

CITY OF SIGNAL HILL

SIGNAL HILL HOUSING ELEMENT

INITIAL STUDY

Prepared for:
CITY OF SIGNAL HILL
COMMUNITY DEVELOPMENT DEPARTMENT
2175 CHERRY AVENUE
SIGNAL HILL, CA 90755

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MAY 2021

California Environmental Quality Act

INITIAL STUDY

MAY 14, 2021 TO

JUNE 14, 2021

Signal Hill Housing Element

Lead Agency:



City

2175 Cherry Avenue

Signal Hill, CA 90755

Contact: Colleen Doan

Community Development Director

Office: 562.989.7344

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Table of Contents

Section A. Environmental Checklist Form..... 1

Section B. Environmental Factors Potentially Affected 17

Section C. Determination 18

Section D. Evaluation of Environmental Impacts 19

 I. Aesthetics 19

 II. Agriculture and Forestry Resources 21

 III. Air Quality..... 25

 IV. Biological Resources 28

 V. Cultural Resources..... 31

 VI. Energy..... 33

 VII. Geology and Soils 34

 VIII. Greenhouse Gas Emissions..... 39

 IX. Hazards and Hazardous Materials 41

 X. Hydrology and Water Quality..... 48

 XI. Land Use and Planning 53

 XII. Mineral Resources 55

 XIII. Noise 57

 XIV. Population and Housing..... 59

 XV. Public Services 60

 XVI. Recreation..... 62

 XVII. Transportation/Traffic 64

 XVIII. Tribal Cultural Resources 66

 XIX. Utilities and Service Systems 69

 XX. Wildfire 73

 XXI. Mandatory Findings of Significance 75

Section E. Acronyms 7777

Section F. References 79



List of Tables

Table 1 Housing Inventory Sites9

List of Figures

Figure 1 Regional Location Map.....12
Figure 2 Project Location Map.....13
Figure 3 Inventory Site Map.....14
Figure 4 General Plan Designation map.....15
Figure 5 Zoning Map.....16

Appendices

Appendix A NAHC Letter
Appendix B Tribal Notification Letters



SECTION A. ENVIRONMENTAL CHECKLIST FORM

1. **Project Title:** Signal Hill Housing Element 2021-2029 Project

2. **Lead Agency Name and Address:** City of Signal Hill
2175 Cherry Avenue
Signal Hill, CA 90755

3. **Contact Person and Phone Number:** Colleen Doan
Community Development Director
(562) 989-7344
CDoan@cityofsignalhill.org

4. **Project Location:** The Project location encompasses the entire City of Signal Hill (City) which is located in the southwest corner of Los Angeles County (County). The City limit located within the City of Long Beach and covers approximately 2.2 square miles in size.

A Regional Location Map is provided in *Figures 1*.

5. **Project Sponsor's Name and Address:** City of Signal Hill
2175 Cherry Avenue
Signal Hill, CA 90755

6. **General Plan Designation:** The Project site encompasses the entire area within the City boundary. As such, the Project includes all General Plan designations.

7. **Zoning:** The Project site encompasses the entire area within the City boundary. As such, the Project includes assessment of all zoning within the City limits.

8. **Description of Project:**

Introduction

The Housing Element is one of eight State-mandated elements a City is required to prepare as part of its General Plan. Enacted by law in 1969, the Housing Element identifies a City's housing conditions and needs using the Regional Housing Needs Assessment (RHNA)



allocation provided by the regional Metropolitan Planning Organizations (MPOs). The Housing Element then establishes the goals, objectives, policies and programs that serves as the foundation for the City's housing strategy to achieve specific housing goals and improve local housing conditions.

Pursuant to Government Code Section 65584,¹ the Housing Element should further all of the following objectives:

1. Increasing the housing supply and the mix of housing types, tenure, and affordability in all cities and counties within the region in an equitable manner, which shall result in each jurisdiction receiving an allocation of units for low- and very low-income households.
2. Promoting infill development and socioeconomic equity, the protection of environmental and agricultural resources, the encouragement of efficient development patterns, and the achievement of the region's greenhouse gas reductions targets provided by the State Air Resources Board pursuant to Section 65080.
3. Promoting an improved intraregional relationship between jobs and housing, including an improved balance between the number of low-wage jobs and the number of housing units affordable to low-wage workers in each jurisdiction.
4. Allocating a lower proportion of housing need to an income category when a jurisdiction already has a disproportionately high share of households in that income category, as compared to the countywide distribution of households in that category from the most recent American Community Survey.
5. Affirmatively furthering fair housing.

The City is updating the Housing Element to address housing needs for the October 2021 to October 2029 Planning Period. The Southern California Association of Government (SCAG) RHNA allocation for the City identified a housing need of 517 housing units with approximately 45 percent of the 517 units needed for very low- and low-income households. The RHNA allocation for Signal Hill includes 161 very low-income units, 78 low-income units, 90 moderate-income units, and 188 above moderate-income units.²

New Legislation

Since the City adopted its current Housing Element on February 4, 2014, the State has adopted legislation to strengthen State requirements for increasing housing site inventory in California, with a focus on affordable housing, as summarized below:

-
- 1 California Legislative Information. Government Code Section 65580- 65589.11. https://leginfo.ca.gov/faces/codes_displaySection.xhtml?lawCode=GOV§ionNum=65584. Accessed March 3, 2021.
 - 2 SCAG, 6th Cycle Final Regional Housing Needs Assessment Plan. <https://scag.ca.gov/sites/main/files/file-attachments/6th-cycle-rhna-final-allocation-plan.pdf?1616462966> accessed March 30, 2021.



Affirmative Furthering Fair Housing (Assembly Bill [AB] 686)

AB 686 requires all State and local agencies to create laws, programs, and activities to further fair housing, and no actions are inconsistent with the obligation to provide fair housing in the State. Effective January 1, 2019, all Housing Elements are required to include fair housing analysis to ensure all State and local agencies are affirmatively furthering fair housing practices. Under State law, affirmatively furthering fair housing means “taking meaningful actions, in addition to combatting discrimination, that overcome patterns of segregation and foster inclusive communities free from barriers that restrict access to opportunity based on protected characteristics.”

Enhanced Requirements Realistic Development Potential (AB 1397)

AB 1397 builds on existing laws and imposes further requirements on State and local agencies to ensure land identified for residential development in the Housing Element will be made available for development for the duration of the Housing Element implementation period. AB 1397 requires that Housing Elements identify the number of units that can realistically be accommodated on sites identified for housing and whether the site is adequate to accommodate lower income housing, moderate-income housing, or above moderate-income housing must be identified. Studies to show sufficient utility services to support the additional housing units must also be made available.³

Methodologies for identifying realistic development of nonvacant sites were modified to consider existing use, past development trends, market conditions, and the availability of regulatory and/or other development incentives. The on nonvacant sites is presumed to impede additional residential development, unless the Housing Element describes findings based on substantial evidence that the use will likely be discontinued during the planning period.

No Net Loss (Senate Bill [SB] 166)

SB 166 builds on existing laws and regulations to ensure a local agency meets its allocated housing units for lower and moderate-income households. This bill requires adequate housing development capacities to be available throughout the Housing Element planning period to meet the unmet RHNA needs. SB 166 prevents a local jurisdiction from permitting an identified lower and moderate-income residential housing site for development of another use or for a lower density residential development than identified in the Housing Element. If a site identified for housing development is permitted for another use or developed at a lower density which prevents the local agency from meeting its RHNA for lower and moderate-income residential housing allocation numbers, the local agency must identify another site for

3 California Legislative Information. AB-1397 Local Planning: housing element: inventory of land for residential development. https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB1397. Accessed March 1, 2021.



housing development within 180 days to meet the RHNA allocation for lower and moderate-income housing.⁴

Regional Housing Needs Assessment Allocation

State Housing Law mandates that MPOs develop RHNA allocations based on the regional determination figure issued by the California Department of Housing and Community Development (HCD) as part of the process for updating local housing elements of the General Plan. The RHNA quantifies the housing need within each jurisdiction during specific planning periods and local governments use the RHNA allocations provided by the MPOs in deciding how to address identified existing and future housing needs resulting from population, employment, and household growth. RHNA allocations are determined and updated every eight years to facilitate the update of Housing Elements on the local level every eight years. The eight years planning periods for RHNA allocation are defined as RHNA cycles with the latest update for 2021-2029 planning period considered the 6th RHNA allocation cycle. The 2021-2029 RHNA allocation considers the existing housing needs along with future housing needs which differs from previous RHNA allocation cycles that only considered future housing needs.

On October 15, 2019, HCD issued a final regional determination of 1,341,827 units to the SCAG region for 2021 to 2029 planning period. The City is one of 191 cities within the six county SCAG region. This number is further allocated by SCAG to cities and counties within its region.

The 2016 population of the City was estimated at approximately 11,608 by SCAG. The SCAG RHNA allocation for the City identified a housing need of 517 housing units with approximately 45 percent of the 517 units needed for very low- and low-income households. The RHNA allocation for Signal Hill includes 161 very low-income units, 78 low-income units, 90 moderate-income units, and 188 above moderate-income units.⁵ The City is mandated by State Housing Element Law to demonstrate it has adequate sites available to accommodate this projected need for housing through the 2021-2029 RHNA planning period.

Project Setting

Regional Setting

The City is located in the SCAG region, which is the largest MPO in the country, including approximately 19 million people.⁶ The region contains six counties: Imperial County, Los Angeles County, Orange County, Riverside County, San Bernardino County, and Ventura

4 California Legislative Information. SB-166 Residential Density and Affordability. https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB166. Accessed March 1, 2021.

5 SCAG, 6th Cycle Regional Housing Needs Assessment Estimate, 10/1/2021 – 10/1/2029. <http://www.scag.ca.gov/programs/Documents/RHNA/Staff-Recommended-RHNA-Estimated-Allocations-030520.pdf> accessed March 4, 2021.

6 SCAG. Connect SoCal- The 2020-2045 RTP/SCS. https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial-plan_0.pdf?1606001176. March 4, 2021.



County. Today, the region contains 6 million households and 8 million jobs. While the growth trend has slowed in recent years due to a combination of factors, the region's population continues to grow at approximately 0.85 percent annually, or by approximately 161,500 people annually. Population growth is projected to slow, but continued growth through 2045 is expected. This population growth in turn translates into continued growth for the number of households and jobs in the region.

As illustrated in *Figure 1- Regional Location Map*, the City is located at the southeast corner of the Los Angeles County (County). The RHNA allocation for the 2021-2029 planning period for Los Angeles County is 812,060, with 217,273 for Very-Low Income housing, 123,022 for Low Income housing, 131,381 for Moderate Income housing, and 340,384 for Above Moderate Income housing.⁷

Local Setting

As presented in *Figure 2- Project Location Map*, the City of Signal Hill (City) includes approximately 2.2 square miles on top of a hill with a panoramic view of neighboring communities, including the City of Long Beach, which surrounds the City. Similar to other nearby cities, the population in the City has grown from a population of approximately 9,333 in the year 2000 to a population of approximately 11,749 in 2018.⁸

The City shares its transportation network and public services with the neighboring City of Long Beach. Regional access to the Project Site is supported primarily by Interstate 405 (I-405) and the Pacific Coast Highway (PCH). The City's transportation system consists of roads and a variety of public transportation systems, including buses, light rail, and paratransit service, airports, and seaports.⁹

The City has a history as one of the richest oil fields in the world since oil was first discovered in 1919. A prolific oil industry was introduced and developed in the area when the Long Beach Oil Field was found, encompassing the entire footprint of the City. Many active oil drilling rigs in the City continue to operate today.¹⁰

The City is made up of 8 neighborhoods: North End, Atlantic/Spring, Central, West Side, Civic Center, Hilltop, and Southeast. A brief description of the neighborhoods is presented below:

7 SCAG. SCAG 6th Cycle Proposed Final RHNA Allocation. <https://scag.ca.gov/sites/main/files/file-attachments/6th-cycle-rhna-proposed-final-allocation-plan.pdf?1614023284>. Accessed March 8, 2021.

8 SCAG. Profile of the City of Signal Hill. https://scag.ca.gov/sites/main/files/file-attachments/signalhill_localprofile.pdf?1606011167. Accessed March 8, 2021.

9 City of Signal Hill. General Plan- Circulation Element. <https://www.cityofsignalhill.org/DocumentCenter/View/309/circulation-element?bidId=>. Accessed March 8, 2021.

10 City of Signal Hill. The Oil Field. <https://www.cityofsignalhill.org/422/The-Oil-Field>. Accessed March 8, 2021.



North End

The North End neighborhood is a well-established suburb since before the City's incorporation in 1924, when many of the dwellings were relocated to make way for petroleum exploration. Located entirely north of the I-405 freeway, the neighborhood is separated by the highway from the rest of the City. Due to the proximity of the neighborhood to the highway infrastructure, a sound wall was constructed to alleviate the travelling vehicle noise in 1998.

Today, the neighborhood is lined mostly with large shady trees and cottage homes, with relatively large lots. The neighborhood is also home to the Burroughs Elementary School and Reservoir Park. The southern half of Reservoir Park is a five-million-gallon reservoir and pump station. A minimal amount of two-story apartment buildings also exists in the neighborhood on 32nd Street near California Avenue.

Atlantic/Spring

The Atlantic/Spring Neighborhood is located between Atlantic Avenue and California Avenues and the 405-Freeway and E. Willow Street. This neighborhood remained largely undeveloped until the 2000s and still retains a large portion of the remaining vacant land in the City. The availability of undeveloped land is largely a result of ongoing oil production activities from independent oil operators, contaminated soils, small lots, and lack of infrastructure. Today, the neighborhood includes commercial retail and restaurants, medical offices, and light industrial operations.

Central

The Central Neighborhood lies south of the I-405 freeway between Temple and California Avenues. Willow Street is the southern boundary of the Central Neighborhood except that the Hathaway Tank Farm and industrial complex between Hathaway and Redondo Avenues is included in the Central Neighborhood. During the oilfield boom years from 1923 to 1965, the Central Neighborhood served as a vast storage yard for the oil field. As oil production declined, the major petroleum companies sold the land and their interests in the Signal Hill oil field and relinquished the surface rights back to property owners. Some storage yards remain in the neighborhood to this day.

Today, the neighborhood consists of primarily small size industrial lots with narrow streets and alleys. Industrial and business buildings dominate the neighborhood and benefit from the location's easy access to several freeways and a nearby airport. The area is rich with commercial services such as auto centers, auto repair shops, banking, fitness center, and trade schools.

West Side

The West Side Neighborhood is located south of E. Willow Street between Orange Avenue and the abandoned Pacific Electric Railroad right-of-way. Historically, the area includes a mix of older industrial and residential land uses on small size lots with scattered oil field



operations. Today, the neighborhood is characterized with mostly rental properties, some of which house more than 150 units. The neighborhood contains more rental properties as compared to other areas of the City. The neighborhood also has a mix of historical buildings, industrial buildings, and storage yards. The average income in this neighborhood is lower than the average income of the rest of the City.

Civic Center

The Civic Center Neighborhood takes its name from the many public institutions located between Cherry and Walnut Avenues and E. Willow Street and the southerly City boundary along the abandoned Pacific Electric railroad right-of-way. The Civic Center neighborhood includes public service institutions including the City Hall, police station, library, and community center serving the City. Three schools are also located in the neighborhood which are the Signal Hill and Alvarado elementary schools, and the Preparatory Academy junior high school. Aside from public services and schools, the neighborhood contains a mix of older homes, contemporary condominiums, and single-family residential homes.

The retail development of the area has taken a different turn in recent years with the City shifting their focus from retail sales tax generating establishments such as Costco and Home Depot towards more neighborhood shopping venues such as grocery stores, beauty supply shop, coffee house, and restaurants.

Hilltop

The Hilltop Neighborhood is located on elevated land, as compared to the rest of the City, and enjoys panoramic views of its surrounding landscape. The boundaries of the Hilltop Neighborhood are E. Willow Street on the north, 21st and 19th Streets on the south, Cherry Avenue on the west and Hathaway and Obispo Avenues on the east. Developments in the area include single- and multifamily dwellings, retail amenities at Town Center East with Costco and Home Depot, and telecommunication sites.

Current development in the Hilltop Neighborhood is largely in accordance with the Hilltop Area Specific Plan which includes a mix of single-family detached dwellings and condominium flats. Pedestrian walking trails will connect the neighborhood to parks and other neighborhoods nearby.

Southeast

The Southeast Neighborhood includes the area south of E. Willow Street, west of Cherry Avenue, north of Pacific Coast Highway, and generally east of Redondo Avenue. The neighborhood went through a redevelopment effort from 1989 to 2000, with the replacement of former commercial properties along Pacific Coast Highway with new single-family homes, the removal of obsolete commercial uses, and the building of a neighborhood park. Existing land use in the neighborhood includes single- and multifamily developments, light manufacturing, warehouses, and offices.



2021-2029 Housing Element

The City is updating the Housing Element to address housing needs for the 2021 to 2029 Planning Period. The contents of the Housing Element are described below:

Housing Needs Assessment

This section provides an overview of the City's characteristics influencing local housing needs. The overview will discuss the public participation effort, local population trend, household characteristics, and existing household stocks. An analysis based on these data of existing conditions will assist with identifying housing needs within the City. A fair housing analysis will also be provided in consistency with AB 686.

Constraints Analysis

Government and nongovernmental constraints are identified and analyzed in this section to address the limitations to housing production and preservation, in accordance with Government Code 65583. The constraints analysis helps identify the realistic ability of the City to provide the allocated housing units and where those units should be constructed. This analysis helps inform the determination of the housing site inventory to be included in the Housing Element update.

Housing Site Inventory

State housing element law mandates a City to set aside inventory sites for housing development to assist the City in meeting the RHNA allocation. Housing site inventory are specific sites or parcels that are deemed available for residential development according to the HCD. Land deemed suitable for residential development must be appropriate and available for residential use in the planning period and can include vacant sites and sites with the potential for redevelopment.¹¹ Combined, these sites must provide enough potential for housing development in order to cover the RHNA allocation of 517 housing units assigned to the City. AB 686 requires each site to be analyzed for consistency with fair housing goals and AB 1397 requires each site be assessed for its realistic development capacity.

