CEQA ENVIRONMENTAL COMPLIANCE CHECKLIST

Edison Park Reconfiguration and Improvements Project

Lead Agency:

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1.0 PROJECT DESCRIPTION

1.1 PROJECT LOCATION

The City of Huntington Beach (City) is regionally located in the northwestern portion of Orange County, approximately 37 miles southeast of downtown Los Angeles; refer to Exhibit 1, *Regional Vicinity*. Regional access to the City is provided via the San Diego Freeway (Interstate 405 [I-405]) and Pacific Coast Highway (State Route 1 [SR-1]). Surrounding communities and areas include the City of Seal Beach to the northwest, the City of Westminster to the north, the City of Fountain Valley to the northeast, cities of Newport Beach and Costa Mesa to the east; and the Pacific Ocean to the southwest.

The proposed Edison Park Reconfiguration and Improvements Project (project) site is located in the southeastern portion of the City within Edison Community Park (Edison Park, or park) at 21377 Magnolia Street. As shown on Exhibit 2, *Site Vicinity*, the approximately 35.5-acre site encompasses four parcels (Assessor's Parcel Numbers [APNs] 148-012-04, 06, -12, and 148-071-29) and is generally bound by Stilwell Drive to the north, Magnolia Street to the east, Hamilton Avenue to the south, and a portion of Seaforth Lane to the west. The southern portion of the site (inclusive of parcels with APNs 148-012-06 and 148-071-29) is owned and operated by Southern California Edison (SCE). It should be acknowledged that the approximately 4.5-acre lot with three ball fields to the northwest of the site is owned and operated by the Huntington Beach City School District (HBCSD) and is not part of the project site; refer to Exhibit 2.

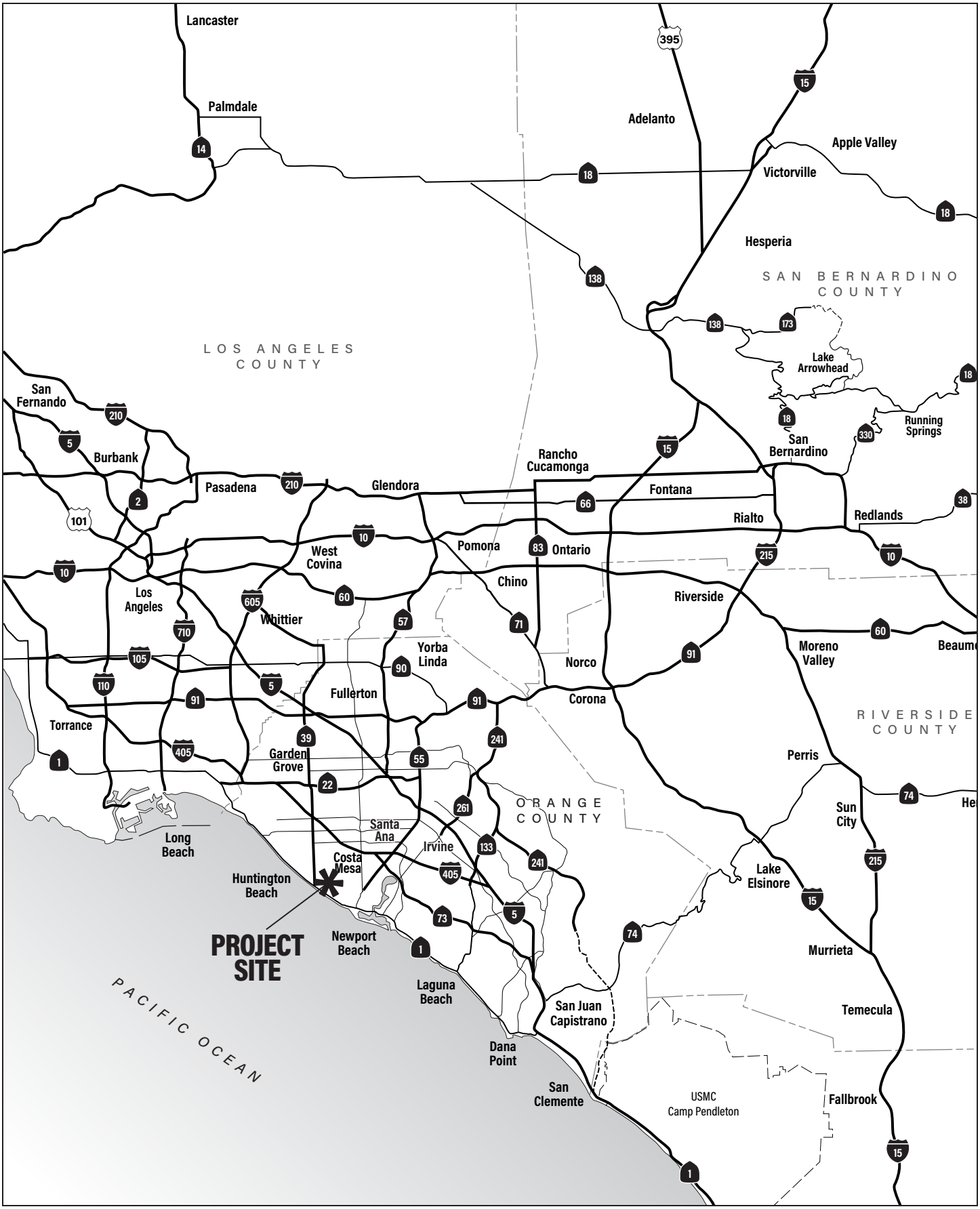
Regional access to the site is provided via SR-1 and SR-39 (Beach Boulevard). Local access to the site is provided via Hamilton Avenue, Magnolia Street, and Stilwell Drive.

