significant impact to biological resources. Therefore, the proposed project would not contribute to a cumulatively considerable impact.

[4] California Department of Fish and Wildlife, California Natural Community Conservation Plans, NCCP Plan Summaries, July 2019, NCCP Plan Summaries (ca.gov); accessed June 6, 2023

[5] California Department of Fish and Wildlife, California Natural Community Conservation Plans Map, April 2019, FileHandler.ashx (ca.gov); accessed June 6, 2023

4.5. CULTURAL AND TRIBAL CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?				✓
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section15064.5?		✓		
c. Disturb any human remains, including those interred outside of formal cemeteries?				✓
d. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code 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:				
1) Listed or eligible for listing in the California Register of Historical Resources, or in the local register of historical resources as defined in Public Resources Code Section 5020.1(k)?		✓		
2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code §5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		✓		

Sources Cited in Section 4.5

City of Highland, *The City of Highland General Plan*, March 2006, January 2012, August 2012, January 2022

Duke Cultural Resources Management (DUKE CRM), *Cultural Resources Research for the Halcyon Multifamily Residential Development, City of Highland, County of San Bernardino, California*, April 2023 (Included as Technical Appendix C)

A. WOULD THE PROJECT CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF A HISTORICAL RESOURCE AS DEFINED IN CEQA GUIDELINES SECTION 15064.5?

NO IMPACT

The Highland Historic District is generally bound by Nona Avenue to the north, Main Street to the south, Orange Street to the west, and Church Avenue to the east. The Highland Historic District includes a mix of early 1900s architecture, including Craftsman Bungalows, Victoria-influenced design, Gothic Revival, and early commercial styles. The Highland Historic District is a designated historic district on the National Register of Historic Sites (01000333 NRIS), which depicts the old town area of the Highland townsite as a fine example of an early citrus town in southern California. The Highland Historic District covers approximately 290 acres with 99 contributing buildings.[6,7]

[6] Highland California Historic District Page | Highland Area Historical Society (highlandhistory.org) , accessed June 7, 2023

[7] www.HighlandHistory.org, accessed June 7, 2023

Review of the *Highland General Plan* Land Use Element Figure 2-2, General Plan Land Use, shows that the project site is not located within the Historic Village District (HVD). The project site is currently undeveloped and vacant, but surrounded by urban development. Thus, due to the lack of historic resources on the project site or surrounding area, the proposed project would have no impact on historic resources.

MITIGATION MEASURES

No mitigation measures are required.

B. WOULD THE PROJECT CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF AN ARCHAEOLOGICAL RESOURCE PURSUANT TO CEQA GUIDELINES SECTION 15064.5?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED

Duke Cultural Resources Management, LLC (DUKE CRM) conducted a cultural resources records search and research for the Halcyon Multifamily Residential Development (proposed project), located at 7536 Sterling Avenue in the City of Highland, San Bernardino County, California. The City of Highland (City) is the lead agency for the *California Environmental Quality Act* (*CEQA*). The purpose of the DUKE CRM report is to document efforts to comply with *CEQA* and to assess whether any cultural resources have been recorded within or near the project site boundary.

The proposed project is located within Section 1, Township 1 South, Range 4 West, as depicted on the *Redlands, Calif.* USGS 7.5-minute quadrangle (see Technical Appendix C, Attachment A, Map 2: Project Location). It is located along the west side of Sterling Avenue just north of 9th Street (see Technical Appendix C, Attachment A, Map 3: Project Aerial) within APNs 1278-131-45, -46, and -47. The proposed project is 6.77 acres in size, and it will involve construction of 220 residential units with a total residential space of 270,302 square feet. The proposed project will also include construction of 4,649 square feet of amenities including a pool and clubhouse, and a total of 419 parking units.

Research

On March 13, 2023, DUKE CRM conducted a records search at the South Central Coastal Information Center (SCCIC). The SCCIC is part of the California Historical Resources Information System (CHRIS) and is located at California State University, Fullerton. The records search included a review of all recorded cultural resources and reports within a ½-mile radius of the project site. Review of the SCCIC data indicates that no cultural resources have been previously identified within the project site. Six cultural resources have been recorded within the ½-mile search radius (refer to *Table 4.5-1*).

TABLE 4.5-1 CULTURAL RESOURCES WITHIN ½-MILE OF THE PROJECT SITE

Resource No.	Site Type	Description	NRHP/CRHR Eligibility	Distance
P-36-012850	Historical site	Historic trash scatter	Not evaluated	0.35-mile W
P-36-012870	Historical site	Historic isolated artifact	Not evaluated	0.5-mile W
P-36-029559	Historical structure	Historic single-family residence	6Y – Not Eligible	0.45-mile SW
P-36-029560	Historical structure	Historic multi-family residence	6Y – Not Eligible	0.45-mile SW
P-36-029561	Historical structure	Historic commercial building	6Y – Not Eligible	0.5-mile SW
P-36-029562	Historical structure	Historic single-family residence	6Y – Not Eligible	0.45-mile SW

Source:
DUKE CRM (April 2023)

SCCIC data indicates that eight cultural resource reports cover areas within ½-mile of the project site (*Table 4.5-2*). None of these reports covered the proposed project site or documented any cultural resources within the project site.

In addition, the California Built Environment Resources Directory (BERD) was examined. The BERD includes the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), California Historical Landmarks (CHL), and California Points of Historic Interest (CPHI). The BERD did not identify any cultural resources within the project site.

DUKE CRM also conducted a review of historical aerial photographs and historical topographic maps using the University of California, Santa Barbara's online *FrameFinder* program and the USGS Historical Topographic Map Explorer. A historical aerial image from 1930 depicts dirt roads in the approximate current alignments of 5th Street and Del Rosa Avenue, but it shows no other development; the majority of the surrounding area appears to be either undeveloped or being used for agriculture, and the project site appears undeveloped.

A historical aerial image from 1952 shows a great deal more development in the vicinity of the project site. By this time, Sterling Avenue and 9th Street have both been constructed in their current alignments. The southwest corner of the project site appears to be in use as an agricultural field, and several small buildings are depicted in the southeast corner of the project site. The 1954 *Redlands* 1:24,000 historical topographic map appears to show the buildings in the southeast corner of the project area. A historical aerial image from 1968 shows that the southwestern corner of the project site is no longer being used for agriculture by this time, and the buildings in the southeast corner are still extant. The 1967 *Redlands* 1:24,000 historical topographic map depicts the same buildings in the southeast corner of the project site, but no other development. The 1996 *Redlands* 1:24,000 historical topographic map does not depict any change in development within the project site.

TABLE 4.5-2 CULTURAL RESOURCE REPORTS WITHIN ½ MILE OF THE PROJECT SITE

Report No.	Year	Report Title	Authors	Sites within the Project area
SB- 01111	1981	Cultural Resources Assessment of the Proposed Patton Farms Residential Housing Project, San Bernardino.	Smith, Gerald A. and Michael K. Lerch	None
SB-01465	1984	Cultural Resources Assessment: Construction of Del Rosa Drive (From 6th Street to Baseline Street).	Smith, Gerald A.	None
SB-04045	2002	Identification and Evaluation of Historic Properties: East Valley Water District – Arroyo Verde Mutual Water Company Water System Improvement Project in the City of Highland, San Bernardino County, California.	Dahdul, Miriam	None
SB-04333	2002	Cultural Resources Assessment: New High School, San Bernardino, California.	Goodwin, Riordan and Robert E. Reynolds	None
SB-04830	2006	Cultural Resource Records Search Results and Site Visit for T-Mobile USA Facility Candidate IE04843G (Scotty's), 1679 East Baseline Street, San Bernardino, San Bernardino County, California.	Bonner, Wayne H. and Marnie Aislin-Kay	None
SB-05647	2006	Results of Cultural Resource Monitoring for the New Curtis Middle School and Elementary School No. 48, City of San Bernardino, California.	Fulton, Barowoj	None
SB-06194	2005	Historical/Archaeological Resources Survey Report: East Valley Water District's Perchlorate Treatment and Water Distribution Facilities in and near the Cities of San Bernardino and Highland, San Bernardino County, California.	Encarnacion, Deirdre	None
SB-07309	2011	Historic Property Survey Report: Tiger 5th Street Improvement Project, Cities of Highland and San Bernardino, San Bernardino County, California.	Tang, Bai "Tom" and Michael Hogan	None

Source:
DUKE CRM (April 2023)

A request for a Sacred Lands File (SLF) search was submitted to the Native American Heritage Commission (NAHC) on April 14, 2023 to ascertain the presence of known sacred sites, Native American cultural resources, and/or human remains within the boundaries of the project site.

The NAHC responded on May 24, 2023, and indicated that the results of the SLF search were positive. The NAHC recommended that DUKE CRM contact the Yuhaaviatam of San Manuel Nation (YSMN) for information regarding potential sacred sites within the project site. DUKE CRM contacted the YSMN via email on May 24, 2023 to request information. Ryan Nordness of the YSMN responded via email on May 30, 2023 stating that *"the proposed project is located near the known route of relocation following the battles against Serrano people in the 1870s. The area is of concern to the YSMN and the department is interested to consult whenever this project moves into AB52/CEQA territory."* The AB 52 tribal consultation process is discussed later in this section.

Finally, DUKE CRM consulted its internal archives for ethnographic information relevant to the project area. The project site is located in an area that was shared between several Native American groups at the time of European contact. Groups that traditionally used the area included the Serrano, Cahuilla, and Gabrieleno:

- The nearest ethnographically known Serrano villages to the project site are *Amutskupiabit*, *Guapiabit*, and *Tameobit*, all located approximately 16 miles northeast.
- The nearest ethnographically known Gabrieleno villages to the project site are *Homhoa*, located approximately 3.8 miles southwest, and *Wa'Aachnga*, located approximately 4.2 miles southeast.
- The nearest ethnographically known Cahuilla village is *Saxhatpa*, located approximately 12 miles southeast of the project site.

Impact Conclusion

DUKE CRM conducted research to assess whether any cultural resources have been recorded within or near the Project boundary. The six cultural resources recorded within ½-mile of the project site are all historic in age. Four are historic structures that were previously evaluated as not eligible for the NRHP. Two are small historic refuse scatters or historic isolates.

No cultural resources are recorded within the project site. However, no previous cultural resource studies have been conducted within or adjacent to the project site, and the project site has consequently never been surveyed. DUKE CRM therefore recommends a field survey of the project site by a qualified archaeologist to assess the level of previous disturbance within the project site and to evaluate the project site for previously unidentified cultural resources. If previously unidentified cultural resources are unearthed during construction, work shall be halted in that area until the qualified archaeologist can assess the significance of the find.

Given that the project site has never been surveyed for cultural resources, these impacts are considered potentially significant. In order to reduce the potentially significant impacts, Mitigation Measure CUL-1 includes archaeological monitoring during ground disturbance. Thus, impacts would be less than significant with mitigation incorporated.

MITIGATION MEASURES

CUL-1 In the event that cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work on the other portions of the project outside of the buffered area may continue during this assessment period. Additionally, the Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN) shall be contacted, as detailed within Mitigation Measure TCR-1, regarding any pre-contact and/or historic-era finds and be provided information after the archaeologist makes his/her initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment.

C. WOULD THE PROJECT DISTURB ANY HUMAN REMAINS, INCLUDING THOSE INTERRED OUTSIDE OF FORMAL CEMETERIES?

NO IMPACT

There are no formal cemeteries in the City of Highland. Also, no formal cemeteries occur or known human remains have been discovered on-site.

Due to the level of past disturbance, it is not anticipated that human remains exist within these areas. In the event human remains are encountered during earth removal or disturbance activities, all activities would cease immediately and a qualified archaeologist and Native American monitor would be immediately contacted. California *Health and Safety Code* Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to *Public Resources Code* Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner would notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Compliance with the above protocols per *Health and Safety Code* and *Public Resources Code* ensure no impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

D. WOULD THE PROJECT CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF A TRIBAL CULTURAL RESOURCE, DEFINED IN PUBLIC RESOURCES CODE 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:

1. LISTED OR ELIGIBLE FOR LISTING IN THE CALIFORNIA REGISTER OF HISTORICAL RESOURCES, OR IN THE LOCAL REGISTER OF HISTORICAL RESOURCES AS DEFINED IN PUBLIC RESOURCES CODE SECCTION 5020.1(K)?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED

Tribal Consultation

Chapter 532, Statutes of 2014 (AB 52), requires that Lead Agencies evaluate a project's potential to impact "tribal cultural resources." Such resources include "[s]ites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are eligible for inclusion in the California Register of Historical resources or included in a local register of historical resources." AB 52 also gives Lead Agencies the discretion to determine, supported by substantial evidence, whether a resource qualifies as a "tribal cultural resource."

Also per AB 52 (specifically *Public Resources Code* [*PRC*] Section 21080.3.1), Native American consultation is required upon request by a California Native American tribe that has previously requested that the City provide it with notice of such projects.

On May 23, 2023, the City of Highland sent a project notification letter via email to the following California Native American tribes, which had previously submitted a general consultation request letter pursuant to *Public Resources Code* 21080.3.1(d):

- Yuhaaviatam of San Manuel Nation (formerly known as the San Manuel Band of Mission Indians) [YSMN]
- Gabrielino Band of Mission Indians
- Soboba Band of Luiseno Indians

All three tribes were provided a brief description of the project and its location, the lead agency contact information, and a notification that the tribe has 30 days to request consultation.

At the conclusion of the 30-day period to request AB 52 consultation, the City received one request for consultation: Yuhaaviatam of San Manuel Nation (YSMN).

Human Remains

Human remains are defined as any physical remains of a human being. The term "human remains" encompasses more than human bones. In ancient as well as historic times, Tribal Traditions included, but were not limited to, the burial of associated cultural resources (Funerary objects) with the deceased, and the ceremonial burning of human remains. These remains are to be treated in the same manner as bone fragments that remain intact. Associated funerary objects are objects that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later; other items made exclusively for burial purposes or to contain human remains can also be considered as associated funerary objects.

The Native American Graves Protection and Repatriation Act (NAGPRA) provides guidance that agencies shall consult with organizations on whose aboriginal lands the remains and cultural items might be discovered, who are reasonably known to have a cultural relationship to the human remains and other cultural items.

Impact Analysis

Whatever the linguistic affiliation, Native Americans in and around the project area exhibited similar organization and resource procurement strategies. Villages were based on clan or lineage groups. Their home/base sites are marked by midden deposits, often with bedrock mortars. During their seasonal rounds to exploit plant resources, small groups would migrate within their traditional territory in search of specific plants and animals. Their gathering strategies often left behind signs of special use sites, usually grinding slicks on bedrock boulders, at the locations of the resources.

On June 23, 2023, the YSMN responded to the notification letter via an email. The response stated that the YSSN concurs with the findings in the Cultural Resources Report prepared by DUKE Cultural Resources Management. The response also included the tribe's suggested cultural resource and tribal cultural resource mitigation measures for unanticipated discoveries. The City approved the suggested mitigation measures without changes. Tribal consultation was formally concluded with the YSMN via the previously referenced email on June 23, 2023.

Given the long-standing history of the YSSN in and around Highland, and that the project site lies within the ancestral territories of the YSSN, there is the potential for construction of the proposed project

to impact tribal cultural resources. Thus, ground-disturbing activities, such as grading or excavation, could disturb previously unidentified subsurface resources.

Implementation of Mitigation Measures TCR-1, TCR-2, CUL-2, and CUL-3 would reduce any potentially significant impacts to previously undiscovered tribal cultural resources to a less than significant level. Thus, impacts related to unknown buried tribal cultural resources would be less than significant with mitigation incorporated.

MITIGATION MEASURES

TCR-1 The Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN) shall be contacted, as detailed in YSMN CUL-1, of any pre-contact and/or historic-era cultural resources discovered during project implementation, and be provided information regarding the nature of the find, so as to provide Tribal input with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2015), a cultural resources Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with YSMN, and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that represents YSMN for the remainder of the project, should YSMN elect to place a monitor on-site.

TCR-2 Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the applicant and Lead Agency for dissemination to YSMN. The Lead Agency and/or applicant shall, in good faith, consult with YSMN throughout the life of the project.

CUL-2 If significant pre-contact and/or historic-era cultural resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring and Treatment Plan, the drafts of which shall be provided to YSMN for review and comment, as detailed within Mitigation Measure TCR-1. The archaeologist shall monitor the remainder of the project and implement the Plan accordingly.

CUL-3 If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code Section 7050.5 and that code enforced for the duration of the project.

2. 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 PUBLIC RESOURCES CODE SECTION 5024.1? IN APPLYING THE CRITERIA SET FORTH IN SUBDIVISION (C) OF PUBLIC RESOURCES CODE §5024.1, THE LEAD AGENCY SHALL CONSIDER THE SIGNIFICANCE OF THE RESOURCE TO A CALIFORNIA NATIVE AMERICAN TRIBE.

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED

Refer to Response 4.5.D.1.

MITIGATION MEASURES

Refer to Mitigation Measures TCR-1, TCR-2, CUL-2, and CUL-3. No additional mitigation measures are required.

CUMULATIVE IMPACTS

Potential cumulative impacts could occur if the proposed project, when combined with other past, present, and reasonably foreseeable future projects, would cause significant impacts based on the thresholds of significance set forth in this Initial Study. The project site does not contain any historic resources and is not expected to impact any archaeological or paleontological resources; measures have been identified to mitigate potential impacts to a less than significant level. As with the proposed project, other past projects, other current projects, and probable future projects would be required to comply with standard conditions of approval and mitigation measures. Despite the site-specific nature of resources, mitigation required for the identification and protection of unknown or undocumented resources would reduce the potential for cumulative impacts. On a cumulative level, data recovered from sites in the region allow for the examination and evaluation of the diversity of human activities in the region. The proposed project would not contribute to a cumulatively considerable impact on cultural resources.

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4.6. ENERGY

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			✓	
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			✓	

Sources Cited in Section 4.6

City of Highland, *Municipal Code,* Title 15, Buildings and Construction

MAT Engineering, Inc., *Halcyon Residential Project Air Quality & Greenhouse Gas (GHG) Impact Analysis*, City of Highland, June 28, 2023 (refer to Technical Appendix A)

California Department of General Services, Building Standards Commission
Building Standards Commission (ca.gov), accessed June 28, 2023

California Department of General Services, *2022 California Building Standards Code (California Code Regulations, Title 24)*

A. WOULD THE PROJECT RESULT IN POTENTIALLY SIGNIFICANT ENVIRONMENTAL IMPACT DUE TO WASTEFUL, INEFFICIENT, OR UNNECESSARY CONSUMPTION OF ENERGY RESOURCES, DURING PROJECT CONSTRUCTION OR OPERATION?

LESS THAN SIGNIFICANT IMPACT

The *Halcyon Residential Project Air Quality & Greenhouse Gas (GHG) Impact Analysis* provides an estimate of energy consumption for the proposed project. As indicated in *Table 4.8-2, Project Operations Greenhouse Gas Emissions*, the proposed project is estimated to annually consume approximately 301.0 $MTCO_2e$[8] of electricity and natural gas, which is an increase over existing conditions as the project site is currently vacant and undeveloped.

The proposed project would include energy-efficient fixtures and appliances. The proposed project would be constructed in accordance with the *Highland Municipal Code* Title 15, Buildings and Construction and the 2022 *California Building Standards Code* requirements. Thus, impacts would be less than significant impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

[8] $MMTCO_2e$ = Million Metric Tons of Carbon Dioxide Equivalent

B. WOULD THE PROJECT CONFLICT WITH OR OBSTRUCT A STATE OR LOCAL PLAN FOR RENEWABLE ENERGY OR ENERGY EFFICIENCY?

LESS THAN SIGNIFICANT IMPACT

The *California Green Building Standards Cod*e, also known as *CALGreen*, is Part 11 of Title 24 of the *California Code of Regulations*. It is the first-in-the-nation green building standards code and its history is significant. On January 12, 2010, the State Building Standards Commission adopted updates to the *California Green Building Standards Code,* which became effective on January 1, 2011. The *California Code of Regulations* (*CCR*) *Title 24, Part 11: California Green Building Standards* became effective to aid efforts to reduce GHG emissions associated with energy consumption. Title 24 now require that new buildings reduce water consumption, employ building commissioning (which is to ensure that the building's energy efficient fixtures meet or exceed their performance and energy savings) to increase building system efficiencies, divert construction waste from landfills, and install low pollutant-emitting finish materials.

The most current code version is the *2022 CALGreen Code*, which became effective as of January 1, 2023.

The proposed project includes 220 multi-family residential units. A majority of the energy that would be consumed by daily operations would be related to lighting, cooling, and ventilation. Adherence to the requirements identified in the *2022 CALGreen Code* or most current version of the CALGreen Code would further ensure conformance with the State's goal of promoting energy and lighting efficiency. Thus, less than significant impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

CUMULATIVE IMPACTS

Past, present, and reasonably foreseeable future projects are required to implement measures, as set forth in their respective CEQA documents, consistent with Federal, State, and local regulations to avoid adverse effects related to energy consumption, and mitigate, where necessary, for significant impacts to energy resources. The proposed project would not cause a significant impact to energy resources. Thus, the proposed project would not contribute to a cumulatively considerable impact.

4.7. GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1) 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.				✓
2) Strong seismic ground shaking?		✓		
3) Seismic-related ground failure, including liquefaction?			✓	
4) 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?		✓		
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				✓
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		✓		

Sources Cited in Section 4.7

Leighton and Associates, Inc. (Leighton), *Geotechnical Exploration, Proposed 6.77-Acre Multi-Family Residential Project, 7536 Sterling Avenue, City of San Bernardino, California*, October 14, 2022 (refer to Technical Appendix D)

City of Highland, *The City of Highland General Plan*, March 2006

City of Highland Municipal Code, *Title 15, Buildings and Construction*

Existing Conditions

The 6.77-acre project is situated on a relatively flat irregularly shaped parcel. It is bounded by Sterling Avenue and residential structures to the east, west, and south, and commercial structures to the north.

Review of historical aerial imagery indicates the site had been open and used for agricultural purposes from at least 1938. Sometime between 1938 and 1959, agriculture ceased onsite and a residential structure was constructed in the eastern edge of the site on Sterling Avenue. The residential structure was demolished sometime between 1984 and 1994 where remnants of the home's foundation and hardscape remains today.

Based upon Leighton's review of existing geotechnical literature (*References*) and subsurface exploration (refer to Field Investigation subheading below and Technical Appendix D, Appendix A), on-site soils consist of Undocumented Artificial Fill (Afu) composed of either disturbed native deposits or fill soils

placed from previous agricultural activities, which are underlain by Quaternary Young Alluvial Valley Deposits (Qya).

Field Investigation

The field exploration consisted of drilling six hollow stem auger borings. Prior to the field exploration, the area of the borings were marked and Dig Alert (811) was notified for utility clearance.

Three borings (B-1 through B-3) were drilled at various locations within the project site to depths reaching approximately 26½ to 51½ feet below ground surface (bgs) to evaluate the general subsurface conditions beneath the project site.

Additionally, three borings (IT-1 through IT-3) were drilled to depths of approximately 15 to 30 feet bgs and converted into temporary percolation wells. These wells were installed in the northwest and southwest corners of the site and used for infiltration testing.

During excavation of the borings, ring samples and standard penetration test (SPT) samples were obtained for geotechnical laboratory testing. Bulk samples were collected at selected boring locations and depths for geotechnical laboratory testing. Each boring was logged in the field by staff geologist under supervision of a State licensed Certified Engineering Geologist. Collected soil samples were reviewed in the field and described in accordance with the Unified Soil Classification System (USCS).

Logs of the borings and infiltration testing are included in Technical Appendix D. Locations of boring and percolation wells explorations are depicted on Technical Appendix D Figure 2, Exploration Location Map.

A. WOULD THE PROJECT DIRECTLY OR INDIRECTLY CAUSE POTENTIAL SUBSTANTIAL ADVERSE EFFECTS, INCLUDING THE RISK OF LOSS, INJURY, OR DEATH INVOLVING:

1. 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.

NO IMPACT

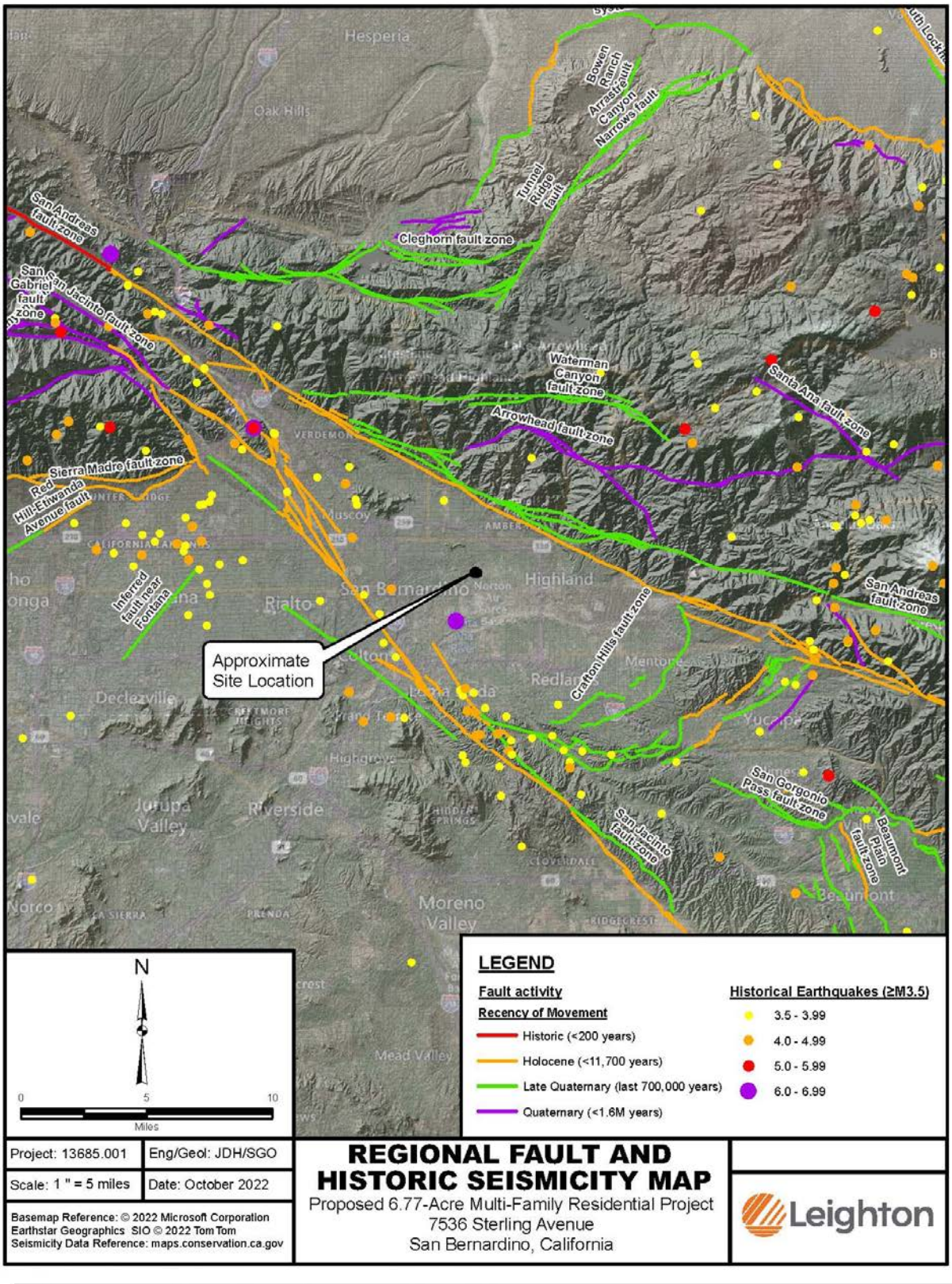
Southern California, including the City of Highland and the project site, is subject to the effects of seismic activity due to the active faults that traverse the area. Active faults are defined as those that have experienced surface displacement within Holocene time (approximately the last 11,000 years) and/or are in a State-designated Alquist-Priolo Earthquake Fault Zone.

Alquist-Priolo Earthquake Fault zones exist within the City of Highland, in the northern and eastern portions of the City; refer to *Exhibit 4.7-1, Regional Fault and Historical Seismicity Map*.

Based on Leighton's site reconnaissance and review of available geologic literature and aerial photographs, Leighton finds no evidence that suggests active faults have been mapped across or towards the site, and the site is not located within a currently established Alquist-Priolo (AP) Earthquake Fault Zone (Bryant and Hart, 2007). In addition, the project site is not located within a current County Earthquake Fault Zone (County of San Bernardino, 2010).

Therefore, according to Table 4 of Special Publication 42 and the Earthquake Fault Zones Map, the project site is not located within an Alquist-Priolo Special Studies Zone. Thus, no impacts would result from the potential for fault rupture of a known earthquake fault on the project site.

Exhibit 4.7-1 Regional Fault and Historical Seismicity Map



Source: Leighton and Associates, Inc. (October 2022)

MITIGATION MEASURES

No mitigation measures are required.

2. STRONG SEISMIC GROUND SHAKING?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED

The closest mapped active fault that could affect the project site through ground shaking is related to the San Andreas fault zone, located approximately 2.6 miles northeast of the project site. The San Andreas fault is capable of producing a maximum moment magnitude of Mw[9] = 6.8 to 8.0. Based on the absence of faults known or mapped across or trending towards the site, the potential for fault ground rupture at the site is considered low.