To ensure sufficient capacity is available to meet the RHNA allocation for the Housing Element planning period, the HCD recommends the cities allocate at least 15 to 30 percent additional units in capacity than the required inventory stipulated by the RHNA allocation. Consistent with this recommendation, four potential candidate housing inventory sites (Housing Site) have been identified in the 2021-2029 Housing Element with a residential

11 California Department of Housing and Community Development. Inventory of Suitable Land. <https://www.hcd.ca.gov/community-development/building-blocks/site-inventory-analysis/inventory-of-land-suitable.shtml>. Accessed March 17, 2021.



development capacity to accommodate up to 724 units, as illustrated by *Figure 3-Inventory Site Map*. Details for each inventory site can be found in *Table 1- Housing Site Inventory*.

Table 1 Potential Candidate Housing Inventory Sites

Site Name	Site Size (Acres)	Dwelling Units/ Acre (du/a)	Affordability Level	Maximum Number of Units
Orange Bluff	9.2	32	Very Low, Low, Moderate	295
Walnut Bluff	2.0	45	Very Low, Low	90
Town Center Northwest	8.3	32.2	Above Moderate	267
Heritage Square	8.8	8.2	Above Moderate	72

A brief description of each Housing Site is provided below. For General Plan designations at each Housing Site please refer to *Figure 4- General Plan Designation Map*. For existing zoning, please refer to *Figure 5- Zoning Map*.

Walnut Bluff

Walnut Bluff is located north of E. Willow Street at 2653 Walnut Avenue, Signal Hill, CA 90755 (Assessor Parcel Number [APN]# 7212-010-038). The site is located in the Central neighborhood of the City and has approximately 2 acres identified for potential residential development. The rectangular site borders other commercial development to the east and north, with Walnut Avenue to the east of the site and Willow Street to the south of the site. The site is approximately 2 acres in size. There are currently four active oil and gas wells, three abandoned wells, and limited vegetation.

The existing zoning for the site is Commercial Industrial (CI). The General Plan designation is 3.4, Commercial Industrial. Designation of the site to accommodate housing will require a zoning ordinance amendment to a Special Purpose Housing (SP-7) Specific Plan, and a General Plan amendment to Very High Density Residential (35-45 dwelling units per acre). This is the standard zoning and density used by the City for affordable housing projects.

Heritage Square

Heritage Square is located near the City center in the Civic Center neighborhood, northwest of the intersection of Cherry Avenue and E. Burnett Street. North of the site is E. Crescent Heights Street and west of the site is Rose Avenue (APN #:7214-005-900 through 904; 7214-005-010, 011; 7214-006-019, 20, 014, 015). The Crescent Heights Historic District Residential Specific Plan is directly adjacent to the west. The existing condition on site contains a commercial retail use (local grocer). This site is approximately 8.8 acres in size. There are four active oil and gas wells, six abandoned wells, and limited vegetation.



The existing zoning for the site is Commercial Town Center (CTC), and Crescent Heights Historic District (SP-11) Specific Plan. The General Plan designation is 3.1, Town Center and 1.1, Low Density Residential. The Land Use Element of the General Plan calls for the area to be re-designated and established as a Central Business District (CBD). Designation of the site to accommodate housing will require a zoning ordinance amendment to the Heritage Square (SP-23) Specific Plan to allow a mixed-use commercial and residential project and a General Plan amendment to CBD.

Town Center Northwest

Town Center Northwest is located northeast of the intersection of E. Willow Street and Walnut Avenue (APN #: 7212-011-034) in the Central neighborhood. South and east of the site are developed commercial retail centers named Town Center West and Town Center North. To the north there are light industrial sites. The site is approximately 8.3 acres in size. There is one injection wells on site with approximately eight active oil and gas wells approximately ten abandoned wells outside of the drill site area, and limited vegetation. The area outside of the fenced drill site is currently used for storage of oil field related equipment.

The existing zoning for the site is Commercial Corridor Specific Plan (SP-6). The General Plan designation is 3.1, Town Center. Designation of the site to accommodate housing will require a zoning ordinance amendment to a Town Center Northwest (SP-21) Specific Plan to allow a mixed-use commercial and residential project and a General Plan amendment to CBD.

Orange Bluff

Orange Bluff is located in the Central neighborhood adjacent to the City boundary south of East 28th Street between Orange Avenue and, extending just south of where East 27th Street dead ends into the property from the east (APN #s: 7212-008-049, 051, and 7212-010-010, 19, and 020). Development north and east of the site are mostly commercial office and light industrial sites, with a few intermittent vacant sites. The site is approximately 9.2 acres in size. The existing site is mostly vacant; however, the center of the site is developed with a light industrial building. There are eleven active wells and ten abandoned wells. Scattered about the site are remnants of previous developments including foundations, and paved areas, with limited vegetation.

The existing zoning for the site is General Industrial (GI). The General Plan designation is 4.2, General Industrial. Designation of the site to accommodate housing will require a Zoning Ordinance Amendment to rezone the site to the Special Purpose Housing (SP-7) Specific Plan designation. A General Plan Amendment to Very High Density Residential designation will also be required.

Housing Goals, Objectives and Programs

The Housing Element includes the identification of goals and formulates the approach, including objectives, policies, and implementation programs to achieve the identified goals. The approaches aim to create sustainable mixed-use and mixed-income neighborhoods across



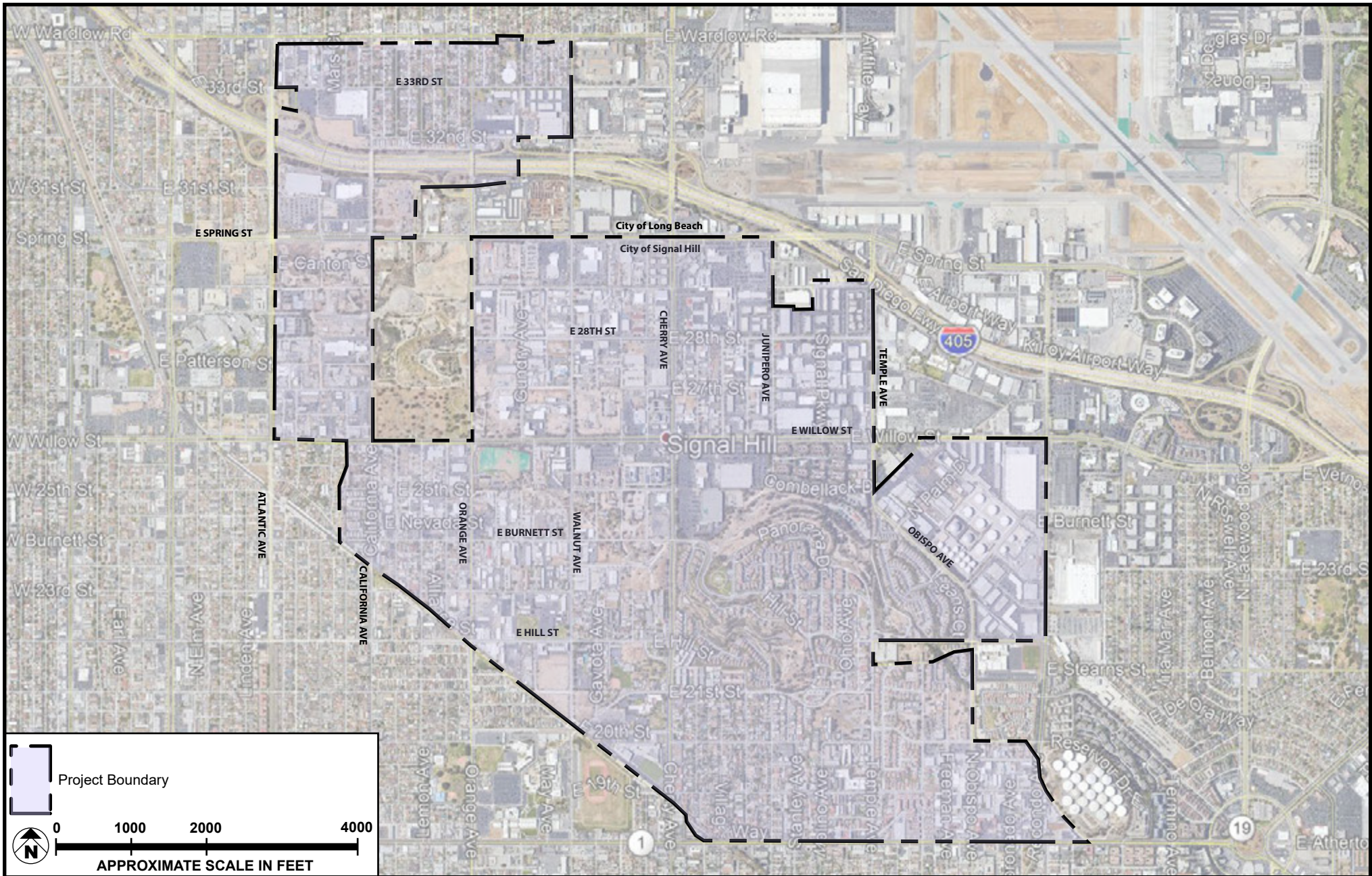
the City and to provide additional opportunities for housing, jobs, and basic amenities for all segments of the population. The goals, objectives, policies, and implementation programs comply with State laws and requirements while promoting local resources.

Required City Approval

- Approval of the 2021-2029 Housing Element
- Approval of a General Plan Amendment to change the land uses designations for the Housing Sites as described below:
 - **Walnut Bluff**
 - Proposed General Plan Designation: Very High Density Residential
 - **Heritage Square**
 - Proposed General Plan Designation: Central Business District (CBD)
 - **Orange Bluff**
 - Proposed General Plan Designation: Very High Density Residential
- Approval of Zone Changes for the Housing Sites as described below:
 - **Walnut Bluff**
 - Proposed Rezoning: Special Purpose Housing (SP-7) Specific Plan
 - **Heritage Square**
 - Proposed Rezoning: Central Business District Specific Plan
 - **Town Center Northwest**
 - Proposed Rezoning: Town Center Northwest (SP-21) Specific Plan
 - **Orange Bluff**
 - Proposed Rezoning: Special Purpose Housing (SP-7) Specific Plan

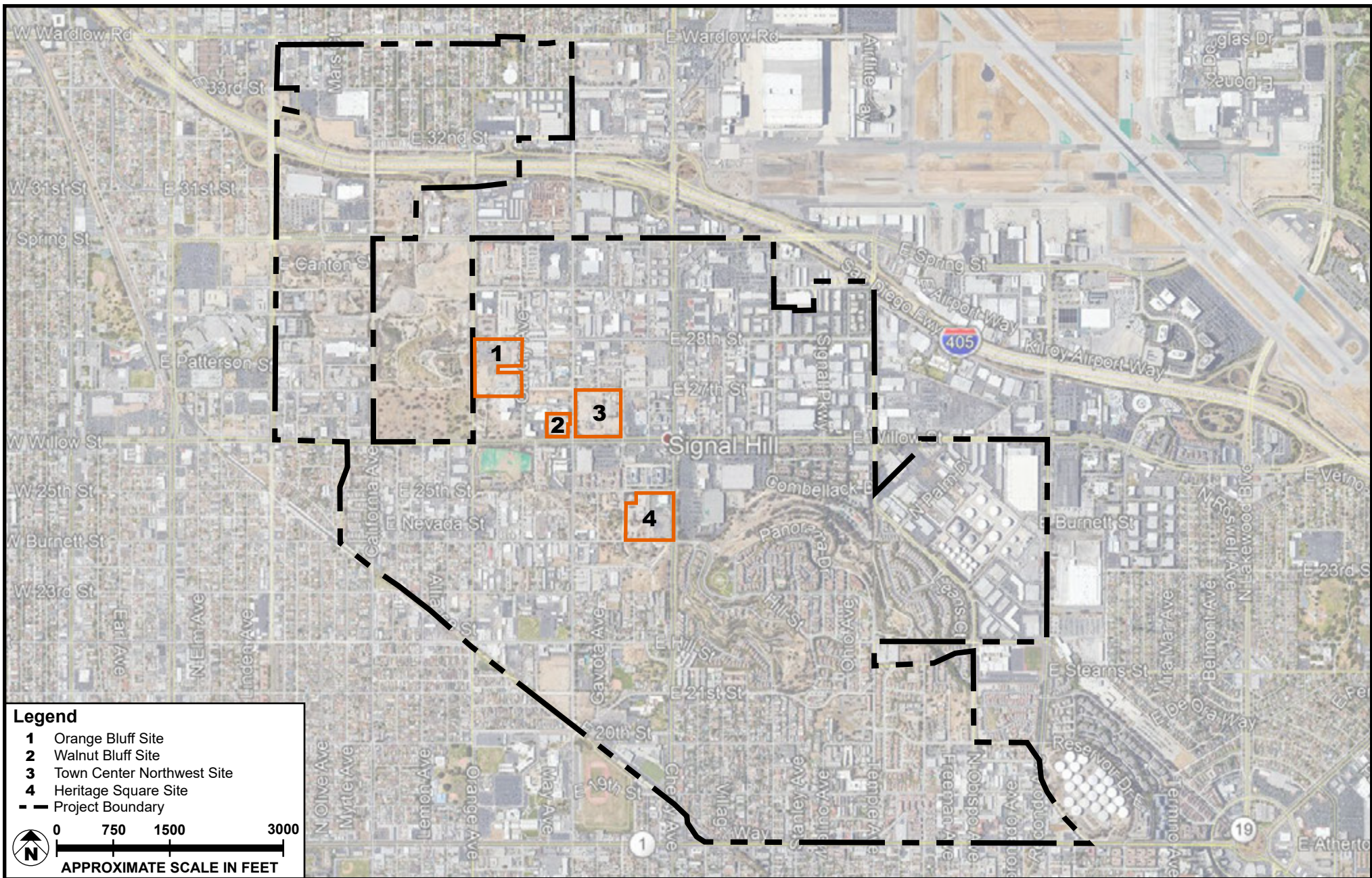
Other Agencies

- State Department of Housing and Community Development: Review of the draft 2021-2029 Housing Element Update to determine compliance with State law and submittal of written findings to the City.



SOURCE: Google Earth - 2021

FIGURE 2



SOURCE: Google Earth - 2021

FIGURE 3

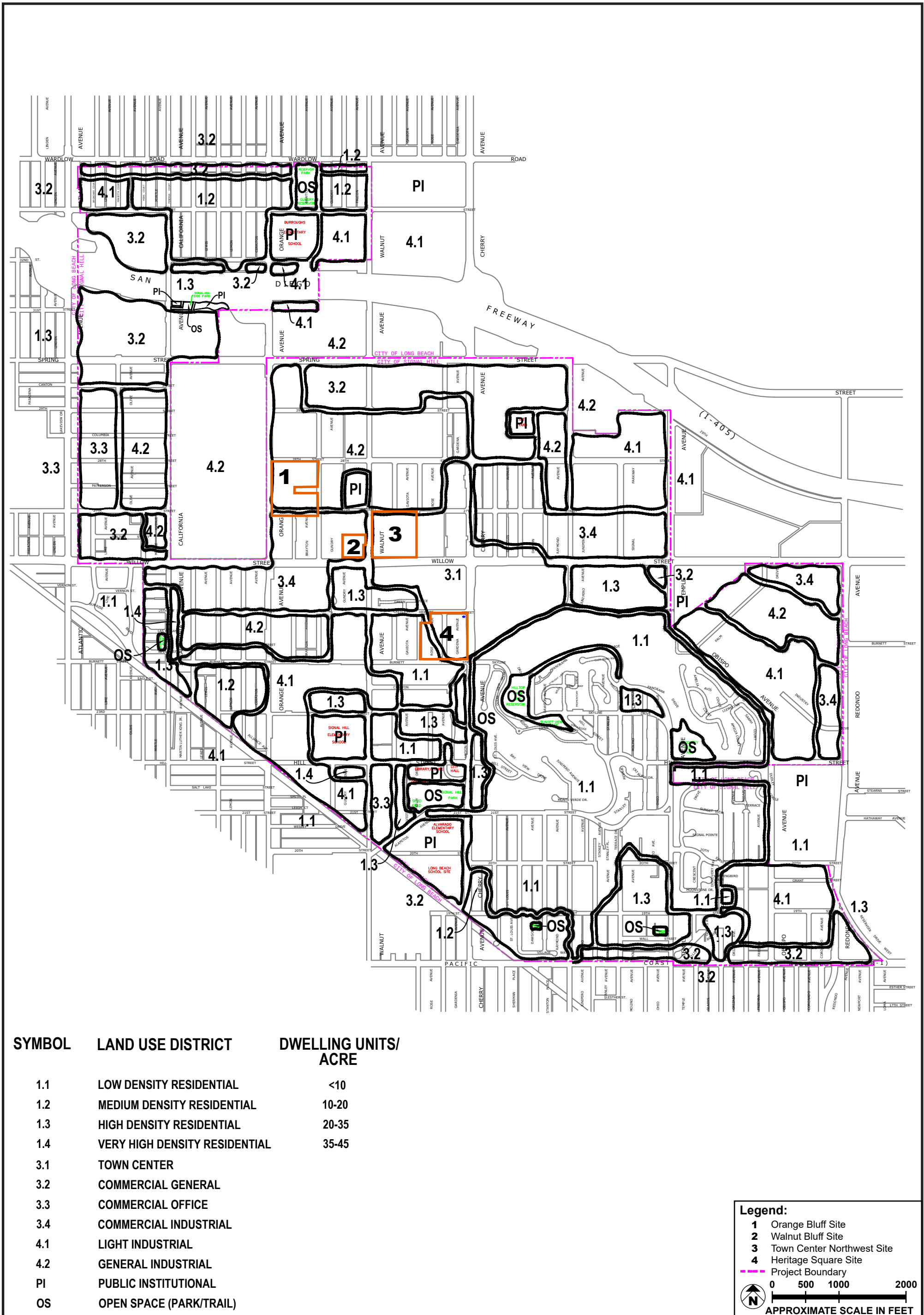
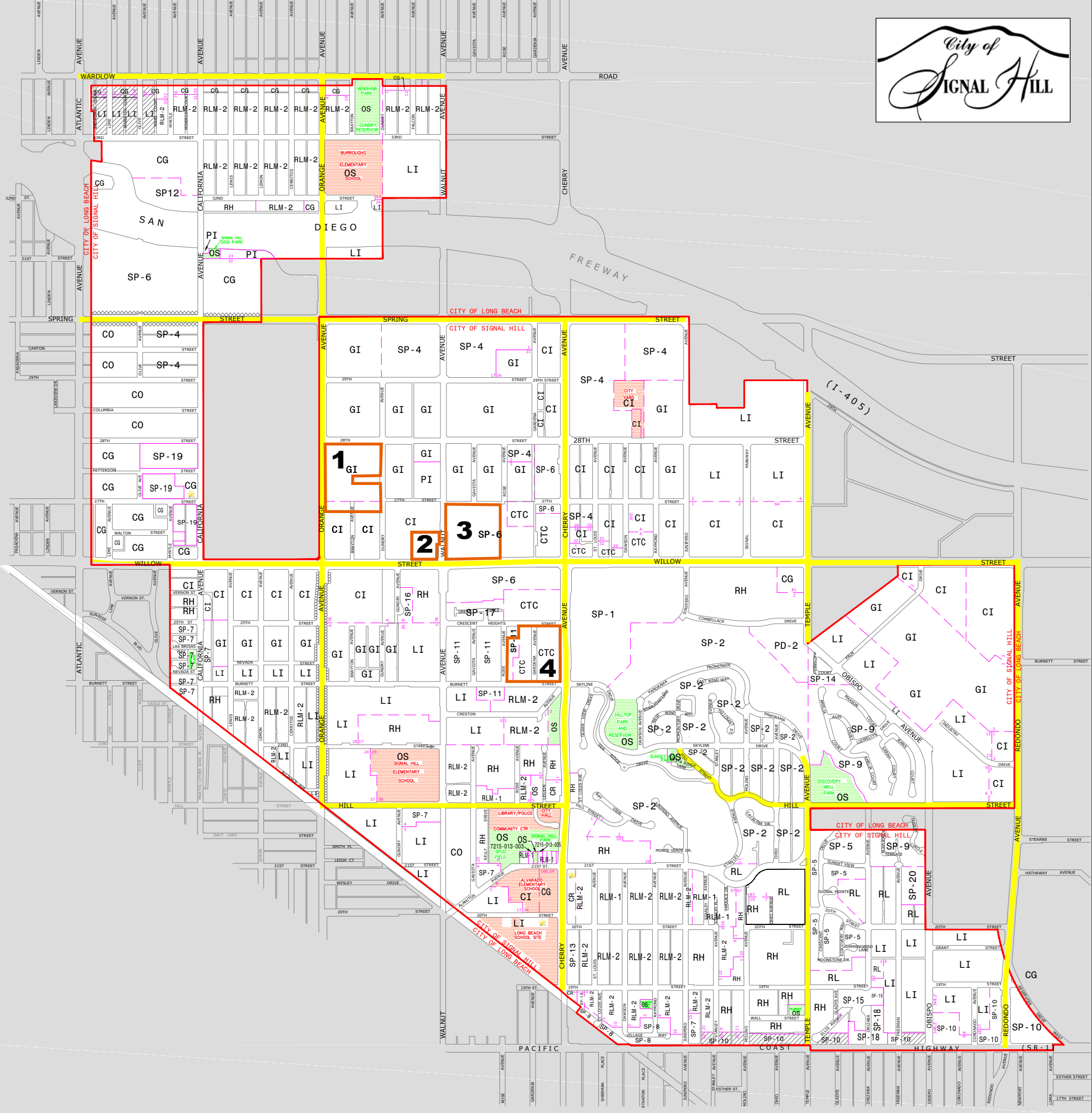