1.2 ENVIRONMENTAL SETTING

Edison Community Park is an existing public park owned and operated by the City of Huntington Beach. Existing amenities at the park include the following:

- Two lighted softball fields;
- Four tennis courts;
- Four full and four half-court basketball courts;
- Six outdoor racquetball courts;
- Seven temporary pickleball courts;
- Sand and rubber surfaced tot lot;
- Skate spot;
- Open turf areas;
- Walkways; and
- The 17,361-square foot Edison Community Center (also known as Edition Recreation Center) building.

Additionally, the Huntington Beach Fire Department – Magnolia Station 4 is located within the southeastern portion of the site with the address 21441 Magnolia Street.



EDISON PARK RECONFIGURATION AND IMPROVEMENTS PROJECT
CEQA 15183 EXEMPTION CHECKLIST

Regional Vicinity

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Exhibit 1

Source: Google Earth Pro, July 2025

EDISON PARK RECONFIGURATION AND IMPROVEMENTS PROJECT
CEQA 15183 EXEMPTION CHECKLIST

Site Vicinity

Exhibit 2

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The topography of the park is generally flat, with the majority of the park composed of a natural grass surface. A network of meandering concrete pathways traverses the park for pedestrian connectivity. An SCE utility corridor exists within the southern portion of the park, where SCE maintains electrical utility towers and east-west trending high-voltage overhead utility lines. Surface parking spaces are scattered throughout the eastern portion of the site, accessible via two driveways along Magnolia Street and another driveway along Stilwell Drive. Access to the fire station is provided via a separate driveway along Magnolia Street. There are approximately 234 existing trees on-site.

Two capped and abandoned oil wells are located within the northwest portion of the park. The first well is located directly south of Poston Lane in a grassy area. The second well is located directly south of Shaw Lane, also in a grassy area.

The park hosts over 200 recreation classes and activities for adult, teen, youth, and preschool ages; activities include Zumba, tennis, karate, fitness classes, boot camps, ballet, gymnastics, Pilates, guitar, yoga, baby classes, dog training, tot classes, tai chi, cooking, preschool program, surfing lessons, volleyball, basketball, football, softball, dance, summer camps, and skating. The Edison Community Center is open Monday through Thursday from 9:00 a.m. to 9:00 p.m., Friday from 9:00 a.m. to 8:00 p.m., and Saturday from 9:00 a.m. to 1:00 p.m.; it is closed on Sundays. The sport courts and softball fields are illuminated until 10:00 p.m. every night.

1.2.1 Existing Land Use Designation and Zoning

According to the *City of Huntington Beach General Plan* (General Plan), the majority of the project site is designated as Open Space – Park (OS-P), with the southwestern portion of the site (APN 148-071-29 owned by SCE) designated as Public (P).[1] The OS-P designation provides for public parks and recreational facilities and supporting ancillary uses (e.g., maintenance equipment storage). The P designation provides for public and private schools, hospitals, churches, cultural facilities, institutional, and similar semi-public community service uses.