Major regional faults with surface expression in proximity to the site are shown on *Exhibit 4.7-1.* The project site would experience strong ground shaking after the proposed project is developed resulting from an earthquake occurring along one or more of the major active or potentially active faults in southern California.

Accordingly, the proposed project should be designed in accordance with all applicable current codes and standards utilizing the appropriate seismic design parameters to reduce seismic risk as defined by California Geological Survey (CGS) Chapter 2 of Special Publication 117a (CGS, 2008). The 2019 edition of the *California Building Code* (*CBC*) is the current edition of the code. Through compliance with these regulatory requirements and the utilization of appropriate seismic design parameters selected by the design professionals, potential effects relating to seismic shaking can be reduced.

During the life of the future residential uses, the project site would likely experience moderate to high ground shaking from these fault zones, as well as some background shaking from other seismically active areas of the Southern California region. The proposed project would be required to incorporate necessary design and structural elements to resist strong ground motion in compliance with the *California Building Code*.

Although some structural damage is typically not avoidable during a large earthquake, the proposed project would be constructed to meet existing construction ordinances and the *California Building Code* in order to protect against building collapse and major injury during a seismic event. The *California Building Code* includes specific design measures, which are based on the determination of Site Classification and Seismic Design Categories specific to the project site. These design measures are intended to maximize structural stability in the event of an earthquake.

Technical Appendix D page 10 provides text and a table identifying the parameters that should be considered for design under the 2019 CBC. The project structural engineer should review the seismic parameters provided on Technical Appendix D page 10, and recommend a site-specific seismic ground motion analysis, if needed.

Adherence to the *California Building Code* requirements, as well as Mitigation Measures GEO-1 and GEO-2, would reduce impacts related to strong seismic shaking to less than significant. Thus, impacts would be less than significant with mitigation incorporated.

[9] Mw is an abbreviation for Moment Magnitude scale.

MITIGATION MEASURES

GEO-1 Prior to the issuance of grading and/or building permits, the recommendations in Geotechnical Exploration Section 2.0 – Findings and Section 3.0 - Conclusions and Recommendations shall be confirmed or modified by a geotechnical engineer to ensure compliance with the California Building Code. The recommendations of the geotechnical engineer shall be implemented during site grading and construction, and project operations.

GEO-2 Prior to the issuance of grading permits, the City shall review all project plans for grading, foundation, structural, infrastructure, and all other relevant construction permits to ensure compliance with the applicable recommendations from the *Geotechnical Exploration* and other applicable Code requirements.

3. SEISMIC-RELATED GROUND FAILURE, INCLUDING LIQUEFACTION?

LESS THAN SIGNIFICANT IMPACT

Liquefaction is the loss of soil strength or stiffness due to a buildup of pore-water pressure during severe ground shaking. Liquefaction is associated primarily with loose (low density), saturated, fine-to-medium grained, cohesionless soils. As the shaking action of an earthquake progresses, the soil grains are rearranged, and the soil densifies within a short period of time. Rapid densification of the soil results in a buildup of pore-water pressure. When the pore-water pressure approaches the total overburden pressure, the soil reduces greatly in strength and temporarily behaves similarly to a fluid. Effects of liquefaction can include sand boils, settlement, and bearing capacity failures below structural foundations.

The State of California has not evaluated the site for liquefaction hazards. However, the project site is located within a zone of High Generalized Liquefaction Susceptibility as mapped by the County of San Bernardino.

Regional groundwater maps and groundwater data indicate that regional groundwater shallower than 50 feet below ground surface (bgs) do not exist locally, and existing groundwater levels are not expected to rise significantly.

Groundwater was not encountered in any of the exploratory borings drilled to a maximum depth of approximately 51½ feet bgs. Based on Leighton's review of regional maps and groundwater data (CDWR, 2022, and Fife et al., 1974), groundwater is expected to be on the order of 100 feet or deeper below existing ground surface in the vicinity of the site. Therefore, due to the lack of shallow groundwater and dense underlying fill and alluvial soil, the potential for liquefaction to occur is considered very low on the project site.

The *Geotechnical Exploration* concluded the potential for liquefaction is unlikely at the site. Thus, the potential for on-site liquefaction impacts would be less than significant.

MITIGATION MEASURES

No mitigation measures are required.

4. LANDSLIDES?

LESS THAN SIGNIFICANT IMPACT

The geologic and topographic characteristics of an area often determine its potential for landslides. Steep slopes, the extent of erosion, and the rock composition of a hillside all contribute to the potential slope failure and landslide events.

The State of California has not evaluated the project site for seismically induced landslide hazards. The project site is located outside of any zones of Generalized Landslide Susceptibility as mapped by the County of San Bernardino. Additionally, the project site is relatively level and flat with no significant slopes. Given these considerations, the potential for seismically induced landslides to affect the site is low.

Due to the current site topography, seismically-induced landslides would not pose a danger to the project site. Thus, impacts as a result of seismic-related ground failure, including landslides would be less than significant.

MITIGATION MEASURES

No mitigation measures are required.

B. WOULD THE PROJECT RESULT IN SUBSTANTIAL SOIL EROSION OR THE LOSS OF TOPSOIL?

LESS THAN SIGNIFICANT IMPACT

On-site soils consist of Undocumented Artificial Fill (Afu) composed of either disturbed native deposits or fill soils placed from previous agricultural activities, which are underlain by Quaternary Young Alluvial Valley Deposits (Qya).

Currently, the project site is subject to mechanical erosion, runoff, and sedimentation due to the granular nature of the site soil and high winds experienced in the region throughout the year. The on-site grading and earthwork activities to create the proposed project would result in ground surface disruption that could create the potential for short-term erosion by wind and water to occur. However, proper erosion control measures and surface drainage improvements upon completion of the proposed project would reduce the loss of site materials due to erosion (water and wind), and the potential for mechanical erosion of the site would be considered low.

All demolition and construction activities on-site would be subject to compliance with the *California Building Code*. Further, the proposed project would be subject to compliance with the requirements set forth in the National Pollutant Discharge Elimination System (NPDES) Storm Water General Construction Permit for construction activities; refer to Response 4.9.A. The NPDES Storm Water General Construction Permit requires preparation of a Storm Water Pollution Prevention Plan, which would identify specific erosion and sediment control Best Management Practices that would be implemented to protect storm water runoff during construction activities. Compliance with the *California Building Code* and NPDES would minimize effects from erosion and ensure consistency with the Los Angeles Regional Water Quality Control Board Water Quality Control Plan.

Once construction is complete, disturbed surfaces would be stabilized through vegetation or pavement. Therefore, substantial soil erosion or loss of topsoil is not expected to occur during long-term operations.

Following compliance with NPDES requirements, the proposed project would result in less than significant impacts regarding soil erosion.

MITIGATION MEASURES

No mitigation measures are required.

C. WOULD THE PROJECT 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 AN ON-SITE OR OFF-SITE LANDSLIDE, LATERAL SPREADING, SUBSIDENCE, LIQUEFACTION OR COLLAPSE?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED

Stratigraphy

On-site soils consist of Undocumented Artificial Fill (Afu) composed of either disturbed native deposits or fill soils placed from previous agricultural activities, which are underlain by Quaternary Young Alluvial Valley Deposits (Qya).

Undocumented Artificial Fill (Afu)

Undocumented artificial fill, presumed to have been from previous agricultural activities, were observed in the borings to depths of approximately 3.5 to 5 feet below the current surface. The undocumented artificial fill encountered in the borings was characterized as relatively dry, medium dense, silty sand. During grading, dry and/ or loose undocumented fill within the subject site may be uncovered to be locally deeper or shallower than currently estimated.

Quaternary Young Alluvial Valley Deposits (Qya)

Quaternary-age young alluvial valley deposits have been mapped and were observed within our borings underlying undocumented artificial fill on-site. The alluvial deposits encountered below the project site generally consisted of silty sand and sand with silt, with minor amounts of gravel. Alluvial deposits observed were typically medium dense in the upper 25 feet, becoming denser with depth as encountered in the exploratory borings. On-site alluvial deposits were observed to generally be moist at depths of about 5 feet below the existing ground surface.

All site grading should be performed in accordance with the applicable local codes and in accordance with the project specifications that are prepared by the appropriate design professional. The *General Earthwork and Grading Recommendations* are included in Technical Appendix D, Appendix E. In case of conflict the following recommendations shall supersede those provided in Technical Appendix D, Appendix E.

In conclusion, the existing soils are not suitable for the support of structural fill or foundations for the proposed project. All such fill soils would be removed, cleaned of all trash and debris, and recompacted prior to placing any structural fill soils and beneath future proposed structures, including patios/porches, driveways, hardscape, and all associated footings. Any imported soils to be used for fill would be evaluated prior to placement on-site.

In order to ensure that the proposed project is not susceptible to damage as a result of on-site soils and geological conditions, the *Geotechnical Exploration* included specific recommendations to reduce this risk to less than significant levels, which are to be reviewed and revised, as necessary, as part of Mitigation Measures GEO-1 and GEO-2. Thus, impacts would be less than significant with mitigation incorporated.

MITIGATION MEASURES

Refer to Mitigation Measures GEO-1 and GEO-2. No additional mitigation measures are required.

D. WOULD THE PROJECT 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?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED

Expansive soils can be a problem, as variation in moisture content will cause a volume change in the soil. Expansive soils heave when moisture is introduced and contract as they dry. During inclement weather and/or excessive landscape watering, moisture infiltrates the soil and causes the soil to heave (expansion). When drying occurs the soils will shrink (contraction). Repeated cycles of expansion and contraction of soils can cause pavement, concrete slabs on grade and foundations to crack. This movement can also result in misalignment of doors and windows.

Expansive soils contain significant amounts of clay particles that swell considerably when wetted and shrink when dried. Foundations constructed on these soils are subjected to large uplifting forces caused by the swelling. Without proper measures taken, heaving and cracking of building foundations and slabs-on-grade could result.

Based on the presence of sandy soil observed in the borings and test pits and results of laboratory testing (refer to Technical Appendix D, Appendix B), the near-surface soils are expected to possess a very low potential for expansion (EI<21).

However, in order to ensure that the proposed project is not susceptible to damage as a result of on-site soils and geological conditions, the *Geotechnical Exploration* has included specific recommendations to reduce this risk to less than significant levels. The recommendations are to be reviewed and revised as necessary as part of Mitigation Measures GEO-1 and GEO-2. Impacts would be less than significant with mitigation incorporated.

MITIGATION MEASURES

Refer to Mitigation Measures GEO-1 and GEO-2. No additional mitigation measures are required.

E. WOULD THE PROJECT HAVE SOILS INCAPABLE OF ADEQUATELY SUPPORTING THE USE OF SEPTIC TANKS OR ALTERNATIVE WASTE WATER DISPOSAL SYSTEMS WHERE SEWERS ARE NOT AVAILABLE FOR THE DISPOSAL OF WASTE WATER?

NO IMPACT

Sewers are currently available for the on-site disposal of wastewater; therefore, it would not be necessary to install septic tanks or alternative wastewater disposal systems. Therefore, no impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

F. WOULD THE PROJECT DIRECTLY OR INDIRECTLY DESTROY A UNIQUE PALEONTOLOGICAL RESOURCE OR SITE OR UNIQUE GEOLOGIC FEATURE?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED

The project site is located in an urbanized area of the City and is currently vacant and undeveloped. The surrounding development has previously disturbed subsurface sediments. As such, the potential for the surrounding area and the project site to contain paleontological resources or unique geologic features are considered to be low.

Excavation during construction per the *Geotechnical Exploration* requires that all undocumented fill and dry or loose native alluvium should be removed, reworked, and replaced as engineered fill to a minimum depth of 5 feet from the existing ground surface within the foundation structural zone or 3 feet below structural footings, whichever is deeper. These overexcavations should extend a minimum five feet laterally beyond outside edges of exterior footings.

Excavation in sediments below the level of previous disturbance has the potential to encounter unknown paleontological resources. With the implementation of Mitigation Measure GEO-3, impacts from the unanticipated discovery of paleontological resources impacts would be less than significant. Thus, impacts would be less than significant with mitigation incorporated.

MITIGATION MEASURES

GEO-3 Unanticipated Discovery of Paleontological Resources. If paleontological resources are discovered during project construction, all work in the area of the find shall cease and a qualified paleontologist shall be retained by the City to investigate the find and to make recommendations on its disposition.

CUMULATIVE IMPACTS

The proposed project would be constructed in compliance with all applicable codes and in accordance with the Mitigation Measures set forth in this Initial Study/Mitigated Negative Declaration, which are designed to reduce the exposure of people or structures to substantial risk of loss, injury, or death related to geological conditions or seismic events. The potential cumulative impact related to earth and geology is typically site-specific. The analysis herein determined that the proposed project would not result in any significant impacts related to landform modification, grading, or the destruction of a geologically significant landform or feature with implementation of mitigation. Moreover, existing State and local laws and regulations are in place to protect people and property from substantial adverse geological and soils effects, including fault rupture, strong seismic ground shaking, seismic-induced ground failure (including liquefaction), and landslides.

Existing laws and regulations also protect people and property from adverse effects related to soil erosion, expansive soils, loss of topsoil, development on an unstable geologic unit or soil type that could result in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse. These existing laws and regulations, along with mitigation required for the proposed project, would render potentially adverse geological and soil effects less than significant. These existing laws and regulations also ensure that past, present, and reasonably foreseeable future projects in the region do not result in substantial adverse geological and soils effects. As a result, the existing legal and regulatory framework would ensure that the incremental geological and soils effects of the proposed project would not result in greater adverse cumulative effects when considered together with the effects of other past, present, and reasonably foreseeable future projects in Highland and the greater San Bernardino County region.

Therefore, the proposed project, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulatively significant impact by exposing people or structures to risks related to geologic hazards, soils, or seismic conditions.

4.8. GREENHOUSE GASES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			✓	
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			✓	

Sources Cited in Section 4.8

MAT Engineering, Inc., *Halcyon Residential Project Air Quality & Greenhouse Gas (GHG) Impact Analysis*, City of Highland, June 28, 2023 (refer to Technical Appendix A)

California Air Resources Board, *2022 Scoping Plan*, November 16, 2022

Southern California Association of Governments, *2020-2045 Regional Transportation Plan/Sustainable Communities Strategy – Connect SoCal*, September 3, 2020

South Coast Air Quality Management District, *Interim CEQA Greenhouse Gas (GHG) Significance Thresholds,* December 2008

Global Climate Change Setting

Global climate change is the change in the average weather of the earth that is measured by such things as alterations in temperature, wind patterns, storms, and precipitation. Current data shows that the recent period of warming is occurring more rapidly than past geological events. The average global surface temperature has increased by approximately 1.4° Fahrenheit since the early 20th Century, which may seem like a small change. But, it is an unusual event in Earth's recent history, and as we are seeing, even small changes in temperature can cause enormous changes in the environment.

The planet's climate record, preserved in tree rings, ice cores, and coral reefs, shows that the global average temperature has been stable over long periods of time. For example, at the end of the last ice age, when the Northeast United States was covered by more than 3,000 feet of ice, average global temperatures were only 5° to 9° Fahrenheit cooler than today. The Intergovernmental Panel on Climate Change (IPCC), which includes more than 1,300 scientists from the United States and other countries, forecasts a temperature rise of 2.5° to 10° Fahrenheit over the next century. Therefore, significant changes to the environment are expected in the near future.

The consequences of global climate change include more frequent and severe weather, worsening air pollution by increasing ground level ozone, higher rates of plant and animal extinction, more acidic and oxygen depleted oceans, strain on food and water resources, and threats to densely populated coastal and low lying areas from sea level rise.

The impacts of climate change are already visible in the Southwest United States. In California, the consequences of climate change include:

- A rise in sea levels resulting in the displacement of coastal businesses and residencies
- A reduction in the quality and supply of water from the Sierra snowpack
- Increased risk of large wildfires

- Exacerbation of air quality problems
- Reductions in the quality and quantity of agricultural products
- An increased temperature and extreme weather events
- A decrease in the health and productivity of California's forests

Greenhouse Gases

Most scientists agree the main cause of the current global warming trend is anthropogenic (human-induced) augmentation of the greenhouse effect. The greenhouse effect refers to the way gases in the earth's atmosphere trap and re-emits long wave infrared radiation, acting like a blanket insulating the earth. Activities such as fossil fuel combustion, industrial processes, agriculture, and waste decomposition have elevated the concentration of greenhouse gases in the atmosphere beyond the level of naturally occurring concentrations.

GHGs comprise less than 0.1 percent of the total atmospheric composition, yet they play an essential role in influencing climate. Greenhouse gases include naturally occurring compounds such as carbon dioxide (CO_2), methane (CH_4), water vapor (H_2O), and nitrous oxide (N_2O), while others are synthetic. Man-made GHGs include the chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs) and Perfluorocarbons (PFCs), as well as sulfur hexafluoride (SF_6). Different GHGs have different effects on the Earth's warming. GHGs differ from each other in their ability to absorb energy (their "radiative efficiency") and how long they stay in the atmosphere, also known as the "lifetime."

The Global Warming Potential (GWP) was developed to allow comparisons of the global warming impacts of different gases. Specifically, it is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period of time, relative to the emissions of 1 ton of CO_2. The larger the GWP, the more than a given gas warms the Earth compared to CO_2 over that time period. The time period usually used for GWPs is 100 years. GWPs provide a common unit of measure, which allows analysts to add up emissions estimates of different gases and allows policymakers to compare emissions reduction opportunities across sectors and gases.

Regulatory Setting

Technical Appendix A Section 4.0 details the regulatory setting. Air pollutants are regulated at the, National, State, and air basin level with each agency having a different level of regulatory responsibility. The United States Environmental Protection Agency (US EPA) regulates at the national level. The California Air Resources Board (CARB) regulates at the state level. The South Coast Air Quality Management District (SCAQMD) regulates at the air basin level.

A. WOULD THE PROJECT GENERATE GREENHOUSE GAS EMISSIONS, EITHER DIRECTLY OR INDIRECTLY, THAT MAY HAVE A SIGNIFICANT IMPACT ON THE ENVIRONMENT?

LESS THAN SIGNIFICANT IMPACT

SCAQMD GHG Thresholds

For quantifiable analysis purposes, a project's GHG emissions are compared to the South Coast Air Quality Management District (SCAQMD) *Interim CEQA Greenhouse Gas (GHG) Significance Thresholds*, December 2008. The purpose of the SCAQMD thresholds of significance is to assist local agencies with determining the impact of a project for CEQA. SCAQMD's objective in providing the GHG guidelines is to establish a performance standard that will ultimately contribute to reducing GHG emissions below 1990 levels, and thus achieve the requirements of the California Global Warming Solutions Act (AB 32). The SCAQMD has held several GHG Significance Thresholds Stakeholder Working Group meetings where staff has presented updated recommendations that serve in addendum to the interim document.

The SCAQMD describes a five-tiered approach for determining GHG Significance Thresholds.

Tier 1 - If a project is exempt from CEQA, project-level and cumulative GHG emissions are less than significant.

Tier 2 - If the project complies with a GHG emissions reduction plan or mitigation program that avoids or substantially reduces GHG emissions in the project's geographic area (i.e., city or county), project-level and cumulative GHG emissions are less than significant.

For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, SCAQMD requires an assessment based on the following tiers.

Tier 3 - Consists of screening values that are intended to capture 90 percent of the GHG emissions from projects. If a project's emissions are under the screening thresholds, then the project is less than significant. SCAQMD has presented two options that lead agencies could choose for screening values. Option #1 sets the thresholds for residential projects to 3,500 $MTCO_2e$/year, commercial projects to 1,400 $MTCO_2e$/year), and the mixed use to 3,000 $MTCO_2e$/year. Option #2 sets a single numerical threshold for all non-industrial projects of 3,000 $MTCO_2e$/year. The current staff recommendation is to use option #2, but allows lead agencies to choose option #1 if they prefer. Regardless of which option a lead agency chooses to follow, it is recommended that the same option is consistently used for all projects.

The table below shows the screening levels described in option #2, which have been used previously in the City of Highland.

SCAQMD Tier 3 Screening Levels	
Land Use	Screening Value
Industrial Projects	10,000 $MTCO_2e$/Yr
Residential/Commercial Projects	3,000 $MTCO_2e$/Yr

Tier 4 - includes three performance standard compliance options to demonstrate that a project is not significant for GHG emissions.

Compliance Option 1 consists of achieving a target percentage reduction in emission compared to the business as usual (BAU) methodology. The project proponent would need to incorporate design features into the project and/or implement GHG mitigation measures to demonstrate a 30 percent reduction in GHG emissions below BAU that is consistent with the current applicable goals of AB 32 in the State of the California.

Compliance Option 2 consists of early compliance with AB 32 through early implementation of CARB's Scoping Plan Measures. This option is intended for projects in sectors subject to the Scoping Plan Measures.

Compliance Option 3 consists of establishing efficiency-based performance standards at the plan level (program-level projects such as general plans) and project level. Efficiency standards are based on the amount of GHG emissions ($MTCO_2e$/year) per Service Population (SP). SP is defined as the sum of the residential and employment populations provided by a project.

SCAQMD Tier 4 Efficiency Thresholds		
Project Type	Efficiency Thresholds	
	Target Year 2020	Target Year 2035
Plan (Program) Level	6.6 $MTCO_2e$/yr/SP	4.1 $MTCO_2e$/yr/SP
Project Level	4.8 $MTCO_2e$/yr/SP	3.0 $MTCO_2e$/yr/SP

Tier 5 – involves implementing off-site mitigation or the purchasing of offsets to reduce GHG emissions to less than the proposed screening level. The project proponent would be required to provide offsets for the life of the project, which is defined as 30 years.

By complying with the SCAQMD GHG thresholds of significance, a project is considered to be in compliance with the applicable State GHG legislation.

Neither the SCAQMD nor the City of Highland has adopted any numerical GHG thresholds. For the purpose of this analysis, the SCAQMD interim screening level Tier 3 numerical screening threshold of 3,000 MT CO_2e/yr for residential development such as the proposed project. Notwithstanding, for informational purposes, the analysis also calculates the amount of GHG emissions that would be attributable to the project using recommended air quality models, as described below. The primary purpose of quantifying the project's GHG emissions is to satisfy *CEQA Guidelines* Section 15064.4(a), which calls for a good-faith effort to describe and calculate emissions. The estimated emissions inventory is also used to determine if there would be a reduction in the project's incremental contribution of GHG emissions as a result of compliance with regulations and requirements adopted to implement plans for the reduction or mitigation of GHG emissions. However, the significance of a project's GHG emissions impacts is not based on the amount of GHG emissions resulting from the project.

Impact Analysis

Greenhouse Gas Emissions - Construction

The CalEEMod assumes the proposed project to require approximately 24 months for construction. During proposed project construction, the CalEEMod 2022.1 computer model predicts that the construction activities would generate the annual CO_2e emissions identified in *Table 4.8-1*, *Project Construction Greenhouse Gas Emissions*. In addition, the SCAQMD GHG emissions policy for construction activities is to amortize emissions over a 30-year lifetime, which is also shown in *Table 4.8-1*.

TABLE 4.8-1 PROJECT CONSTRUCTION GREENHOUSE GAS EMISSIONS

Emission Conditions	Emissions ($MTCO_2e$[1])
Total Emissions Year 2024	530.0
Total Emissions Year 2025	506.0
Total Emissions Year 2026	5.4
Emissions Amortized Over 30 Years[2]	34.7
Source: MAT Engineering, Inc., June 2023	
Notes: CalEEMod Output contained in Technical Appendix A, Appendix A 1. $MTCO_2e$ = metric tons of carbon dioxide equivalents (includes carbon dioxide, methane, nitrous oxide, and/or hydrofluorocarbon). 2. The emissions are amortized over 30 years and added to the operational emissions, pursuant to SCAQMD recommendations.	

Because impacts from construction activities occur over a relatively short-term period of time, they contribute a relatively small portion of the overall lifetime project GHG emissions. By itself, the construction activities from the proposed project are less than significant when compared to the thresholds recommended by SCAQMD. Thus, construction-related GHG impacts would be less than significant.

However, SCAQMD recommends that construction emissions be amortized over a 30-year project lifetime and added to the overall operational emissions of the proposed project. In doing so, construction GHG emissions are included in the overall contribution of the proposed project, as discussed in the next section.

Greenhouse Gas Emissions - Operation

Greenhouse gas emissions are estimated for on-site and off-site operational activity using CalEEMod. Greenhouse gas emissions from mobile sources, area sources and energy sources are shown in *Table 4.8-2*, *Project Operations Greenhouse Gas Emissions*. CalEEMod annual GHG output calculations are provided in Technical Appendix A, Appendix A.

As shown in *Table 4.8-2*, the proposed project GHG emissions are expected to be below the SCAQMD's Tier 3 approach, which limits GHG emissions to 3,000 $MTCO_2e$ for residential projects. Thus, t less than significant long-term GHG impacts would occur.

TABLE 4.8-2 PROJECT OPERATIONS GREENHOUSE GAS EMISSIONS

Source Category	Emissions ($MTCO_2e$)
Area Sources	48.5
Energy Usage	301.0
Mobile Sources	1,056.0
Solid Waste	50.8
Water	22.4
Construction	34.7
Total Emissions	1,513.4
SCAQMD Tier 3 Threshold	3,000
Exceeds SCAQMD Tier 3 Threshold?	No
Source: MAT Engineering, Inc., June 2023	
Notes: CalEEMod 2022.1. See Appendix A. 1= Area sources consist of GHG emissions from consumer products, architectural coatings, and landscape equipment. 2= Energy usage consist of GHG emissions from electricity and natural gas usage. 3= Mobile sources consist of GHG emissions from vehicles. 4= Solid waste includes the CO2 and CH4 emissions created from the solid waste placed in landfills. 5= Water includes GHG emissions from electricity used for transport of water and processing of wastewater. 6= Construction GHG emissions based on a 30-year amortization rate.	

MITIGATION MEASURES

No mitigation measures are required.

B. WOULD THE PROJECT CONFLICT WITH AN APPLICABLE PLAN, POLICY OR REGULATION ADOPTED FOR THE PURPOSE OF REDUCING THE EMISSIONS OF GREENHOUSE GASES?

LESS THAN SIGNIFICANT IMPACT

Consistency With CARB Scoping Plan

The *CARB 2022 Scoping Plan* identifies reduction measures necessary to achieve the goal of carbon neutrality by 2045 or earlier. Actions that reduce GHG emissions are identified for each AB 32 inventory sector.

Table 4.8-3, Consistency with the CARB 2022 Scoping Plan provides an evaluation of applicable reduction actions/strategies by emissions source category to determine how the proposed project would be consistent with or exceed reduction actions/strategies.

TABLE 4.8-3 CONSISTENCY WITH CARB 2022 SCOPING PLAN

ACTIONS AND STRATEGIES	CONSISTENCY ANALYSIS
Smart Growth/Vehicles Miles Traveled (VMT)	
Reduce VMT per capita to 25% below 2019 levels by 2030, and 30% below 2019 levels by 2045	*Consistent.* The proposed project would be required to provide Electric Vehicle (EV) charging station and bicycle parking space in accordance with the 2022 Title 24 standards and CALGreen Code, which would promote alternative mode of transportation to reduce VMT. As such, the proposed project would be consistent with this action.
New Residential and Commercial Buildings	
All electric appliances beginning 2026 (residential) and 2029 (commercial), contributing to 6 million heat pumps installed statewide by 2030	*Consistent.* The proposed project is expected to consist of natural gas heating and/or cooking on-site. The City of Highland has not adopted an ordinance or program limiting the use of natural gas for on-site cooking and/or heating. However, if adopted, the proposed project would comply with the applicable goals or policies limiting the use of natural gas equipment in the future. As such, the proposed project would be consistent with this action.
Construction Equipment	
Achieve 25% of energy demand electrified by 2030 and 75% electrified by 2045	*Consistent.* The City of Highland has not adopted an ordinance or program requiring electricity-powered construction equipment. However, if adopted, the proposed project would comply with the applicable goals or policies requiring the use of electric construction equipment in the future. As such, the proposed project would be consistent with this action.
Non-Combustion Methane Emissions	
Divert 75% of organic waste from landfills by 2025	*Consistent.* SB 1383 establishes targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025. The law establishes an additional target that not less than 20 percent of currently disposed edible food is recovered for human consumption by 2025. The proposed project would comply with local and regional regulations and recycle or compost 75 percent of waste by 2025 pursuant to SB 1383. As such, the proposed project would be consistent with this action.
Source: MAT Engineering, Inc., June 2023	

Consistency With SCAG 2020-2045 RTP/SCS

On September 3, 2020, the Regional Council of SCAG formally adopted the *2020-2045 RTP/SCS*. The *2020-2045 RTP/SCS* includes performance goals that were adopted to help focus future investments on the best-performing projects, as well as different strategies to preserve, maintain, and optimize the performance of the existing transportation system. The *2020-2045 RTP/SCS* is forecast to help California reach its GHG reduction goals by reducing GHG emissions from passenger cars by 8 percent below 2005

levels by 2020 and 19 percent by 2035 in accordance with the most recent CARB targets adopted in March 2018. Five key SCS strategies are included in the 2020-2045 RTP/SCS to help the region meet its regional VMT and GHG reduction goals, as required by the State.