FIGURE 4



Legend:

- 1 Orange Bluff Site
- 2 Walnut Bluff Site
- 3 Town Center Northwest Site
- 4 Heritage Square Site
- Project Boundary

APPROXIMATE SCALE IN FEET

COMMERCIAL	
SYMBOL	DISTRICT
CO	COMMERCIAL OFFICE
CTC	COMMERCIAL TOWN CENTER
CG	COMMERCIAL GENERAL
CI	COMMERCIAL INDUSTRIAL
LI	LIGHT INDUSTRIAL
GI	GENERAL INDUSTRIAL
SP-1	TOWN CENTER SPECIFIC PLAN
SP-4	AUTO CENTER SPECIFIC PLAN
SP-6	COMMERCIAL CORRIDOR SPECIFIC PLAN
SP-10	PACIFIC COAST HWY. SPECIFIC PLAN
SP-12	FREEWAY SELF-STORAGE SPECIFIC PLAN
SP-19	GENERAL INDUSTRIAL SPECIFIC PLAN
	DENOTES MODIFIED SETBACK REQUIREMENTS; REFER TO MUNICIPAL CODE "EXCEPTION"
	DENOTES ORANGE AVENUE LANDSCAPE - OVERLAY DISTRICT
	DENOTES CHURCH/RELIGIOUS BUILDING

RESIDENTIAL	
SYMBOL	DISTRICT
RL	RESIDENTIAL LOW DENSITY
RLM-1	RESIDENTIAL LOW/MEDIUM-1
RLM-2	RESIDENTIAL LOW/MEDIUM-2
RH	RESIDENTIAL HIGH DENSITY
PD-2	PLANNED DEVELOP DISTRICT-2
OS	OPEN SPACE
CR	COMMERCIAL RESIDENTIAL
SP-2	HILLTOP AREA SPECIFIC PLAN
SP-5	CALIFORNIA CROWN SPECIFIC PLAN
SP-7	SPECIAL PURPOSE HOUSING S.P.
SP-8	SIGNAL HILL VILLAGE S.P.
SP-9	BIXBY RIDGE SPECIFIC PLAN
SP-11	CRESCENT HEIGHTS HISTORIC DISTRICT SPECIFIC PLAN
SP-13	CHERRY AVE. CORRIDOR RESIDENTIAL SPECIFIC PLAN
SP-14	HATHAWAY RIDGE RESIDENTIAL SPECIFIC PLAN
SP-15	CITYVIEW RESIDENTIAL SPECIFIC PLAN
SP-16	VILLAGIO SPECIFIC PLAN
SP-17	CRESCENT SQUARE RESIDENTIAL SPECIFIC PLAN
SP-18	PACIFIC WALK RESIDENTIAL SPECIFIC PLAN
SP-20	FREEMAN HEIGHTS SPECIFIC PLAN

SOURCE: Signal Hill City Maps, Zoning Map - 2014

FIGURE 5



SECTION B. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|--|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture & Forestry Resources | <input checked="" type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input checked="" type="checkbox"/> Energy |
| <input checked="" type="checkbox"/> Geology/Soils | <input checked="" type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Hazards & Hazardous Materials |
| <input type="checkbox"/> Hydrology/Water Quality | <input checked="" type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources |
| <input checked="" type="checkbox"/> Noise | <input checked="" type="checkbox"/> Population/Housing | <input checked="" type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input checked="" type="checkbox"/> Transportation/Traffic | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Wildfire | <input type="checkbox"/> Mandatory Findings of Significance |

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 project. To each question, there are four possible responses:

- **No Impact.** The project would not have any measurable environmental impact on the environment.
- **Less Than Significant Impact.** The project would have the potential for impacting the environment, although this impact would be below established thresholds that are considered to be significant.
- **Less Than Significant Impact With Measures Incorporated.** The project would have the potential to generate impacts which may be considered a significant effect on the environment, although 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 project would have impacts which are considered significant, and additional analysis is required to identify measures that could reduce these impacts to less than significant levels.



SECTION C. DETERMINATION

(To be completed by the Lead Agency)

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact 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. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Colleen Doan

5/12/2021

Signature

Date



SECTION D. EVALUATION OF ENVIRONMENTAL IMPACTS

I. Aesthetics

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
AESTHETICS:				
<i>Except as provided in Public Resources Code Section 21099, would the project:</i>				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a) *Except as provided in Public Resources Code Section 21099, would the project have a substantial adverse effect on a scenic vista?*

Less Than Significant Impact. For the purposes of determining significance under the California Environmental Quality Act (CEQA), Public Resources Code (PRC) Section 21099 defines “Infill Site” as a lot located within an urban area that has been previously developed, or on a vacant site where at least 75 percent of the perimeter of the site adjoins or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses. PRC Section 21099 further states under (d)(1) that aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment.¹²

All 4 identified Housing Sites are located at infill sites as defined under Section 21099 as at least 75 percent of the perimeter of the Housing Sites adjoin or is separated only by an improved public right-of-way from parcels that are developed with qualified urban uses. Additionally, all 4 Housing Sites are located in areas identified as Transit Priority Areas (TPA) based on the SCAG 2045 TPAs for plan year 2045, developed for the SCAG 2020-2045 Regional Transportation Plan/Sustainable

¹² Public Resources Code Section 21099.



Communities Strategy (RTP/SCS).¹³ Based on the location of the Housing Sites, development of these sites would be less than significant to scenic vista.

Furthermore, under CEQA, a scenic vista is considered a publicly accessible, prominent vantage point that provides expansive views of highly valued landscapes or prominent visual elements comprising man-made or natural features. The General Plan Land Use Element states that views from the Hilltop Park “must be preserved for the benefit of the community and the general public.”¹⁴ Further, Environmental Resources Element Policy 1.1, states that the City will “protect views both to and from the Hill and other scenic features.”¹⁵ The City’s View Protection Policy also identifies other unique visual landmarks from the Hill such as the ocean, Long Beach skyline, the Queen Mary, the Palos Verdes peninsula, Los Angeles, and the San Gabriel/Santa Ana mountains.

Development would have the potential to affect scenic vistas if new or intensified development obstructs the visibility of unique visual landmarks and scenic vistas. The anticipated housing development at the 4 identified Housing Sites would be comparable in height to its surrounding developments. Walnut Creek and Orange Bluff Housing Sites would both be rezoned to SP-7, Special purpose Housing Specific Plan, allowing no more than two stories at each site. Similarly, Town Center Northwest would be rezoned to SP-6, Commercial Corridor Specific Plan, also allowing for no more than 2 stories or forty-five feet in height, whichever is less. The limitation of these sites to no more than 2 stories would be comparable in height to existing surroundings and views available from streets and other viewpoints would not be obstructed. Lastly, Heritage square will be rezoned to SP-11, Crescent Heights Historic District Specific Plan which requires new developments to conform to the historic character of the area. Future proposed developments will also be reviewed by the City and be presented to the Planning Commission for review to ensure character, scale, and massing of the proposed structures would be comparable to the existing environment of the surrounding area. As such, build out of the Housing Sites would not have an adverse effect on views from the top of Signal Hill or from other vantage points toward the identified visual landmarks. Impacts to scenic vistas would be a less than significant.

b) Except as provided in Public Resources Code Section 21099, would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

Less Than Significant Impact. As previously discussed, the 4 Housing Sites are considered infill sites within areas identified as TPAs as provided for in PRC Section 21099. Furthermore, there are no State scenic highways in or near the City of Signal Hill. The closest officially designated State scenic highway is the Arroyo Seco Historic Parkway, between mileposts 25.7 and 31.9 in Los Angeles which is approximately 23 miles north of the City. The distance between the City and the officially designated scenic highways indicate that the developed Housing Sites would not be visible from a State scenic highway. As such, the proposed Housing Site build out would not substantially damage any scenic resources within a State scenic highway and the impacts to scenic resources would be less than significant.

13 SCAG. 2045 Transit Priority Areas (TPAs) - SCAG Region.

https://hub.arcgis.com/datasets/c6b4717526c247528d868c2fc046894d_3?geometry=-118.319%2C33.775%2C-118.102%2C33.825. Accessed May 2021.

14 City of Signal Hill, 2001. General Plan Land - Use Element.

15 City of Signal Hill, 1986. General Plan - Environmental Resources Element.



- c) *Except as provided in Public Resources Code Section 21099, would the project, 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.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?***

Less Than Significant Impact. As previously discussed, the 4 Housing Sites are considered infill sites within areas identified as TPAs as provided for in PRC Section 21099. Furthermore, the City is located in an urbanized area, where there is a variety of nonresidential and residential land uses and extensive urban infrastructure improvements. For purposes of determining impact significance for projects within urbanized areas, a project is evaluated for whether it would conflict with applicable zoning or other regulations governing “scenic quality.” The term “scenic quality” is not specifically defined in the threshold language of Appendix G of the CEQA Guidelines; however, for assessment of impacts involving changes in visual character and quality, this is interpreted as pertaining to zoning standards involving building height and bulk, design character, landscape elements, and consistency with scale, massing and character of surrounding development.

The Walnut Bluff Housing Site is zoned CI. The General Plan designation is Commercial Industrial. A zone change to Special Purpose Housing (SP-7) Specific Plan, and a General Plan amendment to Very High Density Residential (35-45 dwelling units per acre) is proposed. The Heritage Square Housing Site existing zoning is CTC, and Crescent Heights Historic District (SP-11) Specific Plan. The General Plan designation is Town Center. The Land Use Element of the General Plan calls for the area to be re-designated and established as a Central Business District (CBD). The Town Center Northwest Housing Site existing zoning is Commercial Corridor Specific Plan (SP-6). The General Plan designation is Town Center. Designation of the site to accommodate housing will require a zoning ordinance amendment to a Town Center Northwest (SP-21) Specific Plan. The Orange Bluff existing zoning is CI. The General Plan designation is Commercial Industrial. Designation of the site to accommodate housing will require a Zoning Ordinance Amendment to rezone the site to the Special Purpose Housing (SP-7) Specific Plan designation. As mentioned previously, building heights after rezoning at Walnut Bluff, Orange Bluff, and Town Center Northwest will be limited to 2 stories or heights comparable to existing surrounding development. Heritage Square will be rezoned under Crescent Heights Historic District, which will continue to maintain the historic nature of the neighborhood and its surroundings.

The 4 Housing Sites are considered infill sites within areas identified as TPAs as provided for in PRC Section 21099 which would mean the development impacts to aesthetic resources are less than significant under CEQA. Additionally, the Housing Sites would be rezoned for the appropriate anticipated housing development in the future to allow for housing development. Therefore, there would be a less than significant impact regarding conflicts with applicable zoning and other regulations governing scenic quality.

- d) *Except as provided in Public Resources Code Section 21099, 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. As previously discussed, the 4 Housing Sites are considered infill sites within areas identified as TPAs as provided for in PRC Section 21099. As such, implementation



of the Housing Sites would not be considered significant under CEQA. Additionally, the adoption of the 2021-2029 Housing Element would not introduce any additional light or glare as the project does not directly approve development of any kind. However, future development of the identified Housing Sites is anticipated and potential light and glare effects of each site are analyzed below.

The Walnut Bluff site is vacant aside from four oil or gas wells on site and limited vegetation. The Heritage Square site is mostly vacant with some retail commercial and light industrial buildings and limited vegetation on site. The Town Center Northwest site contains oil wells, light industrial structures, and limited vegetation. The Orange Bluff site is mostly vacant, remnants of previous development including foundations and paved areas, and limited vegetation. Existing outdoor lighting exists at each of the Housing Sites for security and decorative purposes. These areas are highly urbanized and, therefore, already provides night lighting from streetlights along Orange Avenue and Willow Street; general industrial and commercial industrial uses to the north, east and south of the project vicinity; vehicle headlights on surrounding streets; traffic lights at the intersection of Orange Avenue and Willow Street. Additional existing lighting includes exterior lighting on nearby structures and parking lot lighting.

Subsequent construction of housing on the Housing Sites would require lighting, which would include nighttime security lighting and general lighting associated with residential development within and outside of the construction areas. Lighting fixtures would be aimed downwards and hooded to minimize glare. Lighting sources generated by the construction of the Housing Sites would be similar to and consistent with the surrounding uses in the area and would not adversely affect day or nighttime views.

Individual housing projects developed on each Housing Site would include lighting wall-mounted security lighting angled downward, as well as upward-and downward-facing accent lighting within the interior of the site, such as downward lighting under the canopies at the building entrances and upward-facing, wall-mounted, decorative lighting on building exteriors. In short, the Housing Sites would provide illumination for safe usage and night lighting accents, which would not spill across the site boundaries, as is required by the Cal Green Building Standards Code 5.106.8, Light Pollution Reduction (incorporated into the Signal Hill Municipal Code, as described in Chapter 15.10).¹⁶ Regarding glare, the proposed building elevations at Housing Sites would be constructed with nonreflecting glazing to the extent feasible and building design would be reviewed by the City and proceed through plan check prior to project approval. As such, the proposed project would not result in a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

¹⁶ Cal Green Building Standards Code 5.106.8, Light Pollution Reduction



II. Agriculture and Forestry Resources

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
AGRICULTURE AND FORESTRY RESOURCES:				
<i>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 Dept. 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:</i>				
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 nonagricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- 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 nonagricultural use?**

No Impact. The City does not contain areas of Prime Farmland, Unique Farmland, Farmland of Statewide Importance, Farmland of Local Importance, Farmland of Local Potential, or Grazing Land as identified by the California Department of Conservation's (2016) California Important Farmland Finder.¹⁷ The Housing Sites are classified as Other land type, which is described on the Important Farmland Finder as land that is not included in any of the other mapping categories. Since the City does not contain farmland and the proposed project would not convert designated farmland to nonagricultural uses, the proposed project would have no impact on Prime Farmland, Unique

¹⁷ California Department of Conservation. 2016a. California Important Farmland Finder. Accessed April 2021. <https://maps.conservation.ca.gov/dlrp/ciff/>.



Farmland, or Farmland of Statewide Importance.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The City limit does not contain land areas encumbered by a Williamson Act contract.¹⁸ The identified Housing Sites, Walnut Bluff, Heritage Square, Town Center Northwest, and Orange Bluff are zoned as CI, CTC, Commercial Corridor Specific Plan (SP-6) and Commercial Industrial, respectively. Therefore, the proposed project is not subject to the provisions of a Williamson Act contract and does not contain zoning for agricultural use, no impact would occur.