According to the *City of Huntington Beach Zoning Map* (Zoning Map), the majority of project site is zoned Open Space – Parks and Recreation Subdistrict (OS-PR), and the southwestern corner (parcel with APN 148-071-29, owned by SCE) and the fire station area in the southeastern corner of the site are zoned Public-Semipublic (PS).[2] The OS District provides areas for public or private use and areas for preservation and enhancement. The PS District provides areas for large public or semipublic uses.

1.2.2 Surrounding Land Uses

The project is located within a highly developed and urbanized area with primarily residential, recreational, and educational facilities. Table 1-1, *On-Site and Surrounding Land Uses*, summarizes the on-site and surrounding land uses.

1 City of Huntington Beach, *General Plan, City of Huntington Beach, General Plan Designations*, August 2022.

2 City of Huntington Beach, *City of Huntington Beach Zoning*, https://huntingtonbeach.maps.arcgis.com/apps/webappviewer/index.html?id=7ab822c02ded4940acd7e4593bba7cb7, accessed July 22, 2025.

Table 1-1
On-Site and Surrounding Land Uses

Description	Existing Land Uses	Land Use Designation	Zoning
Project Site	Community Park; Utilities	Open Space – Park (OS-P); Public (P)	Open Space – Parks and Recreation Subdistrict (OS-PR); Public-Semipublic (PS)
North	Huntington Beach City School District offices and sports fields; residential uses	Public/Semipublic, with Residential Low Density as underlying designation (PS [RL])[1]; Residential Low Density (RL)	PS; Residential Low Density (RL)
East	Edison High School; SCE utility corridor/open space	PS (RL); OS-P	PS; Open Space – Parks and Recreation Subdistrict with Oil Overlay (OS-PR-O)
South	Ascon Landfill site; industrial uses	RM-sp (Residential Medium Density– Specific Plan Overlay); Industrial (I)	Magnolia Pacific Specific Plan with Coastal Zone Overlay (SP10-CZ); Industrial Limited with Coastal Zone Overlay and Oil Overlay (IL-CZ-O)
West	Residential homes	RL	RL

Notes:
1. Most land use properties with a Public-Semipublic designation have an underlying designation shown in parentheses on the Land Use Map. The underlying designation indicates the preferred land use in the event the sites permanently transition to another use.

Sources:
City of Huntington Beach, *General Plan, City of Huntington Beach, General Plan Designations*, August 2022.
City of Huntington Beach, *City of Huntington Beach Zoning*, https://huntingtonbeach.maps.arcgis.com/apps/webappviewer/index.html?id=7ab822c02ded4940acd7e4593bba7cb7, accessed July 22, 2025.

1.2.2 Background and History

The park site was originally used by SCE as a sand and gravel pit in the 1950s. It was later used as the Cannery Street Refuse Disposal Station (also known as the Cannery Street Landfill [CSL]) in the 1950s through 1960s. This former landfill was approximately 27.5 acres in size (63.3 percent of the park) and encompassed the west side of the current park site. The former landfill received non-hazardous waste materials such as construction debris, stumps, logs, and large timber. Upon completion of waste placement activities, the former owner of CSL (County of Orange) dedicated the site to the City in 1974. To comply with the park restriction zoning, the City developed the area into the public park that is now the Edison Community Park in the same year (1974).

Some of the existing facilities/amenities at the park are constructed on top of waste material deposited at the former CSL, and some park facilities have been affected by land settlement over the years. The effect of settlement, differential settlement and/or a combination of both are observed at the existing tennis courts, sidewalks, open park areas and other hardscape/amenities at the site. Specifically, the existing tennis courts are located within the landfill limits and were constructed with a post-tension slab design in an effort to minimize settlement issues. However, two of the four courts have shifted to the point of creating severe grade changes and developing cracks in the concrete playing surface. These two courts are no longer in use by the public. Sections of the tot playground and softball field areas have also shown significant settling. As discussed, two capped and abandoned oil well sites are

located on the northwest corner of the park; both wells are located outside of the former 27.5-acre CSL site that the park was built over.

In 2009, a park master plan was proposed for the reconfiguration of the park. The master plan proposed to reconfigure the existing open space areas; add recreational amenities including bocce ball courts, and a skate park; reconfigure and expand the existing parking facility by adding 244 parking spaces for a total of 376 on-site parking spaces; install new landscape and hardscape improvements; and install four lighted practice soccer fields and a lighted multi-purpose field. The master plan was proposed to be carried out in four phases over approximately eight years. The proposed master plan and the associated Mitigation Negative Declaration (MND) No. 08-001 were approved by the City's Planning Commission on June 9, 2009, and a Conditional Use Permit was granted for the project. However, only a portion of the proposed improvements (parking lot and lighted fields) were constructed following the 2009 approval.