Table 4.8-4, *Consistency with SCAG 2020-2045 RTP/SCS* shows the proposed project's consistency with these five strategies found within the *2020-2045 RTP/SCS*. As shown therein, the proposed project would be consistent with the GHG emission reduction strategies contained in the *2020-2045 RTP/SCS*.

TABLE 4.8-4 CONSISTENCY WITH SCAG 2020-2045 RTP/SCS

REDUCTION STRATEGY	APPLICABLE LAND USE TOOLS	CONSISTENCY ANALYSIS
Focus Growth Near Destinations and Mobility Options		
▪ Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations ▪ Focus on a regional jobs/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets ▪ Plan for growth near transit investments and support implementation of first/last mile strategies ▪ Promote the redevelopment of underperforming retail developments and other outmoded nonresidential uses ▪ Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods ▪ Encourage design and transportation options that reduce the reliance on and number of solo car trips (this could include mixed uses or locating and orienting close to existing destinations) ▪ Identify ways to "right size" parking requirements and promote alternative parking strategies (e.g. shared parking or smart parking)	Center Focused Placemaking Priority Growth Areas (PGA) Job Centers High Quality Transit Areas (HQTAs) Transit Priority Areas (TPA) Neighborhood Mobility Areas (NMAs) Livable Corridors Spheres of Influence (SOIs) Green Region Urban Greening	Consistent. The project site is located within an area that is planned for residential uses, with uses to the north, west, and east presently developed with single- and multi-family residential and institutional uses. The project site is currently vacant, and the proposed project would develop underutilized land. Furthermore, the proposed project is located approximately 0.25 miles from the existing Omnitrans bus stops. Therefore, the proposed project would focus growth near destinations and mobility options.
Promote Diverse Housing Choices		
▪ Preserve and rehabilitate affordable housing and prevent displacement ▪ Identify funding opportunities for new workforce and affordable housing development	PGA Job Centers HQTAs NMA	Consistent. The proposed project would involve development of multi-family dwelling units near existing bus stops and commercial development to the north, which increases housing supply and

REDUCTION STRATEGY	APPLICABLE LAND USE TOOLS	CONSISTENCY ANALYSIS
▪ Create incentives and reduce regulatory barriers for building context sensitive accessory dwelling units to increase housing supply ▪ Provide support to local jurisdictions to streamline and lessen barriers to housing development that supports reduction of greenhouse gas emissions	TPAs Livable Corridors Green Region Urban Greening	supports reduction of GHG emissions. Therefore, the proposed project would be consistent with this reduction strategy.
Leverage Technology Innovations		
▪ Promote low emission technologies such as neighborhood electric vehicles, shared rides hailing, car sharing, bike sharing and scooters by providing supportive and safe infrastructure such as dedicated lanes, charging and parking/drop-off space ▪ Improve access to services through technology—such as telework and telemedicine as well as other incentives such as a "mobility wallet," an app-based system for storing transit and other multi-modal payments ▪ Identify ways to incorporate "micro-power grids" in communities, for example solar energy, hydrogen fuel	HQTA TPAs NMA Livable Corridors	Consistent. The proposed project would require new multi-family development to install listed raceways to accommodate dedicated branch circuits to support electric vehicle chargers in accordance with the 2022 Title 24 standards and CALGreen Code. Additionally, new multi-family dwelling units would be required to install solar photovoltaics panels. Therefore, the proposed project would leverage technology innovations and help the City, County, and State meet its GHG reduction goals. The proposed project would be consistent with this reduction strategy.
Support Implementation of Sustainability Policies		
▪ Pursue funding opportunities to support local sustainable development implementation projects that reduce greenhouse gas emissions ▪ Support statewide legislation that reduces barriers to new construction and that incentivizes development near transit corridors and stations ▪ Support local jurisdictions in the establishment of Enhanced Infrastructure Financing Districts (EIFDs), Community Revitalization and Investment Authorities ▪ (CRIAs), or other tax increment or value capture tools to finance sustainable infrastructure and development projects, including parks and open space ▪ Work with local	Center Focused Placemaking Priority Growth Areas (PGA) Job Centers High Quality Transit Areas (HQTAs) Transit Priority Areas (TPA) Neighborhood Mobility Areas (NMAs) Livable Corridors Spheres of Influence (SOIs) Green Region Urban Greening	Consistent. The proposed project would be located close to bus stops, which would promote alternative modes of transportation. Additionally, new single- and multi-family residential development would be required to install listed raceways to accommodate dedicated branch circuits to support electric vehicle chargers. The proposed project would include private outdoor areas with landscaped planters, trees, and seating. Further, the proposed project would comply with sustainable practices included in the CALGreen Code and 2022 Title 24 standards. Thus, the proposed project would be consistent with this reduction strategy.

REDUCTION STRATEGY	APPLICABLE LAND USE TOOLS	CONSISTENCY ANALYSIS
jurisdictions/communities to identify opportunities and assess barriers to implement sustainability strategies ▪ Enhance partnerships with other planning organizations to promote resources and best practices in the SCAG region ▪ Continue to support long range planning efforts by local jurisdictions ▪ Provide educational opportunities to local decisions makers and staff on new tools, best practices and policies related to implementing the Sustainable Communities Strategy		
Promote a Green Region		
▪ Support development of local climate adaptation and hazard mitigation plans, as well as project implementation that improves community resiliency to climate change and natural hazards ▪ Support local policies for renewable energy production, reduction of urban heat islands and carbon sequestration ▪ Integrate local food production into the regional landscape ▪ Promote more resource efficient development focused on conservation, recycling and reclamation ▪ Preserve, enhance and restore regional wildlife connectivity ▪ Reduce consumption of resource areas, including agricultural land ▪ Identify ways to improve access to public park space	Green Region Urban Greening Greenbelts and Community Separators	Consistent. The proposed project involves development of a residential community on a disturbed vacant lot and would therefore not interfere with regional wildlife connectivity or concert agricultural land. The proposed project would be required to comply with CALGreen Code and 2022 Title 24 standards, which would help reduce energy consumption and reduce GHG emissions. Thus, the proposed project would support efficient development that reduces energy consumption and GHG emissions. The proposed project would be consistent with this reduction strategy.
Source: MAT Engineering, Inc., June 2023		

Impact Conclusion

The proposed project does not result in any potential conflicts with an applicable plan, policy or regulation for the purpose of reducing the emissions of greenhouse gases. Thus, less than significant impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

CUMULATIVE IMPACTS

Because of the global nature of the climate change problem, most projects would not generate GHG emissions that individually would cause a significant impact on global climate change. Therefore, the analysis of a project's GHG impacts is typically not considered individually, but is analyzed against the GHG emissions of existing and proposed projects within the region, State, and ultimately against global emissions and how the emissions can cumulatively affect global climate change. This concept is supported in the various Attorney General, State of California Office of Planning and Research, and SCAQMD publications. Therefore, the proposed project's generation of GHG emissions would not make a cumulatively considerable contribution to GHG emissions. Thus, the proposed project would not result in a cumulatively considerable impact associated with GHGs.

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4.9. HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			✓	
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		✓		
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			✓	
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?		✓		
e. 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 result in a safety hazard for people residing or working in the project area?			✓	

Sources Cited in Section 4.9

City of Highland, *The City of Highland General Plan*, March 2006

Leighton and Associates, Inc. (Leighton), *Phase I and Limited Phase II Environmental Site Assessment, Proposed 6.77-Acre Multi-Family Residential Project, 7536 Sterling Avenue, City of San Bernardino, California 92410,* November 21, 2022 (refer to Technical Appendix E)

Department of Transportation, National Transportation Noise Map (dot.gov), accessed June 12, 2023

Existing Site Conditions

The project site is an approximate 6.77-acre lot that is mostly vacant undeveloped land; however, concrete remnants of former on-site structures include a well and a concrete paved driveway on the eastern most portion of the project site.

The general site vicinity is developed with single and multi-family residences, a church, an elementary school, and a retail shopping center.

Physical Setting

Leighton reviewed pertinent maps and readily available literature for information on the physiography and hydrogeology of the project site. A summary of this information is presented in Section 4.0, Records Review of the *Phase I and Limited Phase II Environmental Site Assessment*. The review included the following topics: Topography, Surface Water, Geology and Soils, Hydrogeology, Oil and Gas Fields, Wetlands and Floodplains, Radon.

Standard Environmental Record Sources

A search of selected government databases was conducted by Leighton using the EDR Radius Map™ Report with GeoCheck® environmental database report system. Details and descriptions of the database search are provided in the EDR database report (refer to Technical Appendix E, Appendix D).

The project site itself was not identified in the EDR database report.

The EDR database report did identify some off-site database listings that were identified due to the proximity to the project site and/or the nature of the listing (refer to *Phase I and Limited Phase II Environmental Site Assessment* Section 4.2.2, Offsite). The *Phase I and Limited Phase II Environmental Site Assessment* concluded the following for the notable listings: *g*iven information provided in the database report did not reveal a release of petroleum or other hazardous materials, it is Leighton's opinion these database listings are not likely evidence of a recognized environmental condition (REC) on the subject site**.**

Regulatory Agency Contacts

Leighton researched other reasonably ascertainable, local and regional regulatory agency records (refer to *Phase I and Limited Phase II Environmental Site Assessment* Section 4.2.3, Regulatory Agency Contacts). The results are summarized below.

Agency	Conclusion
San Bernardino County Fire Protection District – Hazardous Materials Division (SBCFPD)	The SBCFPD responded by indicating no records were found for the site.
State of California Department of Toxic Substances Control (DTSC)	The DTSC Cypress office responded by indicating no records were found for the site.
State of California Regional Water Quality Board, Santa Ana Region (SARWQCB)	SARWQCB responded by indicating no records were found for the site.
Envirostor	Given the distance from the site, and the potential soil only impacts of organochlorine pesticides (OCPs), Leighton concluded opinion that the offsite listing does not indicate a likely REC on the site.
Geotracker	An online review of the Geotracker database revealed no listings for the Site. Four facilities with a cased closed status are listed within a 0.5-mile radius of the site. Leighton concluded that the four off-site listing do no indicate a likely REC on the site.
National Pipeline Mapping Systems	No natural gas transmission pipelines, no hazardous liquid pipelines, and no reported accidents (gas or liquids) on the site or within 0.50-mile radius of the site.
South Coast Air Quality Management District	No records associated with the site or in the immediately adjoining properties.
City of San Bernardino	No records were found associated with the site.

Vapor Encroachment

Leighton reviewed the Vapor Encroachment Screen (VES) produced using EDR's Vapor Encroachment Worksheet application that gathers regulatory database information from the accompanying Radius Report and allows the user to integrate groundwater information, regional geology, and other information to evaluate the concern for potential vapor encroachment from on-site activities and from adjacent properties. The VES application was designed by EDR to assist parties seeking to meet the

search requirements of the ASTM Standard Practice for Assessment of Vapor Encroachment into Structures on Property Involved in Real Estate Transactions, also referred to as the Tier 1 VES, as defined by ASTM E2600-15.

Based on information provided in the EDR database report, and other information discussed in this report, no known Vapor Encroachment Condition (VEC) was identified for the site.

Historical Use of Property

From at least the early 1930s through the late 1980s, the site appeared to be largely used for agriculture and/or vacant land with rural residential use visible in the eastern portion of the site from at least the late 1930s through the late 1980s. By the early 1990s through at least the mid-2010s, the site was largely vacant land with only concrete remnants of the former residential structures visible on the eastern portion of the site.

From at least the early 1930s through the late 1930s, the surrounding properties were mostly developed for agricultural use. In addition, from at least the early 1930s through at least the late-1960s what appeared to be a school was developed on the western adjoining property which appeared to undergo redevelopment by at least the mid-1970s through the mid-2010s. Likely rural residences were visible on the north-northeastern adjoining properties by at least the late 1930s, however by at least the late 1940s through at least the mid-2010s were redeveloped with a larger structure (rural residence or commercial) and several smaller structures (likely rural residences). What appeared to be residential developments were visible on the western and southern adjoining properties by at least the late 1940s through the mid-2010s and by at least the late 1950s what is likely the present day church and related school were developed on the northern most adjoining property. Also by the late 1950s, the south-southeastern most adjoining property appeared to be cleared of residences and appeared to be redeveloped into the present day shopping center by at least the late 1980s through the mid-2010s.

Given the historical site usage for agriculture, and the potential for residual agricultural chemicals, additional Phase II ESA soil sampling was recommended in conjunction with this Phase I ESA for the site.

Copies of historical resources used to assess past site and adjoining property uses (i.e., topographic maps, aerial photos, city directories, etc.) are provided in Technical Appendix E, Appendix F.

IMPACT ANALYSIS

A. WOULD THE PROJECT CREATE A SIGNIFICANT HAZARD TO THE PUBLIC OR THE ENVIRONMENT THROUGH THE ROUTINE TRANSPORT, USE, OR DISPOSAL OF HAZARDOUS MATERIALS?

LESS THAN SIGNIFICANT IMPACT

The project proposes to construct 220 multi-family residential units and would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

The proposed project could involve the transport and use of materials associated with routine maintenance of the property, such as janitorial supplies for cleaning purposes and/or herbicides and pesticides for landscaping. The handling and transportation of all hazardous materials would be performed in accordance with applicable laws and regulations. Furthermore, the types and quantities of

materials to be used and stored on-site would not be of a significant quantity to create a reasonably foreseeable upset or accident.

Operation of the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials and impacts would be less than significant.

Development plans for the proposed project would also be reviewed by the San Bernardino County Fire Protection District – Hazardous Materials Division (SBCFPD) for hazardous material use, safe handling, and storage, as appropriate. The SBCFPD could require that conditions of approval be applied for the project applicant to reduce hazardous material impacts, if applicable. Thus, less than significant impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

B. WOULD THE PROJECT CREATE A SIGNIFICANT HAZARD TO THE PUBLIC OR THE ENVIRONMENT THROUGH REASONABLY FORESEEABLE UPSET AND ACCIDENT CONDITIONS INVOLVING THE RELEASE OF HAZARDOUS MATERIALS INTO THE ENVIRONMENT?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED

A *Phase I and Limited Phase II Environmental Site Assessment* was conducted by Leighton and Associates, Inc. (Leighton, November 2022). The results are summarized below and presented in *Exhibit 4.9-1, Phase I ESA Site Detail Map*.

Phase I and Limited Phase II Environmental Site Assessment

Soil Sampling

On November 10, 2022, a Leighton representative collected shallow soil samples at seven locations on the Site. The seven sampling locations, designated HA1-HA6, and SP1 are shown on *Exhibit 4.9-1, Phase I ESA Site Detail Map*.

Soil samples were collected at each location at approximately 0.5 to 2.5 feet below ground surface (bgs) using a decontaminated stainless steel hand auger. The hand auger was advanced to the sampling depth, and the soil sample transferred from the tip of the hand auger to a new laboratory-supplied 4-ounce glass jar with Teflon-lined lids. In addition, one grab soil sample was collected from a soil pile along the southern edge of the site. Fresh soil was exposed just below the surface, and a sample was obtained directly from the soil pile with a new, nitrile gloved hand, and placed into a new laboratory-supplied 4-ounce glass jar with a Teflon-lined lid.

The soil samples were labeled with sample identification, date, time of collection, and placed in an ice-chilled cooler and transported under chain-of-custody procedures to Enviro-Chem, Inc. in Pomona, California for analyses.

Laboratory Analyses

All samples from the shallowest depth, (i.e., approx. 0.5 feet bgs) in HA1 through HA6 were analyzed for organochlorine pesticides (OCPs) by US EPA Method 8081A, as well as arsenic and copper by US EPA Method 6010B. The soil pile sample, SP1, was analyzed for Title 22 Metals by US EPA method no. 6010B

and 7471, and Total Petroleum Hydrocarbons (TPH). The deeper samples (i.e., approx. 2.5 feet bgs) from the hand auger borings were held pending analysis results of the shallower samples.

Analytical Results

Results of the soil analyses are provided in Technical Appendix E, Tables 1-3.

Concentrations of OCPs were not detected above minimum detection limits in any of the soil samples analyzed. Technical Appendix E, Table 1 summarizes the OCP sample results and the applicable soil screening levels.

All soil samples analyzed for arsenic, copper, and other Title 22 metals were reported to have metal concentrations below the US EPA and DTSC residential soil screening levels with the exception of detections of arsenic. Detections of arsenic were reported in all soil samples analyzed at concentrations between 0.618 mg/kg and 2.28 mg/kg, which exceed the USEPA and DTSC residential soil screening levels of 0.68 mg/kg and 0.11 mg/kg, respectively; however, none of them exceed the more appropriately applied DTSC Human Health Risk Assessment (HHRA) Note 11 Southern California Ambient Arsenic Screening Level of 12 mg/kg (DTSC, 2020b). Reported arsenic concentrations in the soil samples are not a concern for the future residential development (refer to Technical Appendix E, Table 2).

TPH in the gasoline range organics (C4-C10) was not detected above minimum detection levels in the single soil pile sample (SP1) analyzed. TPH in the diesel range organics (C10-C28) was detected in soil sample SP1 at a concentration of 42.3 mg/kg, which is below the USEPA and DTSC residential soil screening levels of 96 mg/kg and 97 mg/kg respectively. TPH in the oil range organics (C28-C35) was detected at a concentration of 194 mg/kg, which is below the USEPA and the DTSC residential screening level of 2400 mg/kg. Technical Appendix E, Table 3 summarizes the TPH sample results and the applicable soil screening levels.

While the results of the sample from this small soil pile (Photo 19 – Technical Appendix E, Appendix B) are acceptable relative to residential screening records, it may be prudent to either remove this soil from the site or use it a location which is buried beneath a future structure.

Phase I and Limited Phase II Limited ESA Conclusions and Recommendations

Leighton performed a Phase I and Limited Phase II ESA of the property located at 7536 Sterling Avenue, Highland, California.

On-Site Conclusions

Historically, from at least the early 1930s through the late 1980s, the site appeared to be largely used for agriculture and/or vacant land with rural residential use visible in the eastern portion of the site from at least the late 1930s through the late 1980s. By the early 1990s through at least the mid-2010s, the site was largely vacant land with only concrete remnants of the former residential structures visible on the eastern portion of the project site.

The project site consists mostly of a 6.77-acre lot that is currently vacant undeveloped land. The project site is proposed for a multi-family residential development.

The project site itself is not listed in the search of various environmental databases.

Leighton staff researched other reasonably ascertainable, local and regional environmental regulatory agency records using the site address of 7536 Sterling Avenue, a possible historic address of 7558 Sterling Avenue, and the site APNs of 0278131-45, -46, &-47 where applicable.

A review of Envirostor, CalGEM, SCAQMD FINDS, GeoTracker and NPMS (pipelines) databases revealed no records associated with the project site. The SBCFPD, the DTSC Cypress Office and the SARWQCB reported no records found related to the project site. An online search of the COSB database did not reveal any records associated with the project site.

No Vapor Encroachment Condition (VEC) was identified for the project site.

Based on preliminary information indicating historic agricultural use of the site, and the potential for residual pesticides on the project site, Leighton completed limited Phase II shallow soil sampling at the site in conjunction with this Phase I ESA. The sampling consisted of six hand auger borings, with soil samples collected from approximately 0.5 and 1.5 to 2.5 feet bgs. Samples collected from 0.5 feet bgs were analyzed for OCPs, arsenic and copper, and the deeper 2.5 feet bgs samples were held pending analyses results of the shallower samples. Additionally, the site reconnaissance revealed a soil pile that appeared to have been dumped along the southern edge of the site. A soil sample was obtained from near the surface of this soil pile and analyzed for Title 22 Metals and TPH in conjunction with the Limited Phase II ESA performed at the site.

The results of shallow soil sample analyses indicate no detected OCPs, and no TPH, arsenic, copper or other Title 22 metals exceeding USEPA or DTSC soil screening levels for a residential use scenario.

Off-Site Conclusions

Historically, from at least the early 1930s through the late 1930s, the surrounding properties were mostly developed for agricultural use. In addition, from at least the early 1930s through at least the late-1960s what appeared to be a school was developed on the western adjoining property which appeared to undergo redevelopment by at least the mid-1970s through the mid-2010s. Likely rural residences were visible on the north-northeastern adjoining properties by at least the late 1930s, however by at least the late 1940s through at least the mid-2010s were redeveloped with a larger structure (rural residence or commercial) and several smaller structures (likely rural residences). What appeared to be residential developments were visible on the western and southern adjoining properties by at least the late 1940s through the mid-2010s and by at least the late 1950s what is likely the present day church and related school were developed on the northern most adjoining property. Also by the late 1950s, the south-southeastern most adjoining property appeared to be cleared of residences and appeared to be redeveloped into the present day shopping center by at least the late 1980s through the mid-2010s.

Currently, the general site vicinity is developed for mixed use including single-family residences, a church, an elementary school, and a retail shopping center.

The environmental database search indicated no adjoining or nearby facilities likely to have created a REC on the project site. A review of the Envirostor, GeoTracker, SCAQMD FINDS, CalGEM, and NPMS (pipelines) databases revealed no nearby facilities likely to have created a REC on the project site.

The adjoining property reconnaissance revealed no obvious visual evidence indicating a likely REC on the project site from an off-site source.

Impact Conclusions

Based on the findings of this Phase I and Limited Phase II ESA, Leighton recommends no further assessment.

The following two issues are not considered RECs; however, Leighton recommends the following:

- The results of a soil sample collected from a small soils pile on the southern site edge (eastern portion of site) (Technical Appendix E, Photo 19 - Appendix B) are acceptable relative to

residential screening records; however, it may be prudent to either remove this soil from the site or use it a location which is buried beneath a future structure.

- An unused water supply well was observed in the northeastern portion of the Site (Technical Appendix E, Photo 14 - Appendix B). Any water well that is no longer used is considered abandoned and should be destroyed in accordance with State of California well standards, as implemented by San Bernardino County Environmental Health Services (SBCEHS). The SBCEHS issues well destruction permits, which must be obtained prior to doing such.

The Phase I and Limited Phase II Environmental Site Assessment concludes less than significant impacts relative to any on-site or off-site recognized environmental conditions (RECs).

However, to ensure that Leighton's recommendations regarding an on-site soil sample and an unused water supply well are implemented, Mitigation Measures HAZ-1 and HAZ-2 are included to reduce potentially significant impacts to less than significant with mitigation incorporated.

MITIGATION MEASURES

HAZ-1 Prior to the issuance of grading permits, a determination shall be made by the City that the soil sample collected from a small soils pile on the southern site edge (eastern portion of site) as shown in Technical Appendix E, Photo 19 - Appendix B will either: 1) remove this soil from the site, or 2) use this soil in a location that is buried beneath a future structure.

HAZ-2 Prior to the issuance of grading permits, the Applicant shall coordinate with the San Bernardino County Environmental Health Services to officially abandon and destroy the on-site unused water supply well observed in the northeastern portion of the site in accordance with State of California well standards, as implemented by San Bernardino County Environmental Health Services.

C. WOULD THE PROJECT EMIT HAZARDOUS EMISSIONS OR HANDLE HAZARDOUS OR ACUTELY HAZARDOUS MATERIALS, SUBSTANCES, OR WASTE WITHIN ONE-QUARTER MILE OF AN EXISTING OR PROPOSED SCHOOL?

LESS THAN SIGNIFICANT IMPACT

The closest existing school sites are the Sterling Christian School located immediately north of the project site, and the Warm Springs Elementary School located on Sterling Avenue east of the project site. The proposed project does not include any uses that could potentially generate hazardous materials in significant quantities. As such, the proposed residential uses would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste; and as such, would not impact existing or proposed schools within one-quarter mile of the project site. Thus, less than significant impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

D. WOULD THE PROJECT BE LOCATED ON A SITE WHICH IS INCLUDED ON A LIST OF HAZARDOUS MATERIALS SITES COMPILED PURSUANT TO GOVERNMENT CODE SECTION 65962.5 AND, AS A RESULT, WOULD IT CREATE A SIGNIFICANT HAZARD TO THE PUBLIC OR THE ENVIRONMENT?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED

Refer to Response 4.9.B.

MITIGATION MEASURES

Refer to Mitigation Measures HAZ-1 and HAZ-2. No additional mitigation measures are required.

E. 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 RESULT IN A SAFETY HAZARD FOR PEOPLE RESIDING OR WORKING IN THE PROJECT AREA?

LESS THAN SIGNIFICANT IMPACT

The San Bernardino International Airport (SBIA, SBD) is a single runway, multi-use airport. The SBIA covers 1,329 acres and has one runway that can accommodate the largest existing aircraft, including the Airbus A380 and the Boeing 747. The SBIA facility is a commercial, general aviation, and cargo airport. The project site is located approximately 0.67 mile north of SBIA. There are no private airstrips near the project site.

Highland General Plan

The Highland General Plan Airport Element includes goals, policies, and actions that address Noise, Safety, and Land Use Opportunities and Future Planning to its nearby airports, include SBIA. Relevant noise and safety actions pertinent to the proposed project are listed below.

Noise

1) Disseminate the latest information on noise mitigation through site planning review and construction techniques.

3) Work with the San Bernardino International Airport Authority to encourage restrictions on hours of operation to minimize noise impacts.

Safety

1) Establish occupancy requirements (i.e., noise mitigation and height restrictions) within established airport easement or overflight areas as a condition of approval for new development.

2) Require letters of advisement incorporating information in Conditions, Covenants and Restrictions (CCRs) or Real Estate Disclosures, which report where projects occur within established 65 Community Noise Equivalent (CNEL) and an established Airport Influence Area (AIA).

Impact Analysis

The proposed project includes the development of 220 multi-family residential units in two four-story buildings on the 6.77 gross acre project site. The new residential buildings and associated public infrastructure improvements would be available to existing and future City residents. Per Section 4.14, Population and Housing, the proposed project is estimated to provide housing for 770 persons.

San Bernardino International Airport

An airport often contains airport traffic pattern and airport influence zones that can extend outside of the actual airport boundary. The San Bernardino International Airport (SBIA) airport traffic safety zones are within the boundaries of the airport, while the airport influence area zones are shown on *Exhibit 4.9-2, SBIA AIA/Redlands Municipal Airport Compatibility Map.*

The project site is not within the Airport Traffic Pattern Zone, but is within the SBIA Airport Influence Area (AIA) Zone. The AIA is considered to be of low risk or negligible risk to the underlying existing and future population.

Separately, the project site is not located within the 65 CNEL noise contour for SBIA per the Federal Department of Transportation, National Transportation Noise Map; refer to *Exhibit 4.9-3, SBIA CNEL Noise Contour Map.*[10] However, as previously noted, the project site is located within the SBIA AIA.

Given that the proposed project is surrounded by existing development, it is not anticipated that development and operation of proposed project would negatively affect airport operations. As such, the proposed project would not result in a significant safety hazard for people residing or working in the project area. Thus, less than significant impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

F. WOULD THE PROJECT IMPAIR IMPLEMENTATION OF OR PHYSICALLY INTERFERE WITH AN ADOPTED EMERGENCY RESPONSE PLAN OR EMERGENCY EVACUATION PLAN?

LESS THAN SIGNIFICANT IMPACT

The proposed project includes 220 multi-family residential units on a currently undeveloped and vacant lot that is surrounded by residential, educational, and commercial uses. The project site is located along Sterling Avenue, north of the 9th Street intersection.

The City adopted the City of Highland Emergency Plan. In addition, the City participates in the Statewide Master Mutual Aid Agreement; Mutual Aid Agreements with the City of San Bernardino and the San Bernardino County Sheriff's Department; and automatic aid agreements with the cites of Redlands and Yucaipa, the California Department of Forestry and Fire Protection (CDF), and the United States Forest Service. The American Red Cross also provides a wide range of emergency response support services to Highland ranging from single residential fire to community-wide disaster relief.

Evacuation Routes

The *San Bernardino County General Plan* identifies potential evacuation routes in and around Highland. Major evacuation routes within the San Bernardino Valley include, but are not limited to, Interstate 10, 15 and 215; State Highway 30, 31, 60, 66, and 71; and numerous major and secondary highways. Since

[10] Source: Department of Transportation, National Transportation Noise Map (dot.gov), accessed June 12, 2023.

earthquakes, floods, fires, or other disasters may render some or portions of these routes impassible, specific evacuation routes may need to be designated during an emergency depending on the nature and location of the particular disaster.

The City's arterial streets maintain minimum right-of-way widths, and would continue to ensure that various evacuation routes are accessible to residents. As such, the proposed project would not interfere with an adopted emergency response plan and/or the emergency evacuation plan.

In conclusion, emergency vehicles would continue to have access to project-related and surrounding roadways during construction and upon completion of the proposed project. As such, the proposed project would not impact access to emergency response. Thus, less than significant impacts would occur.