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. The City does not contain existing forest land, timberland, or timberland zoned timberland production.¹⁹ As discussed under response to threshold b) above, Housing Sites are zoned as CI, SP-7, CTC, and SP-6. Therefore, implementation of the proposed project would not conflict with the existing zoning for, or cause rezoning of, forestland, timberland, or timberland zoned Timberland Production. No impact would occur.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. As previously discussed, the City does not contain forest land and is composed largely of highly developed urban communities and highly disturbed sites. Several vacant sites exist within the City limits but contain limited vegetation. There is no substantial concentration of trees within the City limits which would constitute a forest. The City does not contain lands managed as timberland or were managed to produce forest products. There would be no loss of forestland or conversion of forestland; therefore, no impact would occur.

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 nonagricultural use or conversion of forest land to non-forest use?

No Impact. As previously discussed, the City limits does not contain Farmland or forest land. The identified Housing Sites are mostly vacant aside from four oil or gas wells on site (on Walnut Bluff and Town Center Northwest) and limited vegetation. Surrounding land uses of individual Housing Sites include a combination of commercial, light industrial, multifamily and single-family residential uses. There are currently no agricultural operations being conducted on, or zoned for agricultural uses within the City. In addition, no forestland is located within the City or in its vicinity.²⁰ Thus, no farmland or forestland would be converted to other uses by developing the Housing Sites, and no impact would occur.

18 California Department of Conservation. 2016a. California Important Farmland Finder. Accessed April 2021. <https://maps.conservation.ca.gov/dlrp/ciff/>.

19 City of Signal Hill, Official Zoning Map. Accessed April 2021. <https://www.cityofsignalhill.org/DocumentCenter/View/2090/Zoning-Map-2015-MAP-12-15?bidId=>

20 City of Signal Hill, Official Zoning Map. Accessed April 2021. <https://www.cityofsignalhill.org/DocumentCenter/View/2090/Zoning-Map-2015-MAP-12-15?bidId=>



III. Air Quality

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
AIR QUALITY:				
<i>Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:</i>				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Potentially Significant Impact. Signal Hill is located in the South Coast Air Basin (SCAB), an area stretching from the Pacific Ocean on the west to the San Gabriel, San Bernardino, and San Jacinto Mountains on the north and east. The southern boundary follows the San Diego and Imperial County lines. It includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The air basin is in the jurisdiction of the South Coast Air Quality Management District (SCAQMD), which adopted its 2016 Air Quality Management Plan (AQMP) in March 2017. The purpose of the AQMP is to identify strategies to achieve and maintain all federal and State air quality standards for a variety of criteria air pollutants, to achieve these standards by the application of all reasonably available control measures by the earliest date achievable, and to achieve and maintain the State ambient air quality standards for ozone, carbon monoxide, sulfur dioxide, and nitrogen dioxide by the earliest practicable dates. Mobile sources comprise approximately 88 percent of all air pollutants generated in the region. The most significant challenge in the SCAB is to reduce regional nitrogen oxide (NOx) emissions sufficiently to achieve upcoming ozone attainment deadlines. Since NOx emissions lead to formation of small particulate matter (PM2.5), the NOx reductions needed to attain ozone standards will likewise lead to reductions in PM2.5 levels and attainment of PM2.5 standards. In the 2016 AQMP, the overall control strategy is an integral approach relying on fair-share emissions reductions at the federal, state, and local levels. This will include mobile and stationary source reductions from traditional regulatory controls, incentive-based programs, cobenefits from climate change programs, mobile source strategies, and reductions from federal sources, including aircraft, locomotives, and oceangoing vessels.

The AQMP is regularly updated to incorporate emissions forecasts based on regional growth forecasts. New land development projects are assessed for consistency with the AQMP based on two main



criteria: consistency with the adopted growth forecast and whether the project would generate levels of criteria pollutants that could jeopardize attainment of the region's air pollution reduction goals.

The proposed Project would not directly generate new emissions of criteria air pollutants since the adoption of the 2021-2029 Housing Element would not directly approve any individual housing projects. However, future development of the Housing Sites is anticipated. Development of identified Housing Sites would generate new emissions of criteria air pollutants during construction and over the long-term operating life of the project, including gaseous compounds and particulate matter. Further analysis is required to quantify these air pollutant emissions, compare these emission levels to the thresholds established by the SCAQMD for review under CEQA, and to assess the project's consistency with the 2016 AQMP.

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard?

Potentially Significant Impact. The SCAB is currently in nonattainment status with respect to federal and State air quality standards for ozone and PM_{2.5}. The Los Angeles County portion of the basin is nonattainment for the federal lead standard. However, levels have been below the lead standard for the last several years, and the SCAQMD will request that the US Environmental Protection Agency re-designate the Los Angeles County area as in attainment.

The proposed Project would not directly generate new emissions of criteria air pollutants since the adoption of the 2021-2029 Housing Element directly approve any individual housing projects. However, future development of the Housing Sites is anticipated. Subsequent development of the identified Housing Sites would generate new emissions of criteria air pollutants during construction and over the long-term operating life of the project, including gaseous compounds and particulate matter. Further analysis is required to quantify the Housing Site development's air pollutant emission and to compare those pollutant levels to the regional thresholds for ozone and PM_{2.5} established by the SCAQMD for review under CEQA, which are the indicators as to whether the project could generate a cumulatively considerable increase in emissions of those nonattainment pollutants.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Potentially Significant Impact. Development of the identified Housing Sites may result in new homes being located near operating oil wells, which may expose future residents to certain pollutants, such as volatile organic compounds, that may be generated by the active oil well. Nearby residential uses and other sensitive receptors would be exposed to air pollutants generated at the Housing Sites during construction and over the long term operation of the Housing Sites by exhaust generated by the vehicles of residents, workers, and visitors. Further analysis is required to quantify local emissions from construction activities and from the long-term operating conditions of the completed project to determine whether project-related emissions could expose sensitive receptors on- or off-site to substantial pollutant concentrations.



d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Potentially Significant Impact. Adoption of the 2021-2019 Housing Element would not directly result in emissions and odors which may adversely affect a substantial number of people since no development would be approved through the adoption of the 2021-2029 Housing Element. Subsequent development of the Housing Sites may result in other emissions, including odors, during the construction or operation duration of the future developments.

Subsequent construction on the Housing Sites could potentially produce odors. Project-related factors to be used in a case-by-case evaluation of significance include the following:

- ***Combustion emissions from construction equipment***
 - Type, number of pieces and usage for each type of construction equipment;
 - Estimated fuel usage and type of fuel (diesel, natural gas) for each type of equipment; and
 - Emission factors for each type of equipment.
- ***Fugitive Dust – Grading and Excavation***
 - Amount of soil to be disturbed on site or moved off site;
 - Emission factors for disturbed soil;
 - Duration of grading and excavation activities; and
 - Type and number of pieces of equipment to be used.
- ***Fugitive Dust – Heavy-Duty Equipment Travel on Unpaved Roads***
 - Length and type of road;
 - Type, number of pieces, weight and usage of equipment; and
 - Type of soil.
- ***Other Mobile Source Emissions***
 - Number and average length of construction worker trips to the Project site, per day; and
 - Duration of construction activities.

Additional analysis would consider the factors that are applicable to the development of the Housing Sites based on odor sources included above. Based on these or other factors, additional analysis would determine if development activities may create a significant odiferous impact, it is recommended that the lead agency consider mitigation measures. These mitigation measures would focus on odor control and/or prevention, as well as minimizing worker and public exposure.

The proposed residential uses for the Housing Sites would not include any significant odor sources during operation, as activities that could generate odors such as cooking or interior maintenance would occur indoors and would not consist of significant malodorous emissions. Trash storage facilities would be enclosed so that refuse materials would not be exposed to air or rain that could result in objectionable odor emissions. The proposed new land uses would not result in significant odor impacts.

If any oil wells remain on the any of the Housing Sites, odors may be generated with normal daily operations, and if so, those odors may be objectionable for residents of the new homes developed on site. Further analysis is required to determine whether the operating oil well on-site would generate periodic odors that could be objectionable or harmful to the new on-site residents and to identify appropriate odor control measures, if warranted.



IV. Biological Resources

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
BIOLOGICAL RESOURCES:				
<i>Would the project:</i>				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- 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?***

Less than Significant Impact. The City of Signal Hill General Plan Environmental Resources Element (1986) states that no species of plant or wildlife currently designated as rare or threatened has been located or is expected to occur within the city. While the Environmental Resources Element



was published in 1986, this statement is still relevant, as no known habitat has been disturbed or removed in the last 30 years by the conversion of undeveloped land and oil fields and associated oil refinery and production land uses to urban development. Therefore, since the proposed project would not eliminate any native wildlife habitat or sensitive plant communities and would not affect any important habitat linkages that could support sensitive species, the project would not result in a substantial adverse effect on any candidate, sensitive, or special-status species.

Adoption of the 2021-2029 Housing Element would not approve any developments. The identified Housing Sites are highly disturbed sites containing scattered ruderal vegetation and ornamental trees. There are no native plant communities or any natural or man-made water features within or near the four project sites. The lands surrounding these sites are developed with streets, light industrial, educational, residential, and commercial uses, which have disturbed and replaced natural habitat. For these reasons, impacts would be less than significant.

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 US Fish and Wildlife Service?*

No Impact. The General Plan Environmental Resources Element (1986) does not identify any sensitive natural communities on or within the vicinity of the Housing Sites. There are no rivers or streams and no riparian habitat or any other kind of sensitive natural community in or within the immediate vicinity of the identified Housing Sites. The Housing Sites are characterized by barren ground surfaces, oil wells, pipelines, and related devices associated with a soil vapor removal system, scattered ruderal vegetation, and a few ornamental trees that primarily line the perimeter. For these reasons, anticipated future development would have no impact on riparian habitat or sensitive natural habitat.

c) *Would the project have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

No Impact. Wetlands are defined by Section 404 of the federal Clean Water Act as land that is flooded or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that normally does support, a prevalence of vegetation adapted to life in saturated soils. Wetlands include areas such as swamps, marshes, and bogs. There is no wetland habitat on or in the immediate vicinity of the identified Housing Sites. The US Fish and Wildlife Service's (2018) National Wetland Inventory shows that the nearest wetland habitat occurs along the Los Angeles River, approximately 4 miles south of the Walnut Bluff, Heritage Square, and Town Center Northwest Housing Sites, and approximately 9 miles south of the Orange Bluff site. Accordingly, the anticipated housing development would have no impact on wetlands.

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. The Housing Sites have been disturbed by past oil extraction activities, and the surrounding area is fully urbanized, dominated by buildings and other structures, pavement, and



ornamental vegetation such as turf grass, trees, and shrubs. There are no forms of natural wildlife habitat, no rivers, lakes or streams, and no native wildlife nursery sites in this area. The highly disturbed local landscape does not provide suitable habitat to support native resident or migratory fish or wildlife movement. While there are ornamental trees within the existing parking lot, those trees would be replaced by additional trees as part of the proposed landscape plan. As such, anticipated future development at each Housing Site would not remove any valuable biological habitat that currently supports movement of fish or wildlife, nor would it inhibit, disturb, or alter the existing patterns of wildlife movement that occur elsewhere. Therefore, the proposed project would have a less than significant impact on movement of wildlife species.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The City of Signal Hill does have a street tree ordinance which establishes standards for the planting, removal, replacement, and maintenance of all City street trees in accordance with tree species recommendations contained in the Street Tree Master Plan.²¹ The e Housing Sites does not contain any public right of way and would not impact any street trees. Additionally, the Housing Sites are not located within a habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan. Therefore, anticipated future development at identified Housing Sites would not conflict with any City of Signal Hill regulations protecting biological resources, nor would the project conflict with any adopted habitat conservation plans. For these reasons, the proposed project would have no impact.

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 City of Signal Hill does not have any existing conservation plans protecting biological resources. No portions of the City are located within a habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan. Therefore, anticipated future residential development of the Housing Sites would not conflict with any City of Signal Hill regulations protecting biological resources, nor would the future developments conflict with any adopted habitat conservation plans. As such, the proposed Project would have no impacts regarding conflict with provisions of adopted conservation plans.

21 City of Signal Hill, Street Tree Ordinance. Accessed April 2021.
[https://www.cityofsignalhill.org/DocumentCenter/View/774/2011-11-1441tree-ordADOPTED?bidId=.](https://www.cityofsignalhill.org/DocumentCenter/View/774/2011-11-1441tree-ordADOPTED?bidId=)



V. Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
CULTURAL RESOURCES:				
<i>Would the project:</i>				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

Potentially Significant Impact. Section 15064.5 of the CEQA Guidelines generally defines a historic resource as a resource that is: (1) listed in or determined to be eligible for listing in the California Register of Historical Resources (California Register); (2) included in a local register of historical resources (pursuant to Section 5020.1(k) of the Public Resources Code); or (3) identified as significant in an historical resources survey (meeting the criteria in Section 5024.1(g) of the Public Resources Code). Additionally, any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a resource is to be considered “historically significant” if the resource meets the criteria for listing on the California Register, which automatically includes all properties listed in the National Register of Historic Places and those formally determined to be eligible for listing in the National Register.

While the adoption of the 2021-2029 Housing Element would not approve any development projects, future development is anticipated at the 4 Housing Sites. The Walnut Bluff site is vacant aside from four oil wells on site and limited vegetation. The Heritage Square site’s existing condition on site is mostly vacant with some commercial retail (local grocer) and light industrial uses. Majority of the identified site is vacant with limited vegetation. The Town Center Northwest existing site is mostly vacant and contains oil wells, light industrial structures, and limited vegetation. Lastly, the Orange Bluff existing site is mostly vacant, remnants of previous developments including foundations and paved areas, and limited vegetation. Additional analysis is required to determine whether historic resources exist on or around the identified Housing Sites and whether the identified resources would be disturbed by anticipated future development activities.



b) *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?*

Potentially Significant Impact. As previously stated, the Housing Sites have been heavily disturbed by past oil extraction activities; therefore, remnants of historic or prehistoric archaeological materials may have been damaged or eliminated by such past activities. If the Housing Sites' grading work extends into previously undisturbed earth materials, there is a possibility of inadvertent impacts to archaeological materials. There is also some potential to encounter historic period archaeological materials from early twentieth century oil field activities during grading on the Housing Sites. An archaeological resources records search and field survey are required to determine whether any resources have been documented on or in the vicinity of the site and to help determine the prehistoric and historic context and prospects of finding archaeological materials during construction. This research will be conducted as part of a cultural resources study that will be included in the Environmental Impact Report (EIR) to be prepared for this project. If potential for a significant impact to archaeological resources is identified, mitigation measures such as monitoring of earthwork by a qualified professional archaeologist will be identified.

c) *Would the project disturb any human remains, including those interred outside of dedicated cemeteries?*

Less Than Significant Impact. The Housing Sites are located in an urbanized area and has been subject to grading and development in the past. It is unlikely that intact human remains exist on the site due to the highly disturbed nature of the sites and a lack of known burial sites at the Housing Sites. California Health and Safety Code Section 7050.5 state that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified within 24 hours of identification as human. If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of being granted access and provide recommendations as to the treatment of the remains to the landowner.²² Any soil disturbing activities from project development would be required to adhere to existing laws regarding the discovery of human remains, which would minimize potential impacts to human remains to less than significant.

²² California Health and Safety Code Section 7050.5



VI. Energy

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
ENERGY: <i>Would the project:</i>				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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?

Potentially Significant Impact. The adoption of the 2021-2029 Housing Element would not approve any development projects. However, anticipated development at the 4 Housing Sites would involve construction of up to 724 units throughout the 8-year planning period between 2021 to 2029. Construction activities and operation of the residential uses at each of the Housing Sites would require additional energy resources. Additional analysis is required to determine the potential for environmental impacts to result from the energy consumption that would be associated with the future housing developments.

b) Would the project conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

Potentially Significant Impact. The adoption of the 2021-2029 Housing Element would not approve any development projects. However, anticipated development at the 4 Housing Sites would include the construction of up to 724 housing units which would require the use of energy resources on site during construction and operation. The Housing Sites are mostly vacant with some commercial and retail uses, resulting in limited energy consumption in its current state. Therefore, development of the Housing Sites would likely require additional energy use. Additional analysis is required to determine if the anticipated development would conflict with or obstruct a State or local plan for renewal energy or energy efficiency.



VII. Geology and Soils

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
GEOLOGY AND SOILS:				
<i>Would the project:</i>				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Discussion

a)i) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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.

Potentially Significant Impact. The State Mining and Geology Board defines an active fault as one that has had surface displacement within the Holocene Epoch (roughly the last 11,000 years) and defines a potentially active fault as any fault that has been active during the Quaternary Period (approximately the last 1,600,000 years). These definitions are used in delineating Earthquake Fault Zones as mandated by the Alquist-Priolo Geologic Hazard Zones Act of 1972 and as subsequently revised in 1994 as the Alquist-Priolo Geologic Hazard Zoning Act and Earthquake Fault Zones Act.

The City of Signal Hill is located in the Los Angeles Coastal Plain, which sits on extraordinarily deep marine and nonmarine sedimentary base that has an important bearing on earthquakes, petroleum deposits and subsidence problems.²³ The City contains the elevated ridge known as Signal Hill,²⁴ which is one of a series of uplifted anticlinal hills and mesas positioned within and/or adjacent the Newport-Inglewood structural zone.

According to the Signal Hill General Plan Safety Element, the Housing Sites do not lie within an "Earthquake Fault Zone" as defined by the State of California in the Alquist-Priolo Earthquake Fault Zoning Act. The nearest fault is the Cherry Hill segment of the Newport-Inglewood Fault System, approximately a half-mile east of the project site.²⁵ The Housing Sites are located approximately one-half mile east or less of the Cherry Hill Fault.