A former landfill (Ascon Landfill) is located to the south of the site across Hamilton Avenue. Ascon Landfill operated as an active landfill from around 1938 to 1984. In the early years of operation, the landfill received waste from oil drilling such as waste drilling muds, waste water brines, and other drilling waste. In later years, it received construction debris such as asphalt, concrete, and metal. This former landfill is currently undergoing cleanup work under the oversight of the Department of Toxic Substances Control (DTSC) and the South Coast Air Quality Management District (SCAQMD). No leaching or contamination has been detected from this former adjacent landfill to date.

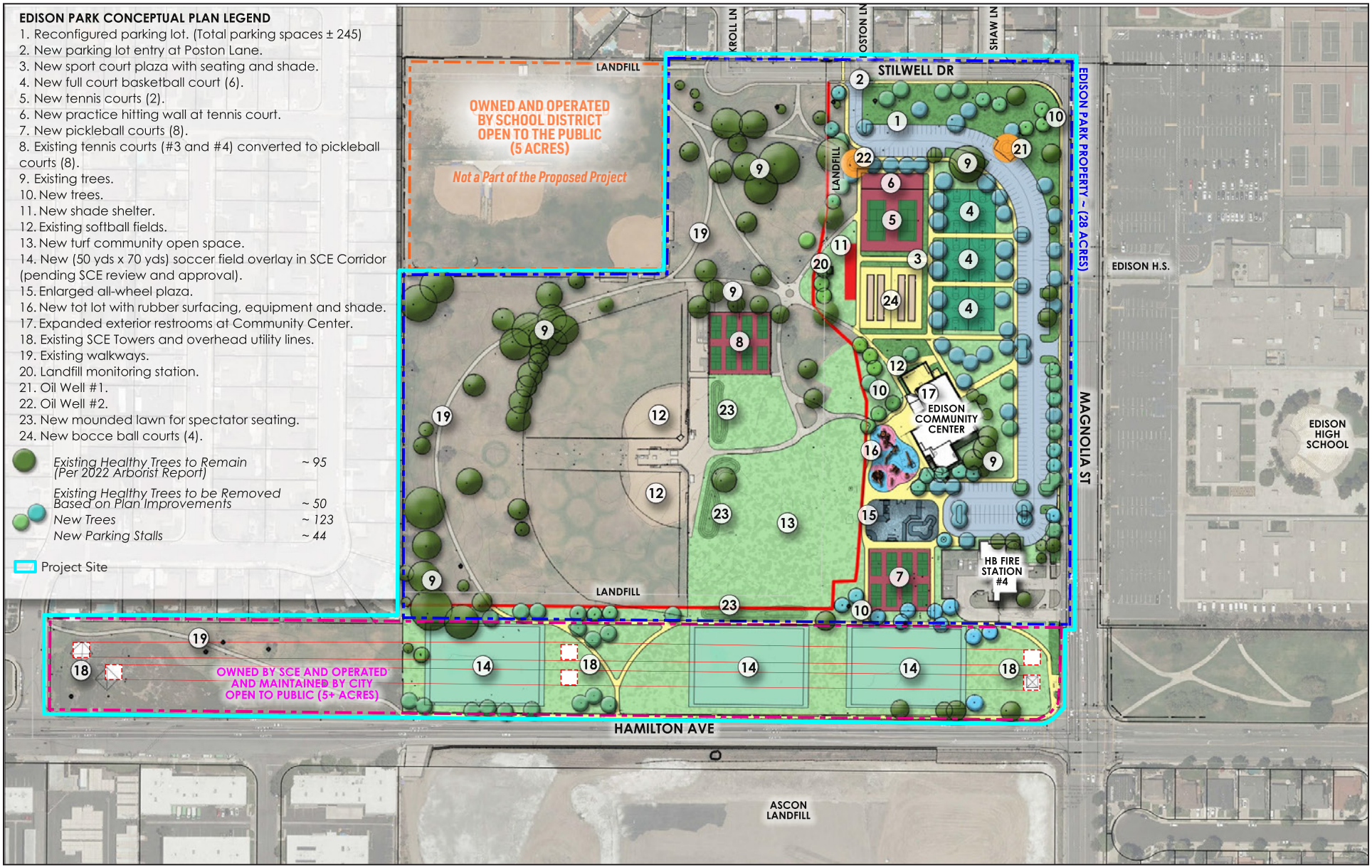
The current condition of the park is largely similar to what was originally constructed in 1974. Key upgrades and modifications to the park over the years have included:

- Parking lot improvements;
- Lighting enhancements;
- Playground modifications;
- Replacement of picnic shelters with a skate spot; and
- Replacement of hardscape and construction of temporary pickleball courts.