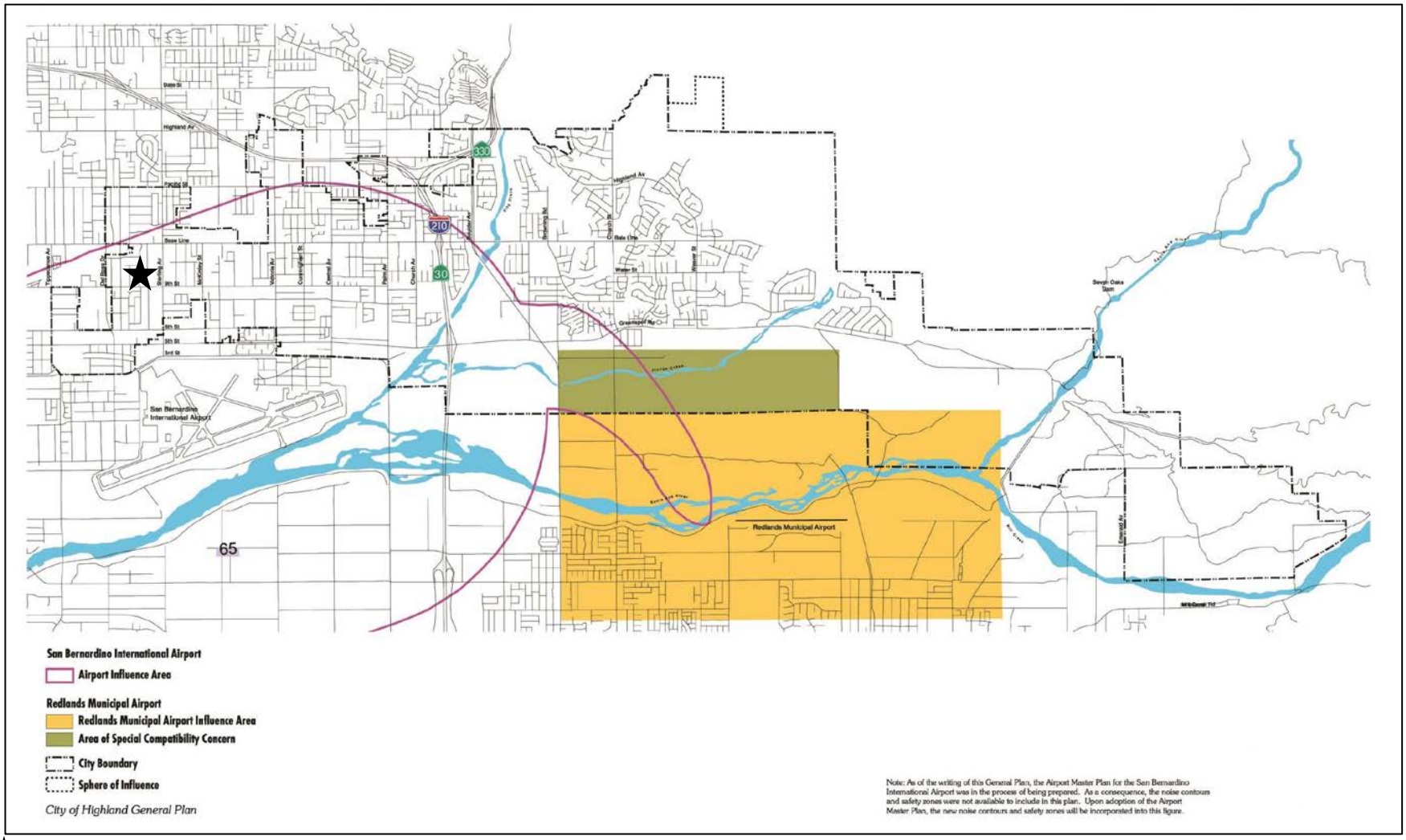
CUMULATIVE IMPACTS

The incremental effects of the proposed project related to hazards and hazardous materials, if any, are anticipated to be minimal, and any effects would be site-specific. Therefore, the proposed project would not result in incremental effects to hazards or hazardous materials that could be compounded or increased when considered together with similar effects from other past, present, and reasonably foreseeable probable future projects. The proposed project would not result in cumulatively considerable impacts to or from hazards or hazardous materials.

EXHIBIT 4.9-1PHASE I ESA SITE DETAIL MAP

Source: Leighton & Associates, Inc. (November 2022)

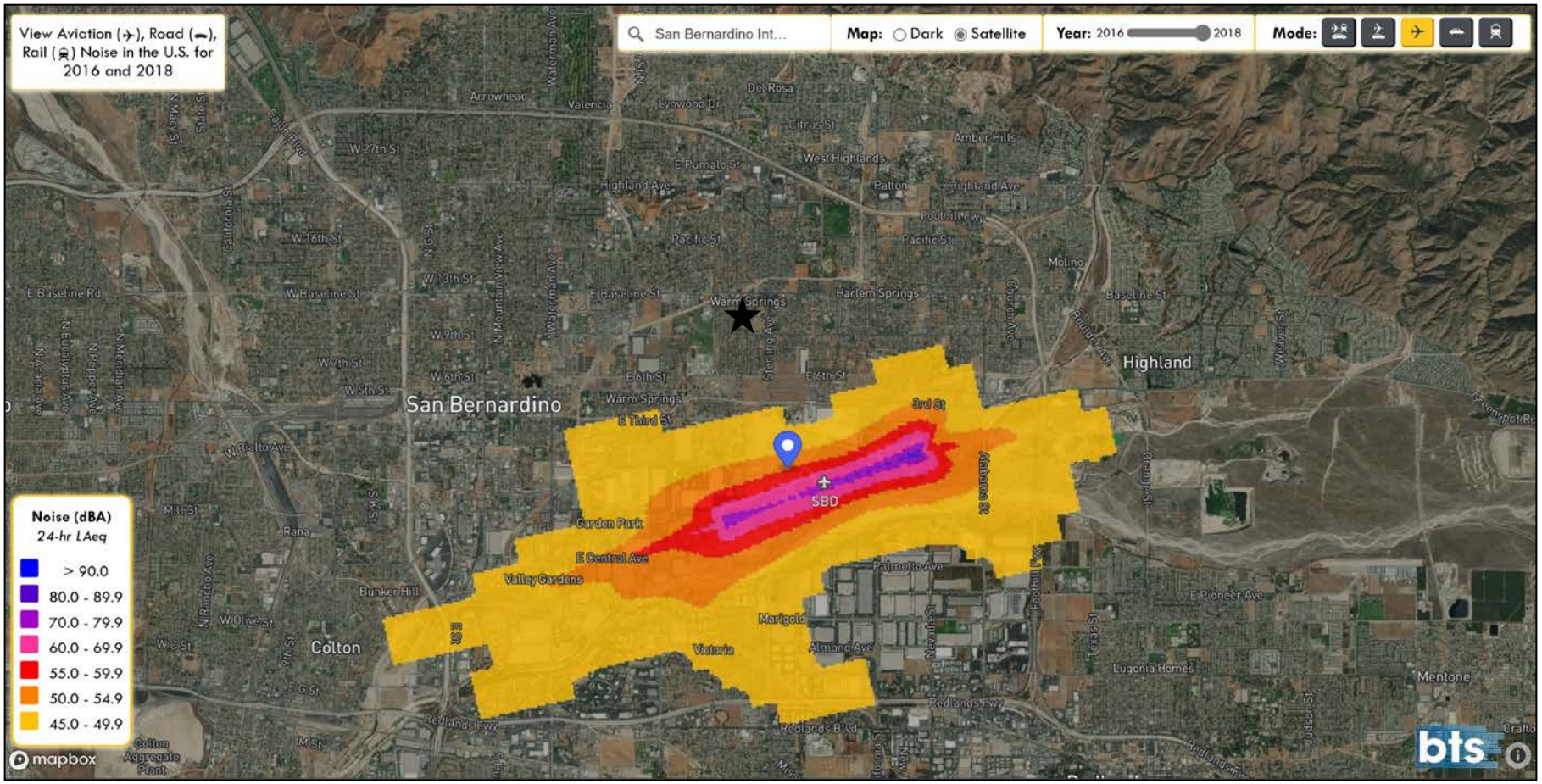
EXHIBIT 4.9-2 SBIA AIA/REDLANDS MUNICIPAL AIRPORT COMPATIBILITY MAP



★ **Project Site**

Source: The City of Highland General Plan (March 2006)

EXHIBIT 4.9-3 SBIA CNEL NOISE CONTOUR MAP



★ **Project Site**

Source: Department of Transportation (June 2023)

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4.10. HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			✓	
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			✓	
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river or through the addition of impervious surfaces, in a manner which would:				
1) Result in a substantial erosion or siltation on- or off-site?			✓	
2) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			✓	
3) 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?			✓	
4) Impede or redirect flood flows?			✓	
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			✓	
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			✓	

Sources Cited in Section 4.10

Adjudicated Basins Annual Reporting System for San Bernardino Basin, accessed June 17, 2023

Basin Plan | Santa Ana Regional Water Quality Control Board (ca.gov), accessed June 15, 2023

DRC Engineering, Inc., *Preliminary Drainage Report for Helios Highland, West Side of Sterling Ave. Between Baseline St & 9th St, Highland, CA*, April 2023 (refer to Appendix F1)

DRC Engineering, Inc., *Preliminary Water Quality Management Plan for Helios Highland, WQP 23-002*, April 2023 (refer to Appendix F2)

East Valley Water District, *2020 IRUWMP Part 2 Chapter 6*, June 30, 2021; 637614377451900000 (sbvmwd.com)

San Bernardino Valley Water Conservation District, *Upper Santa Ana River Watershed Integrated Regional Water Management Plan* (*IRWMP*), June 15, 2021; Upper Santa Ana River Integrated Regional Water Management Plan - San Bernardino Valley Water Conservation District (sbvwcd.org)

San Bernardino Valley Water Conservation District, *San Bernardino Valley Regional Urban Water Management Plan* (*RUWMP*), June 15, 2021; Upper Santa Ana River Integrated Regional Water Management Plan - San Bernardino Valley Water Conservation District (sbvwcd.org)

SGMA Groundwater Management (SGMA) Portal - Department of Water Resources (ca.gov), accessed June 17, 2023

A. WOULD THE PROJECT VIOLATE ANY WATER QUALITY STANDARDS OR WASTE DISCHARGE REQUIREMENTS OR OTHERWISE SUBSTANTIALLY DEGRADE SURFACE OR GROUND WATER QUALITY?

LESS THAN SIGNIFICANT IMPACT

The project site is located in the City of Highland, which is within the jurisdiction of the Santa Ana Regional Water Quality Control Board (SARWQCB).

The San Bernardino County MS4 Permit, Order No. R8-2010-0036, NPDES Permit No. CAS618036 is currently in effect. The previous orders, including Order No. R8-2002-0012, have been rescinded except for enforcement purposes for violations that occurred when they were in effect.

The Model Water Quality Management Plan (WQMP) and Technical Guidance Document (TGD) were developed by the Permittees according to section XI.E. of the current Order. These documents govern the development and implementation of post-construction pollution controls for certain new development and significant redevelopment as defined in the Order. The Order, WQMP, and TGD emphasize the use of controls that support Low Impact Development (LID). Both documents are subject to periodic updates and amendments, subject to the approval of the Executive Officer and after public review.

Santa Ana River Basin Plan

The Basin Plan for the Santa Ana Region includes the upper and lower Santa Ana River watersheds, the San Jacinto River watershed, and several other small drainage areas. The Santa Ana Region covers parts of southwestern San Bernardino County, western Riverside County, and northwestern Orange County. The Basin Plan establishes water quality standards for the ground and surface waters of the region. The Basin Plan includes an implementation plan describing the actions by the Regional Board and others that are necessary to achieve and maintain the water quality standards.

Project Overview

The proposed development consists of the construction of two residential multi-family buildings, garages, and associated parking and hardscape. The remaining site includes residential landscaping.

All on-site Drainage Management Areas (DMA) would drain to hydrodynamic separation devices before draining to infiltration arch chambers with an overflow route to either Elm Street or Sterling Avenue.

Existing Conditions – Water Quality

The existing site is currently vacant and undeveloped land with 90 percent pervious coverage.

Watershed Description for Drainage Area

Following are existing conditions relative to receiving waters, 303(d) listed impairments, applicable total maximum daily loads (TMDL), and environmentally sensitive and special biological significant areas.

Receiving Waters

- Highland Creek
- Patton Basin

303(d) Listed Impairments

- Not listed on 303(d) list

Applicable TDMLs

- Alkalinity as CaCO3
- Benthic Community Effects
- Chloride Nitrate/Nitrate
- Nitrogen-Ammonia
- Oxygen-Dissolved
- pH Specificity Conductivity
- Sulfates
- Temperature-water

Environmentally Sensitive Areas

- Burrowing Owl

Unique Downstream Water Bodies

- None

Hydrologic Conditions of Concern

- No

Watershed-Based BMP Included in a RWQCB Approved WAP

- No

Expected Pollutants of Concern

- Pathogens (Bacterial / Virus): pavement runoff
- Nutrients – Phosphorous: primary sources of nutrients are fertilizers and eroded soils
- Nutrients – Nitrogen: primary sources of nutrients are fertilizers and eroded soils
- Noxious Aquatic Plants: landscaped areas
- Sediment: during construction and grading and at landscaped areas
- Oil and Grease: vehicular traffic
- Trash/Debris: public waste and general waste products on the landscape
- Pesticides/Herbicides: landscape activities areas
- Organic Compounds: landscape areas

Proposed Project – Water Quality

A *Preliminary Water Quality Management Plan* (*PWQMP*) was prepared for the proposed project, and complies with the requirements of the City of Highland and County of San Bernardino NPDES Stormwater Program requiring the preparation of a plan.

Currently, the project site is 90 percent pervious and 10 percent impervious. Implementation of the proposed project would alter the site characteristics to 15 percent pervious and 85 percent impervious, as shown in *Table 4.10-1, Pre- and Post-Project Conditions*.

TABLE 4.10-1 PRE- AND POST-PROJECT CONDITIONS

Project Area	Pervious		Impervious	
	Area	Percentage	Area	Percentage
Pre-Project Conditions	6.77 AC (262,648 SF)	90%	0 AC (29,574 SF)	10%
Post-Project Conditions	0.36 AC (15,697 SF)	15%	2.04 AC (88,951 SF)	85%
Source: DRC Engineering, Inc. (April 2023)				
Notes: AC = acres; SF = square feet Site Total SF – 292,222 SF				

PWQMP Sections 4 and 5 identify applicable best management practices (BMP) for the proposed project, as shown on the following PWQMP forms completed by DRC Engineering, Inc. (refer to Technical Appendix F2):

Form 4.1-1, Non-Structural Source Control BMPs

Form 4.1-2, Structural Source Control BMPs

Form 4.1-2, Preventative LID Site Design Practices Checklist

Form 4.2-1, LID BMP Performance Criteria for Design Capture Volume (DA 1 – DMA A)

Form 4.2-1, LID BMP Performance Criteria for Design Capture Volume (DA 2 – DMA B)

Form 4.2-2, Summary of HCOC Assessment (DA 1)

Form 4.2-3, HCOC Assessment for Runoff Volume (DA 1)

Form 4.2-4, HCOC Assessment for Time of Concentration (DA 1)

Form 4.2-5, HCOC Assessment for Peak Runoff (DA 1)

Form 4.3-1, Infiltration BMP Feasibility (DA 1)

Form 4.3-2, Site Design Hydrologic Source Control BMPs (DA 1)

Form 4.3-2, Infiltration LID BMP – Including Underground BMPs (DA 1)

Form 4.3-3, Infiltration LID BMP – Including Underground BMPs (DA 2)

Form 4.3-4, Harvest and Use BMPs (DA 1)

Form 4.3-5, Selection and Evaluation of Biotreatment BMP (DA 1)

Form 4.3-6, Volume Based Biotreatment (DA 1) – Bioretention and Planter Boxes with Underdrains

Form 4.3-7, Volume Based Biotreatment (DA 1) – Constructed Wetlands and Extended Detention

Form 4.3-8, Flow Based Biotreatment (DA 1)

Form 4.3-8, Flow Based Biotreatment (DA 2)

Form 4.3-9, Conformance Summary and Alternative Compliance Volume Estimate (DA 1)

Form 4.3-9, Conformance Summary and Alternative Compliance Volume Estimate (DA 2)

4.3-10, Hydromodification Control BMPs (DA 1)

5-1, BMP Inspection and Maintenance

Table 4.10-2 summaries the relative project information from the above forms.

TABLE 4.10-2 LID BMP PERFORMANCE CRITERIA FOR DESIGN CAPTURE VOLUME

Project Area (SF)	Imperviousness (%)	Runoff Coefficient (Rc)	P2yr-1hr (IN)	Mean 6-hr Precipitation (IN)	Drawdown Rate (HRS)	Design Capture Volume (SF)
DA-1 – DMA-A						
274,637 sf	87.4%	0.69	0.537 in	0.795 in	48 hrs	24,754 sf
DA-2 – DMA-B						
21,100 sf	74.8%	0.54	0.537 In	0.795	48 hrs	1,485 sf
Source: DRC Engineering, Inc. (April 2023)						
Notes: SF = Square Feet; % - Percent; IN = inches; HRS = hours; P2y-1r = 1-hour rainfall depth for a 2-year return period						

Table 4.10-3 summaries the proposed design conditions for the two on-site drainage areas.

TABLE 4.10-3 DRAINAGE AREA SUMMARY CONDITIONS

Drainage Area	Square Footage	Percent Impervious	Design Capture Volume (SF)	Proposed Design Volume (CF)
A	274,637	87.4	24,784	41,748
B	21,100	74.8	1,485	1,616
TOTAL	295,737	86.5	26,269	43,364
Source: DRC Engineering, Inc. (April 2023)				
Notes: SF = square feet; CF = cubic feet				

Impact Conclusion

All sources of potential pollutants from the proposed project are mitigated to less than significant through the use of identified BMPs per the requirements of Santa Ana Regional Water Quality Control Board as outlined in the *Preliminary WQWP*. Refer to *Exhibit 4.10-1*, *Preliminary WQMP Map*. Thus, less than significant impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

B. WOULD THE PROJECT SUBSTANTIALLY DECREASE GROUNDWATER SUPPLIES OR INTERFERE SUBSTANTIALLY WITH GROUNDWATER RECHARGE SUCH THAT THE PROJECT MAY IMPEDED SUSTAINABLE GROUNDWATER MANAGEMENT OF THE BASIN?

LESS THAN SIGNIFICANT IMPACT

Upper Santa River Watershed Region

The water management agencies within the Upper Santa Ana River (SAR) Watershed Region (Region) have a long history of collaboration to deliver regional water resource solutions. They collaborate to collect and manage water resource data and prepare multiple planning documents to meet regulatory requirements while guiding effective regional and local decision-making. Two of the Region's foundational documents are the Upper Santa Ana River Watershed Integrated Regional Water Management Plan (IRWMP) and the San Bernardino Valley Regional Urban Water Management Plan (RUWMP). Since both documents were due to be updated for the 2020 planning cycle and considering the overlap and interdependence of these two documents, Valley District and its regional partners envisioned a consolidated document that combines these two plans, merges the common elements, and creates a cohesive water resources planning framework for the future. The IRUWMP includes: Part 1, Regional Context; Part 2, Local Agency Urban Water Management Plans; Part 3, Regional Supporting Information; and Part 4, Urban Water Management Plan Agency Supporting Information. The IRWRP was adopted by the San Bernardino Valley Municipal Water District on June 15, 2021.

Water Sources and Uses in the Region

The Region's water sources include local groundwater, local surface water, imported surface water and recycled water. The local surface water is derived from the Santa Ana River and its tributaries and developed local supplies are either treated for domestic use or delivered for irrigation or groundwater recharge. Nearly all of the Region's groundwater is produced from seven distinct groundwater basins. Five basins provide the majority of the groundwater supply to the region: San Bernardino Basin (SBB), Rialto-Colton, Riverside-Arlington, Yucaipa and San Timoteo. Together, these five basins provide over 12 million acre-feet (AF) of available local storage for use in dry years. Recycled water is produced at several water resource recovery facilities in the region for irrigation, industrial use and groundwater recharge. A portion of the recycled water produced in the Region is discharged to the SAR and its tributaries to support habitat and meet downstream flow obligations. Imported water for most of the Region is provided by Valley District, who is a State Water Project (SWP) contractor. San Gorgonio Pass Water Agency, also a SWP contractor, and Western Municipal Water District, a member agency of Metropolitan Water District of Southern California, provide supplemental imported water to the portions of the Region within Riverside County.

The City of Highland relies on a combination of groundwater, surface water, and purchased or imported water to meet its water needs. Currently, the City relies on 82.5 percent groundwater, 5.4 percent surface water, and 12.2 percent purchased or imported water.

East Valley Water District

East Valley Water District (EVWD or District) is a California Special District, established in 1954, that provides water and wastewater services. EVWD encompasses 30.1 square miles along the foothills of the San Bernardino Mountains and serves the City of Highland, portions of the City and County of San Bernardino, along with the San Manuel Band of Mission Indians. EVWD is a retail public water supplier that meets the definition of an urban water supplier with over 21,600 municipal water service connections in 2020.

EVWD produces groundwater from the San Bernardino Basin (SBB). There are 22 wells within EVWD's water system, of which 15 wells are currently active and 7 are inactive. Per the Western-San Bernardino Judgement, EVWD is not limited in the amount of groundwater they can produce from SBB.

In 2018, EVWD and other local agencies voluntarily formed the SBB Groundwater Council to coordinate and implement groundwater management activities in the Bunker Hill Sub-Basin (part of SBB) and achieve groundwater sustainability throughout the basin. The monitoring and management programs in place today enable EVWD to sustainably manage the groundwater basin.

Proposed Project

The proposed project would substantially increase impervious surfaces when compared to the existing vacant and undeveloped site conditions on the approximately 6.77-acre site; however, the project site is an urbanized area of the City. This increase in impervious surfaces would not adversely impact sustainable groundwater basin management.

The proposed project would connect to the City's water lines and is not anticipated to deplete groundwater supplies through the consumption of the water. The proposed 220 multi-family residential units would not substantially decrease groundwater supplies within the City of Highland or within the East Valley Water District (EVWD), as additional residential growth was accounted for in *The City of Highland General Plan* and the *East Valley Water District 2020 IRUWMP.*

In conclusion, the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the proposed project may impeded sustainable groundwater management of the basin. Thus, less than significant impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

C. WOULD THE PROJECT SUBSTANTIALLY ALTER THE EXISTING DRAINAGE PATTERN OF THE SITE OR AREA, INCLUDING THROUGH THE ALTERATION OF THE COURSE OF STREAM OR RIVER, IN A MANNER WHICH WOULD:

1. RESULT IN SUBSTANTIAL EROSION OR SILTATION ON- OR OFF-SITE?

2. SUBSTANTIALLY INCREASE THE RATE OR AMOUNT OF SURFACE RUNOFF IN A MANNER WHICH WOULD RESULT IN FLOODING ON- OR OFF-SITE?

3. 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?

LESS THAN SIGNIFICANT IMPACT

Hydrology - Existing Site Conditions

The existing site is approximately 6.79 acres of undeveloped land. The site is barren with only slight vegetation. The site is hydrologic soil class A and infiltrates at a high rate. Preliminary infiltration testing was performed by Leighton & Associates and presented in the geotechnical investigation attached in Technical Appendix F1, Appendix G. Due to the City of Highland's infiltration testing requirements, these values are preliminary and require a minimum factor of safety of 10. To comply with California Stormwater Quality Association (CASQA) best performance recommendations of 2.4 inches/hour

(maximum), a factor of safety of 13.3 was selected prior to final infiltration testing for the construction phase final hydrology report.

Presently, the site drains west to an on-site sump area before ponding on-site and releasing north to Elm Street at "Discharge 1." Refer to *Exhibit 4.10-2 Existing Storm Summary (Hydrology Map)* for an illustration of the existing drainage patterns. The peak flows and runoff volumes were determined from the Small Unit Area Hydrograph results. All calculations can be found in Technical Appendix F1, Appendices C-F. *Table 4.10-4*, *Existing Storm Summary* summarizes the data and results for the 10-year and 100-year storm event in the existing condition.

TABLE 4.10-4 EXISTING STORM SUMMARY

Drainage Area	Acreage (AC)	10-Year Flowrate (CFS)	100-Year Flowrate (CFS)
Discharge 1			
A	6.79	5.32	11.44
Off-Site	1.91	2.03	4.18
Total	8.70	7.35	15.62
Source: Leighton & Associates (April 2023)			
Notes: AC = Acres; CFS = Cubic Feet Per Second			

Hydrology - Proposed Site Conditions

The proposed development consists of the construction of two residential multi-family buildings. Accompanying the buildings is the development of paved parking areas, drive aisles, car ports, concrete hardscape, retaining/screen walls, and curbing. The remaining portion of the site would be residential landscaping.

There are two proposed underground infiltration areas. The majority of the site drains to the larger underground infiltration system on the west side of the site. The second underground infiltration area accepts the runoff from a small easterly portion of the site near Sterling Avenue.

Refer to *Exhibit 4.10-3 Proposed Hydrology Map* for an illustration of the existing drainage patterns.

Table 4.10-5, *Proposed Storm Summary Pre-Detention* summarizes the results for the 10-year and 100-year storm event in the proposed condition prior to mitigation.

TABLE 4.10-5 PROPOSED STORM SUMMARY PRE-DETENTION

Drainage Area	Acreage (AC)	10-Year Flowrate (CFS)	100-Year Flowrate (CFS)
Discharge 1			
A	6.31	9.20	15.77
Total	6.31	9.20	15.77
Discharge 2			
B	0.48	0.99	1.73
Total	0.48	0.99	1.73
Source: Leighton & Associates (April 2023)			
Notes: AC = Acres; CFS = Cubic Feet Per Second			

The proposed on-site storm drain system is designed to collect the runoff in the infiltration chambers and infiltrate the low flows and water quality design volume prior to utilizing a "bubble up" method to pond the high flows in the on-site gutters and low risk parking stall areas to an elevation above the existing street sections that would safely discharge the high flows to existing infrastructure. The infiltration chambers have been sized greater than the required water quality volume to further reduce the peak flows and necessary ponding for discharge of the 10-year and 100-year storm events.

For the specific drainage areas, runoff from Area A would drain to the west infiltration chambers and then pond to the surface and to the existing curb and gutter at Elm Street "Discharge 1." Runoff from Area B would drain to the southeast infiltration chambers and then pond to the curb inlet at the southeast corner of the site to discharge into the curb and gutter at Sterling Avenue "Discharge 2."

Table 4.10-6, *Proposed Pond Summary* provides the results for the 10-year and 100-year storm event in the proposed condition post-mitigation.

TABLE 4.10-6 PROPOSED PONDING SUMMARY

Drainage Area	Release Elevation	Maximum Ponding Elevation	Design Ponding Elevation	Discharge at Design Elevation (CFS)
A	105.50	105.90	105.84	3.50
B	110.80	111.10	111.03	1.18
Source: Leighton & Associates (April 2023)				
Notes: CFS = Cubic Feet Per Second				

Off-Site Area

Approximately 1.91 acres of off-site area drainage is tributary to the proposed project. This land remains mostly undisturbed from the existing on-site conditions of barren landscape and highly infiltrating class A soil.

The runoff from this off-site area surface flows to an off-site u-channel along the north property line and discharges through a parkway drain to Elm Street (Discharge #3). The peak flow and runoff volumes for the 10-year and 100-year storm events for the off-site area were determined from the Small Unit Area Hydrograph results. The capacity for the off-site u-channel to convey the 10-year and 100-year storm events and the capacity for a 4-inch opening parkway drain to discharge the storm events were analyzed using FlowMaster and included in Technical Appendix F1, Appendix F.

Table 4.10-7, *Proposed Off-Site Summary* summarizes the off-site discharge and ponding summary for the 10-year and 100-year storm events.

TABLE 4.10-7 PROPOSED OFF-SITE SUMMARY

Drainage Area	Maximum Ponding in U-Channel (FT)	Maximum Ponding in Parkway Drain (FT)	Discharge at Design Elevation (CFS)
Discharge 3			
Off-Site	0.85 (85%)	0.31 (94%)	4.18
Source: Leighton & Associates (April 2023)			
Notes: FT = Feet; CFS = Cubic Feet Per Second; % = Percent			

Impact Conclusion

The proposed underground detention/infiltration system is sized to reduce the proposed 10-year and 100-year storm flowrates to below existing 10-year and 100-year peak flowrates, as well as infiltrate the Water Quality Management Plan treatment volume.

Proposed flows would discharge through surface runoff to the existing curb and gutter improvements at a peak of 3.50 CFS in Elm Street and 1.18 CFS to Sterling Avenue. Off-site surface runoff tributary to the site in the existing condition would be routed directly to Elm Street using an appropriately sized u-channel and parkway drain.

Due to the proposed development reducing peak flows to below the existing condition and the aboveground ponding below existing and proposed curb height for the 10-year and 100-year events, the proposed development would not pose any flood dangers to any downstream or upstream drainage facilities and properties. Thus, less than significant hydrology impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

4. IMPEDE OR REDIRECT FLOOD FLOWS?

LESS THAN SIGNIFICANT IMPACT

The project site is currently vacant and undeveloped, but is surrounded by residential, commercial, church, and school uses to the north, south, east, and west. Existing storm water infrastructure supports these uses. Sterling Avenue, which is adjacent to the site's southern boundary, is paved with curbs and gutters.

Implementation of the proposed project includes 220 multi-family residential units and infrastructure to support the development, which would change the site's drainage characteristics. However, infrastructure exists off-site and the post-project, storm water runoff would continue to be conveyed and discharged off-site into the local stormwater infrastructure. Additionally, construction of the proposed project would be restricted to the site boundary. As such, implementation of the proposed project would not lead to on-site or off-site siltation or erosion impeding or redirecting flood flow. Thus, less than significant impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

D. WOULD THE PROJECT IN FLOOD HAZARD, TSUNAMI, OR SEICHE ZONES, RISK RELEASE OF POLLUTANTS DUE TO PROJECT INUNDATION?

LESS THAN SIGNIFICANT IMPACT

Flood Hazards

Flood hazard areas identified on the Flood Insurance Rate Map (FIRM) are identified as a Special Flood Hazard Area (SFHA). A SFHA is defined as the area that would be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is also referred to as the base flood or 100-year flood.