As previously mentioned, the adoption of the 2021-2029 Housing Element would not approve any development projects. However, future development at the Housing Sites has the potential for persons and structures to be subject to substantial adverse risk involving seismic activity along these faults. Further geotechnical investigations are required to determine whether any active fault traces occur on the project site and to evaluate potential implications should a fault rupture occur within or near the project site. This research and impact assessment will be conducted as part of an EIR to be prepared for this project.

a)ii) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

Potentially Significant Impact. As noted in the discussion under threshold a)i), the Newport-Inglewood Fault System, which cuts diagonally across Signal Hill, is the most significant seismic feature in the area. This fault is considered seismically active. Within the Newport-Inglewood Fault System, five faults have been identified in the immediate vicinity of Signal Hill, including the Cherry Hill Fault, located approximately a half-mile west of the City limits. It is likely that a seismic event on the Cherry

23 City of Signal Hill, 2016. General Plan Safety Element. Accessed April 2021.

<https://www.cityofsignalhill.org/DocumentCenter/View/2557/Safety-Element-2016?bidId=>

24 City of Signal Hill, 2001. General Plan Land Use Element. Accessed April 2021.

<https://www.cityofsignalhill.org/DocumentCenter/View/1649/FinalLandUseElement?bidId=>

25 City of Signal Hill, 2016. General Plan Safety Element. Accessed April 2021.

<https://www.cityofsignalhill.org/DocumentCenter/View/2557/Safety-Element-2016?bidId=>



Hill Fault or along the greater Newport-Inglewood Fault System would result in strong seismic ground shaking.

Locally, the Newport-Inglewood Fault System cuts diagonally across Signal Hill. This is the most significant seismic feature in the area and is considered seismically active. Within the Newport-Inglewood Fault System, five faults have been identified in the immediate vicinity of Signal Hill: the Cherry Hill, Pickler, Northeast Flank, Reservoir Hill, and Wardlow Faults. All these faults are considered active except for the Wardlow Fault. In addition, as discussed under item a)i) above, the southwest portion of the City is within an Alquist-Priolo Earthquake Fault Zone for the Cherry Hill Fault and the site is flanked to the south, east and west by both the Cherry Hill Fault and the Pickler Fault. Given the proximity of the Housing Sites to known active faults, it is likely that the anticipated housing development would experience strong ground shaking during the lifetime of the project. Further geotechnical investigations are required to evaluate potential implications from strong seismic ground shaking. This research and impact assessment will be conducted as part of an EIR to be prepared for this project. If potentially significant impacts are identified, measures to avoid or mitigate those impacts will be developed.

a)iii) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

Less than Significant Impact. Liquefaction is a seismic phenomenon in which loose, saturated, fine-grained granular soils behave similarly to fluid when subjected to high-intensity ground shaking. Liquefaction occurs when there is the presence of shallow groundwater, low-density fine, clean, sandy soils, and high-intensity ground motion. Effects of liquefaction can include sand boils, settlement, and load-bearing capacity failures below foundations.

According to Figure 5 of the City of Signal Hill General Safety Element (2016), the City has identified areas with liquefaction potential in the northwestern and southeastern portion of the city where there is predominantly undeveloped land. The Housing Sites are not identified as having the potential for liquefaction hazards.²⁶ Therefore, anticipated housing development impacts resulting from liquefaction would be less than significant.

a)iv) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

No Impact. The identified Housing Sites are relatively flat and are not in areas of known landslide hazards, as shown on Figure 5, Seismic Hazards, in the General Plan Safety Element. Figure 5 of the City of Signal Hill General Plan Safety Element (2016) does not identify the Housing Sites as being within areas susceptible to landslides. Further, the identified Housing Sites are not located within an area identified by the California Geologic Survey (CGS) as having potential for seismic slope instability.²⁷ Therefore, the anticipated development at the identified Housing Sites is not considered susceptible to earthquake-induced landslides, and there would be no impact.

²⁶ City of Signal Hill, 2016. General Plan Safety Element.

²⁷ California Geological Survey (CGS). 2021. Accessed April 2021.

<https://maps.conservation.ca.gov/geologic Hazards/DataViewer/index.html>.



b) Would the project result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact. Given the extensive history of ground disturbance across the Housing Sites from past oil extraction and development activities, it is unlikely that natural topsoil remains in the upper soil layers. The anticipated development at Housing Sites would include grading activities that would remove any existing ground cover and expose soils. These disturbed soils could be exposed to wind and rain, thus potentially resulting in soil erosion. The Signal Hill Municipal Code Chapter 12.16 establishes the framework for the City to control erosion through the management of stormwater and urban runoff. In part, this chapter requires that prior to the issuance of a building or grading permit for a new development or redevelopment project, the City must evaluate the proposed project's erosion and grading requirements, including the appropriate wet weather erosion control plan, stormwater pollution prevention plan, or other plans consistent with countywide development construction guidance provisions to control erosion.²⁸ As such, subsequent development projects on the Housing Sites would be required to implement appropriate erosion and grading plans which would be reviewed by the City for approval prior to the issuance of any construction permits. These plans are required to demonstrate that stormwater runoff containing sediment is reduced to the maximum extent practicable and that best management practices apply and are required from the time of commencement of construction until receipt of a certificate of occupancy.

Construction activities for future housing developments are required to comply with existing erosion control requirements, including the SCAQMD's Rule 403, which would reduce the potential for wind erosion through a variety of dust control measures such as covering soil stockpiles, watering exposed soils several times a day, ceasing grading during high winds, and providing temporary soil binders. Development construction activities must also comply with the conditions of a General Construction Permit, administered by the Los Angeles Regional Water Quality Control Board, pursuant to the National Pollutant Discharge Elimination System, which would reduce water erosion by requiring best management water quality control practices (i.e., using berms or drainage ditches to divert water around the site, and preventing sediment from migrating off the site by using temporary swales, silt fences, or gravel rolls) during construction. Compliance with these existing regulatory standards would generally avoid or reduce potential erosion impacts during construction to less than significant.

Once completed, the currently exposed soils across the Housing Sites would be replaced with impervious and landscaped surfaces, which would substantially reduce and to a large extent eliminate erosion potential as compared with existing site conditions.

With adherence to the mandatory regulations to reduce and control erosion during construction and project design which reduces the amount of exposed soils subject to erosion, impacts in relation to substantial soil erosion or the loss of topsoil would be less than significant.

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 on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Potentially Significant Impact. The adoption of the 2021-2029 Housing Element would not approve any development projects and would not result in structures located on a geologic unit or soil that is unstable. However, future housing development at identified Housing Sites would require earthwork, such as the replacement and relocation of soils that have been substantially disturbed by

²⁸ Signal Hill Municipal Code Chapter 12.16



the site's former oil extraction uses, along with removal and relocation of underground utilities and oil extraction infrastructure. A geotechnical investigation is required to evaluate whether the proposed grading and development plan could exacerbate existing conditions and create unstable soils that could result in significant impacts to on- or off-site structures.

d) *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

Less Than Significant Impact. Expansive soils are clay-based soils that tend to expand (increase in volume) as they absorb water and shrink (lessen in volume) as water is drawn away. Expansive soils can result in damage to structures, slabs, pavements, and retaining walls if wetting and drying of the soil does not occur uniformly across the entire area. The California Department of Conservation (2016b) maps indicate the site is underlain by Quaternary old alluvium; alluvium is typically made up of a variety of materials, including fine particles of silt and clay and larger particles of sand and gravel. The City's Safety Element maps majority of the City, including the Housing Sites, in areas with Qop soil types, which dominate Signal Hill and have a limited expansion potential, with moderate expansion potential present only in clayey sections.²⁹ Based on this information, build out of the Housing Sites would have a less than significant impact to creating substantial direct or indirect risks to life or property due to expansive soil.

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. All wastewater generated by the future development of Housing Sites would be discharged into the City's municipal sewer system. No septic systems or other soil-based wastewater disposal systems would be part of the proposed Housing Site developments. Therefore, no impact related to soils incapable of supporting the use of septic tanks or alternative wastewater disposal systems.

f) *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Potentially Significant Impact. While the identified Housing Sites has been heavily disturbed by past oil extraction activities, the presence of fossil-bearing rock or geologic formations underlying the project site has not been determined. Ground-disturbing activities could potentially result in disturbance of paleontological resources if they occur within the area of disturbance. Further analysis is required to determine if the geologic structure is known to have yielded fossil finds elsewhere where the same geological formation occurs and to determine if the proposed grading plan could result in disturbance of those materials within the proposed grading depths. This analysis will be conducted as part of the EIR that will be prepared for this project. If potential for a significant impact to paleontological resources is identified, mitigation measures such as monitoring of earthwork will be recommended.

²⁹ City of Signal Hill. General Plan- Safety Element. 2016.
<https://www.cityofsignalhill.org/DocumentCenter/View/2557/Safety-Element-2016?bidId=>. Accessed May 2021.



VIII. Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
GREENHOUSE GAS EMISSIONS:				
<i>Would the project:</i>				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Potentially Significant Impact. Greenhouse gas (GHG) emissions refer to a group of emissions that are believed to affect global climate conditions. These gases trap heat in the atmosphere and are referred to as greenhouse gases since they have effects that are analogous to the way in which a greenhouse retains heat. GHGs are emitted by both natural processes and human activities. The accumulation of GHGs in the atmosphere regulates the earth’s temperature. The State of California has undertaken initiatives designed to address the effects of GHG emissions and establish targets and emission reduction strategies for GHG emissions in California.

Construction

Subsequent development of the Housing Sites would result in the generation of GHGs through the operation of construction equipment and from worker and vendor vehicles, which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs (e.g., carbon dioxide [CO₂], methane [CH₄], and nitrogen oxide [NO_x]). Furthermore, CH₄ is emitted during the fueling of heavy equipment. Construction duration for the different project sites would vary depending on the approach and design of the future project proposed at each of the Housing Sites.

Operation

Subsequent development of housing on the Housing Sites would result in GHG emissions from the combustion of fossil fuels from daily automobile trips of residents. Additionally, energy usage including electricity and natural gas would also result in GHG production, in electricity’s case if the electricity is generated using a method that produces GHG. California’s water conveyance system is also energy-intensive. Proposed development on the Housing Sites would be required to install efficient irrigation and plumbing systems in compliance with City Municipal Code, Title 21 Zoning, Chapter 21.42 Landscaping Standards.³⁰ Solid waste generated at each of the Housing Sites would contribute to GHG emissions in a variety of ways. Landfilling and other methods of disposal use energy for transporting and managing the waste and produce additional GHGs to varying degrees. Landfilling, the most common waste management practice, results in the release of CH₄ from the

³⁰ “Landscaping Standards.” Municode.com, library.municode.com/ca/long_beach/codes/municipal_code?nodeId=TTT21ZO_CH21.42LAST_21.42.050LAST UBRI-WPA.



anaerobic decomposition of organic materials. CH₄ is 25 times more potent a GHG than CO₂. However, many materials in landfills do not decompose fully and the carbon that remains is sequestered in the landfill and not released into the atmosphere. Therefore, operation of the developed Housing Sites can contribute to GHG in a variety of way.

These construction and operational activities associated with the development of the Housing Sites would generate human activity-related greenhouse gas emissions. Additional analysis, including preparation of a quantified estimate of greenhouse gas emissions that would be generated by construction and operation of the Project, is needed to determine the significance of the Project greenhouse gas emissions.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Potentially Significant Impact. As discussed above, construction and operational activities associated with the development of the 4 Housing Sites would generate human activity-related greenhouse gas emissions. Additional analysis of the developments at the 4 Housing Sites would be required to determine the consistency of such developments with applicable plans, policies, and regulations adopted for the purpose of reducing the emissions of greenhouse gases.



IX. Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
HAZARDS AND HAZARDOUS MATERIALS:				
<i>Would the project:</i>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Potentially Significant Impact. Materials are generally considered hazardous if they are poisonous (toxicity), can be ignited by open flame (ignitability), corrode other materials (corrosivity), or react violently, explode, or generate vapors when mixed with water (reactivity). The term “hazardous material” is defined in California Health and Safety Code Section 25501 as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment. The code additionally states that a hazardous material becomes a hazardous waste once it is abandoned, discarded, or recycled. The



transportation, use, and disposal of hazardous materials, as well as the potential releases of hazardous materials to the environment, are closely regulated through many State and federal laws.

The adoption of the 2021-2029 Housing Element would not approve any development projects and would not create significant hazards to the public or the environment. However, future housing development at the identified Housing Sites may require the routine transport, use, or disposal of hazardous materials.

After development, the residential uses on each of the Housing Sites would result in limited transport, storage, use, and disposal of small quantities of hazardous materials such as chemical cleaning agents as a regular function of the residential land uses. In addition, the continuation of oil extraction activities on and adjacent to the Housing Sites may involve the use, production, and disposal of potentially hazardous materials, resulting in potential exposure of project site residents and retail visitors to volatile gases or other chemical agents.

Typical household hazardous materials associated with residential land uses could include cleaning products, paints, solvents, adhesives, other chemical materials used in building maintenance and interior improvements, automotive lubricants, small combustion engine fuels and lubricants, expired pharmaceuticals, mercury thermometers, sharp or used needles, and electronic wastes from household and car batteries. No special permits would be required for such limited use or disposal of common agents and products. Overall, the minor level of hazardous materials usage commonly associated with the proposed land use is considered acceptable and has not been identified as a significant threat to the environment.

Residents can dispose of household hazardous materials for free at any of the Los Angeles County Sanitation District's permanent disposal centers, and electronics can be disposed of at several private locations or electronic recycling events. The Los Angeles County Sanitation District and the Los Angeles County Department of Public Works sponsor household hazardous waste roundups, which are one-day events hosted on Saturdays at various locations around the county. Also, household hazardous wastes can be disposed of at the EDCO Recycling and Transfer Center at 2755 California Avenue in Signal Hill on the second and fourth Saturdays of each month.

As noted above, residential uses on the Housing Sites would use common household hazardous wastes such as janitorial products. In general, given that residential land uses would have a typical level of usage, storage, and disposal of hazardous materials, which could be disposed of at one of the household hazardous waste and electronic waste collection centers that operate in the city and county, these project-related activities would have a less than significant impact involving the routine transport, use, or disposal of hazardous materials.

Relative to the oil wells, Signal Hill has a long history of both active oil production and urban/suburban development, along with the comingling of these land uses in proximity to one another. The City has established protocols for the removal and control of oil production waste and refuse as codified in Municipal Code Section 16.20.160. Section 16.20.160 sets forth regulations for the handling of chemicals, oil, or liquid hydrocarbons and other oil field waste or refuse. The oil production uses on-site would continue to be required to adhere to these protocols in addition to other operation and safety standards set forth in Municipal Code Title 16, Oil and Gas Code.



Subsequent development of the Housing Sites would result in the placement of new residential uses near active oil wells. While the operation of oil wells is subject to strict regulations set forth in the City's Oil and Gas Code, oil extraction activities do include the routine transport, use, and/or disposal of hazardous materials associated with oil production. Active oil wells involve the regular use of hazardous chemicals, require regular maintenance, and must be equipped with a variety of failsafe mechanisms to prevent accidents that could threaten the environment and human health.

The EIR being prepared for this project will provide additional analysis for transporting contaminated soil and other hazardous materials during construction. Relationship between the proposed land use and the active oil wells on and adjacent to the Housing Sites would also be assessed. Proposed measures to comply with the regulations established in the City's Oil and Gas Code will be implemented, as necessary.

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?

Potentially Significant Impact. As noted in the previous response, future residential development of the Housing Sites is not expected to involve significant volumes of hazardous substances or wastes and would not involve any activities that have a potential to release hazardous emissions or hazardous wastes. Thus, there is a less than significant risk of accidental releases of hazardous materials related to the typical daily activities occurring with the proposed land uses.

During construction, there is the possibility of accidental release of hazardous substances during typical construction activities that could occur at any construction site. Specifically, site development would involve a range of typical construction activities that would include the use of common hazardous materials, substances, or chemicals such as fuels, oils, lubricants, paints, concrete, solvents, and glues. Without appropriate good housekeeping measures, there is a potential for an accidental release of hazardous substances and/or water pollutants during various construction activities. This could occur from any of the following:

- Fueling and refueling of construction machinery
- Pouring, curing, and finishing of concrete
- Paving and grinding of existing pavement surfaces
- Vehicle cleaning and maintenance

As part of the stormwater pollution prevention plan (SWPPP) that must be prepared to obtain a General Construction Permit from the Los Angeles Regional Water Quality Control Board (RWQCB), measures will be identified to prevent discharges of hazardous materials and to establish the appropriate response to address accidental spills and releases quickly and effectively. For example, it is prohibited for storm or rainwater to have contact with discharges of construction materials and wastes such as paints and fuels. A variety of best management practices (BMPs) will be specified as part of the proposed project's SWPPP to prevent releases of hazardous substances from the sources noted above. Examples of appropriate BMPs include:

- Fueling of construction machinery must occur on level ground, with drip pans and/or absorbent pads, at least 50 feet away from any drainage inlets.
- Pouring, curing, and finishing of concrete will be avoided just prior to or during any rainstorms. Ensure that concrete curing materials are properly stored and maintained, that



rainwater cannot come into contact with such areas, and that there are collection and wash-out areas provided to prevent runoff-off of concrete curing or waste materials.

- Covering any drainage inlets or culverts near paving areas and immediately sweep and clean such areas after paving is completed.
- Restricting vehicle cleaning or vehicle maintenance to appropriate off-site locations or ensuring that such activities occurring on-site are located in specially designated areas, on level ground at least 50 feet away from any drainage facilities, with appropriate drip pans and absorbent pads. Cleaning of vehicles and equipment with soap, solvents, or steam should not occur on the project site unless resulting wastes are fully contained and properly disposed of. Resulting wastes should not be discharged or buried and must be captured and recycled or disposed of properly. Facility wash racks, if any, should discharge to a sanitary sewer, recycle system, or other approved discharge system and must not discharge to the storm drainage system, to watercourses, or to groundwater.

This routine General Construction Permit procedure would ensure that adequate precautions are in place to avoid a significant impact related to hazardous materials as a result of routine construction activities.

The City is underlain by the Long Beach Oil Field which contains oil wells in all stages of operation. Both active and abandoned oil wells exist on multiple identified Housing Sites. Given the proximity of grading and construction activities to active oil wells, there is the risk of upset in the event of an accident involving the disturbance or rupture of active wells or pipelines. As such, there is also a potential for an accidental release of hazardous materials during construction, particularly due to earthwork into soil materials contaminated by past or present oil extraction activities.