1.3 PROJECT CHARACTERISTICS

This City-initiated project proposes to reconfigure the park and create new park amenities over non-landfill land; refer to Exhibit 3, *Conceptual Reconfiguration Plan*. The various new and upgraded amenities, including new sports courts, wheel sports, playground, trees, walkways, parking lot, and access, would offer diversified recreation and allow for more park engagement. The resettling and sinking amenities would be cleared under the project to allow for more open space.

The project is proposed to be constructed in three phases to allow portions of the park to remain open during construction; refer to Exhibit 4, *Proposed Phasing Plan*. Proposed improvements outlined by phases are shown on Exhibit 4 and detailed as follows:



Source: RJM Design Group, 2026

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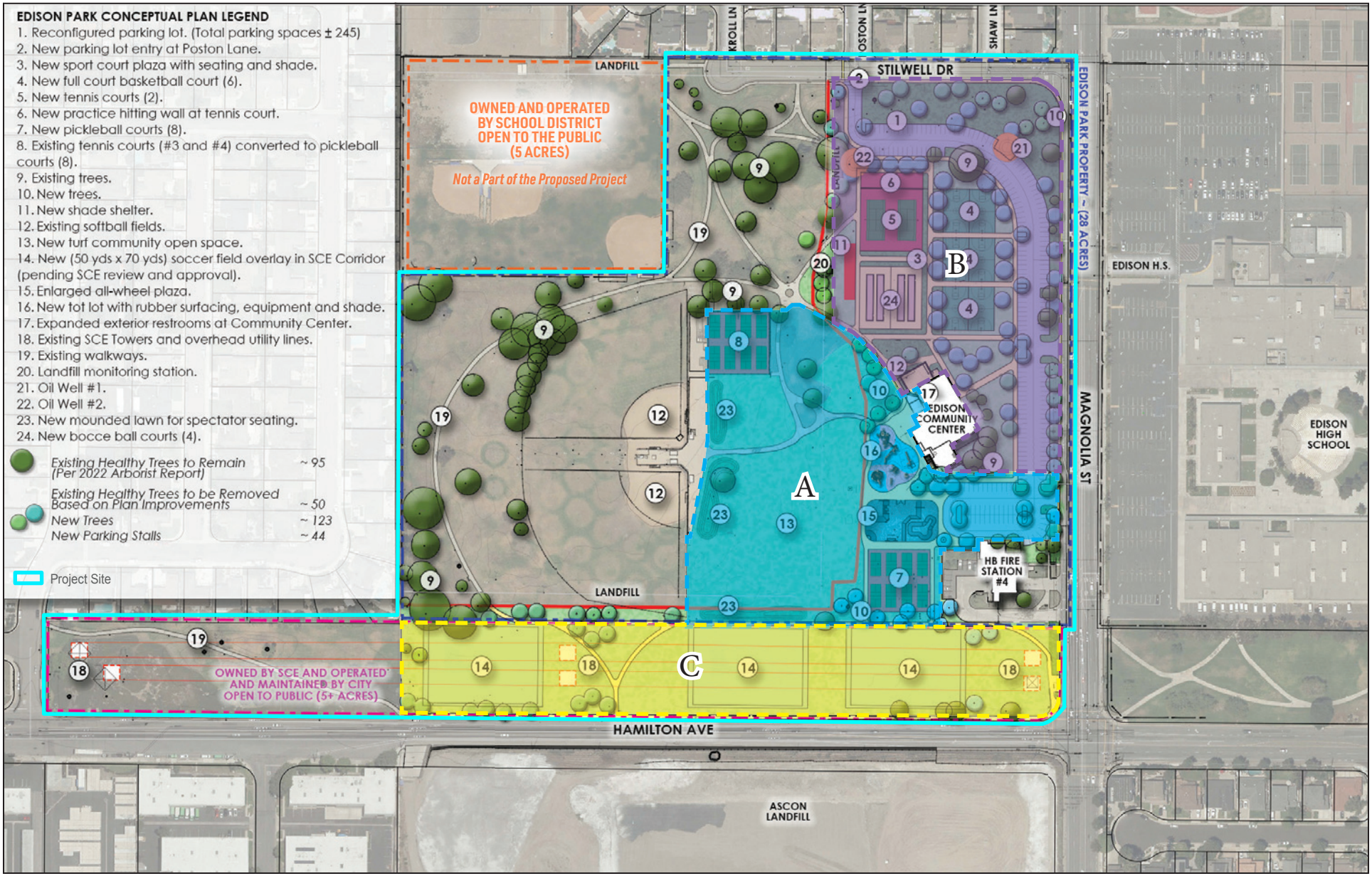
CEQA 15183 EXEMPTION CHECKLIST