SFHAs are labeled as Zone A, Zone AO, Zone AH, Zones A1-A30, Zone AE, Zone A99, Zone AR, Zone AR/AE, Zone AR/AO, Zone AR/A1-A30, Zone AR/A, Zone V, Zone VE, and Zones V1-V30. Moderate flood hazard areas, labeled Zone B or Zone X (shaded) are also shown on the FIRM, and are the areas between the limits of the base flood and the 0.2-percent-annual-chance (or 500-year) flood. The areas of minimal flood hazard, which are the areas outside the SFHA and higher than the elevation of the 0.2-percent-annual-chance flood, are labeled Zone C or Zone X (unshaded).

Per Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), Community Panel No. 06071C8701J, dated September 2, 2016, the project site lies within Flood Zone X. Flood Zone X (shaded) is described as areas of 0.2 percent annual chance flood; areas of 1.0 percent annual chance with average depths of less than one foot or within drainage areas less than one square mile; and within Flood Zone X (no screen) area of minimal flooding hazard.

The project site could be subject to minimal site flooding, but site improvements would comply with all City and County requirements and would remove any flood hazard potential to future development associated with the proposed project. Thus, less than significant impacts would occur.

Dam Failure

There is one dam located outside of the City of the Highland (Seven Oaks Dam) that poses a risk should the dam fail.

Dam failure at full capacity is a potential hazard for most of Highland. *Exhibit 4.10-4 Flood Hazards* shows the limits of flooded areas with failure of the Seven Oaks Dam. In such a case, water could extend as far north as Pacific Street in some locations. All southern exits from Highland could be impassable during a major inundation event.

Seven Oaks Dam is a single purpose flood control project located just outside Highland's northeast boundary in an unincorporated area of San Bernardino County. The dam is a major feature of the Santa Ana River Mainstem Project designed to protect Orange, Riverside, and San Bernardino Counties from

flood. The dam is able to resist an earthquake measuring 8.0 on the Richter scale with any point able to sustain a displacement of four feet without causing any overall structural damage.

In the event of dam failure, the Big Bear Dam has the potential to flood eastern portions of Highland. The Big Bear Dam is a water conservation reservoir owned by the Big Bear Municipal Water District.

The Seven Oaks Dam is northeast of the project site. Per Figure 6.5, the project site is located with the Limit of Flooded Area with Dam Failure/500-Year Flood Boundary, but not within the Special Flood Hazard Areas Inundated by 100-Year Flood. Thus, the proposed project would not be subject to flooding due to dam inundation. Thus, less than significant impacts would occur.

Seiche

A seiche is a periodic oscillation of a body of water resulting from seismic shaking or other causes that can cause flooding. The *General Plan* Public Health and Safety Element states that an earthquake-induced seiche associated with dam failure at Seven Oaks Dam is considered a risk in the City of Highland. As noted in the dam failure section above, the proposed project would not be subject to flooding due to dam inundation. Thus, less than significant impacts would occur.

Tsunami

The project site is located inland approximately 75 miles east of the Pacific Ocean (Santa Monica Bay). Due to the City of Highland's inland location, the potential for a tsunami to impact the City is considered to be low. Thus, no impacts would occur.

Mudflow

Mudflows tend to flow in channels, but can spread out over a floodplain, and generally occur in places where they have occurred before. Debris flows could originate off-site and pass through the project site. The project site has not been subject to mudflows in the recent past, and the construction of residential uses on-site would not result in a change in the potential for mudflow impacts over existing conditions. Thus, less than significant impacts would occur.

Impact Conclusion

The impacts with regards to flooding, seiches, dam inundation, and mudflow would be less than significant, and no impacts with regard to tsunamis.

MITIGATION MEASURES

No mitigation measures are required.

E. WOULD THE PROJECT CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF A WATER QUALITY CONTROL PLAN OR SUSTAINABLE GROUNDWATER MANAGEMENT PLAN?

LESS THAN SIGNIFICANT IMPACT

Refer to Response 4.10.B.

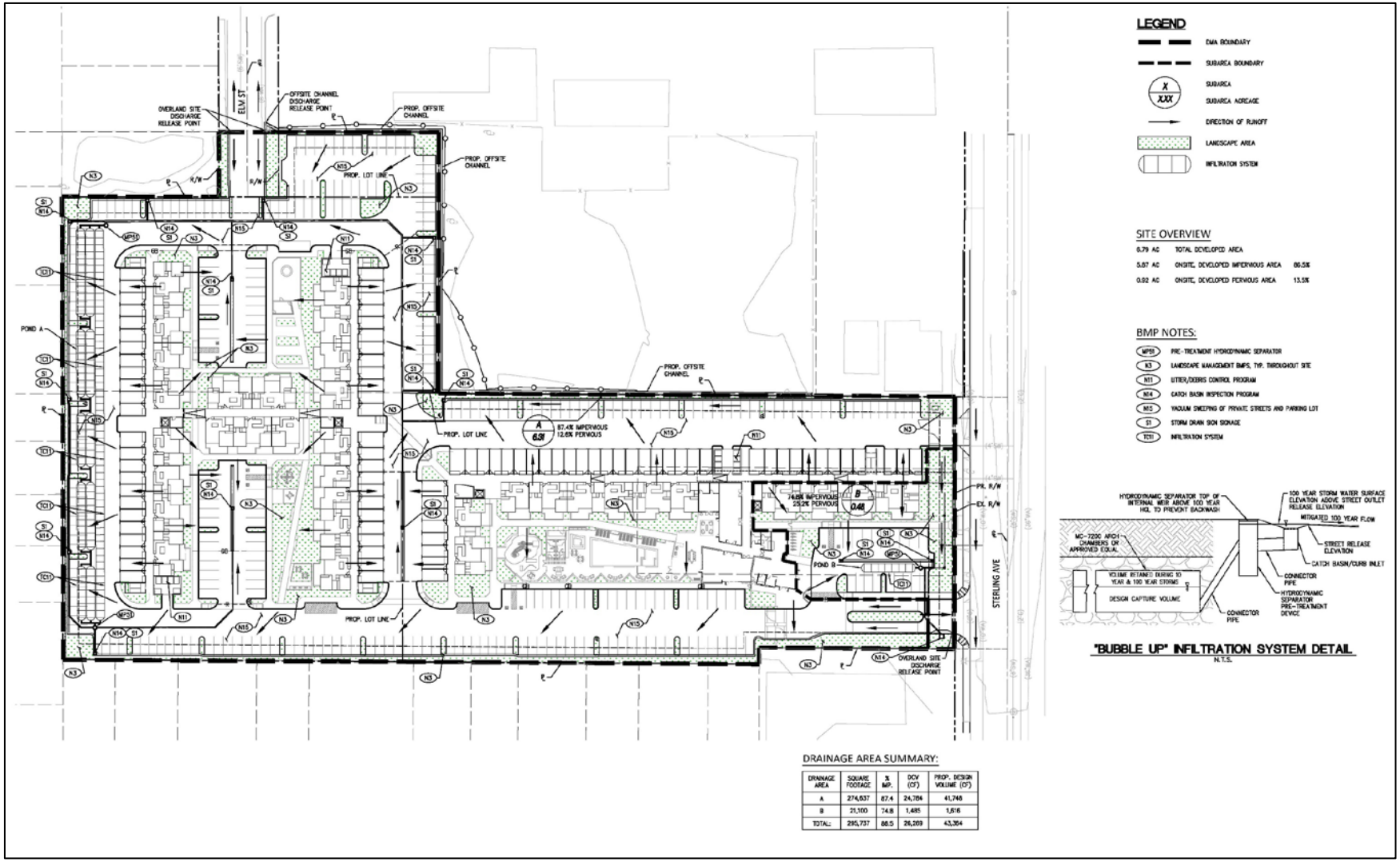
MITIGATION MEASURES

No mitigation measures are required.

CUMULATIVE IMPACTS

Buildout of the proposed project, in combination with present and reasonably foreseeable future development that would occur within the watershed, would involve construction activities, new development from which runoff would discharge into waterways, potential increased in storm water runoff from new impervious surfaces, and a potential reduction in groundwater recharge areas. Construction of new development within the watershed could result in the erosion of soil, thereby cumulatively impacting water quality within the watershed. In addition, the increase in impermeable surfaces and more intensive land uses within the watershed resulting from future development may also adversely affect water quality by increasing the amount of storm water runoff and common urban contaminants entering the storm drain system. However, new development would be required to comply with existing regulations regarding construction and operational practices that minimize risks of erosion and runoff. Compliance with requirements would minimize degradation of water quality at individual construction sites. Thus, less than significant cumulative impacts would occur.

EXHIBIT 4.10-1 PRELIMINARY WQMP MAP

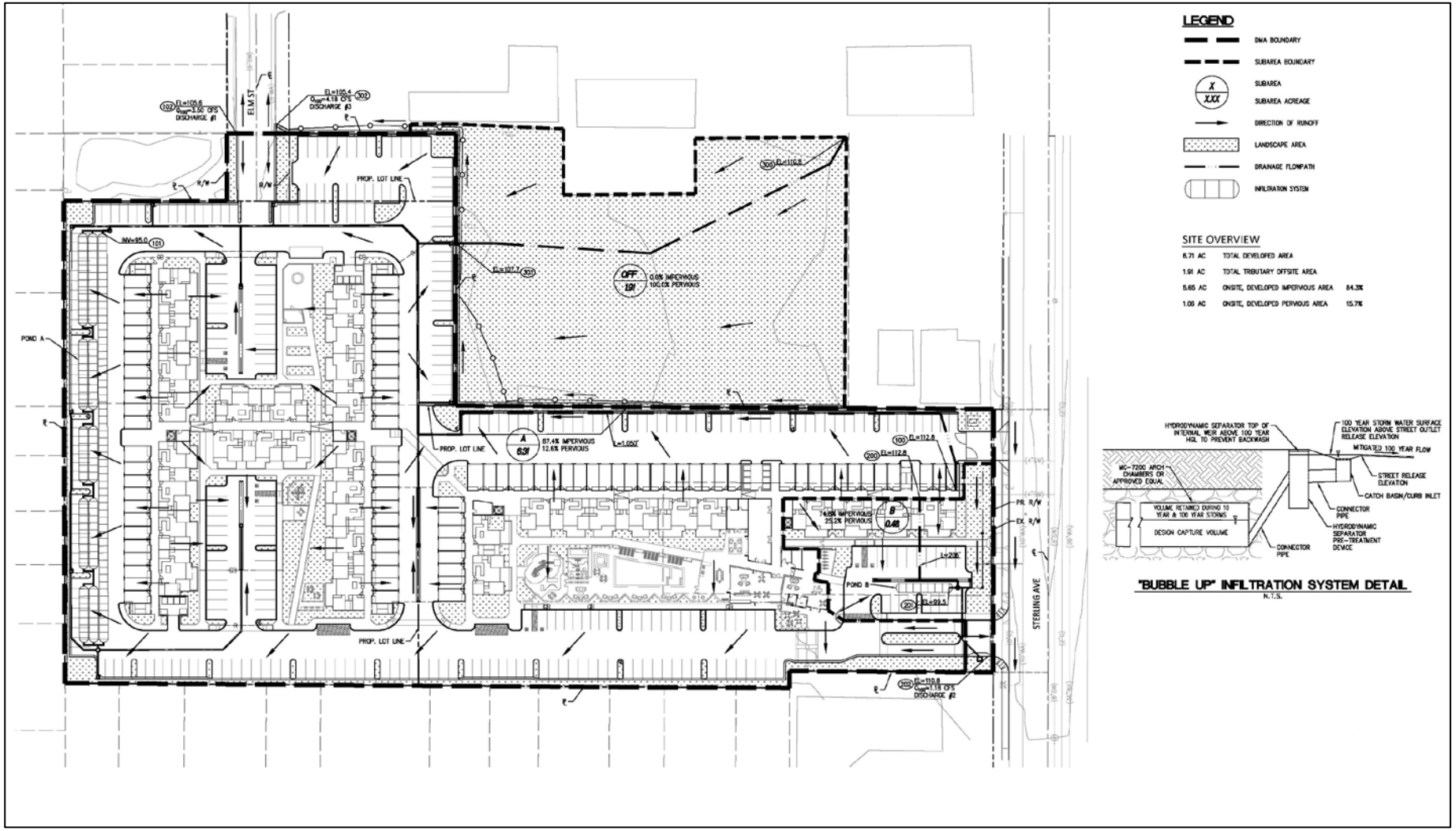


Source: DRC Engineering, Inc. (April 2023)

EXHIBIT 4.10-2 EXISTING HYDROLOGY MAP

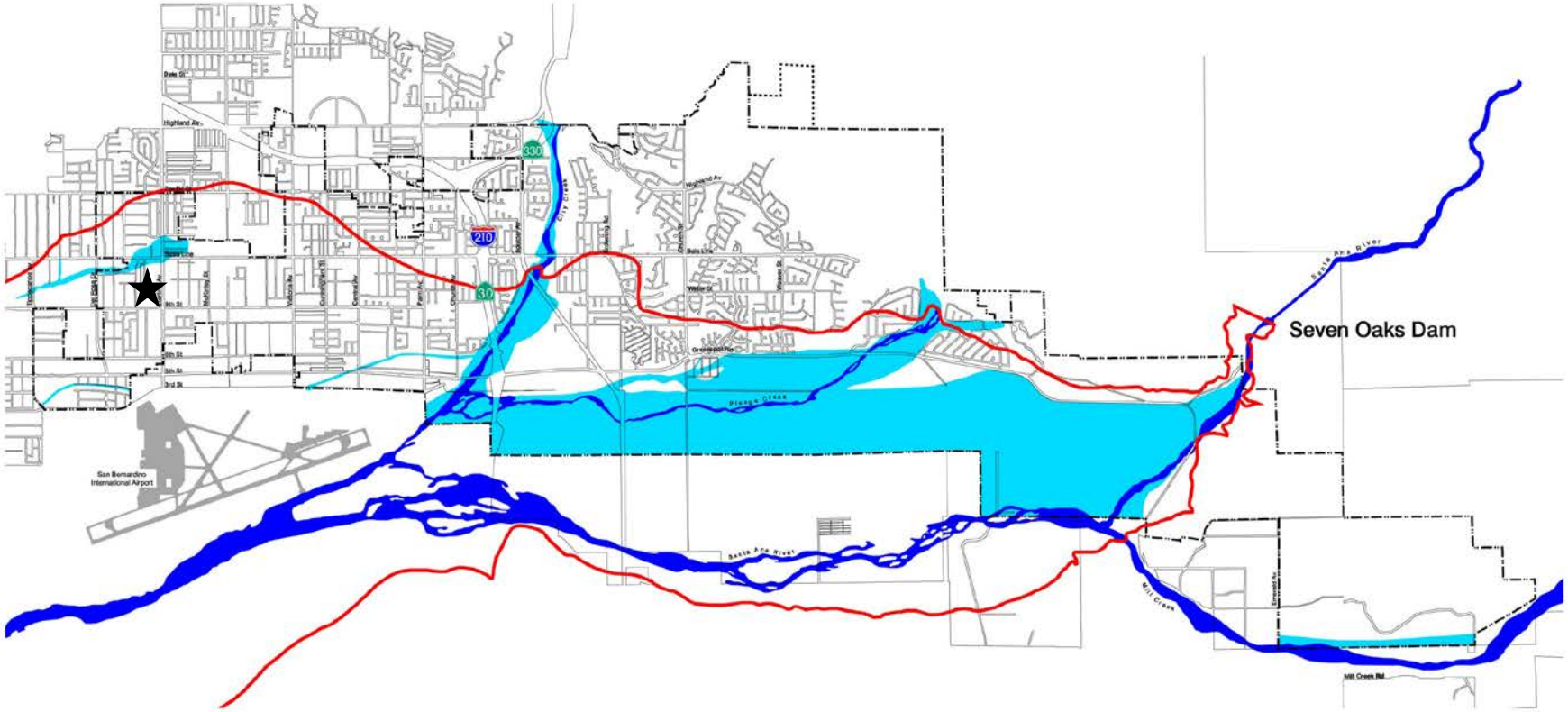
Source: DRC Engineering, Inc. (April 2023)

EXHIBIT 4.10-3 PROPOSED HYDROLOGY MAP



Source: DRC Engineering, Inc. (April 2023)

EXHIBIT 4.10-4 FLOOD HAZARDS



Source: The City of Highland General Plan (March 2006)

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4.11. LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Physically divide an established community?				✓
b. Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?			✓	

Sources Cited in Section 4.11

City of Highland, *The City of Highland General Plan*, March 2006

City of Highland, *Highland Municipal Code*, Code of Ordinances Codified through Ordinance No. 3274, August 2019 Supplement

A. WOULD THE PROJECT PHYSICALLY DIVIDE AN ESTABLISHED COMMUNITY?

NO IMPACT

The 6.77 acre project site is vacant and undeveloped. Surrounding uses include single-family residential, multi-family residential, school, and commercial uses.

The project site is surrounded by the following uses:

North: Immediately north of the project site is the Isdaofie Church, Sterling Christian School, and single-family residences. Single-family and multi-family residences are located north of the aforementioned uses.

West: West of the project site is a residential area with a mix of single-family and multi-family residences.

South: Immediately south of the project site are single-family residences and a commercial center. These uses are located to the north of 9th Avenue, which is classified as a Primary Arterial. An auto repair business, a church, tire shop, and single-family residences are located to the south of 9th Avenue, west of Sterling Avenue, which is classified as a Major Highway.

East: East of the project site is the Warm Springs Elementary School and single-family residences on Sterling Avenue, which is classified as a Major Highway.

The proposed project would be located on a site in an urbanized area, consistent with the existing on-site and surrounding established land use patterns. Thus, no impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

B. WOULD THE PROJECT CAUSE A SIGNIFICANT ENVIRONMENTAL IMPACT DUE TO A CONFLICT WITH ANY APPLICABLE LAND USE PLAN, POLICY, OR REGULATION ADOPTED FOR THE PURPOSE OF AVOIDING OR MITIGATING AN ENVIRONMENTAL EFFECT?

LESS THAN SIGNIFICANT IMPACT

The proposed project involves the construction of 220 multi-family residential units on the 6.77-acre (approximately 274,951 square feet) project site. Access to the project site would be from two gated entries on Sterling Avenue. An emergency access gate will be provided on the northern boundary of the site at the southern terminus of Elm Street.

Density Bonus

The Applicant is seeking an Affordable Housing/Inclusionary Housing Agreement with the City. The Agreement will be consistent with California Density Bonus Law. The project's base density is 204 units and 11 units are very low income units, representing a total of five percent (5%).

City Review

The proposed project would be subject to the City design review, staff review, and tentative tract map review processes.

General Plan and Zoning

General Plan

The project site has a General Plan land use designation of Planned Community (PC) with Residential High Density Special Overlay, which permits up to 30 units per gross acre.

Zoning

The project site has a Zoning designation of R-4 Multi-Family Residential (MF), which permits up to 30 units per gross acre. The primary purpose of the R-4 District is to provide for the development, by right, of multi-family attached residential dwelling units with enhanced amenities (common open space and recreation areas. Both the 2014-2021 Housing Element and the 2021-2029 Housing Element include the proposed project's three parcels and identify them as lower income sites. In addition, the project site is located within Airport Compatibility Zone E - Airport Influence Zone - Negligible Risk.

Zoning Code

The proposed project is subject to *Highland Municipal Code* Title 16, Land Use and Development.

Title 16, Section 16.04.080, Zoning District. The City has been divided into districts in order to provide a uniform basis for regulating the use of land, buildings and structures, and to establish minimum site development regulations and performance standards applicable to sites within the City. The project site is located within Multiple-Family (R-4) District.

Municipal Code Chapter 16.16, Residential Districts, Section 16.16.020 Residential development districts defines the Multifamily (R-4) District below:

> *The primary purpose of the R-4 District is to provide for the development, by right, of multifamily attached residential dwelling units with enhanced amenities (common open space and recreation areas) at a minimum density of 20 DUs per gross acre and a maximum density of 30 DUs per gross acre.*

The site-specific development standards for the proposed project are shown in *Table 4.11-1*, *Development Standards*.

Impact Conclusion

As shown in *Table 4.11-1*, the proposed project complies with the applicable development standards.

In addition, the proposed 220 multi-family units are compatible with adjacent church, private school, and single-family residences to the north; single- and multi-family uses to the west; single-family and commercial uses to the south; and an elementary school and single-family residences to the east. Thus, less than significant impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

CUMULATIVE IMPACTS

Implementation of the proposed project is consistent with the objectives and anticipated growth of *The City of Highland General Plan*. The Initial Study finds that all potential environmental impacts of the proposed project would either be less than significant or can be mitigated to less than significant. City growth would be subject to review for consistency with adopted land use plans and policies by the City, in accordance with the requirements of CEQA, the State Zoning and Planning Law, and the State Subdivision Map Act, all of which require findings of plan and policy consistency prior to approval of entitlements for development. Therefore, less than significant cumulative impacts associated with plans and policies would occur.

TABLE 4.11-1 DEVELOPMENT STANDARDS

Development Regulation	Highland Municipal Code Citation	Standard	Proposed Project	Complies with Development Regulation
Street (Front) Setback	Table 16.16.040.B	0 feet for 2-story building	0 feet	Yes
Maximum Density (DUs per gross acre)	Table 16.16.040.B	Minimum 20 Maximum 30	32.5 DU/AC	Yes with Affordable Housing/Inclusionary Housing Agreement
Minimum Building Site (Net Area In SF)	Table 16.16.040.B	1 Acre	294,901 SF	Yes
Minimum Front Yard Setback	Table 16.16.040.B	25 Feet[g]	31 Feet	Yes
Minimum Interior Side Yard Setback[h]	Table 16.16.040.B	15 Feet[g]	62 Feet	Yes
Minimum Street Side Yard Setback[h]	Table 16.16.040.B	15 Feet[g]	57 Feet	Yes
Minimum Rear Yard Setback[i]	Table 16.16.040.B	15 Feet	55 Feet	Yes
Maximum Lot Coverage	Table 16.16.040.B	None	27.45%	Yes
Maximum Height For Buildings And Structures	Table 16.16.040.B	55 feet (4 stories and loft)	53 Feet (4 Stories)	Yes
Minimum Dwelling Unit Size In Square Feet[l]	Table 16.16.040.B	Studio: 425 SF 1 bedroom: 650 SF 2 or more bedroom: 800 SF	Studio: 445 SF 1 Bedroom: 705 SF 2 Bedroom: 975 SF 3 Bedroom: 1,109 SF	Yes
Storage	Section 16.16.040.C.3	200 CF per unit (minimum)	200 CF per unit	Yes
Private Open Space	Section 16.16.040.E.4.d	150 SF per unit (Ground Floor) 100 SF per unit (Upper Floors)	150 SF per unit (Ground Floor) 60 SF per unit (Upper Floors)*	Yes*
Public Open Space	Section 16.16.040.E.3.c.i	30% of Site Area	9% of Site Area*	Yes*

Source: *Highland Municipal Code* Chapter 16.16, Residential Districts, Section 16.16.020

Notes: *= Public Open Space per Density Bonus Incentive

Highland Municipal Code Table 16.16.040.B Notes

c. Width measurements for cul-de-sac or otherwise odd-shaped lots shall be determined on the basis of the average horizontal distance between the side lot lines, measured at right angles to the lot depth at a point midway between the front and rear lot lines.

h. Except for development in the Corridor Residential (R-2C) District and East Highland Village (EHV) District, a minimum 10-foot setback shall be maintained for all two-story or greater elements. Side yards must have a minimum flat area of five feet in width. Rear yard must be flat and usable. Wherever R-4 units abut properties designated R-1 District, a landscaped setback equal to the R-4 building height shall be required to a maximum of 25 feet or lesser amount as determined by the planning commission and shall be designed in a manner to reduce the mass of the buildings adjacent to property in the R-1 District. Refer to HMC 16.16.040(E) for additional provisions within the Multifamily (R-4) District.

i. A minimum of 15 feet of flat, usable area shall be provided. However, for development in the Corridor Residential (R-2C) District and East Highland Village (EHV) District, a minimum of 10 feet of flat, usable area shall be provided. Rear yards in excess of the minimum required may be sloping and shall comply with the provisions of the California Building Code and normally accepted grading practices.

l. One-bedroom units shall be a minimum of 800 square feet.
Two-bedroom units shall be a minimum of 1,000 square feet.
Three-bedroom units shall be a minimum of 1,200 square feet.
Four-bedroom units shall be a minimum of 1,400 square feet

4.12. MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. 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?				✓
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				✓

Sources Cited in Section 4.12

City of Highland, *The City of Highland General Plan*, March 2006

A. WOULD THE PROJECT 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?

NO IMPACT

The City of Highland, due to its large washes and stream channels, contains regionally significant construction aggregate and mineral resources. The primary minerals found in the area are iron, decorative rocks, clay, limestone, sand and gravel. From a planning perspective, the City overlies areas identified as Mineral Resource Zones (MRZs, Categories 1–3). Category 1 areas contain no significant aggregate deposits. Category 2 indicates that significant deposits are likely to be present. Category 3 represents areas whose significance cannot be evaluated from available data.

More than one-half of the City is underlain by MRZ-2 rated mineral resources, with most of the remaining categorized as MRZ-3. As identified in the *Highland General Plan* Conservation Element Table 5.1: Mineral Resources Zones, most of the MRZ zones exist in areas that have already been developed, and identified approximately 4,439 acres that had not been developed.

According to the *Highland General Plan* Conservation Element Figure 5-3, Mineral Resources Zones, the project site is located within an area designated a Mineral Resource Zone 2 (MRZ-2). However, the proposed project would be located in area with existing development to the north, east, west, and south.

As such, the proposed project would not preclude the mining of mineral resources located elsewhere within the City. Thus, no impact to the loss of availability of a known mineral resource would occur.

MITIGATION MEASURES

No mitigation measures are required.

B. WOULD THE PROJECT RESULT IN THE LOSS OF AVAILABILITY OF A LOCALLY-IMPORTANT MINERAL RESOURCE RECOVERY SITE DELINEATED ON A LOCAL GENERAL PLAN, SPECIFIC PLAN OR OTHER LAND USE PLAN?

NO IMPACT

The *Highland General Plan* Conservation Element does not identify the project site as an important mineral resource recovery site. Thus, no impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

CUMULATIVE IMPACTS

The analysis of potential impacts indicated that no impacts would result from the proposed project. Thus, no cumulative impacts related to mineral resources would occur.

4.13. NOISE

Would the project result in:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		✓		
b. Generation of excessive groundborne vibration or groundborne noise levels?			✓	
c. For a project located within the vicinity of a private airstrip or 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?			✓	

Sources Cited in Section 4.13

City of Highland, *The City of Highland General Plan* Noise Element, March 2006

City of Highland, *Highland Municipal Code*, Title 8, Health and Safety, Chapter 8.50, Noise Control

City of Highland, *Highland Municipal Code* Title 15, Buildings and Construction, Chapter 15.48, Hours of Operation for Construction Activities

Federal Department of Transportation, National Transportation Noise Map (dot.gov), accessed June 12, 2023

San Bernardino International Airport Authority, *Airport Layout Narrative Report*, September 22, 2010

MAT Engineering, Inc., *Halcyon Residential Project Noise Impact Analysis, City of Highland*, June 28, 2023 (refer to Technical Appendix G)

Regulatory Framework

The City of Highland outlines noise regulations and standards within the *Highland General Plan* Noise Element and *Highland Municipal Code* Chapter 8.50. For purposes of this analysis, the *Highland General Plan* Noise Element is used to evaluate the proposed project's noise/land use compatibility and ensure the proposed project is consistent with the established plans, policies and programs for noise control within the City. The *Highland Municipal Code* Chapter 8.50 identifies the stationary and construction noise regulations within the City, which are provided below.

Noise/Land Use Compatibility

Highland Municipal Code

The *Highland Municipal Code* sets forth the City's standards, guidelines and procedures concerning the regulation of noise use. Specifically, the Code includes Title 8, Health and Safety, which includes a chapter on noise control, and Title 16, Land Use and Development. Title 8 directly regulates noise while Title 16 lays out land use standards that indirectly regulate noise-generating and sensitive land uses. These regulations are intended to implement the goals, objectives and policies of the General Plan; protect property values and the health and general well-being of the public; and ensure that any negative effects of noise are minimized or completely avoided.

The *Highland General Plan* Noise Element establishes planning criteria for determining a development's noise/land use compatibility based on the community noise equivalent level (CNEL). CNEL is defined as the average equivalent A-weighted sound level during a 24-hour day, obtained after the addition of five decibels to sound levels in the evening from 7:00 pm to 10:00 pm and after addition of 10 decibels to sound levels in the night from 10:00 pm. to 7:00 am.

CNEL noise levels are typically used to evaluate off-site noise impacts to a new development, such as mobile source impacts from roadways, airports, and rail lines. The City categorizes land uses into designated noise zones to assign appropriate interior and exterior noise standards. The interior and exterior noise standards are identified in *Table 4.13-1* and *Table 4.13-2*, respectively.