As discussed in response a) above, the location of residences in proximity to active oil wells would represent a new condition on the Housing Sites, creating a potential for health concerns. To assess the potential hazards that could occur during construction and from residential development, an oil and gas production well abandonment work plan, a human health risk assessment, methane gas and soil vapor assessments, and a soil management plan must be prepared, in accordance with Chapter 16.24, Development Standards, of the City's Municipal Code. Abandonment and re-abandonment of existing oil wells on the project site will also need to be examined with respect to the standards established by the California Department of Oil, Gas, and Geothermal Resources. Additional assessment is required.

c) *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing school site?*

Less than Significant Impact. The nearest schools to the Housing Sites is Signal Hill Elementary School, located a half-mile south of the Housing Sites. Heritage Square is within a half-mile north of Nelson Academy, a local high school. Transport of construction materials including hauling of construction waste materials would be routed at least one-quarter mile from existing school sites. Haul routes would be reviewed by the City in consultation with various City departments. City approval of haul routes would be necessary prior to issuance of construction permits.

Development of the Housing Sites would introduce residential land uses to these sites. These land uses do not generate hazardous emissions or involve the handling of acutely hazardous materials, substances, or wastes. Residential land uses may involve limited transport, storage, use, and disposal



of small quantities of hazardous materials such as chemical cleaning agents. No special permits would be required for such limited use of common cleaning agents.

As mentioned in part a.) the residential land uses would involve the regular handling of minor quantities of common household chemical agents and related wastes; however, these types of wastes are typical and do not represent a hazardous materials or waste impact. Therefore, the Project Site would not emit hazardous emissions or handle hazardous materials within a quarter mile of a school. For these reasons, impact would be less than significant.

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?*

Potentially Significant Impact. California Government Code Section 65962.5 specifies lists of the following types of hazardous materials sites: hazardous waste facilities; hazardous waste discharges for which the State Water Quality Control Board has issued certain types of orders; public drinking water wells containing detectable levels of organic contaminants; underground storage tanks with reported unauthorized releases; and solid waste disposal facilities from which hazardous waste has migrated. While Section 65962.5 makes reference to the preparation of a list, many changes have occurred related to web-based information access since 1992 and information regarding the Cortese List is now compiled on the websites of the California Department of Toxic Substances Control (DTSC), the State Water Resources Control Board, and CalEPA. The DTSC maintains the EnviroStor database, which includes sites on the Cortese List and also identifies potentially hazardous sites where cleanup actions or extensive investigations are planned or have occurred. The database provides a listing of federal Superfund sites, State response sites, voluntary cleanup sites, and school cleanup sites.

The EnviroStor database is maintained by DTSC and provides access to detailed information on hazardous waste permitted sites and corrective action facilities, as well as existing site cleanup information. EnviroStor also provides information on investigation, cleanup, permitting, and/or corrective actions that are planned, being conducted, or have been completed under DTSC's oversight. The RWQCB maintains the GeoTracker database which manages sites that impact, or have the potential to impact, water quality in California. The GeoTracker database includes sites that require cleanup, are under current investigation/remediation, or have been closed with a status not requiring further investigation.

Oil extraction activities at the Housing Sites resulted in discharges of contaminants into the subsurface, including volatile organic compounds. Volatile organic compounds are chemical compounds found in cleaning solvents and other products and used in industrial operations. Due to the listing of the Housing Sites on available hazardous waste tracking databases, and the proximity to other listed sites, further analysis is required to determine the potential for significant hazards 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 or excessive noise for people residing or working in the project area?

Less than Significant Impact. The nearest public use airport is Long Beach Municipal Airport, located north of I-405 of the City and approximately 3 miles from the identified Housing Sites. The Los Angeles County Airport Land Use Commission establishes Airport Influence Areas (AIA) to identify areas likely to be impacted by noise and flight activity created by aircraft operations at and airport. The City is not within the AIA for Long Beach Municipal Airport.³¹ Thus, residents and workers at the identified Housing Sites would not be exposed to any safety hazards or excessive noise associated with the operation of the airport. The impact due to proximity to the airport would be less than significant.

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 Signal Hill Hazard Mitigation Plan (2018) documents strategies and approaches designed to reduce loss of life and property in the event of a disaster or emergency. Key action items in the plan include improving communication and strengthening emergency operations by increasing collaboration and coordination among the various agencies and organizations involved in emergency planning, identifying funding to implement prevention plans and programs, and continuing the education and outreach efforts. The proposed project would have no effect on the communications and operational elements of the Plan, which are implemented by public safety personnel. Project implementation would not interfere with the implementation of the plan because the proposed development does not introduce any new land uses not considered in the implementation of the plan, it does not place the proposed land uses in an area that would require any specialized response, nor does it place new land uses in an area that is subject to potential threats from a natural or man-made disaster, such as wildland fires, flooding, earthquake fault rupture, etc.

As identified in the Signal Hill General Plan Safety Element (2016), existing evacuation routes are adequate to serve the City's population, and no major improvements are considered necessary to maintain emergency access. Several of the local arterial roadways and Interstate 405 (I-405) are major evacuation routes. As shown on Figure 2 of the General Plan Safety Element (2016), two arterial streets are designated as major evacuation routes in the immediate vicinity of project sites: Walnut Bluff, Town Center Northwest and Orange Bluff are east of Orange Avenue and north of Willow Street. The Heritage Square site is adjacent and west of Cherry Avenue which is another major evacuation route. The development of these sites would have no direct physical impacts to these evacuation routes.

During construction on the Housing Sites, including infrastructure improvements, temporary road closures, blockages, or detours may be necessary; however, access would be maintained to surrounding roadways through traffic signs and other means and closure of the major evacuation routes would not occur. Operational footprint of the Housing Sites does not include any public right of way and would not impact adopted emergency plans. Future development plans for the identified Housing Sites will

31 Los Angeles County. LA County's Airport Land Use Commission Site. GIS Interactive Map (A-NET). <https://lacounty.maps.arcgis.com/apps/webappviewer/index.html?id=acf2e87194a54af9b266bf07547f240a>. Accessed April 2021.



comply with required emergency plan requirements and be reviewed and approved by the City during plan check in consultation with applicable City departments. Therefore, a less than significant impact on adopted emergency plans is anticipated.

g) *Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?*

No Impact. The California Department of Forestry and Fire Protection (Cal Fire) has mapped fire hazard severity zones throughout the state.³² Designations include Unzoned (the lowest wildland fire risk), Moderate, High, and Very High. Property within the Signal Hill city boundaries is Unzoned, indicating a low potential for wildland fire; there are no Moderate, High, or Very High fire hazard zones in the City. Thus, the project would not expose people or structures either directly or indirectly to significant loss, injury, or death involving wildland fires. There would be no impact.

³² California Department of Forestry and Fire Protection (Cal Fire). 2021. Accessed April 2021. <https://www.fire.ca.gov/>.



X. Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
HYDROLOGY AND WATER QUALITY:				
<i>Would the project:</i>				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

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 City is located within the jurisdiction of the Los Angeles Regional Water Quality Control Board (LARWQCB), which prepares and maintains a basin plan that identifies narrative and numerical water quality objectives to protect all beneficial uses of the waters of that region. The basin plan is intended to achieve the identified water quality objectives through



implementation of Waste Discharge Requirements (WDRs) and by employing three strategies for addressing water quality issues: control of point source pollutants, control of nonpoint source pollutants, and remediation of existing contamination.

Point sources of pollutants are well-defined locations at which pollutants flow into water bodies (discharges from wastewater treatment plants and industrial sources, for example). These sources are controlled through regulatory systems including permitting under California's WDRs and the National Pollutant Discharge Elimination System (NPDES) program; permits are issued by the appropriate RWQCB and may set discharge limitation or other discharge provisions.

According to the Basin Plan, nonpoint sources of pollutants are typically derived from runoff caused by rain or irrigation and have been classified by the United States Environmental Protection Agency (USEPA) into one of the following categories: agriculture, urban runoff, construction, hydromodification, resource extraction, silviculture, and land disposal. This type of pollution is not ideally suited to be addressed by the same regulatory mechanisms used to control point sources. Instead, California's Nonpoint Source Management Plan describes a three-tiered approach, including the voluntary use of best management practices (BMPs), the regulatory enforcement of the use of BMPs, and effluent limitations. Generally speaking, each RWQCB implements the least restrictive tier until more stringent enforcement is necessary.

The LARWQCB addresses on-site drainage through its construction, industrial, and municipal permit programs. These permits require measures to minimize or prevent erosion and reduce the volume of sediments and pollutants in a project's runoff and discharges based upon the size of the project site.

Further, the Signal Hill Municipal Code, Chapter 12.16, Storm Water/Urban Runoff, contains requirements for post-construction stormwater activities and facility operations of development and redevelopment projects to comply with the current Municipal Separate Storm Sewer System (MS4). In part, adherence requires integrating low-impact development (LID) design principles to lessen the water quality impacts of development through biofiltration, evapotranspiration, and rainfall harvest. Specifically, a LID plan will required for each individual development project on the Housing Sites to demonstrate compliance with the provisions of the City's Municipal Code (Section 12.16.114, New development/redevelopment pollutant reduction).

Finally, to prevent water quality impacts due to construction-related stormwater pollutants, future project applicants are required to develop a SWPPP, as stated in the City's Municipal Code (Section 12.16.112, Construction pollutant reduction). This plan would detail best management practices, including desilting basins or other temporary drainage or control measures, or both, as may be necessary to control construction-related pollutants. The City will not issue a grading permit for the project until the SWPPP has been submitted to and approved by the City (Section 12.16.112[D]).

Lastly, a LID plan is required per municipal code, proposed development at each Housing Site would be required to prepare an LID plan that would be subject to City review and approval as part of the plan check process for the development project. Impacts would be less than significant.

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less than Significant Impact. Anticipated development of the Housing Sites does not include any groundwater extraction wells because all water demand would be met through piped connections to



the City of Signal Hill's municipal water system. This municipal water system resources are supplied by groundwater from the Central Basin (which originates in the San Gabriel River) and treated surface water from the Metropolitan Water District (which originates in the Colorado River).

According to the City's Urban Water Management Plan (UWMP), The City's water supply sources include groundwater, imported water, and recycled water. Historically, the City imports about 18 percent of its potable water supply and the remaining 82 percent is groundwater. Recycled water is only used for Reservoir Park. In terms of groundwater, the City draws groundwater from the Central Basin aquifer, which underlies approximately 227 square miles in southeastern Los Angeles County.

Due to low soil permeability and largely impermeable surfaces in the overlying areas, precipitation over the basin has minimal influence on the replenishment of the Central Basin. Natural replenishment of the basin occurs primarily from surface flow and underflow through Whittier Narrows from the San Gabriel Valley. Intentional replenishment by Water Replenishment District (WRD) is accomplished by capturing and spreading water at the Rio Hondo and the San Gabriel River Spreading Grounds in the Montebello Forebay. Sources of replenishment water are local storm runoff, local dry-weather urban runoff, imported water purchased from Metropolitan Water District (MWD), and recycled water purchased from the Los Angeles County Sanitation District (LACSD).³³

Population in the City is approximately 11,600 in 2016 and is anticipated to increase to 12,500 in 2045 according to SCAG forecasts.³⁴ As the City of Signal Hill is in a highly urbanized setting, this growth will mostly be re-development in expansion of multifamily housing. The normal supply and demand totals from the Signal Hill UWMP show a demand of 1,897-acre feet (AF) in 2020 and increases to 2,157 AF in 2040, an increase of 260 AF. The anticipated water supply in 2030 is 4,369 AF. It is expected that the Housing Sites would generate an additional population of 1,355 people to the City of Signal Hill.³⁵ The additional population would represent approximately 142 percent of the forecasted population growth from SCAG. Based on the population increase, the anticipated housing developments would increase the local water usage by approximately 372 AF by 2029, resulting in a water demand of 2,469 AF in 2029, within the service capacity of 4,369 AF. Therefore, full development of the Housing Sites is not anticipated to substantially decrease groundwater supplies.

Also, the City pays a replenishment assessment to the Water Replenishment District of Southern California for each acre-foot of water that is pumped out of the Central Basin aquifer. Since the project site is located well outside of the well fields that produce a majority of the City's water supply, and since no water extraction wells are proposed, the project would not have a significant effect on those groundwater resources and the project's impacts on groundwater supplies would be less than significant.

33 City of Signal Hill. Urban Water Management Plan. October 2019. <https://ca-signalhill2.civicplus.com/DocumentCenter/View/8136/2015-Urban-Water-Management-Plan-DRAFT?bidId=>. Accessed April 2021

34 Southern California Association of Governments. ConnectSoCal. Technical Report. September 3, 2020. https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial_demographics-and-growth-forecast.pdf?1606001579#:~:text=The%20Regional%20Council%20adopted%20the,the%20county%20and%20juriisdictional%2Dlevels.&text=According%20to%20the%20January%201,the%20SCAG%20region%20is%2019%2C155%2C405. Accessed April 2021.

35 Calculated from average household population of 2.62 multiplied by 517 units.



c)i) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?*

Less than Significant Impact. Anticipated development of the Housing Sites would transition these sites from partially developed to fully developed, with a combination of impervious surfaces and landscaped conditions, which would increase the rate and amount of site runoff. This increase in runoff would be captured in a stormwater conveyance system as part of the proposed development that would ultimately discharge into the City's municipal storm sewer system. This stormwater conveyance system would be detailed in the proposed project's LID plan, a requirement of Section 12.16.114 of the City's Municipal Code, which is described in response a), above. The LID plan would be prepared for the development of each of the Housing Sites as the designs become finalized. The LID plan would assess for the anticipated wastewater discharge at each site and incorporate any mitigation measures or design features as appropriate to meet any defined goals outlined in the LID plan. The City would review and approve of the LID plan as part of the anticipated development project prior to issuance of construction permits. As such, there would be no surface runoff discharged off-site. Further, no drainage courses are present on the Housing Sites that would be altered as a result of the subsequent development of the Housing Sites. Therefore, existing drainage patterns would not be substantially altered in a manner that would result in result in substantial erosion or siltation on- or off-site and impacts would be less than significant.

c)ii) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*

Less Than Significant Impact. As previously mentioned, anticipated development of the Housing Sites would transition these sites from partially developed to fully developed, with a combination of impervious surfaces and landscaped conditions, which would increase the rate and amount of site runoff. This increase in site runoff would be captured in a stormwater conveyance system as part of the proposed development that would ultimately discharge into the City's municipal storm sewer system. This stormwater conveyance system would be detailed in the proposed project's LID plan, a requirement of Section 12.16.114 of the City's Municipal Code, which is described in response a), above. Therefore, the drainage pattern of the proposed project would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site and impacts would be less than significant.

c)iii) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would 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. As previously mentioned, anticipated development of the Housing Sites would transition these sites from partially developed to fully developed, with a combination of impervious surfaces and landscaped conditions, which would increase the rate and amount of site



runoff. This increase in site runoff would be captured in a stormwater conveyance system as part of the proposed development that would ultimately discharge into the City's municipal storm sewer system. This stormwater conveyance system and its capacity would be detailed in the proposed project's LID plan, a requirement of Section 12.16.114 of the City's Municipal Code, which is described in response a), above. Therefore, the drainage pattern of the proposed project would not substantially increase the rate or amount of surface runoff in a manner which would result in substantial additional sources of polluted runoff and the effects of the development of the Housing Sites would be less than significant.

c)iv) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?

Less than Significant Impact. Housing Site drainage improvements would follow existing drainage patterns on site along with the implementation of drainage features to meet regulatory requirements such as the County LID ordinance. Since the Housing Sites are not within a flood hazard zone, any occasional on-site ponding and overflows into the street drainage systems would not affect flood flows. Impacts would be less than significant.

d) Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. The City's General Plan Safety Element identifies the area nearest the Housing Sites that could be impacted by a tsunami as the Colorado Lagoon area in Long Beach, approximately 1.5 miles southeast of the City of Signal Hill boundary.³⁶ Therefore, the City is not susceptible to tsunami-related effects. A seiche is an event caused by oscillation of waters in an enclosed water body, such as a lake. There are no bodies of water within or near the City that could produce a seiche event. Regarding mudflows, the Housing Sites are relatively flat and is not in an area of known landslide hazards. Therefore, the development of Housing Sites would not be impacted by inundation from tsunami, seiche, or mudflows.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact. Future development of the Housing Sites would be required to comply with existing regulations including the County LID ordinance, which is structured to address and achieve water quality objectives set forth in the LARWQCB Basin Plan. There is no sustainable groundwater management plan in place for the City. For these reasons, future development of the Housing Sites would not conflict with or obstruct implementation of the regional Basin Plan and would not conflict with or obstruct implementation of a sustainable groundwater management plan.

³⁶ City of Signal Hill, 2016. General Plan Safety Element. Accessed April 2021.
<https://www.cityofsignalhill.org/DocumentCenter/View/2557/Safety-Element-2016?bidId=>



XI. Land Use and Planning

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
LAND USE AND PLANNING:				
<i>Would the project:</i>				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

a) ***Would the project physically divide an established community?***

Less than Significant Impact. The physical division of an established community is typically associated with the construction of a linear feature, such as a major highway, regional flood control channel, or railroad tracks, or the removal of a means of access, such as a local road or bridge, which would impair mobility within an existing community or between a community and an outlying area.

The Walnut Bluff, Town Center Northwest, and Orange Bluff Housing Sites are in close proximity to each other and are mostly vacant with limited general industrial or commercial uses. The existing Heritage Square Housing Site is also mostly vacant with some commercial uses. Surrounding uses include commercial and general industrial buildings. Development of the Housing Sites would not intrude into the adjacent established neighborhoods. No other modifications to existing off-site infrastructure facilities or the removal of any such facilities would be required, and there would be no infrastructure-related improvements or removals that could result in a physical disruption to an established land use or the local pattern of development. Additionally, existing transportation linkages connecting different neighborhoods and communities would not be affected by development of the Housing Sites. For these reasons, the development of the Housing Sites would physically divide the established community.

b) ***Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?***

Potentially Significant Impact. The City is not subject to a local coastal program and is not within a habitat conservation plan, natural community conservation plan, or other approved environmental resource plan.³⁷ The current General Plan land use designations and zoning would not permit residential uses on the Housing Sites. Therefore, all identified Housing Sites would require rezoning.