TABLE 4.13-1 CITY OF HIGHLAND INTERIOR NOISE STANDARDS

Type of Land Use	CNEL (dBA)
Residential	45
Educational/Churches, Other Institutional Uses	45
General Offices	50
Retail Stores, Restaurants	55
Manufacturing, Warehousing	65
Agricultural	55
Sand and Gravel Operations	75

Sources:
The City of Highland General Plan Noise, Element Table 7.1, City of Highland Interior Noise Standards
Highland Municipal Code Chapter 8.50, Noise Control

TABLE 4.13-2 CITY OF HIGHLAND EXERIOR NOISE STANDARDS

Type of Land Use	Time Interval	CNEL (dBA)
Residential	10:00 pm – 7:00 am	45
	7:00 am – 10:00 pm	60
Agricultural/Equestrian	10:00 pm – 7:00 am	60
	7:00 am – 10:00 pm	65
Commercial	10:00 pm – 7:00 am	65
	7:00 am – 10:00 pm	70
Manufacturing or Industrial	Any Time	75
Open Space	Any Time	75

Sources:
The City of Highland General Plan Noise, Element Table 7.2, City of Highland Exterior Noise Standards
Highland Municipal Code Chapter 8.50, Noise Control

A significant impact may occur: 1) if a project would generate excess noise that would cause the ambient noise environment at the project site to exceed noise level standards (Leq) set forth in the *Highland Municipal Code* Chapter 8.50, Noise Control, or 2) a project is subjected to an existing ambient noise environment that exceed the noise level standards (CNEL) set for in the *Highland General Plan* Noise Element.

Construction Noise Regulation

Per *Highland Municipal Code* Title 8, Health and Safety, Chapter 8.50, Noise Control, Section 8.50.060 (Exemptions), noise associated with *"construction, repair, or excavation work performed pursuant to a valid written agreement with the city or any of its political subdivisions, which agreement provides for noise mitigation measures,"* is exempt. Because the proposed project does not include a Development Agreement or other agreement with the City or any of its political subdivisions, it is not exempt from performing a construction noise analysis and providing adequate mitigation measures.

Highland Municipal Code Chapter 8.50, Noise Control, Section 8.50.050, Controlled Hours of Operation exempts construction noise from the provisions provided it follows certain special provisions, as described below.

It shall be unlawful for any person to engage in the following activities at a time other than between the hours of 5:00 a.m. and 10:00 p.m. on any day in the industrial (I) zone, and between the hours of 7:00 a.m. and 10:00 p.m. on any day in all other zones:

A. Operate or permit the use of powered model vehicles and planes.

B. Load or unload any vehicle, or operate or permit the use of dollies, carts, forklifts, or other wheeled equipment that causes any impulsive sound, raucous or unnecessary noise within 1,000 feet of a residence.

C. Operate or permit the use of domestic power tools, machinery, or any other equipment or tool in any garage, workshop, house or any other structure.

D. Operate or permit the use of gasoline or electric-powered leaf blowers such as commonly used by gardeners and other persons for cleaning lawns, yards, driveways, gutters and other property.

E. Operate or permit the use of privately operated street/parking lot sweepers or vacuums, except that emergency work and/or work necessitated by unusual conditions may be performed with the written consent of the code enforcement officer.

F. Operate or permit the use of electrically operated compressor(s), fan(s) and other similar device(s).

G. Operate or permit the use of pile driver(s), steam or gasoline shovel(s), pneumatic hammer(s), steam or electric hoist(s) or other similar device(s).

H. Perform ground maintenance on golf course grounds and tennis courts contiguous to golf courses that creates a noise disturbance across a residential or commercial property line.

I. Operate or permit the use of any motor vehicle with a gross vehicle weight rating in excess of 10,000 pounds, or of any auxiliary equipment attached to such a vehicle, including but not limited to refrigerated truck compressors, for a period longer than 15 minutes in any hour while the vehicle is stationary and on a public right-of-way or public space, except when movement of said vehicle is restricted by other traffic.

J. Repair, rebuild, reconstruct or dismantle any motor vehicle or other mechanical equipment or device(s) in a manner so as to be plainly audible across property lines.

K. Load, unload, open, close or otherwise handle garbage cans, recycling bins or other similar objects between the hours of 10:00 p.m. and 7:00 a.m. the following morning, except city-permitted trash collection.

Highland Municipal Code Title 15, Buildings and Construction, Chapter 15.48, Hours of Operation for Construction Activities, Section 15.48.030 prohibits construction activities to commence any earlier than one-half hour before sunrise or to terminate no later than one-half hour after sunset Monday through Sunday.

A. WOULD THE PROJECT RESULT IN GENERATION OF A SUBSTANTIAL TEMPORARY OR PERMANENT INCREASE IN AMBIENT NOISE LEVELS IN THE VICINITY OF THE PROJECT IN EXCESS OF STANDARDS ESTABLISHED IN THE LOCAL GENERAL PLAN OR NOISE ORDINANCE, OR APPLICABLE STANDARDS OF OTHER AGENCIES?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED

Existing Noise Levels

To ascertain the existing noise at the project site, field monitoring was conducted on June 15, 2023. The field survey noted that noise within the proposed project area is generally characterized by traffic noise propagating from Sterling Avenue and 9th Street.

Measurement Locations

The noise monitoring locations were selected in order to obtain noise measurements of the current noise sources impacting the vicinity of the project site and the surroundings to provide a baseline for the existing noise levels.

Noise Measurements

The noise measurements were taken at four locations surrounding the project site near the existing noise sensitive receptors; refer to Exhibit. The results of the noise level measurements are provided below in *Table 4.13-3*, *Noise Measurement Results*.

Meteorological conditions consisted of clear skies, mild temperatures, with light wind speeds (3 miles per hour), and low humidity. Measured daytime noise levels ranged from 51.0 to 65.5 dBA L_{eq}. The results of the field measurements are included in Technical Appendix G, Appendix A.

Noise Measurement Results

The results of the noise measurements are presented in *Table 4.13-3*. Noise measurement data indicates that the existing site and surrounding area experience daytime noise levels ranging from approximately 51.0 dBA Leq along the northern property line to approximately 60.4 to 65.5 dBA Leq in front of properties on Golondria Drive, 9th Street, and Sterling Avenue.

TABLE 4.13-3 NOISE MEASUREMENT RESULTS

Site Number	Location	Time	Leq (dBA)	Lmin (dBA)	Lmax (dBA)
1	On Elm Street, along the northwestern project boundary	11:12 AM	51.0	40.4	73.8
2	In front of 7543 Golondrina Drive residence	11:33 AM	60.4	50.8	88.2
3	In front of 25590 9th Street	11:47 AM	65.5	41.7	79.7
4	In front of 7520 Sterling Avenue	12:08 PM	63.9	42.0	79.0
Source: MAT Engineering, Inc. (June 2023)					
Notes: 1. Noise measurements conducted for 10 minute intervals.					

Construction Noise and Vibration

Temporary construction noise and vibration impacts have been assessed from the project site to the surrounding adjacent land uses. The degree of construction noise would vary depending on the type of construction activity taking place and the location of the activity relative to the surrounding properties.

The proposed project is required to comply with the *Highland Municipal Code* Section 15.90.050, which exempts construction noise from the provisions of the Noise Control Ordinance, provided it follows the special provisions described below:

> *"Noise sources associated with construction, repair, remodeling, or grading of any real property shall be exempt from the noise level standards specified by Municipal Code Noise Standards and Regulations, provided they take place between the hours of 7 a.m. and 8 p.m. on any day except Sunday or a City-recognized holiday."*

Although construction activity is exempt from the noise standards in the *Highland Municipal Code,* CEQA requires that potential noise impacts still be evaluated for significance. For purposes of this analysis, the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment (2006) criteria would be used. The FTA provides reasonable criteria for assessing construction noise impacts based on the potential for adverse community reaction. For residential uses, the daytime noise threshold is 80 dBA Leq for an 8-hour period. In compliance with the *Highland Municipal Code*, it is assumed construction would not occur during the noise-sensitive nighttime hours.

Typical Construction Noise Levels

Typical construction noise levels are used to estimate potential project construction noise levels at the adjacent sensitive receptors. Construction activities generally are temporary and have a short duration, resulting in periodic increases in the ambient noise environment. Construction activities for the proposed project would occur over approximately six months and would include the following phases: demolition, grading, building construction, paving, and architectural coating.

Ground-borne noise and other types of construction-related noise impacts typically occur during the initial demolition and grading phase. This phase of construction has the potential to create the highest levels of noise.

Typical noise levels generated by construction equipment are shown in *Table 4.13-4, Typical Maximum Construction Noise Levels*. It should be noted that the noise levels identified in *Table 4.13-4* are maximum sound levels (L_{max}), which are the highest individual sound occurring at an individual time period.

Operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be due to random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts).

TABLE 4.13-4 TYPICAL MAXIMUM CONSTRUCTION NOISE LEVELS

TYPE OF EQUIPMENT	ACOUSTICAL USE FACTOR[1]	LMAX AT 50 FEET (DBA)[2]	LMAX AT 10 FEET (DBA)	LMAX AT 85 FEET (DBA)
Backhoe	40	78	92	73
Compressor	40	78	92	68
Concrete Saw	20	90	104	85
Dozer	40	82	96	77
Dump Truck	40	76	90	71
Excavator	40	81	95	76
Flatbed Truck	40	74	88	69
Grader	40	85	99	80
Loader	40	79	93	74
Paver	50	77	91	72
Roller	20	80	94	75
Scraper	40	85	99	80
Tractor	40	84	98	79
Water Truck	40	80	89	70
Welder	40	74	88	69

Sources:
Federal Highway Administration, Roadway Construction Noise Model (FHWA-HEP-05-054), January 2006.
MAT Engineering, Inc. (June 2023)

Notes:
1. Acoustical Use Factor (percent): Estimates the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation.
2. These noise levels represent the A-weighted maximum sound level (L_{max}) measured at a distance of 50 feet from the construction equipment.

Project Construction Noise

Potential noise impacts were analyzed for all expected phases of construction, including; site preparation, grading, building construction, paving, and architectural coating. As shown in *Table 4.13-4*, the highest noise levels from construction are predicted to range from approximately 88 dBA Lmax to 104 dBA Lmax at the nearest receivers at 10 feet.

The nearest sensitive receptor, Warm Springs Elementary School, is located approximately 85 feet from the proposed project's eastern property line. The maximum noise levels associated with proposed project construction would range from approximately 69 dBA Lmax to 85 dBA Lmax at the school.

These maximum noise levels are considered to be a peak exposure, applicable to not more than 10 to 15 percent of the total construction period, only while the construction activity is taking place along the property boundary closest to the nearest off-site receivers.

The City does not have established numerical noise standards for construction noise if the construction activities occur within the allowable hours specified by the *Municipal Code*. However, the proposed project would be required to adhere to *The City of Highland General Plan* limitations on construction noise through restrictions on allowable construction hours (Noise Element Goal 7.3, Action 1):

> *"As a condition of approval, limit non-emergency construction activities adjacent to existing noise-sensitive uses to daylight hours between 7:00 a.m. and 6:00 p.m. Discourage construction on weekends or holidays except in the case of construction proximate to schools where these operations could disturb the classroom environment."*

Construction Best Management Practices

In order to further reduce construction noise levels, prior to the issuance of grading permits, the project applicant or their designee would develop and submit to the City a Construction Noise Reduction Plan to minimize construction noise at nearby noise sensitive receptors. The Best Management Practices (BMPs) are included in Mitigation Measures MM N-1. Thus, with the implementation of MM N-1 and MM N-2, proposed project construction impacts would be less than significant with mitigation incorporated.

Construction Impact Conclusion

The proposed project would implement Mitigation Measures MM N-1 and MM N-2 to reduce construction noise impacts to the surrounding sensitive land uses. Thus, construction impacts would be less than significant with mitigation incorporated.

Operational Noise

The main source of operational noise from the proposed project that could impact adjacent residential uses includes noise from trash truck/delivery activity, parking lot and HVAC equipment.

Mechanical Equipment Noise

Implementation of the proposed project would result in changes to existing noise levels on and around the project site by developing new stationary sources of noise, including the use outdoor HVAC equipment. These sources may affect noise-sensitive land uses in the vicinity of the project site. As part of the proposed project, a minimum six-foot noise barrier wall would be constructed.

On-site operational noise is generally evaluated only for commercial and industrial projects. Quantitative analysis of on-site operational noise is typically not conducted for residential projects as

they usually do not include stationary noise sources that could result in substantial increases in ambient noise levels resulting in violation of established standards.

HVAC equipment typically result in noise levels that averages 66 dBA at 3 feet from the source.[11] The nearest HVAC unit would be located approximately 55 feet from the nearest noise sensitive receptor to the west. At this distance of 55 feet, HVAC noise would attenuate to 41 dBA. Therefore, HVAC noise levels would not exceed the City's exterior noise standards for residential uses during daytime (55 dBA) and nighttime standards(45 dBA). The proposed project would not impact the nearby sensitive receptors from HVAC units. Thus, less than significant HVAC equipment impacts would occur.

Parking Lot Noise

Traffic associated with parking lots is typically not of sufficient volume to exceed community noise standards, which are based on a time-averaged scale such as the CNEL scale. However, the instantaneous maximum sound levels generated by a car door slamming, engine starting up, and car pass-bys may be an annoyance to adjacent noise-sensitive receptors. Estimates of the maximum noise levels associated with typical parking lot activities are presented in *Table 4.13-5*, T*ypical Noise Levels Generated by Parking Lots*.

TABLE 4.13-5 TYPICAL NOISE LEVELS GENERATED BY PARKING LOTS

NOISE SOURCE	MAXIMUM NOISE LEVELS AT 50 FEET FROM SOURCE
Car Door Slamming	63 dBA Leq
Car Starting	60 dBA Leq
Car Idling	53 dBA Leq
Sources: MAT Engineering, Inc., (June 2023) Kariel, H. G., Noise in Rural Recreational Environments, Canadian Acoustics 19(5), 3-10, 1991	

The proposed project provides 403 parking spaces throughout the project site. The nearest sensitive receptor would be located immediately adjacent to the proposed parking areas to the north, south, and west. As shown in *Table 4.13-5*, parking lot noise levels could range between 53 dBA and 63 dBA at 50 feet. However, the proposed project would construct a six foot noise barrier wall surrounding the project site, which would shield the parking lot noise from the adjacent sensitive land uses.

Parking lot noise would be consistent with the existing noise near the project site and would be partially masked by background noise from traffic along Sterling Avenue and 9th Street. As such, parking lot noise levels would not exceed the City's day-night average exterior sound level standard for residential use (65 dBA). Parking lot activities within the residential use during nighttime would be minimal and would not exceed the City's nighttime noise standards (45 dBA). Thus, less than significant noise impacts from parking lot activities would occur.

[11] Elliott H. Berger, Rick Neitzel, and Cynthia A. Kladden, Noise Navigator Sound Level Database with Over 1700 Measurement Values, June 26, 2015.

Project Generated Traffic Noise Levels – NEED TRAFFIC STUDY TO FINALIZE ANALYSIS

Per *The City of Highland General Plan* Circulation Element Figure 3-2, Roadway Network, Sterling Avenue is classified as a Major Highway and 9th Street is classified as a Secondary Highway.

Per *The City of Highland General Plan* Noise Element Figure 7-2, Future Roadway Noise Contours, Sterling Avenue north of 9th Street would be within the 75 CNEL noise contour and 9th Street would be within the 70 CNEL noise contour.

Based on the *Traffic Study*, the proposed project would generate approximately 999 daily trips. The proposed project is expected to provide full access along Sterling Avenue.

Traffic volumes associated with the proposed project would represent a nominal increase (what %) in the daily traffic compared to the existing traffic conditions on the surrounding roadways studied. According to Caltrans, a doubling of Traffic (100 percent increase) on a roadway would result in a perceptible increase in traffic noise levels (3 dBA).[12]

Proposed project-related increases in traffic volumes would be nominal compared to the existing traffic volumes along the surrounding roadways and would not significantly increase the existing traffic noise levels.

The proposed multi-family residential development would be setback 31 feet from Sterling Avenue, but the individual residential units, depending upon their site location, may experience noise levels that fall within the normally unacceptable range (70-75 CNEL). On-site residences would not be adversely impacted by existing ambient urban noise levels as the proposed project would be constructed to meet and exceed *Title 24* insulation standards of the California Code of Regulations for residential buildings, which serves to provide an acceptable interior noise environment for sensitive uses. Specifically, as required by *Title 24*, the proposed project would be designed and constructed to ensure interior noise levels would be at or below a CNEL of 45 dBA in any habitable room of the project. Thus, operational traffic noise levels would be less than significant.

MITIGATION MEASURES

MM N-1 The project applicant shall prepare a Construction Noise Reduction Plan that outlines and identifies noise complaint measures, best management practices, and equipment noise reduction measures. The Construction Noise Reduction Plan specifications shall be included in construction documents, which shall be reviewed by the City prior to issuance of a grading permit.

The Construction Noise Reduction Plan shall include, but is not limited to, the following actions:

1. The construction contractor shall limit construction activities adjacent to existing noise-sensitive uses to daylight hours between 7:00 am and 6:00 pm. Discourage construction on weekends or holidays except in the case of construction proximate to schools where these operations could disturb the classroom environment.
2. During all project site excavation and grading on-site, construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturer standards.

[12] California Department of Transportation, technical Noise Supplement to the Traffic Noise Analysis Protocol, September 2013.

3. The contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the project site.
4. Equipment shall be shut off and not left to idle when not in use.
5. The contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise/vibration sources and nearest school during all project construction activities.
6. The project proponent shall mandate that the construction contractor prohibit the use of music or sound amplification on the project site during construction.
7. The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment.
8. Jackhammers, pneumatic equipment and all other portable stationary noise sources shall be shielded, and noise shall be directed away from sensitive receptors.
9. For the duration of construction activities, the construction manager shall serve as the contact person should noise levels become disruptive to local residents. A sign should be posted on the project site with the contact phone number.

MM N-2 The project applicant shall require in contract specifications that heavily loaded trucks used during construction would be routed away from residential streets to the extent feasible. Contract specifications shall be included in construction documents, which shall be reviewed by the City prior to issuance of a grading permit.

- Ensure that construction equipment is properly muffled according to industry standards and be in good working condition.
- Place noise-generating construction equipment and locate construction staging areas away from sensitive uses, where feasible.
- Schedule high noise-producing activities between the hours of 7:00 AM and 8:00 PM on any day except Sunday or a City-recognized holiday to minimize disruption on sensitive uses.
- Implement noise attenuation measures to the extent feasible, which may include, but are not limited to, temporary noise barriers or noise blankets around stationary construction noise sources.
- Use electric air compressors and similar power tools rather than diesel equipment, where feasible.
- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 5 minutes.
- Construction hours, allowable workdays, and 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 City or the job superintendent receives a complaint, the superintendent shall investigate, take appropriate corrective action, and report the action taken to the reporting party.

B. WOULD THE PROJECT RESULT IN GENERATION OF EXCESSIVE GROUNDBORNE VIBRATION OR GROUNDBORNE NOISE LEVELS?

LESS THAN SIGNIFICANT IMPACT

Vibration is sound radiated through the ground. Vibration can result from a source (e.g., subway operations, vehicles, machinery equipment, etc.) causing the adjacent ground to move, thereby 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, while RMS is defined as the square root of the average of the squared amplitude of the level. PPV is typically used for evaluating potential building damage, while RMS velocity in decibels (VdB) is typically more suitable for evaluating human response.

Construction Vibration

Construction activities for the proposed project have the potential to generate low levels of groundborne vibration. The operation of construction equipment generates vibrations that propagate though the ground and diminishes in intensity with distance from the source. Vibration impacts can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage of buildings at the highest levels. The construction activities associated with the proposed project could have an adverse impact on both sensitive structures (i.e., building damage) and populations (i.e., annoyance).

Project construction can generate varying degrees of groundborne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings in the vicinity of a construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s).

The *Caltrans Transportation and Construction Vibration Manual* identifies various vibration damage criteria for different building classes. This evaluation uses the Caltrans architectural damage criterion for continuous vibrations at residential buildings of 0.2 inch-per-second (inch/second) PPV. The types of construction vibration impacts include human annoyance and building damage.

Project Construction Analysis

Construction of the proposed project is not expected to require the use of substantial vibration inducing equipment or activities, such as pile drivers or blasting. The main sources of vibration impacts during construction of the proposed project would be the operation of equipment such as bulldozer activity during site preparation, and loading trucks during grading and excavation.

The construction vibration assessment utilizes the referenced vibration levels and methodology set-forth within the *Caltrans Transportation and Construction Induced Vibration Guidance Manual*. *Table 4.13-6*, *Project Construction Vibration Analysis* shows the proposed project's construction-related vibration analysis at the nearest structures to the proposed construction area. Construction impacts are assessed from the closest area on the project site to the nearest adjacent structure.

TABLE 4.13-6 PROJECT TYPICAL CONSTRUCTION VIBRATION LEVELS

Equipment	Peak Particle Velocity (PPV) (inches/second) at 20 feet[1]	Damage Potential Level	Annoyance Criteria Level
Large bulldozer	0.1138	No Impact	Distinctly Perceptible
Loaded trucks	0.0971	No Impact	Distinctly Perceptible
Small bulldozer	0.0038	No Impact	Barely Perceptible

Sources:
MAT Engineering, Inc., Halcyon Residential Project Noise Impact Analysis, City of Highland (June 2023)
Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual* (September 2018)

Notes:
1. Calculated using the following formula:
PPV equip = PPVref x (25/D)1.1
where: PPV (equip) = the peak particle velocity in in/sec of the equipment adjusted for the distance
PPV (ref) = the reference vibration level in in/sec at 25 feet (inches/second)
D = the distance from the equipment to the receiver

Based on the vibration levels presented in *Table 4.13-6*, ground vibration generated by the heavy-duty equipment would range from approximately 0.0038 to 0.1138 in/sec PPV at 20 feet from the source of activity. As such, the nearest residential buildings located 20 feet west of the project site would not be exposed to vibration levels exceeding the Caltrans 0.2 in/sec PPV significance threshold for vibration.

Thus, project-related construction activity is not expected to cause any damage potential to the nearest structures. Additionally, groundborne vibration during construction would be a temporary impact and would cease completely when construction ends. Once operational, the proposed project would not be a source of groundborne vibration. Thus, less than significant groundborne vibration impacts would occur.

Project Operational Analysis

The proposed project involves the construction and operation of residential uses and would not involve the use of stationary equipment that would result in high vibration levels, which are more typical for large manufacturing and industrial projects. Groundborne vibrations at the project site and immediate vicinity currently result from heavy-duty vehicular travel (e.g., refuse trucks and transit buses) on the nearby local roadways. Thus, the proposed residential uses at the project site would not result in a substantive increase of these heavy-duty vehicles on the public roadways. While refuse trucks would be used for the removal of solid waste at the project site, these trips would typically occur several times a week and would not be any different than those presently occurring in the vicinity of the project site. Thus, less than significant project operational vibration impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

C. FOR A PROJECT LOCATED WITHIN THE VICINITY OF A PRIVATE AIRSTRIP OR 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?

LESS THAN SIGNIFICANT IMPACT

The project site is located within an airport land use plan or within two miles of an airport or a private airstrip. The nearest airport is the San Bernardino International Airport (SBIA). The San Bernardino International Airport (SBIA, SBD) is a single runway, multi-use airport. The SBIA covers 1,329 acres and has one runway that can accommodate the largest existing aircraft, including the Airbus A380 and the Boeing 747. The SBIA facility is a commercial, general aviation, and cargo airport. The project site is located approximately 0.7 mile north of the SBIA northern boundary (3rd Street). There are no private airstrips within a 2-mile radius of the project site.

The project site is not located within the 65 CNEL noise contour for SBIA per the Federal Department of Transportation, National Transportation Noise Map; refer to *Exhibit 4.9-3*, *SBIA CNEL Noise Contour Map.*[13]This is also confirmed in the SBIA Airport Layout Narrative Report Exhibit 4H, Existing and Ultimate Noise Contours.[14] Thus, the project site falls well outside the SBIA 65 dBA noise contour, and as such, the SBIA is not considered as a source that contributes to the ambient noise levels on the project site.

Implementation of the proposed project would not expose people residing or working on the project site to excessive noise impacts from SBIA. Thus, less than significant impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

CUMULATIVE IMPACTS

All construction and operational noise impacts can be mitigated to a less than significant level. Construction noise impacts are by nature localized. The distance of separation among the proposed project and other cumulative projects would be such that the temporary noise and vibration effects of the proposed project would not be compounded or increased by similar noise or vibration effects from other cumulative projects. As discussed, operational noise caused by the proposed project can be mitigated. The noise analysis performed for project operations incorporated cumulative noise levels from forecasted traffic volumes in the study area. No known past, present, or reasonably foreseeable projects would compound or increase the operational noise levels generated by the project. Therefore, less than significant cumulative impacts relative to temporary and permanent noise generation associated with the proposed project would occur.

[13] Source: Department of Transportation, National Transportation Noise Map (dot.gov), accessed June 12, 2023.
[14] San Bernardino International Airport Authority, Airport Layout Narrative Report, September 22, 2010.

EXHIBIT 4.13-1 SHORT-TERM NOISE MEASUREMENT LOCATIONS

Source: MAT Engineering, Inc. (June 2023)

4.14. POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			✓	
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				✓

Sources Cited in Section 4.14

City of Highland, *The City of Highland General Plan*, March 2006

Southern California Association of Governments (SCAG), *Connect SoCal – The 2020-2045 Regional Transportation Plan/Sus Sustainable Communities Strategy*, May 2020

Southern California Association of Governments, Profile of the City of Highland, 2019

A. WOULD THE PROJECT INDUCE SUBSTANTIAL UNPLANNED POPULATION GROWTH IN AN AREA, EITHER DIRECTLY (FOR EXAMPLE, BY PROPOSING NEW HOMES AND BUSINESSES) OR INDIRECTLY (FOR EXAMPLE, THROUGH EXTENSION OF ROADS OR OTHER INFRASTRUCTURE)?

LESS THAN SIGNIFICANT IMPACT

The project proposes to construct 220 multi-family residential units on the project site, which would result in a direct growth of the City's permanent population of approximately 770 persons, based on an average of 3.5 people per household.[15]

This population forecast would represent approximately 1.014 percent growth over the City's 2018 population of approximately 54,761 persons.[16] SCAG is the responsible agency for developing and adopting regional housing and population forecasts for local San Bernardino County governments, among other counties, and provides population projection estimates in five-year increments up to 2040. SCAG projects that the City's population and households would be 66,900 persons and 20,600 households[17] in 2040. Thus, proposed project would not cause SCAG's 2040 population forecast for the City to be exceeded.

Additionally, the increase in residential units and population is consistent with the growth projections in the *Highland General Plan*, which forecasted the City's buildout population to be approximately 77,137 persons and 20,190 dwelling units.[18] Therefore, the proposed project would not cause the City's population forecast to be exceeded. Also, the increase in residential units and population is consistent with the City's adopted and certified *2021-2029 Housing Element*. As such, implementation of the

[15] Southern California Association of Governments, Profile of the City of Highland, 2019.
[16] Ibid.
[17] Southern California Association of Governments Southern California Association of Governments (SCAG), *Connect SoCal – The 2020-2045 Regional Transportation Plan/Sus Sustainable Communities Strategy*, May 2020.
[18] City of Highland, *City of Highland General Plan* Land Use Element, Table 2.1: Residential Buildout Estimates.

proposed project would not induce substantial unplanned population growth within the City either directly or indirectly. Thus, less than significant impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

B. WOULD THE PROJECT DISPLACE SUBSTANTIAL NUMBERS OF EXISTING PEOPLE OR HOUSING, NECESSITATING THE CONSTRUCTION OF REPLACEMENT HOUSING ELSEWHERE?

NO IMPACT

The project site is currently vacant and undeveloped; thus, there are no homes or residents on-site. The project proposes to construct 220 multi-family residential units on the 6.77-acre project site. Given that there is no existing on-site housing and that no housing would be removed to accommodate the proposed project, no impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

CUMULATIVE IMPACTS

The proposed project is consistent with the anticipated growth of the *Highland General Plan* and SCAG growth projections. City growth would be subject to City review for consistency with the *Highland General Plan*, in accordance with the requirements of CEQA. Therefore, less than significant cumulative impacts associated with population and housing would occur.

4.15. PUBLIC SERVICES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
1) Fire protection?			✓	
2) Police protection?			✓	
3) Schools?			✓	
4) Parks?			✓	
5) Other public facilities?			✓	

Sources Cited in Section 4.15

City of Highland, *The City of Highland General Plan*, March 2006

City of Highland, *Highland Municipal Code* Chapter 15.04, California Building Code

City of Highland, *Highland Municipal Code* Chapter 15.06, California Fire Code

City of Highland, *Highland Municipal Code* Chapter 2.36, Fees and Service Charges

City of Highland, *Development Impact Fees*, Effective April 27, 2019

A. WOULD THE PROJECT RESULT IN SUBSTANTIAL ADVERSE PHYSICAL IMPACTS ASSOCIATED WITH THE PROVISION OF NEW OR PHYSICALLY ALTERED GOVERNMENTAL FACILITIES, NEED FOR NEW OR PHYSICALLY ALTERED GOVERNMENTAL FACILITIES, THE CONSTRUCTION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL IMPACTS, IN ORDER TO MAINTAIN ACCEPTABLE SERVICE RATIOS, RESPONSE TIMES OR OTHER PERFORMANCE OBJECTIVES FOR ANY OF THE PUBLIC SERVICES:

1. FIRE PROTECTION?

LESS THAN SIGNIFICANT IMPACT

City of Highland Fire Department

The California Department of Forestry and Fire Protection (CalFire) provides fire protection and emergency medical services to the Highland community through a cooperative agreement that provides for Cal Fire employees to staff City-owned facilities and apparatus. The Highland Fire Department (HFD) has three fire stations:

- Station 541, 26974 Base Line
- Station 542, 29507 Base Line
- Station 543, 7469 Sterling Avenue

The closest station to the project site is Station 543, which is located approximately 0.10- mile southeast of the site.

The proposed project would be required to comply with all applicable *Highland Municipal Code* and *Fire Code* requirements for construction, access, water mains, fire flow, and hydrants. This ensures that the proposed project would not reduce the staffing, response times, or existing service levels within each City.

No road closures are anticipated during project construction. As such, fire protection service in the project vicinity would not be interrupted during project construction.

Although 220 multi-family residential units would be constructed and operated on the project site, the proposed project would be located in an urbanized area and would not result in a substantial increase in demand on fire protection services. It is not anticipated to increase response time to the project site or vicinity. The proposed project would not result in the need for new or physically altered fire protection facilities in the City. Thus, less than significant long-term impacts related to fire protection services would occur.

Implementation of the proposed project is forecast to increase the number of residents in the project area by approximately 770 persons. The incremental increase in residents within the City associated with the 220 multi-family residential units would require fire protection services, including response to fire service calls upon project occupancy. However, the incremental increase in residents within the City would not require the construction of new or alteration of existing fire protection facilities to maintain an adequate level of service to the project area. Thus, no physical impacts associated with fire protection services and facilities would occur.

The proposed project would be required to comply with the *Highland Municipal Code* Chapter 15.04, California Building Code and Chapter 15.06, California Fire Code in order to prevent the creation of fire hazards in the City. In addition, the Applicant would be required to pay the City's current Development Impact Fee for fire suppression facilities, vehicles, and equipment.

Also, the proposed project has been reviewed by HFD and would be subject to HFD conditions of approval prior to construction to ensure that adequate water pressure and emergency vehicle access are provided. Thus, less than significant impacts to fire protection services would occur.

MITIGATION MEASURES

No mitigation measures are required.

2. POLICE PROTECTION?

LESS THAN SIGNIFICANT IMPACT

San Bernardino County Sheriff's Department

The San Bernardino County Sheriff's Department (SBCSD) provides police protection services to the Highland community. The SBCSD has one patrol station in the City of Highland, located at 26985 East Baseline, Highland.

According to the SBCSD's website accessed on June 20, 2023, The station is currently staffed with 34 sworn officers (which includes 1 Captain, 1 Lieutenant, 6 Sergeants, 3 Detectives and 23 patrol deputies), as well as 9 non-sworn civilian employees (which includes 1 secretary, 4 clerical personnel, and 4 Sheriff's Service Specialists). As part of the Sheriff's contract, the Highland station, its personnel, and the community have access to an impressive array of specialty resources offered by SBCSD including

Narcotics, SWAT, Arson-Bomb, Crimes against Children, Homicide, Scientific Investigations/Crime Lab, Aviation, Volunteer Forces/Search and Rescue, Major Accident Investigation Team and more.

The Highland Station is one of the busiest stations within the SBCSD in terms of calls for service, arrests per deputy and reports per deputy. In addition, the Highland Station boasts its participation in many innovative Multiple Enforcement Team (MET) operations and Neighborhood Watch. The MET's deputies deal primarily with recurring problem locations within the community and work closely with Code Enforcement and other departments within the City.

Highland residents generally have a strong sense of community, as is evidenced by the number of residents who regularly volunteer their time, both to the City and to the Police/Sheriff's Station. Reserve Deputy Sheriff's benefit the Highland Station by volunteering their time working patrol and supplementing the patrol staff. Reserves also provide security and traffic control at all local community events and many other local functions. Citizen Volunteers also play an essential role, providing extra-patrol to local residents and businesses while assisting patrol personnel at the scenes of major traffic collisions, crime scene perimeters, and assisting at many local community events. The stations 27-member Citizen on Patrol contingent also plays an integral role in supporting the Neighborhood Watch Program. On average our citizen volunteers donate almost 10,000 hours of their time to the station and the citizens of Highland every year. The Station also has 6 Explorer Scouts that assist by riding with and assisting deputies on the street. They also assist by staffing security and traffic positions during city functions and events.

The City and SBCSD would review the proposed project to ensure that adequate building configuration and other requirements are met to ensure adequate access to police protection. In addition, The Applicant would be required to pay the City's current Development Impact Fee for law enforcement facilities, which would contribute to the funding of expanded facilities for SBCSD.

Although 220 multi-family residential units would be constructed and operated on the project site, the proposed project would be located in an urbanized area and would not result in a substantial increase in demand on police services. It is not anticipated to increase response time to the project site or vicinity. The proposed project would not result in the need for new or physically altered police protection facilities in the City. As such, less than significant long-term impacts related to police protection services would result from implementation of the proposed project.

The proposed project has been reviewed by SBCSD and would be subject to SBCSD conditions of approval prior to construction to ensure that adequate emergency vehicle access is provided. Thus, less than significant impacts to police protection services would occur.

MITIGATION MEASURES

No mitigation measures are required.

3. SCHOOLS?

LESS THAN SIGNIFICANT IMPACT

The project site is located within the boundaries of the San Bernardino City Unified School District (SBCHSD or District). The District serves over 50,000 students in grades TK[19]-12 and operates 50 elementary schools, 11 middle schools, six comprehensive high schools, one community day school, one alternative education school and numerous specialized schools.

The project site is within the attendance boundaries of the following schools:

- Warm Springs Elementary School (K-6): 7497 Sterling Avenue, Highland
  - Located immediately east of the project site
- Del Vallejo Middle School (6-8): 1885 East Lynwood Drive, San Bernardino
  - Located approximately 2.2 miles from the project site
- Indian Springs High School (9-12): 650 North Del Rosa Drive, San Bernardino
  - Located approximately 0.9 mile from the project site

TABLE 4.15-1 SCHOOL ENROLLMENT

School	Capacity[1]	Enrollment						
		2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Warm Springs Elementary School	518	565	536	556	575	499	444	494
Del Vallejo Middle School	795	562	558	565	681	675	649	598
Indian Springs High School	1,901	1,760	1,819	1,861	1,888	1,943	1,993	1,901

Source:
San Bernardino City Unified School District (May 2023)

Note:
1. Capacity is subject to change with changes to loading standards or utilization of rooms.

[19] TK = Transitional Kindergarten

TABLE 4.15-2 STUDENT GENERATION RATES

Student Generation Rates Grade Group	Students Per Residential Housing Unit	Proposed Project
TK - 6	0.388	85
7 - 8	0.108	24
9 - 12	0.168	37
Total	0.664	145

Source:
San Bernardino City Unified School District (May 2023)

With the development of 220 multi-family residential units, it is estimated that the proposed project would generate up to approximately 85 elementary school students, 24 middle school students, and 37 high school students, as shown in *Table 4.15-2, Student Generation Rates*.

In order to maintain adequate classroom seating and facilities standards, individual development projects are required to pay statutory fees to the school district in order to compensate for the potential impacts of development on school capacities.

Pursuant to SB 50, payment of fees to the school district is considered full mitigation for project impacts, including impacts related to the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, or other performance objectives for schools. The City requires the Applicant to pay the current SDCUSD statutory fees. Thus, less than significant would occur.

MITIGATION MEASURES

No mitigation measures are required.

4. PARKS?

LESS THAN SIGNIFICANT IMPACT

The nearest public parks to the project site in Highland are the Cunningham Neighborhood Park (1.26 miles northeast) and the Highland Community Park (1.63 miles southeast). In addition, there are several public schools with recreational facilities open to the public near the project site: Warm Springs Elementary School and Lankershim Elementary School.

Development of the 220 multi-family residential units would result in a population increase of 770 persons. Thus, implementation of the proposed project would create additional demand on existing parks and recreation facilities within the City.

The open space ratio established within the *Highland General Plan* Conservation and Open Space Element is 2.5 acres per 1,000 residents, which includes a ratio of 2.0 acres of developed park acreage and 0.5 acre of undeveloped natural parkland. Based upon the City's parkland to population requirement of 2.5 acres of parkland per 1,000 persons, implementation of the proposed project would result in a need for approximately 1.93 acres of parkland. Given that the City's current parkland and joint-use facilities

agreement with San Bernardino City Unified School District, implementation of the proposed project would not create significant impacts regarding the need for additional parkland or recreational facilities.

The Applicant would be required to pay the City's current Development Impact Fee for parks. The fees are collected by the City and used for acquisition, development, and improvement of public parks and recreational facilities in the City, as proposed by the City's Capital Improvement Program. Thus, less than significant impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

5. OTHER PUBLIC FACILITIES?

LESS THAN SIGNIFICANT IMPACT

The City of Highland has one public library, the Highland Sam J. Racadio Library & Environmental Learning Center located at 7863 Central Avenue, which is a branch of the San Bernardino County Library.

The Highland Branch Library serves residents in the City and in the neighboring City of San Bernardino. Funding for the library services comes from the City's Development Impact Fee fund. The library building is situated across from Cypress Elementary School and would serve the needs of the school as well as the general public. The library is also located next to the Jerry Lewis Community Center. The City of Highland maintains a standard of 10,000 square feet of library space per 36,000 residents; 18.3 weekly service hours per 10,000 population; 2.82 books per capita.

The Highland Branch Library is located approximately two miles northwest of the project site. The Applicant would be required to pay the City's current Development Impact Fee for library facilities and collections.

Implementation of the project would not significantly affect other governmental agencies or facilities. The proposed project would not substantially increase the demand for public facilities, including library services, and would not require the construction of new or alternation of existing facilities. Thus, less than significant impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

CUMULATIVE IMPACTS

The provision of public services and facilities takes into consideration a larger service area than is associated with a project site. Therefore, the study area is the service area for the respective agencies and districts. Through coordination with the public services and facilities providers, the cumulative needs of the area are considered.

The proposed project does not cause the need to construct any new or expand any existing facilities. Therefore, the proposed project would not result in incremental effects to public services or facilities that could be compounded or increased when considered together with similar effects from other past, present, and reasonably foreseeable probable future projects. Thus, less than significant cumulatively considerable impacts to public services or facilities would occur.

4.16. RECREATION

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			✓	
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			✓	

Sources Cited in Section 4.16

City of Highland, *The City of Highland General Plan*, March 2006

City of Highland, *Highland Municipal Code*, Title 2, Chapter 2.36

A. WOULD THE PROJECT INCREASE THE USE OF EXISTING NEIGHBORHOOD AND REGIONAL PARKS OR OTHER RECREATIONAL FACILITIES SUCH THAT SUBSTANTIAL PHYSICAL DETERIORATION OF THE FACILITY WOULD OCCUR OR BE ACCELERATED?

LESS THAN SIGNIFICANT IMPACT

Implementation of the proposed project would increase the use of park facilities located within the City, as the proposed project would construct 220 multi-family residential units and generate approximately 770 new residents. The nearest public parks to the project site in Highland are the Cunningham Neighborhood Park (1.26 miles northeast) and the Highland Community Park (1.63 miles southeast). In addition, there are several public schools with recreational facilities open to the public near the project site: Warm Springs Elementary School and Lankershim Elementary School.

There are also a number of existing and proposed multi-use trails in the City, primarily located in the eastern portion of the City, east of the Santa Ana River as shown on *Highland General Plan* Figure 5.6, Multi-Use Trails.

The increase in residential units and population is consistent with the growth projections in the *Highland General Plan*. Therefore, the population increase associated with the proposed project would not significantly impact the use of the City's existing parks and/or other recreational facilities. However, the proposed project would be required to dedicate land and/or pay fees for the purposes of providing park and recreational facilities in accordance with the City's current Development Impact Fees for parks. Dedication and/or payment of the applicable fees and the provision of open space as required would further reduce impacts to a less than significant level. Thus, while the proposed project's population increase would increase the use of parks and other recreational facilities in the City, less than significant impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

B. DOES THE PROJECT INCLUDE RECREATIONAL FACILITIES OR REQUIRE THE CONSTRUCTION OR EXPANSION OF RECREATIONAL FACILITIES WHICH MIGHT HAVE AN ADVERSE PHYSICAL EFFECT ON THE ENVIRONMENT?

LESS THAN SIGNIFICANT IMPACT

The proposed project includes private open space areas totaling nine percent of the project site per the density bonus incentive for private and public open space.

The proposed project includes the following:

- Children's play areas include a tot lot (0 to 5 age) and play equipment with rubber mat surface (age 5 to 12). The tot lot would include a shade structure and seating.
- Community space areas include a dining table and chair with a shade structure, fire pit and lounge seating, barbeque, and a pool/spa with chaises, tables, and lounge seating.
- The dog park would be fenced with artificial turf, shade structure, and seating.

The physical impacts resulting from the construction and operation of these facilities are addressed in this Initial Study as a part of the overall project. Thus, less than significant impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

CUMULATIVE IMPACTS

The proposed project would not result in a significant increased use of recreational facilities or require construction or expansion of existing recreational facilities. Thus, less than significant cumulatively considerable impacts to recreation facilities would occur.

4.17. TRANSPORTATION

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with an applicable plan, ordinance or policy addressing the circulation, including transit, roadway, bicycle, and pedestrian facilities?				
b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3 subdivision (b)?				
c. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			✓	
d. Result in inadequate emergency access?			✓	

Sources Cited in Section 4.17

SOURCES TO BE ADDED ANALYSIS TO BE PREPARED FOLLOWING COMPLETION OF TRAFFIC STUDY.

A. WOULD THE PROJECT CONFLICT WITH AN APPLICABLE PLAN, ORDINANCE OR POLICY ADDRESSING THE CIRCULATION, INCLUDING TRANSIT, ROADWAY, BICYCLE, AND PEDESTRIAN FACILITIES?

ANALYSIS TO BE INCLUDED FOLLOWING COMPLETION OF TRAFFIC STUDY.

MITIGATION MEASURES

MITIGATION TO BE DETERMINED FOLLOWING COMPLETION OF TRAFFIC STUDY.

B. WOULD THE PROJECT CONFLICT OR BE INCONSISTENT WITH CEQA GUIDELINES SECTION 15064.3 SUBDIVISION (B)?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED

CEQA Vehicle Miles Traveled Screening Evaluation

Based on the most current version of the California Environmental Quality Act (CEQA), projects are required to prepare a Vehicle Miles Traveled (VMT) analysis.

Based on the City-adopted *Recommended Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment* (Fehr & Peers, February 2020), there are three types of screening that lead agencies can apply to effectively screen projects from project-level assessment:

I. Transit Priority Area (TPA) Screening

II. Low VMT Area Screening using the online SBCTA screening tool developed by Fehr & Peers

III. Project Type Screening: Projects which serve the local community and have the potential to reduce VMT should not be required to complete a VMT assessment. These projects include:

- Projects generating less than 110 daily vehicle trips
- K-12 schools
- Local-serving retail less than 50,000 sq. ft.

- Local parks
- Day care centers
- Local serving gas stations
- Local serving banks
- Student housing projects
- Local serving community colleges that are consistent with the assumptions noted in the RTP/SCS

Project VMT Screening Analysis

A VMT screening was performed for the proposed project utilizing the San Bernardino County Transportation Authority (SBCTA) VMT screening tool. A screenshot of the SBCTA screening tool and project site evaluation is contained in Technical Appendix H, Attachment A.

Based on the VMT screening tool, the project site is located in a Transit Priority Area (TPA), and as such is screened out for VMT. The screening is consistent with the City of Highland's adopted and established guidelines relative to VMT, and the CEQA thresholds of significance. Thus, less than significant impacts would occur.

ADDITIONAL ANALYSIS TO BE INCLUDED FOLLOWING COMPLETION OF TRAFFIC STUDY.

MITIGATION MEASURES

MITIGATION TO BE DETERMINED FOLLOWING COMPLETION OF TRAFFIC STUDY.

C. WOULD THE PROJECT SUBSTANTIALLY INCREASE HAZARDS DUE TO A DESIGN FEATURE (E.G., SHARP CURVES OR DANGEROUS INTERSECTIONS) OR INCOMPATIBLE USES (E.G., FARM EQUIPMENT)?

LESS THAN SIGNIFICANT IMPACT

Access to the project site would be from two gated driveway entries on Sterling Avenue. The southern driveway would be the main site driveway with full movement in (ingress) and out (egress) of the site. The northern driveway would be a secondary driveway with movement only out (egress) of the site. An emergency access gate would be provided on the northern boundary of the site at the southern terminus of Elm Street.

MITIGATION MEASURES

No mitigation measures are required.

D. WOULD THE PROJECT RESULT IN INADEQUATE EMERGENCY ACCESS?

LESS THAN SIGNIFICANT IMPACT

Access to the project site would be from two gated driveway entries on Sterling Avenue. The southern driveway would be the main site driveway with full movement in (ingress) and out (egress) of the site. The northern driveway would be a secondary driveway with movement only out (egress)of the site. An emergency access gate would be provided on the northern boundary of the site at the southern terminus of Elm Street.

Constructed roadways and driveways are required to meet access standards of the Highland Fire Department. Compliance with Highland Fire Department and San Bernardino County Sherriff Department requirements would ensure impacts remain as less than significant.

MITIGATION MEASURES

No mitigation measures are required.

CUMULATIVE IMPACTS

CONCLUSION TO BE DETERMINED FOLLOWING COMPLETION OF TRAFFIC STUDY.

EXHIBIT 4.17-1 TITLE

Source:

EXHIBIT 4.17-2 TITLE

Source:

EXHIBIT 4.17-3 TITLE

Source:

EXHIBIT 4.17-4 TITLE

Source:

EXHIBIT 4.17-5 TITLE

Source:

EXHIBIT 4.17-6 TITLE

Source:

EXHIBIT 4.17-7 TITLE

Source:

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4.18. UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			✓	
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?			✓	
c. Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			✓	
d. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			✓	
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			✓	

Sources Cited in Section 4.18

DRC Engineering, Inc., *Conceptual Utility Plan*, April 4, 2023

East Valley Water District, *2019 Water System Master Plan*, December 2019

2019-WSMP-Final (eastvalley.org) , accessed June 21, 2023

East Valley Water District, *2019 Sewer System Master Plan*, December 2019

2019-SSMP-Final (eastvalley.org) , accessed June 21, 2023

Development-Guidelines-and-Procedures-2022-07-05 (eastvalley.org), accessed June 21, 2023

Basin Plan | Santa Ana Regional Water Quality Control Board (ca.gov), accessed June 15, 2023

A. WOULD THE PROJECT REQUIRE OR RESULT IN THE RELOCATION OR CONSTRUCTION OF NEW OR EXPANDED WATER, WASTEWATER TREATMENT OR STORM WATER DRAINAGE, ELECTRIC POWER, NATURAL GAS, OR TELECOMMUNICATIONS FACILITIES, THE CONSTRUCTION OR RELOCATION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL EFFECTS?

LESS THAN SIGNIFICANT IMPACT

Existing Infrastructure

Existing water, sewer, storm drain, electrical, natural gas, and telecommunication facilities exist in the project area. Water, sewer, storm drain, electrical, and gas lines and fire hydrants are located within the Sterling Avenue right of way (refer to *Exhibit 4.18-1*, *Utility Plan*.

Electric power poles and lines exist within both sides of the Sterling Avenue right-of-way. Two existing electric power poles with cables are located within the project site.

The Utility Plan identifies existing on- and off-site utilities and provides construction notes for storm drain, fire water, water, and sewer to support the proposed project.

Proposed Project Improvements

The proposed project would remove the two on-site electric power poles. Per the Utility Plan, the proposed project would install the on-site water, sewer, storm drain, street, electricity, natural gas, and telephone infrastructure to serve the proposed on-site multi-family residential development, and connect to applicable off-site systems in Sterling Avenue or Elm Street.

Implementation of the proposed project does not result in the construction of expanded water, wastewater treatment, storm water drainage, electrical, natural gas, or telecommunications facilities that would cause significant environmental effects. Thus, less than significant impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

B. WOULD THE PROJECT HAVE SUFFICIENT WATER SUPPLIES AVAILABLE TO SERVE THE PROJECT AND REASONABLY FORESEEABLE FUTURE DEVELOPMENT DURING NORMAL, DRY, AND MULTIPLE DRY YEARS?

LESS THAN SIGNIFICANT IMPACT

The proposed project does not satisfy the criteria in Senate Bill 610 or Senate Bill 221 (codified as California *Water Code* Sections 10910-10915, *Business and Professions Code* Section 11010, and *Government Code* Section 66473) regarding the preparation of a Water Supply Assessment to verify that sufficient water supplies are available to serve the proposed project from existing entitlements/resources.

The East Valley Water District (EVWD) is responsible for water service to the City and maintaining the City's water system infrastructure. Implementation of the proposed project would increase the demand for water service for the project site.

There is currently no water service to the project site. The proposed project would involve the installation of water lines and water meters within the project site that would connect to the existing water lines in Sterling Avenue.

Upper Santa River Watershed Region

The water management agencies within the Upper Santa Ana River (SAR) Watershed Region (Region) have a long history of collaboration to deliver regional water resource solutions. They collaborate to collect and manage water resource data and prepare multiple planning documents to meet regulatory requirements while guiding effective regional and local decision-making. Two of the Region's foundational documents are the Upper Santa Ana River Watershed Integrated Regional Water Management Plan (IRWMP) and the San Bernardino Valley Regional Urban Water Management Plan (RUWMP). Since both documents were due to be updated for the 2020 planning cycle and considering the overlap and interdependence of these two documents, Valley District and its regional partners envisioned a consolidated document that combines these two plans, merges the common elements, and creates a cohesive water resources planning framework for the future. The IRUWMP includes: Part 1, Regional Context; Part 2, Local Agency Urban Water Management Plans; Part 3, Regional Supporting Information; and Part 4, Urban Water Management Plan Agency Supporting Information. The IRWRP was adopted by the San Bernardino Valley Municipal Water District on June 15, 2021.

The Upper Santa Ana River Watershed Integrated Regional Water Management Plan and the San Bernardino Valley Regional Urban Water Management Plan were prepared in compliance with the requirements of Water Code Section 10610 through 10656 of the Urban Water Management Planning Act. The Urban Water Management Planning Act requires urban water suppliers that either provide

3,000 acre-feet per year (AFY) or serve 3,000 or more connections to assess the reliability of its water sources over a 20-year planning horizon and to update the data in the urban water plans every 5 years. In preparing their 20-year management plans, water suppliers must directly address the subject of future population growth. The suppliers must identify sources of supply to meet demand during normal, dry, and multiple dry years.

Per the 2020 IRUWMP for the East Valley Water District Table 6-5: DWR 4-2R Projected Demand for Water (AF), the projected water use for multi-family customer class is:

Year 2025: 3,497 acre-feet (AF)

Year 2030: 3,618 AF

Year 2035: 3,738 AF

Year 2040: 3,850 AF

Year 2045: 3,962 AF

Estimated Project Water Demand

Implementation of the proposed project would result in increased water demand when compared to the existing conditions of a vacant and undeveloped parcel. *Table 4.18-1, Estimated Project Water Demand*, quantifies the proposed project's estimated water demand.

TABLE 4.18-1 ESTIMATED PROJECT WATER DEMAND

Use	Dwelling Units or Acres	Factor	GPD	AFY
Proposed Project				
Multi-Family Residential - Total	220 DU	245 gpd/unit	53,900.0	60.42
Source: 1. East Valley Water District, *Development Guidelines and Procedures*, July 5, 2022				
Notes: DU = dwelling unit; AC = acres; GPD = gallons per day; AFY = acre-feet per year				

The residential water demand associated with the proposed project is anticipated to be approximately 53,900 gallons per day (gpd) or 60.42 acre-feet per year (AFY). All residential units would incorporate current requirements to reduce water consumption, including but not limited to low flow toilets and reduced flow shower heads.

Per the Landscape Plan, the proposed project incorporates drought tolerant planting. A minimum of 75 percent of the selected trees and shrubs are chosen from the Los Angeles County Drought Tolerant List and the State of California WUCOLS (Water Use Classification of Landscape Species) List, and are designated as either very low, low, or medium water use in the following percentages.

- Very Low Water Use – 5%
- Low Water Use – 75%
- Medium Water Use – 20%

No plants were selected from the high water use classification.

In addition, the Landscape Plan includes the following irrigation and landscape design notes:

1. Landscape shall adhere to the *City of Highland Municipal Code* 16.40
2. Irrigation shall be water conserving and conform to the State of California AB 1811 MWELO requirements
3. Plants shall be grouped into hydrozones utilizing the WUCOLS and 75 percent of the total plants shall be classified as low water used.
4. All landscape areas shall be either a 1-inch minimum layer of decomposed granite or decorative cobble, or be heavily mulched with a 3-inch minimum depth of shredded mulch at the end of construction.
5. Install high efficiency irrigation system with smart clock controls.
6. Turf areas are excluded from this site (0%) in favor or drought tolerant planting.

Based on the State of California Model Water Efficient Landscape Ordinance, the anticipated water use is below the 276,991 gallons per day or 0.85 AFY maximum allowed for this type and size of project. Additionally, the proposed project would be required to comply with *Highland Municipal Code* Chapter 16.40, General Development Standards.

The proposed projected would be constructed and operational before the Year 2030, and would represent 1.67 percent of 3,618 AF projected for the Year 2030. Thus, the growth associated with the proposed project is consistent with the 2020 IRUWMP for the East Valley Water District. In addition, the available water supply would meet projected demand during multiple dry years through 2045.

The operational activities associated with the proposed project are not anticipated to require a significant amount of water, and this water demand is not expected to have a significant impact on the local or regional supplies, as the growth under the proposed project has been accounted for in the 2020 IRUWMP for the East Valley Water District.

As such, the increase in water demand generated by implementation of the proposed project can be accommodated by the East Valley Water District. Thus, less than significant impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

C. WOULD THE PROJECT RESULT IN A DETERMINATION BY THE WASTEWATER TREATMENT PROVIDER, WHICH SERVES OR MAY SERVE THE PROJECT THAT IT HAS ADEQUATE CAPACITY TO SERVE THE PROJECT'S PROJECTED DEMAND IN ADDITION TO THE PROVIDER'S EXISTING COMMITMENTS?

LESS THAN SIGNIFICANT IMPACT

East Valley Water District

The East Valley Water District (EVWD) provides sewer (wastewater) collection services. EVWD's existing sewer system includes approximately 213 miles of pipeline ranging in size from 4 inches to 24 inches in diameter and 4,500 sewer manholes. The East Trunk Sewer is approximately 9 miles long ranging in size from 8 inches to 54 inches in diameter. EVWD's system, including the East Trunk Sewer, encompasses nine siphons to convey flows under creeks and flood control channels. EVWD has five diversion structures in its sewer collection system. Diversion structures are generally installed in manholes to divert flows along a specific route in case of a blockage in the system or during times of

high flow. EVWD's sewer system does not include any lift stations or force mains. All flow is conveyed by gravity into the East Trunk Sewer.

Sterling Natural Resource Center

The San Bernardino Valley Municipal Water District (SBVMWD) worked in partnership with EVWD to construct a new groundwater recharge facility for water produced from the Sterling Natural Resource Center (SNRC) and the City of San Bernardino Municipal Water Department.

The SNRC is a state-of-the-art water recycling facility in the City of Highland that become operational in 2023 and would provide a sustainable new water supply to boost the region's water independence. The SNRC was constructed on a 14-acre parcel of land located at North Del Rosa Drive between East 5th Street and East 6th Street. The SNRC Treatment Facility is located on the eastern property, while the Administration Center is located on the western parcel. The recycled water conveyance pipelines were constructed along the existing rights-of-way within 6th Street. SNRC is be capable of treating up to 10 million gallons a day. The SNRC would produce Title 22 quality recycled water intended to go to groundwater recharge.

The existing EVWD sewer system conveys flows into the East Trunk Sewer, which then discharges to SNRC.

The EVWD Sewer System Master Plan (SSMP) was updated in 2019. Within the SSMP, a comprehensive 20-year Capital Improvement Plan (CIP) was developed that recommends both capacity- and condition-related capital projects and recommendations on further studies. SSMP Figure 3-7 outlines the Recommended Capacity Projects addressed in the SSMP, and SSMP Chapter 6 describes how the new interceptor sewer would direct flows to the SNRC, and as such would relieve flows from the pipelines associated with the projects outlined in SSMP Chapter 7.

Proposed Project

The proposed project would construct 220 multi-family residential units and install sewer infrastructure on a vacant and undeveloped parcel. The proposed project's sewer plans would be reviewed by the City Engineer and would be required to provide sufficient capacity and comply with City standards.

As shown on *Table 4.18-2, Estimated Project Sewer Flows*, the proposed project is estimated to generate 40,490 gallons per day (gpd) of wastewater. To determine peaking rates, a conservative value of 2.5 was multiplied to the 40,480 gpd of wastewater for a result of 101,200 gpd or 70.28 gallons per minute (gpm). This wastewater would require treatment by the existing wastewater treatment plants.