³⁷ Natural Community Conservation Planning (NCCP) program of the California Department of Fish and Wildlife, Accessed in April 2021.



The Walnut Bluff site is currently zoned for CI uses as is its General Plan designation. It would be rezoned Special Purpose Housing (SP-7) and a General Plan amendment to Very High Density Residential (35-45 dwelling units per acre).

Heritage Square is zoned as CTC, and Crescent Heights Historic District (SP-11) Specific Plan. Its General Plan designation is Town Center. This Housing Site would be rezoned to Historic Square Historic District Specific Plan (SP-22). Designation of the site to accommodate housing will require a zoning ordinance amendment to the Heritage Square (SP-23) Specific Plan to allow a mixed-use commercial and residential project and a General Plan amendment to CBD.

The Town Center Northwest site is zoned as Commercial Corridor Specific Plan (SP-6) and its General Plan designation is Town Center. It would be rezoned as Town Center Northwest Specific Plan (SP-21). Designation of the site to accommodate housing will require a zoning ordinance amendment to a Town Center Northwest (SP-21) Specific Plan to allow a mixed-use commercial and residential project and a General Plan amendment to CBD.

The Orange Bluff site is zoned as CI and would be rezoned as Special Purpose Housing (SP-7). The General Plan designation is Commercial Industrial. Designation of the site to accommodate housing will require a Zoning Ordinance Amendment to rezone the site to the Special Purpose Housing (SP-7) Specific Plan designation. A General Plan Amendment to Very High-Density Residential designation will also be required.

Because of the required rezoning and General Plan Amendments required, further analysis regarding conflicts of future development at the Housing Sites with applicable land use plans, policies, or regulation is needed.



XII. Mineral Resources

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
MINERAL RESOURCES:				
<i>Would the project:</i>				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

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?**

Less than Significant Impact. Mineral resources are commonly defined as a concentration or occurrence of natural, solid, inorganic, or fossilized organic material in or on the earth’s crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. Mineral resources can be categorized into three classes: fuel, metallic, and nonmetallic. Fuel resources include coal, oil (petroleum), and natural gas. Metals include such resources as gold, silver, iron, and copper. Lastly, nonmetal resources include industrial minerals and construction aggregate. Industrial minerals include boron compounds, rare-earth elements, clays, limestone, gypsum, salt, and dimension stone. Construction aggregate includes sand and gravel, and crushed stone.

The City lies within the Long Beach Oil Field, where oil production dates back to 1919 when oil was first discovered in the area. The Long Beach Oil Field is termed a “mega giant” field, which is a field that produces over 1 million barrels a day. Currently, the Long Beach Oil Field is considered moderately productive as oil wells are gradually being converted to urban development. Even with the reduction, the Willington Field oil in Long Beach alone operates over 1,500 active oil wells³⁸ and Signal Hill Petroleum operates over 400 wells in the cities of Long Beach and Signal Hill.³⁹ Additional active oil wells exist in the area operated by other private operating entities and many oil wells are either idle or not currently in operation which are not accounted for in these estimates. Overall, there are approximately 3,000 active wells in Los Angeles County.⁴⁰

While the adoption of the 2021-2029 Housing Element would not approve any residential development, subsequent development of the Housing is anticipated. In total, 26 active drilling wells are present on the four identified Housing Sites. Twenty-six active oil wells accounts for less than one percent of the number of active oil wells in Los Angeles County and will not result in substantial loss

38 City of Long Beach. History- Oil Operations. [http://www.longbeach.gov/energyresources/about-us/oil/history/#:~:text=Pier%20\] was%20expanded%20into,day%20from%201%2C550%20active%20wells](http://www.longbeach.gov/energyresources/about-us/oil/history/#:~:text=Pier%20] was%20expanded%20into,day%20from%201%2C550%20active%20wells). Accessed April 2021.

39 Signal Hill Petroleum. Oil & Gas Operations Overview. <https://www.shpi.net/oil-gas/oil-gas-operations-overview.aspx>. Accessed April 2021.

40 California Department of Conservation. Wells Finder. <https://www.conservation.ca.gov/calgem/Pages/WellFinder.aspx>. Accessed April 2021.



of availability of a known mineral resource in the local area. Removal of the active wells as necessary for Housing Site implementation would not result in the substantial loss of a mineral resource. As such, impacts would be less than significant.

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?*

Less than Significant Impact. The Surface Mining and Reclamation Act of 1975 (SMARA) is the primary regulator for surface mining in the state. The act requires the State Geologist (California Geological Survey) to identify all mineral deposits in the State and to classify them based on their significance. SMARA defines a mineral deposit as a naturally occurring concentration of minerals in amounts or arrangement that under certain conditions may constitute a mineral resource. The concentration may be of value for its chemical or physical characteristics. The classification of these mineral resources is a joint effort of the State and local governments. It is based on geologic factors and requires that the State Geologist classify the mineral resources area as a Mineral Resource Zone (MRZ), Scientific Resource Zone (SZ), or Identified Resource Area (IRA), described below:

- MRZ-1: A Mineral Resource Zone where adequate information indicates that no significant mineral deposits are present or likely to be present.
- MRZ-2: A Mineral Resource Zone where adequate information indicates than significant mineral deposits are present, or a likelihood of their presence and development should be controlled.
- MRZ-3: A Mineral Resource Zone where mineral resource significance is undetermined.
- MRZ-4: A Mineral Resource Zone where there is insufficient data to assign any other MRZ designation.
- SZ Areas: Containing unique or rare occurrences of rocks, minerals, or fossils that are of outstanding scientific significance shall be classified in this zone.
- IRA Areas: County or State Division of Mines and Geology Identified Areas where adequate production and information indicate that significant minerals are present.

As shown on the Mineral Classification Map prepared by the California Division of Mines and Geology (1982), the Housing Sites are classified MRZ-4, areas with insufficient data to assign to any other category.⁴¹ The City's General Plan does not identify the Housing Sites as having significant mineral deposits of any kind, or located in an area delineated as a mineral resource recovery site, pursuant to SMARA. Additionally, as identified in threshold xii.a), the removal of oil wells on identified Housing Sites would not result in a significant loss of locally available mineral resources. Therefore, since there are no known significant mineral resources and the project site is not a designated mineral resource recovery site as identified by SMARA or in the City's General Plan, the project would have no impact upon 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.

⁴¹ California Division of Mines and Geology. 1982. Mineral Land Classification Map. Accessed October 29. ftp://ftp.consrv.ca.gov/pub/dmg/pubs/sr/SR_143/PartIV/Plate_4-21.pdf.



XIII. Noise

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
NOISE: <i>Would the project result in:</i>				
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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

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?*

Potentially Significant Impact. The City is located within an urbanized area that contains various sources of noise and various land uses considered sensitive to noise. The predominate noise source in the vicinity is vehicular traffic. Existing noise sensitive uses around the Walnut Bluff, Town Center Northwest, and Orange Bluff sites include Willow Springs Park, Long Beach Municipal Cemetery, and churches. Noise sensitive uses near Heritage Square include residential homes in close proximity. Future development of the Housing Sites would require the use of heavy equipment (e.g., bulldozers, backhoes, cranes, loaders, etc.) which would generate noise on a temporary, short-term basis. In the event construction activities were to occur concurrently at multiple Housing Sites in close proximity, impacts to nearby sensitive receptors can increase to a level where the impacts to surrounding sensitive receptors would be potentially significant.

In addition, anticipated future development of the identified Housing Sites would introduce new residential uses and increase local density, operational noise levels from new uses would also increase. Furthermore, traffic attributable to the development of the Housing Sites has the potential to increase noise levels along roadways throughout the City.



Additional analysis of the changes in noise levels that would result from the construction and operation of the Housing Sites are required to determine the significance of these changes and the consistency of the Project with the General Plan Noise Element and City Noise Ordinance.

b) *Would the project result in generation of excessive groundborne vibration or groundborne noise levels?*

Potentially Significant Impact. Development of the Housing Sites may produce groundborne vibration or groundborne noise during construction of the housing structures. As discussed above, sensitive receptors exist in close proximity to the Housing Sites. To accurately assess for the noise impacts of the Housing Sites' construction on surrounding areas, additional analysis is needed to confirm the consistency of the future developments with the City Noise Ordinances and the General Plan. Operation of the future residential structures would not generate ground-borne vibration that could be felt by the surrounding uses. Operation of the future residential uses would not involve railroads or substantial heavy truck operations, and therefore would not result in vibration impacts at surrounding uses.

Analysis of the changes in groundborne vibration or groundborne noise levels that would result from construction of the Project is needed to determine the significance of these changes and the consistency of the Project with the General Plan Noise Element and City Noise Ordinance.

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. Adoption of the 2021-2029 Housing Element would not expose people residing or working in the project area to excessive noise level because we are not adding people living or working within 2 miles of the airport. The adoption of the 2021-2029 Housing Element does not provide additional facilities to house residents or workers within the 2-mile radius of the airport and does not approve of any development projects. The closest airport is the Long Beach Municipal Airport, located 2.8 miles east of the Project Site.⁴²

Additionally, the Housing Sites are not within 2 miles of the airport. Therefore, future development of the Housing Sites would not expose people to excessive noise levels. Impacts would be less than significant.

⁴² County of Los Angeles, Airport Land Use Commission, http://planning.lacounty.gov/assets/upl/project/aluc_airport-long-beach.pdf, accessed May 2020.



XIV. Population and Housing

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
POPULATION AND HOUSING:				
<i>Would the project:</i>				
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)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

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)?*

Potentially Significant Impact. The City of Signal Hill, had an estimated population of 11,421 persons in 2019. The average household size in the City is 2.62 persons based on data from 2010 to 2019.⁴³ Although the adoption of the 2021-2029 Housing Element would not directly approve housing development, the anticipated development of identified Housing Sites would include the development of up to 724 single-family homes. Based on the average persons per household, the Project would add approximately 1,352 residents to the City. The area is forecast to have 12,500 persons by year 2045.⁴⁴ Based on these estimates, more analysis is required to determine the project to induce substantial unplanned population growth in the area.

b) *Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

No Impact. Complete development of the Housing Sites would include the development of up to 724 units on 4 different sites over the span of 8 years. The SCAG RHNA allocation for the City identified a housing need of 517 housing units. The RHNA allocation for Signal Hill includes 161 very low-income units, 78 low-income units, 90 moderate-income units, and 188 above moderate-income units. The Project area encompasses the entirety of the City limits, approximately 2.2 square miles. The existing conditions of the Housing Sites are largely vacant and does not include any existing housing. Therefore, the development of the Housing Sites would result in a net increase in housing and would not displace any existing housing. No impacts to housing displacement and replacement of housing is anticipated.

43 United States Census Bureau, Quick Facts, Signal Hill City, U.S. Census Bureau QuickFacts: United States.

44 Southern California Association of Governments (SCAG), Demographics and Growth Forecast, Final Adopted September 2020.



XV. Public Services

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
PUBLIC SERVICES:				
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:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Fire protection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Police protection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Schools?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Parks?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v) Other public facilities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

a)i) 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 fire protection?

Potentially Significant Impact. Fire protection services for the City is provided by the Los Angeles County Fire Department (LACoFD). The nearest fire station to the Housing Sites is County Fire Department Station No. 60, located approximately 0.8 miles east of Orange Bluff, Walnut Bluff, Town Center Northwest and Heritage Square is approximately 0.6 miles southwest of the fire station. As previously mentioned, the adoption of the 2021-2029 Housing Element would not approve of any housing development but full development of the Housing Sites would add approximately 1,355 residents to the area and would increase need for fire protection. Further analysis of available fire protection in the area is required in the EIR.

a)ii) 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 police protection?

Potentially Significant Impact. Police protection services for the City is provided by the Los Angeles Police Department (LAPD) through the Signal Hill Police Department, which operates from



2745 Walnut Avenue, approximately 450 feet north of Sites Orange Bluff, Walnut Bluff, Town Center Northwest and approximately 0.7 miles northwest of Heritage Square. Full development of the Housing Sites would add approximately 1,355 residents to the area and would require police protection. Further analysis of available police protection.

a)iii) 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 schools?

Potentially Significant Impact. The City is a part of the Long Beach Unified School District (LBUSD), which has 2 elementary schools (Alvarado Elementary School and Signal Hill Elementary School), one middle school (Jessie Elwin Nelson Academy) and one high school (Nelson Academy) in Signal Hill. Development of the Housing Sites would add approximately 1,355 new residents to the area, which would generate additional students. Further analysis of availability of school enrollment is required.

a)iv) 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 parks?

Potentially Significant Impact. As mentioned, the adoption of the 2021-2029 Housing Element would not approve of any housing development. However, development of the Housing Sites would add approximately 1,355 new residents to the area, which would potentially result in increased usage of existing parks. Further analysis of availability of parks is required.

a)v) 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 other public facilities?

Potentially Significant Impact. Impacts to other public facilities (e.g., sewer, storm drains, and roadways) are discussed in Section 15, Public Service, Section 17, Transportation/Traffic, and Section 19, Utilities and Service Systems, of this Initial Study. As discussed in these sections, impacts to these other facilities need to be further analyzed.



XVI. Recreation

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
RECREATION:				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

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. Adoption of the 2021-2029 Housing Element would not approve any housing development. However, development of the Housing Sites would add approximately 1,355 new residents to the area which would increase the use of existing neighborhood parks. According to the City’s 1989 Parks or Recreation Master Plan, the City provides roughly 2.71 acres of park land per 1,000 population, which is under the City’s goal of 4 acres/1,000 population. In compliance with the Quimby Act, a Park Development Fee analysis was conducted and it was determined, with the population projections conducted, that a \$7,700/unit park and recreational fee would be required to acquire and develop the required park land to meet the City’s acres of park land to 1,000 population ratio.⁴⁵ An increase in local housing needs has since then been assessed in the updated 2021 Parks and Recreation Master Plan and the parks and recreation fee has since then been adjusted to meet inflation and to continue to adequately address park land needs in the City. Pursuant to Chapter 21.40.030 of the Signal Hill Municipal Code, multifamily residential developments are required to pay park fees at \$15,112/unit prior to the issuance of a certificate of occupancy in 2021.⁴⁶ This fee is intended to be used for the acquisition, improvement, and expansion of public parks and/or recreational facilities. With the payment of park fees as required, impacts to park facilities from the development of the Housing Sites would be less than significant.

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. Adoption of the 2021-2029 Housing Element would not approve of any housing development. However, development of the Housing Sites would add approximately 1,355 new residents to the area. As previously discussed, the City has assessed for foreseeable increase

45 City of Signal Hill. Parks and Recreation Master Plan. January 2021.

46 City of Signal Hill. Signal Hill Municipal Code 21.40.030. Accessed May 2021.
https://codelibrary.amlegal.com/codes/signalhill/latest/signalhill_ca/0-0-0-77060.



in population in the City and increased the parks and recreation fee accordingly to account for additional park land development. The City has plans to increase recreational facilities within the City limits including, but are not limited to, renovate/repurpose Spud Field, program a new conceptual plan for Hillbrook Park, Update amenities in Signal Hill Park, and other additional facility upgrades.⁴⁷ Implementation of the Housing Sites would not require the construction or expansion of recreational facilities outside of the existing and planned recreational facility upgrades. Adoption of the 2021-2029 Housing Element and development of the Housing Sites would have a less than significant impact on construction or expansion of recreational facilities.

⁴⁷ City of Signal Hill. Parks and Recreation Master Plan. January 2021.



XVII. Transportation/Traffic

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
TRANSPORTATION:				
<i>Would the project:</i>				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

a) *Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, taking into account all modes of transportation including transit, roadways, bicycle and pedestrian facilities?*

Potentially Significant Impact. Development of the Housing Sites would result in the generation of additional vehicular traffic in the area and the region. Additional analysis is required to determine the Project’s consistency with existing programs, plans, ordinances, and policies addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities in the EIR.

b) *Would the project conflict with CEQA Guidelines Section 15064.3, subdivision (b)?*

Potentially Significant Impact. CEQA Guidelines section 15064.3, subdivision (b) describes specific considerations for evaluating a project’s transportation impact. Generally, Vehicle Miles Traveled (VMT) is the most appropriate measure of transportation impacts. Per CEQA Guidelines section 15064.3, subdivision (b), a project’s effect on automobile delay shall not constitute a significant environmental impact unless the proposed project is a transportation project affecting roadway capacity.

As noted above, development of the Housing Sites would result in the generation of additional vehicular traffic in the area and region and additional analysis is needed to determine the consistency of the Project with CEQA Guidelines section 15064.3, subdivision (b) related to VMT that will be generated by the projected residential development.



c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less than Significant Impact. The proposed Housing Element identifies four Housing Sites and would involve construction of 724 units over an 8-year period. Surrounding land uses, which are urban in nature (commercial industrial, general industrial), do not involve incompatible uses that would include farm equipment or other slow-moving vehicles that may be traveling along project area roadways.

Access points would be designed in accordance with City standards and approved by the City in consultation with other City departments, including public works, prior to construction. Additionally, all identified Housing Sites are contained on private property and does not include any public right of way serving the travelling public. Impacts to substantially increases hazards due to a geometric design feature or incompatible uses would be less than significant.

d) Would the project result in inadequate emergency access?

Potentially Significant Impact. To address fire and emergency access needs, the Project includes the establishment of an emergency access entrance in addition to the primary entrance and an established network of emergency vehicle access routes, which would connect to the existing street network. New fire lanes would be developed concurrent with housing development to ensure adequate emergency access is maintained throughout implementation of the Project. Future development projects on the Housing Sites would be required to incorporate all applicable design and safety requirements from the most current adopted fire codes, building codes, and nationally recognized fire and life safety standards of the City and LACoFD, such as those outlined in Chapter 18.48 (Fire Code) of the City's Municipal Code, which incorporates by reference the 2016 California Fire Code. The City and LACoFD would be responsible for reviewing Project compliance with related codes and standards prior to issuance of building permits. Review from the City's Department of Public Works would also be required for building plan check and traffic control plan review.