TABLE 4.18-2 ESTIMATED PROJECT SEWER FLOWS

Use Description	Dwelling Units	Flow Factor[1]	Average Flow (gpd)	Peaking Flow (gpd)	Peaking Flow (gpm)
Proposed Use					
Apartment	220	184 gpd/unit	40,480	101,200	70.28
		Total	40,480	101,200	70.28
Source: 1. East Valley Water District, *Development Guidelines and Procedures*, July 5, 2022					
Notes: 1440 minutes in 1 day gpd = gallons per day; gpm = gallons per minute					

Impact Conclusion

The project site is served by existing EVWD collection systems. As such, the existing wastewater transmission system, as well as the transmission system associated with the development of the SNRC are anticipated to have adequate capacities to accommodate development associated with the proposed project. The proposed project would not require or result in the relocation or construction of new or expanded wastewater treatment facilities. Thus, less than significant impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

D. WOULD THE PROJECT GENERATE SOLID WASTE IN EXCESS OF STATE OR LOCAL STANDARDS, OR IN EXCESS OF THE CAPACITY OF LOCAL INFRASTRUCTURE, OR OTHERWISE IMPAIR THE ATTAINMENT OF SOLID WASTE REDUCTION GOALS?

LESS THAN SIGNIFICANT IMPACT

Burrtec Waste Management (Burrtec), under contract with the City of Highland, provides residential, commercial, and industrial refuse collection. The proposed project would be required to comply with California Assembly Bill (AB) 1826 and Senate Bill (SB) 1383 relative to multi-family recycling and residential organics diversion.

Burrtec indicated that the proposed project can be incorporated into existing collection routes in the City of Highland, and identifies additional information below relative to proposed project.

All multi-family residential projects in the City of Highland are provided with trash, mixed recyclable, and residential organics collection services. The three material types are collected in separate front-load, 3-axle collection trucks.

All three materials are taken to East Valley Recycling & Transfer (East Valley) [SWIS 36-AA-0453], located at 1150 and 1250 Tippecanoe Avenue, San Bernardino. East Valley is a fully permitted Materials Recovery Facility & Transfer Station with a permitted capacity of 1,500 tons per day. Mixed recyclables are processed at East Valley.

Green waste and food waste are transferred to the Robert A. Nelson Transfer Station and Materials Recovery Facility (MRF) [SWIS 33-AA-0258] located at 1830 Agua Mansa Road, Riverside for composting.

Municipal solid waste is loaded into top-loading walking floor transfer trucks and transferred to either the San Timoteo Landfill [SWIS 36-AA-0087] or the Mid-Valley Sanitary Landfill (36-AA-0055). Both landfills are owned by San Bernardino County.

The San Timoteo Landfill [SWIS 36-AA-0087] is located at 31 Refuse Road, Redlands, and is permitted through December 1, 2039. The landfill permits a maximum throughput of 2,000 pounds per day. The remaining landfill capacity is 12,360,396 cubic yards as of April 30, 2019; the maximum permit capacity is 23,685,785 cubic yards.

The Mid-Valley Sanitary Landfill [36-AA-0055] is located at 2390 Alder Avenue, Rialto, and is permitted through April 1, 2045. The landfill permits a maximum throughput of 7,5000 tons per day. The remaining landfill capacity is 61,219,377 cubic yards as of June 30, 2019; the maximum permit capacity is 101,300,000 cubic yards.

Projected Weekly Waste Volumes

Based upon the project information provided to Burrtec, Burrtec estimated the proposed project would generate the following weekly volumes:

- Trash: 58 – 60 cubic yards/week
- Recyclables: 58 – 60 cubic yards/week
- Food Waste: 1,000 – 1,200 pounds/week

Based upon the generations rates identified above, Burrtec estimates the proposed project would, at a minimum, require the following level of service:

- Trash: Four 4-cubic yard bins picked up four times per week
- Recyclables: Four 4-cubic yard bins picked up four times per week
- Food Waste: Four 65-gallon carts picked up three times per week

Project Construction

Buildout of the proposed project includes the construction of 220 multi-family residential units on 6.77 acres. Site preparation (vegetation removal and grading activities) and construction activities would generate typical construction debris, including wood, paper, glass, metals, cardboard, and green wastes.

Non-salvaged construction waste would result in an incremental and intermittent increase in solid waste disposal at landfills and other waste disposal facilities utilized by the City. Construction-related solid waste could further impact landfills with insufficient capacity. However, according to the Solid Waste Information System, all landfills utilized by the City of Highland, have sufficient capacity to support a temporary increase in solid waste during construction of the proposed project.[20]

Project Operations

Operation of the proposed project would generate solid waste from the 220 multi-family residential units. According to CalRecycle, the City of Highland has a disposal rate of 3.1 pounds per person per day in 2019.[21]

Using this rate, the proposed project's 770 residents would generate approximately 2,387 pounds of solid waste per day or 435.63 tons per year. The solid waste volume of 1.19 tons per day would be considered an acceptable amount of the daily capacity of the San Timoteo Landfill [SWIS 36-AA-0087] or the Mid-Valley Sanitary Landfill (36-AA-0055).

The proposed residential development is consistent with the growth projections in the San Bernardino County Projections, which are used by San Bernardino County in their long-term planning for landfill capacity. The County's landfill system has capacity in excess of the required 15-year threshold established by the California Integrated Waste Management Board (CIWMB). Based on the remaining capacity of the County's landfills and the County's long-term planning programs required to meet CIWMB's requirements, there would be adequate waste disposal capacity within the permitted County's landfill system to meet the needs of the proposed project.

Solid waste disposal within the City is subject to the requirements established in *Highland Municipal Code* Chapter 8.12, Integrated Waste Management. The proposed project would be required to comply with

[20] CalRecycle, County of San Bernardino, Active & Permitted Disposal Sites, https://www2.calrecycle.ca.gov/SWFacilities/Directory/, accessed June 20, 2023.
[21] CalRecycle. Jurisdiction Diversion Post 2006, Highland, Jurisdiction Diversion/Disposal Rate Summary (ca.gov), accessed June 20, 2023.

the *Highland Municipal Code*, which requires providing adequate areas for collecting and loading recyclable materials in concert with Countywide efforts and programs to reduce the volume of solid waste entering landfills. In addition, the location of recycling/separation areas is required to comply with all applicable Federal, State, public health, or local laws relating to fire, building, access, transportation, circulation, or safety. Compliance with all applicable State and San Bernardino County regulations for the use, collection, and disposal of solid and hazardous wastes is also mandated. It can be assumed that the proposed project would include adequate, accessible and convenient areas for collecting recyclable materials. Thus, less than significant construction and operational solid waste impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

E. WOULD THE PROJECT COMPLY WITH FEDERAL, STATE, AND LOCAL MANAGEMENT AND REDUCTION STATUTES AND REGULATIONS RELATED TO SOLID WASTE?

LESS THAN SIGNIFICANT IMPACT

State, County, and local agencies with regulatory authority related to solid waste include the California Department of Resources Recycling and Recovery, San Bernardino County Solid Waste Management Division, and the City of Highland.

The Integrated Waste Management Act, which requires every City and County in the State to prepare a Source Reduction and Recycling Element (SRRE) to its Solid Waste Management Plan, identifies how each jurisdiction would meet the State's mandatory waste diversion goal of 50 percent by and after the year 2000. The diversion goal has been increased to 75 percent by 2020 by SB 341.

Highland Municipal Code Chapter 8.12, Integrated Waste Management, stipulates standards and regulations for the collection and management of solid waste in the City, in accordance with the Integrated Waste Management Act. *CalGreen Code* Section 4.408 requires preparation of a Construction Waste Management Plan that outlines ways in which the contractor would recycle and/or salvage for reuse a minimum of 50 percent of the nonhazardous construction and demolition debris. During the construction phase, the proposed project would comply with the *CalGreen Code* through the recycling and reuse of at least 50 percent of the nonhazardous construction and demolition debris from the project site.

The proposed project is a 220-unit multi-family residential development that does not have any unusual waste production characteristics, and thus, would not include any component that could conflict with State laws governing construction or operational solid waste diversion. The proposed project would comply with Federal, State, and local statutes and implementation requirements related to the management of solid waste. This includes the City's construction and demolition disposal and recycling requirements.

The proposed project's compliance with all applicable Federal, State, and local statutes and regulations related to solid waste, including the California Integrated Waste Management Act, San Bernardino County, and City of Highland recycling programs ensures no conflict with statues and regulations would occur. Thus, less than significant impacts would occur.

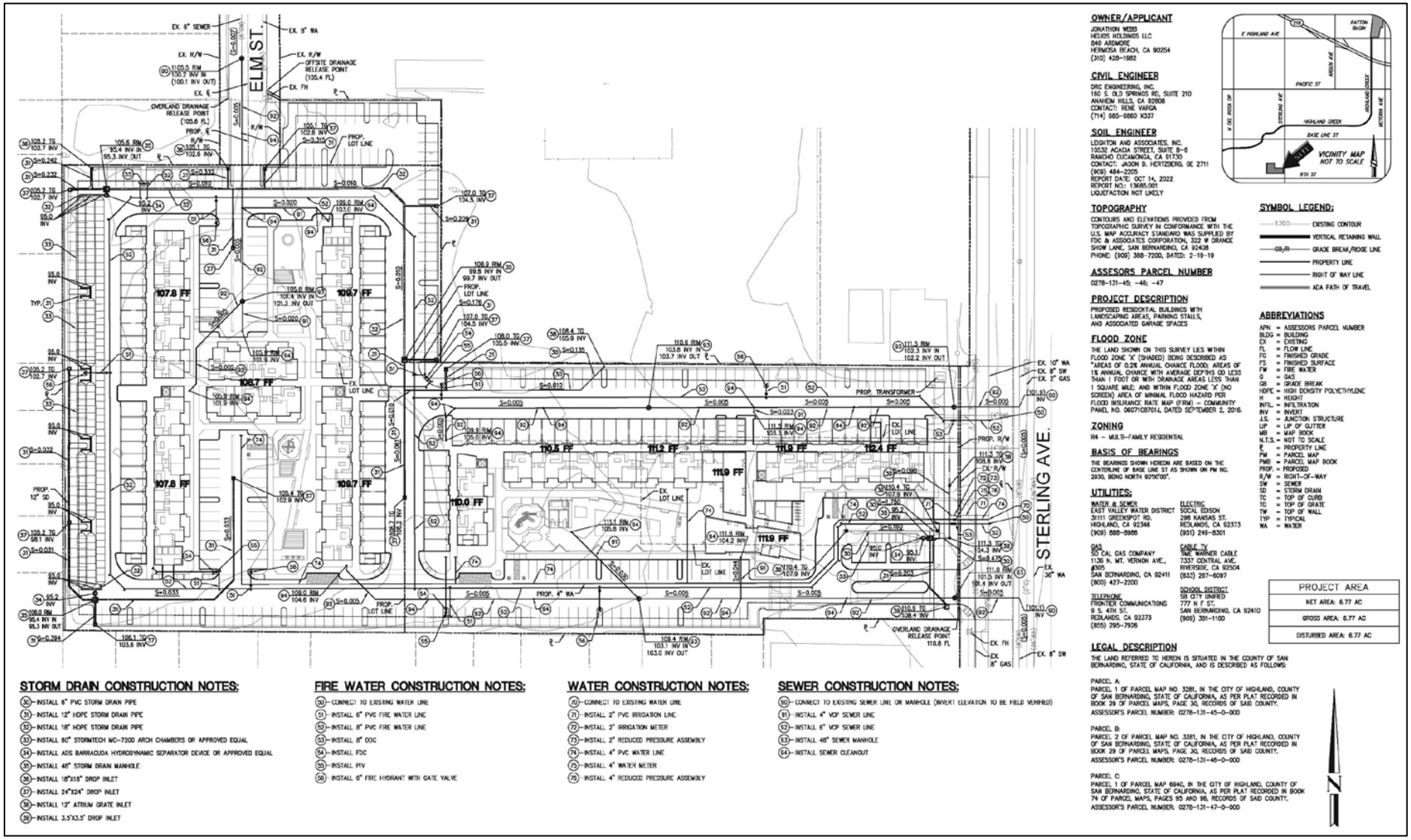
MITIGATION MEASURES

No mitigation measures are required.

CUMULATIVE IMPACTS

The proposed project would have a less than significant impact with respect to utilities and service systems. The proposed project would require water and wastewater infrastructure, as well as solid waste disposal for building operation. Development of public utility infrastructure is part of an extensive planning process involving utility providers and jurisdictions with discretionary review authority. The coordination process associated with the preparation of development and infrastructure plans is intended to ensure that adequate resources are available to serve both individual projects and cumulative demand for resources and infrastructure as a result of cumulative growth and development in the area. Each individual project is subject to review for utility capacity to avoid unanticipated interruptions in service or inadequate supplies. Coordination with the utility companies would allow for the provision of utility service to the proposed project and other developments. The proposed project and other planned projects are subject to connection and service fees to assist in facility expansion and service improvements triggered by an increase in demand. Because of the utility planning and coordination activities described above, less than significant cumulative utility impacts would occur.

EXHIBIT 4.18-1 CONCEPTUAL UTILITY PLAN



Source: DRC Engineering Inc. (April 2023)

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4.19. WILDFIRE

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?			✓	
If located in or near state responsibility areas or lands classified as high fire hazard severity zones, would the project:				
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			✓	
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?			✓	
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			✓	

Sources Cited in Section 4.19

City of Highland, *The City of Highland General Plan*, March 2006, January 2012, August 2012, January 2022

City of Highland, *Highland Municipal Code*, Title 15, Buildings and Construction

California Department of Forestry and Fire Protection (CAL FIRE), *Highland Very High Fire Severity Zones in Local Responsibility Area [LRA] Map*, October 29, 2008

California Department of Forestry and Fire Protection (CAL FIRE), *San Bernardino County State Responsibility Area [SRA], Fire Hazard Severity Zones Map*, November 21, 2022

A. WOULD THE PROJECT EXPOSE PEOPLE OR STRUCTURES, EITHER DIRECTLY OR INDIRECTLY, TO A SIGNIFICANT RISK OF LOSS, INJURY OR DEATH INVOLVING WILDLAND FIRES?

LESS THAN SIGNIFICANT IMPACT

A majority of Highland and the surrounding jurisdictions are developed and urbanized, providing increased opportunities for structural fires within the City. Building density, building construction, and wind contribute to the spread of fire in an urban environment. Wildland fires represent potentially significant safety hazards within the City.

Wildland fires occur in large undeveloped areas and result from ignition of grass, brush, and other flammable vegetative materials. Wildland fires can burn large areas destroying vegetation leading to increased susceptibility to land or mudslides, and cause a great deal of damage to both structures and valuable open space land.

As indicated in the *Highland General Plan* Public Health and Safety Element Figure 6.6, Fire Hazards and Safety Overlay Areas, the northeastern and eastern portions of the City (east of I-210, SR-30, and SR-330), especially hillside areas, are most susceptible to wildfires due to the location of fire-prone vegetation, limited access for fire-fighting equipment, steep topography, and seasonal conditions that exacerbate fire hazard conditions. Per *Highland General Plan* Public Health and Safety Element, the project site is not located within a fire severity zone; refer to *Exhibit 4.9-1*, *Fire Hazard Severity*.

The California Department of Forestry and Fire Protection (CDF) provides fire protection and emergency medical services to the City of Highland through a cooperative agreement. The CDF also provides wildland fire protection to the unincorporated State Responsibility Area (SRA) immediately adjacent to the eastern edge of the City. Additional wildland fire protection services are provided by the U.S. Forest Service on National Forest Lands adjacent to the City.

According to the *Highland General Plan* Public Health and Safety Element, the risk of wildfire is greatest in the north wilderness area and non-urbanized portion of the City where vegetation, varied topography, and slopes are all present. The southern urbanized area is exposed to the least amount of threat because of minimal exposure to fire prone vegetation, relatively flat topography, and developed character. The urban area is located in close proximity to fire stations and response times would be within the Highland Fire Department/CAL Fire desired range.

The project site and surrounding areas are predominately developed and no wildlands occur within or adjacent to the project site. Also, the proposed project would not involve the closure or alteration of any existing evacuation routes that would be important in the event of a wildfire. Also, refer to Response 4.11.C in Section 4.11 of this Initial Study for information regarding evacuation routes.

The proposed project would be analyzed for consistency with *Highland Municipal Code* Title 15, Buildings and Construction, inclusive of Chapter 15.06, California Fire Code, as part of the entitlement process, and would be required to implement any identified conditions, requirements, or design measures. Compliance with these specified fire prevention standards would provide the necessary limitations to reduce the exposure of people or structures to risk involving wildland fires. In addition, the proposed project would not conflict with access and/or circulation of emergency vehicles in response to an emergency and/or evacuation. Thus, less than significant impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

B. IF LOCATED IN OR NEAR STATE RESPONSIBILITY AREAS OR LANDS CLASSIFIED AS HIGH FIRE HAZARD SEVERITY ZONES,WOULD THE PROJECT, DUE TO SLOPE, PREVAILING WINDS, AND OTHER FACTORS, EXACERBATE WILDFIRE RISKS, AND THEREBY EXPOSE PROJECT OCCUPANTS TO POLLUTANT CONCENTRATIONS FROM A WILDFIRE OR THE UNCONTROLLED SPREAD OF A WILDFIRE?

LESS THAN SIGNIFICANT IMPACT

The project site and adjacent properties are urbanized, and there are no areas of native or natural vegetation found within the immediately adjacent properties. The project site is not located within either a Local Responsibility Area or State Responsibility Area.

The proposed project may be exposed to criteria pollutant emissions generated by wildland fires within the northeastern and eastern portions of the City that are within a Local Responsibility Area or State Responsibility Area. These impacts would not be exclusive to the project site since criteria pollutant emissions from wildland fires may affect the entire City as well as the surrounding cities and unincorporated county areas. However, given the existing developed nature of the project area, it is not anticipated that the proposed project would increase the risk related to wildland fires. Thus, less than significant impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

C. IF LOCATED IN OR NEAR STATE RESPONSIBILITY AREAS OR LANDS CLASSIFIED AS HIGH FIRE HAZARD SEVERITY ZONES, WOULD THE PROJECT REQUIRE THE INSTALLATION OR MAINTENANCE OF ASSOCIATED INFRASTRUCTURE (SUCH AS ROADS, FUEL BREAKS, EMERGENCY WATER SOURCES, POWER LINES OR OTHER UTILITIES) THAT MAY EXACERBATE FIRE RISK OR THAT MAY RESULT IN TEMPORARY OR ONGOING IMPACTS TO THE ENVIRONMENT?

LESS THAN SIGNIFICANT IMPACT

The project site is not located within either a Local Responsibility Area or State Responsibility Area.

The proposed project includes the installation of new utility lines such as electric, gas, water, and sewer lines, etc. to service the development. These utilities lines would be located below ground surface on-site, which would reduce the likelihood of a fire igniting. As such, the proposed project would not require the installation or maintenance of infrastructure that would exacerbate fire risk resulting in temporary or ongoing impacts to the environment. Thus, less than significant impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

D. IF LOCATED IN OR NEAR STATE RESPONSIBILITY AREAS OR LANDS CLASSIFIED AS HIGH FIRE HAZARD SEVERITY ZONES, WOULD THE PROJECT EXPOSE PEOPLE OR STRUCTURES TO SIGNIFICANT RISKS, INCLUDING DOWNSLOPE OR DOWNSTREAM FLOODING OR LANDSLIDES, AS A RESULT OF RUNOFF, POST-FIRE SLOPE INSTABILITY, OR DRAINAGE CHANGES*?*

LESS THAN SIGNIFICANT IMPACT

The project site is not located within either a Local Responsibility Area or State Responsibility Area.

The project site and the surrounding properties are developed and urbanized. The proposed project has been designed by civil engineers and architects to ensure that the structural stability of development. As such, implementation of the proposed project is not expected to expose people or structures to flooding as a result of slope instability or drainage changes. Thus, less than significant impacts would occur.

MITIGATION MEASURES

No mitigation measures are required.

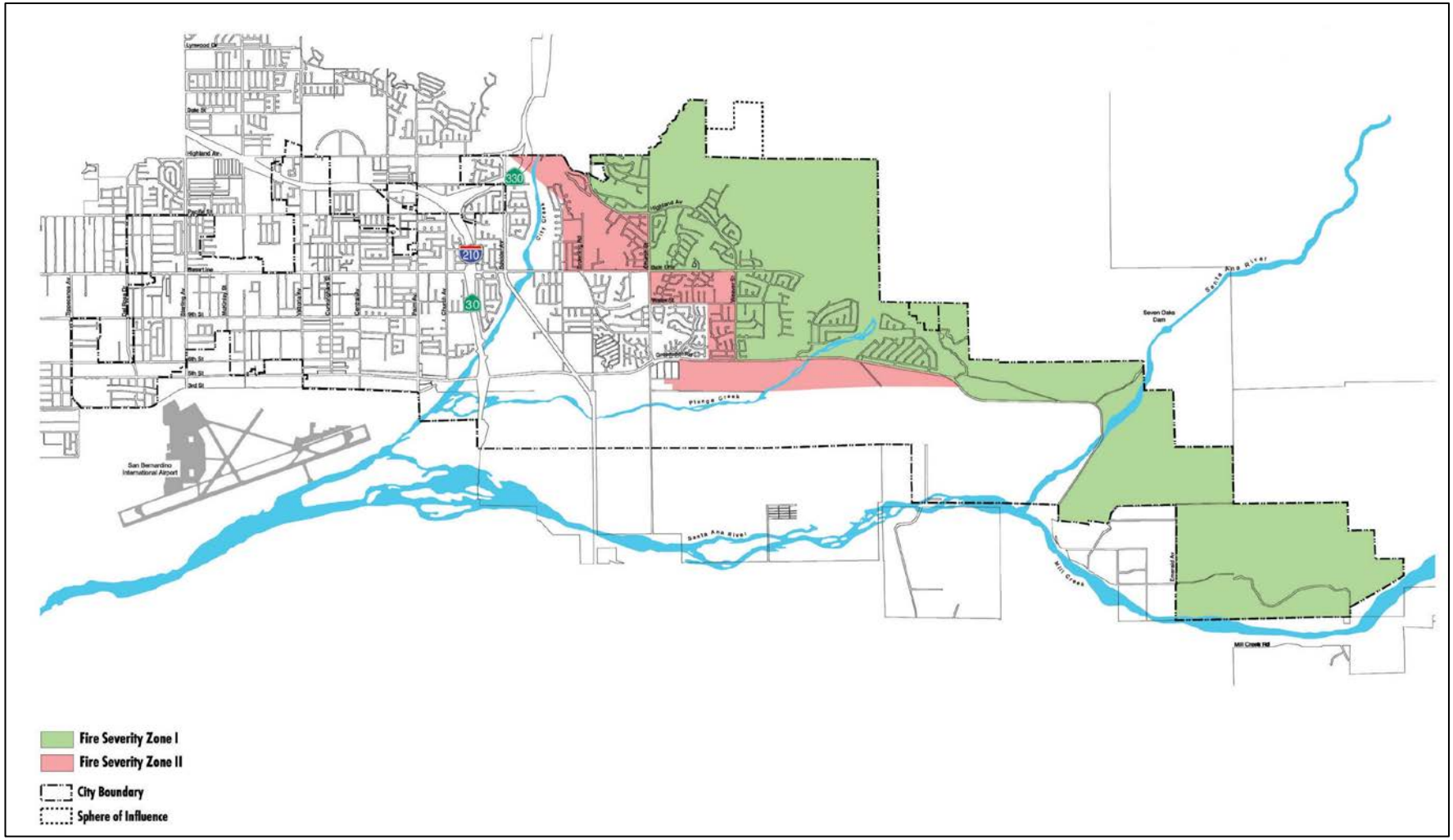
CUMULATIVE IMPACTS

Project-specific impacts would be reduced to less than significant. Buildout of the proposed project, in combination with present and reasonably foreseeable future development within the City, including development within Fire Hazard Severity Zones, has the potential to expose people or structures to wildland fires, expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, expose people or structures to significant risks (i.e., downslope or downstream flooding or landslides), or require the installation of new or maintenance of existing infrastructure that could exacerbate fire risk.

However, new development would be required to comply with existing regulations, including but not limited to Highland *Municipal Code* Title 15, Buildings and Construction, inclusive of Chapter 15.06, California Fire Code, as part of the entitlement process, and would be required to implement any identified conditions, requirements, or design measures.

Compliance with these requirements would minimize wildland fire risks at individual construction sites. As such, less than significant cumulative impacts would occur.

EXHIBIT 4.19-1 FIRE HAZARD SEVERITY



Source: *The City of Highland General Plan* (March 2006)

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4.20. MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		✓		
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			✓	
c. Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?		✓		

A. DOES THE PROJECT HAVE THE POTENTIAL TO DEGRADE THE QUALITY OF THE ENVIRONMENT, SUBSTANTIALLY REDUCE THE HABITAT OF A FISH OR WILDLIFE SPECIES, CAUSE A FISH OR WILDLIFE POPULATION TO DROP BELOW SELF-SUSTAINING LEVELS, THREATEN TO ELIMINATE A PLANT OR ANIMAL COMMUNITY, REDUCE THE NUMBER OR RESTRICT THE RANGE OF A RARE OR ENDANGERED PLANT OR ANIMAL OR ELIMINATE IMPORTANT EXAMPLES OF THE MAJOR PERIODS OF CALIFORNIA HISTORY OR PREHISTORY?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED

ANALYSIS TO BE REVISED FOLLOWING COMPLETION OF ALL ANALYSES

The project site is vacant and undeveloped, but is surrounded on all sides by urban development. The project site does not contain threatened or endangered species, sensitive habitats, or cultural or historical resources. However, the project site may have significance for tribal cultural resources. Thus, there is the potential to degrade the environment with respect to tribal cultural resources. Therefore, with implementation of Mitigation Measures CUL-1 and CUL-2, and TCR-1 through TCR-3, potential impacts to tribal cultural resources would be reduced to less than significant.

B. DOES THE PROJECT HAVE IMPACTS THAT ARE INDIVIDUALLY LIMITED, BUT CUMULATIVELY CONSIDERABLE? ("CUMULATIVELY CONSIDERABLE" MEANS THAT THE INCREMENTAL EFFECTS OF A PROJECT ARE CONSIDERABLE WHEN VIEWED IN CONNECTION WITH THE EFFECTS OF PAST PROJECTS, THE EFFECTS OF OTHER CURRENT PROJECTS, AND THE EFFECTS OF PROBABLE FUTURE PROJECTS)?

LESS THAN SIGNIFICANT IMPACT

ANALYSIS TO BE REVISED FOLLOWING COMPLETION OF ALL ANALYSES

Based on the analysis contained in this Initial Study, the proposed project would not have cumulatively considerable impacts with the implementation of identified mitigation measures. Implementation of mitigation measures at the project-level would reduce the potential for the incremental effects of the

proposed project to be considerable when viewed in connection with the effects of past projects, current projects, or probable future projects.

C. DOES THE PROJECT HAVE ENVIRONMENTAL EFFECTS WHICH WOULD CAUSE SUBSTANTIAL ADVERSE EFFECTS ON HUMAN BEINGS, EITHER DIRECTLY OR INDIRECTLY?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED

ANALYSIS TO BE REVISED FOLLOWING COMPLETION OF ALL ANALYSES

Previous sections of this Initial Study reviewed the proposed project's potential impacts related to Air Quality; Biological Resources; Cultural and Tribal Cultural Resources; Geology and Soils; Hazards & Hazardous Materials; Noise; and Transportation. As concluded in these previous discussions, the proposed project would result in less than significant environmental impacts with implementation of the recommended mitigation measures. Therefore, the proposed project would not result in environmental impacts that would cause substantial adverse effects on human beings.

4.21. REFERENCES

Refer to Section 4.1 through Section 4.19 for the listing of references utilized in the preparation of this Initial Study.

4.22. REPORT PREPARATION PERSONNEL

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Ms. Nancy Holland, Hernandez, Kroone & Associates (Traffic Consultant)

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Mr. Drew Gates, RCE, Design Engineer

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Mr. Alex Tabrizi, PE, TE

5.0 CONSULTANT RECOMMENDATION

Based on the information and environmental analysis contained in the Initial Study/Environmental Checklist, we recommend that the City of Highland prepare a Mitigated Negative Declaration for the Halcyon 220-Unit Multi-Family Development at 7536 Sterling Avenue Project. We find that the proposed project could have a significant effect on a number of environmental issues, but that mitigation measures have been identified that reduce such impacts to a less than significant level. We recommend that the second category be selected for the City of Highland's determination (see Section 6.0, Lead Agency Determination).

Month, Day, 2023
Date

Collette L. Morse, AICP
Project Manager
Morse Planning Group

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6.0 LEAD AGENCY DETERMINATION

On the basis of this initial evaluation:

I find that the proposed use COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION would be prepared.

I find that although the proposal could have a significant effect on the environment, there would not be a significant effect in this case because the mitigation measures described in Section 4.0 have been added. A MITIGATED NEGATIVE DECLARATION would be prepared. ✓

I find that the proposal MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposal MAY have a significant effect(s) on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

Signature: _____

Title: Associate Planner

Printed Name: Ash Syed

Agency: City of Highland

Date: Month, Day, 2023

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