Additionally, during the building plan check and development review process, the City would coordinate with the LACoFD and Signal Hill Police Department to ensure that the necessary fire prevention and emergency response features are incorporated into each of the proposed housing development projects, and that adequate circulation and access (e.g., adequate turning radii for fire trucks) is provided in the traffic and circulation components of the housing developments. However, as mentioned in Question 17.a, development of Housing Sites would cause increased traffic in the local area and impacts on emergency access could potentially be significant. Additional analysis in the EIR is needed to determine the developmental impacts on emergency access.



XVIII. Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
TRIBAL CULTURAL RESOURCES:				
a) 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:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) 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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

a)i) *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 listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?*

Potentially Significant Impact. Assembly Bill (AB) 52 and Senate Bill (SB) 18, introduced into CEQA tribal cultural resource as a class of cultural resources and additional requirements relating to Native American consultation. PRC Section 21074 defines a tribal cultural resource as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe.” A tribal cultural resource may be considered significant if it is included in a local or State register of historical resources, is determined by the lead agency to be significant pursuant to criteria set forth in PRC Section 5024.1, is a geographically defined cultural landscape that meets one or more of the criteria in PRC Section 5024.1, or is a historical resource described in PRC Section



21084.1, a unique archaeological resource described in PRC Section 21083.2, or is a nonunique archaeological resource if it conforms with the above criteria.⁴⁸

There may have been prehistoric Native American settlement on or near the identified Housing Sites to take advantage of extended view opportunities. Site preparation will include ground-disturbing activities to provide for the future development at the Housing Sites. Given that the Housing Sites' surface and subsurface soils have been extensively altered by past oil extraction activities, there may be little prospect of encountering tribal cultural resources.

Nonetheless, if there is an indication of past tribal activities or sacred landscapes in this area, it is possible that the ground-disturbing activities could result in inadvertent contact with subsurface tribal cultural resources if the work extends into previously undisturbed native soil materials. The Draft EIR will incorporate information from this consultation to determine the potential effect of future development on the Housing Sites on TCRs.

a)ii) 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 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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Potentially Significant Impact. AB 52 establishes a formal consultation process for California Native American as specified in AB 52, lead agencies must provide notice to tribes that are traditionally and culturally affiliated with the geographic area of a Project if the tribe has submitted a written request to be notified. The tribe must respond to the lead agency within 30 days of receipt of the notification if it wishes to engage in consultation on the project, and the lead agency must begin the consultation process within 30 days of receiving the request for consultation.

SB 18 establishes that the city or county shall conduct consultations with California Native American tribes that are on the contact list maintained by the Native American Heritage Commission for the purpose of preserving or mitigating impacts to places, features, and objects described in Sections 5097.9 and 5097.995 of the Public Resources Code that are located within the city or county's jurisdiction.⁴⁹ SB 18 requires the local jurisdictions to provide a 90 day notice to California Native American tribes on the NAHC list.

A NAHC request for a Native American contact list was sent on April 8, 2021, see *Appendix A-NAHC Letter*. A joint SB 18 and AB 52 consultation letter were sent out on April 10, 2021, by the City of Signal Hill to initiate communication with the Gabrieleno Band of Mission Indians-Kizh Nation and

48 California Legislative Information. SB-52 Native Americans: California Environmental Quality Act. Accessed April 2021. https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=200320040SB18.

49 California Legislative Information. SB-18 Traditional Tribal Cultural Places. Accessed April 2021. https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=200320040SB18.



the 90-day noticing period will end on July 9, 2021. Additional letters were sent out to seven additional tribes on May 3rd, 2021. The seven tribes are Gabrieleno-Tongva Nation, Gabrieleno-Tongva San Gabriel Band of Mission Indians, Gabrielino Tongva Indians of California Tribal Council, Gabrielino Tongva Tribe, Juaneno Band of Mission Indians Acjachemen Nation, Santa Roasa Band of Cahuilla Indians, and Soboba Band of Luiseno Indians. The 90-day noticing period will end on August 2nd, 2021 (August 1st, 2021 is a Sunday). See *Appendix B- Tribal Notification Letters* for notification letters that were mailed out. To determine whether any tribal cultural resources (TCRs) have been previously documented in this area, a records search will be conducted and prepared. Consultation will be conducted as necessary and requested by the tribes.



XIX. Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
UTILITIES AND SERVICE SYSTEMS:				
<i>Would the project:</i>				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

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. Development of the Housing Sites would require the replacement of old and installation of new utility infrastructure to serve the proposed new uses. The installation of infrastructure would occur during site construction and the depths and locations would be considered in the grading plan. Impacts related to construction of on-site utilities infrastructure would not result in any unique or more intensive types of impacts than the grading required to support development.



Off-site, local connections to the existing municipal storm drain, water, and wastewater facilities, as well as electricity lines and natural gas mains within the surrounding roadways would be required to support residential development on the Housing Sites. Connections to existing water, wastewater treatment, storm water drainage, electric power, natural gas, and telecommunication facilities exists within the City and surrounding the Housing Sites. The construction associated with the utility service extensions and connections would likely result in generating dust, noise, or and/or circulation impacts. These impacts would be temporary and short-term, occurring only for portions of a normal construction workday and only in those areas where utility improvements are being constructed. Impacts related to construction of off-site utilities connections would not result in any unique or more intensive types of impacts than the grading required for construction on the Housing Sites.

Since the development of the Housing Sites would not require the relocation or upgrade of utility services off-site and the impacts associated with the installation and extension of infrastructure on-site as well as the off-site connections would be temporary and conducted in accordance with the routine construction control methods noted above, development of the Housing Sites would result in less than significant impacts.

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. Water demand from residential development at the Housing Sites would consist of interior plumbing devices, such as toilets, urinals, and sinks, and also outdoor irrigation of landscape areas. Consumption rates would depend on the individual tenant composition and the number of plumbing fixtures installed in each of the buildings.

According to SCAG forecasts, population in the City is approximately 11,600 in 2016 and is anticipated to increase to 12,500 in 2045.⁵⁰ The normal supply and demand totals from the Signal Hill UWMP show a demand of 1,897 AF in 2020 and increases to 2,157 AF in 2040, an increase of 260 AF.⁵¹ The anticipated water supply in 2030 is 4,369 AF. It is expected that the Housing Sites would generate an additional population of up to 1,355 people to the City of Signal Hill. The additional population would represent approximately 142 percent of the forecasted population growth from SCAG. Based on the population increase, the anticipated housing developments would increase the local water usage by approximately 372 AF by 2029, resulting in a water demand of 2,469 AF in 2029 from full build out of the Housing Sites, which is within the service capacity of 4,369 AF.

The City's water supplies are considered to be stable and sufficient to support expected growth that could occur over the next several years. As such, the Project would not have a significant impact on water supplies.

50 Southern California Association of Governments. ConnectSoCal. Technical Report. September 3, 2020. https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial_demographics-and-growth-forecast.pdf?1606001579#:~:text=The%20Regional%20Council%20adopted%20the,the%20county%20and%20jurisdictional%20levels.&text=According%20to%20the%20January%201,the%20SCAG%20region%20is%2019%2C155%2C405. Accessed April 2021.

51 City of Signal Hill. Urban Water Management Plan. October 2019. <https://ca-signalhill2.civicplus.com/DocumentCenter/View/8136/2015-Urban-Water-Management-Plan-DRAFT?bidId=>. Accessed April 2021.



c) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less than Significant Impact. Signal Hill sanitary sewers connect to the City of Long Beach sewer line, which flows into regional wastewater facilities maintained by the Los Angeles County Sanitation District 29. Since population growth from full development of the Housing Sites is consistent with the growth projections for the Los Angeles County, it is expected that the additional wastewater flow associated with the development of the Housing Sites can be accommodated within existing and already planned facilities. Impacts from the development of the Housing Sites would be less than significant.

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. In relation to solid waste standards, the California Department of Resources Recycling and Recovery (CalRecycle) reports target per capita disposal goals which are expressed in pounds per day (ppd) per dwelling unit to track the solid waste generation per person. As of 2019 in Signal Hill, the most recent reporting year, CalRecycle reported that Signal Hill had an average waste disposal rate of 4.3 ppd per employee, surpassing the City's per capita disposal target of 8.9 ppd per population.⁵² Development of Housing Sites would generate additional solid waste; however, there are no unique characteristics of the proposed land use which would result in a higher than normal level of waste generation and disposal, compared to other similar land uses in the City.

The County of Los Angeles, Department of Public Works is responsible for continuing to ensure there is adequate landfill capacity for disposal of municipal wastes generated throughout the region. Through its Countywide Integrated Waste Management Plan (IWMP), the County regularly conducts needs assessments, forecasts of future waste generation and disposal patterns, and projections of landfill disposal capacities. Analysis prepared for the County's IWMP most recent 2016 annual report determined that there are at least 15 years of remaining landfill capacity on a countywide basis.

Because there are no unique solid waste generation characteristics from the development of the Housing Sites, such developments would not impair the City's continuing efforts to achieve and surpass its target rate for rates of waste generation for nonresidential land uses. As such, the residential developments would not significantly affect the capacity of the landfills serving this area and would not generate solid waste in excess of the capacity of local infrastructure or otherwise impair the attainment of solid waste goals.

e) Would the project comply with federal, State, and local management and reduction statutes and regulations related to solid waste?

Less than Significant Impact. In the short term, future construction activities at the Housing Sites would generate construction-related waste. Section 8.08.55 of the City's Municipal Code requires construction and demolition debris generated in Signal Hill to be recycled to the greatest extent feasible to comply with state-mandated waste diversion requirements. Pursuant to Section 5.408 of

⁵² CalRecycle. Disposal Rate Calculator.
<https://www2.calrecycle.ca.gov/LGCentral/AnnualReporting/DisposalRateCalculator>. Accessed May 2021.



the 2016 California Green Building Standards Code, at least 65 percent of all nonhazardous construction and demolition waste must be recycled or salvaged to avoid landfill disposal. A construction waste management plan must be submitted and implemented, with verification by the City's Building Official, to comply with this requirement.

Future residential development on the Housing Sites would comply with the City's solid waste reduction programs, which are designed to comply with federal, state, and local statutes and regulations related to solid waste. These statutes and regulations include the California Integrated Solid Waste Management Act, the California Beverage Container Recycling and Litter Reduction Act, and the City's solid waste disposal policies and practices. The California Integrated Solid Waste Management Act requires that jurisdictions maintain a 50 percent or better diversion rate for solid waste. EDCO offers recycling programs to Signal Hill businesses that allow employees and/or tenants to collect a variety of recyclable materials. Interested businesses would contract directly with EDCO to devise a recycling program tailored to the business and/or tenant.⁵³

Construction and operation of the Housing Sites is required to comply with the current solid waste franchise's recycling system; therefore, it would comply with the City's and California's solid waste disposal regulations. As such, future Housing Site developments would not result in a significant impact involving compliance with solid waste regulatory standards.

53 EDCO. 2018. Business Services. Accessed April 2021. <https://www.edcodisposal.com/signalhill/business-waste-management/>.



XX. Wildfire

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
WILDFIRE:				
<i>If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:</i>				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a) If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. Wildland fire protection in California is the responsibility of either the local government, State, or the federal government. State Responsibility Areas (SRA) are the areas in the state where the State of California has the primary financial responsibility for the prevention and suppression of wildland fires. The SRA forms one large area over 31 million acres to which the Cal Fire provides a basic level of wildland fire prevention and protection services.

Local responsibility areas (LRA) include incorporated cities, cultivated agriculture lands, and portions of the desert. LRA fire protection is typically provided by city fire departments, fire protection districts, counties, and by Cal Fire under contract to local government.⁵⁴ LACoFD provides fire protection and emergency medical services to the County. Cal Fire uses an extension of the SRA Fire Hazard Severity Zone model as the basis for evaluating fire hazard in LRAs. The local responsibility area hazard rating reflects flame and ember intrusion from adjacent wildlands and from flammable vegetation in the urban area. Fire Hazard Severity Zones (FHSZ) are identified by Moderate, High

⁵⁴ CALFIRE, Fire Hazard Severity Zones Maps, <https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/>, accessed April 2021.



and Very High in an SRA, and Very High in an LRA. The City is not in or near an SRA or LRA or lands classified as FHSZ.

As such, the development of the Housing Sites would not impair an adopted emergency response plan or emergency evacuation plan and no impacts would occur.

b) *If located in or near State responsibility areas or lands classified as very 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?*

No Impact. As previously discussed, the City is not in or near an SRA or LRA or lands classified as FHSZ.⁵⁵ As such, slope, prevailing winds, or other factors would not exacerbate wildfire risks or contribute toward the uncontrolled spread of a wildfire and no impact would occur.

c) *If located in or near State responsibility areas or lands classified as very 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?*

No Impact. The City is not in or near an SRA or LRA or lands classified as FHSZ.⁵⁶ While residential development would involve infrastructure improvements along streets adjacent to the Housing Sites, improvements would not be located in or near wildfire areas. Therefore, development of the Housing Sites would not require additional roads, fuel breaks, emergency water sources, power lines or other utilities that would exacerbate fire risk and no temporary or ongoing impacts to the environment would occur. Future Housing Site developments would have no impacts on installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment, no mitigation measures is required.

d) *If located in or near State responsibility areas or lands classified as very 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?*

No Impact. Since the four thresholds apply if a project site is located in a designated wildland fire hazard area and the City is not located in a designated wildland fire hazard area, there are no impacts concerning wildfire hazards.

55 CALFIRE, FHSZ Viewer, <https://egis.fire.ca.gov/FHSZ/>, accessed April 2021.

56 CALFIRE, FHSZ Viewer, <https://egis.fire.ca.gov/FHSZ/>, accessed April 2021.



XXI. Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
MANDATORY FINDINGS OF SIGNIFICANCE:				
a) Does the project have the potential to substantially 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, substantially 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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

a) Does the project have the potential to substantially 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, substantially 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?

Potentially Significant Impact. As discussed in Section 4, Biological Resources, of this Initial Study, there are no native landscape elements remaining on the site, and thus no habitat that could support sensitive plants or wildlife species, and there are no habitat linkages connecting the any land in the City to any known sensitive biological habitat in the area. There are no wetlands or riparian habitat in the City limits. Further, as explained in Section 4, the identified Housing Sites are highly disturbed with decades of oil extraction activities, development, and limited vegetation on site that would not support wildlife. There are no habitat conservation plans or any other type of conservation plan to protect biological resources in Signal Hill. Development of the Housing Sites would not reduce the number of or restrict the range of any candidate, sensitive, or special-status species.

The identified Housing Sites are primarily vacant, apart from oil extraction facilities on 2 of the Housing Sites, as well as an existing grocery store on the northeast portion of Heritage Square. The identified Housing Sites were largely used in the past for oil extraction purposes, so the potential for



discovering historical resources from prior human activities during the earthwork phase of project construction is unlikely given the highly disturbed nature of the surface and subsurface soils. That said, there is the potential for yet unknown prehistoric or historic cultural resources to be discovered during excavation and grading activities. Therefore, as stated in Section 5, Cultural Resources, of this Initial Study, further analysis is required to determine the level of potential direct and indirect impacts to historic resources as part of the EIR.

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)?

Potentially Significant Impact. The environmental effects for the development of the four Housing Sites, along with the environmental effects of other planned projects in the Signal Hill area, could potentially create cumulative impacts, some of which may be significant. A cumulative project list will be developed, an analysis of cumulative impacts will be conducted, and the project's contribution to any cumulative impacts will be considered further in the EIR being prepared for this project. If potentially significant impacts are identified, measures to avoid or mitigate those impacts will be developed.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Potentially Significant Impact. As discussed earlier in this Initial Study, further evaluation is needed to determine if the future development of the four Housing Sites will have environmental effects that would cause substantial adverse effects on humans, either directly or indirectly. Such effects could result, for example, from the generation of air pollutant emissions during construction and over the operating life of the residential uses at the Housing Sites, and from the increase in ambient noise levels attributable to the Housing Site construction and operational activities. Since the development of the Housing Sites would place new homes near operating oil wells, there could be some exposure to oil well hazards for these new residential land uses. Further assessment of air quality, noise, and environmental hazards that could adversely affect neighboring land uses and the proposed on-site homes would be included as part of the EIR being prepared for the Project. If potentially significant impacts are identified, measures to avoid or mitigate those impacts will be developed.



SECTION E. ACRONYMS

AB	Assembly Bill
AF	acre-feet
APN	Assessor's Parcel Number
AIA	Airport Influence Area
AQMP	Air Quality Management Plan
BMP	best management practices
Cal Fire	California Department of Forestry and Fire Protection
CBD	Central Business District
CEQA	California Environmental Quality Act
CGS	California Geologic Survey
CH ₄	methane
CI	Commercial Industrial
CO ₂	carbon dioxide
CTC	Commercial Town Center
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
FHSZ	Fire Hazard Severity Zone
GHG	Greenhouse gas
HCD	Housing and Community Development
IRA	Identified Resource Area
IWMP	Integrated Waste Management Plan
LACoFD	Los Angeles County Fire Department
LACSD	Los Angeles County Sanitation District
LAPD	Los Angeles Police Department
LARWQCB	Los Angeles Regional Water Quality Control Board
LID	low-impact development
LRA	local responsibility areas
MLD	most likely descendant



MPO	Metropolitan Planning Organization
MRZ	Mineral Resource Zone
MWD	Metropolitan Water District
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Planning
NOx	nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
PM2.5	small particulate matter
PRC	Public Resources Code
RHNA	Regional Housing Needs Assessment
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SMARA	Surface Mining and Reclamation Act of 1975
SP	Specific Plan
SRA	State Responsibility Area
SWPPP	stormwater pollution prevention plan
SZ	Scientific Resource Zone
TPA	Transit Priority Areas
US	United States
USEPA	United States Environmental Protection Agency
UWMP	Urban Water Management Plan
WRD	Water Replenishment District
VMT	Vehicle Miles Traveled



SECTION F. REFERENCES

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