Conceptual Reconfiguration Plan

Exhibit 3



Source: RJM Design Group, 2026

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EDISON PARK RECONFIGURATION AND IMPROVEMENTS PROJECT
CEQA 15183 EXEMPTION CHECKLIST

Proposed Phasing Plan

Exhibit 4

Phase A

- Demolition of two condemned tennis courts, tot lot, skate spot, and pickleball courts;
- Conversion of two tennis courts (#3 and #4) into eight pickleball courts;
- Installation of new pickleball courts west of the fire station;
- Construction of new all-inclusive tot lot/playground with rubber surfacing, equipment, and shade southwest of Edison Community Center;
- Construction of an enlarged all-wheel plaza south of new tot lot;
- Installation of new turf community open space;
- Installation of new mounded lawn for spectator seating; and
- Minor expansion of exterior park restrooms at Edison Community Center to meet park needs and Americans with Disabilities (ADA) requirements.

Phase B

- Demolition of handball courts/walls, basketball courts, existing parking, and existing driveway at Stilwell Drive;
- Reconfiguration and expansion of parking lot to add additional parking spaces with new driveway constructed at Poston Lane;
- Installation of sport court plaza with seating and shade;
- Installation of six full basketball courts;
- Installation of two new tennis courts with new practice hitting walls;
- Installation of four new bocce ball courts; and
- Construction of a new shade shelter between the new tot lot and all-wheel plaza.

Phase C

- Demolition of existing walkways; and
- Installation of new 50 yards wide and 70 yards long soccer field overlay, pending SCE's review and approval.

Proposed pickleball courts would be operational between 7:00 a.m. to 10:00 p.m.

The project would construct approximately 44 new parking spaces. Upon construction, a total of 245 parking spaces would be provided throughout. Additionally, approximately 50 existing trees would be removed due to hazardous health. The project would follow the City's typical tree replacement process of a 1:2 ratio; for every one tree removed, two would be planted. As such, over 123 new mature trees would be planted during Phase A and Phase B construction.

Both abandoned oil wells on-site would remain undisturbed and avoided during all proposed development and improvements.

It should be noted that two variations of the conceptual reconfiguration plan are under consideration by the City. These two variations of the plan include minor differences related to phasing and improvements, with the most substantive change being the proposed location of new pickleball courts.

The first variation of the conceptual reconfiguration plan included the conversion of two existing tennis courts into eight pickleball courts within the central portion of the site, and the creation of eight new pickleball courts within the northeastern portion of the site. The second variation of the conceptual reconfiguration plan (depicted within Exhibit 3) modified the design to shift the creation of the eight new pickleball courts to the southeastern corner of the project site, immediately west of the existing Huntington Beach Fire Station. The impact analysis within this document would apply to either variation of the conceptual reconfiguration plan; moreover, noise impacts specific to pickleball activities are considered for both variations within Section 3.13, *Noise*.

1.4 PHASING AND CONSTRUCTION

As discussed above, the project is expected to be constructed over three phases. However, there is a possibility that the project may be constructed in a single phase. In this scenario, single-phase project construction would occur for a duration of approximately 13 months and the project is anticipated to be operational by September 2027. To provide a conservative analysis of the project's construction impacts (i.e., analyze the most intensive construction scenario), single phase construction has been assumed and analyzed within this Exemption Checklist.

1.5 PERMITS AND APPROVALS

The proposed project would require permits and approvals from the City of Huntington Beach as well as other agencies, as applicable. Applicable permits and approvals may change as the project entitlement process proceeds.

2.0 CEQA GUIDELINES SECTION 15183 CHECKLIST

2.1 INTRODUCTION

2.1.1 City of Huntington Beach General Plan Update EIR

The *City of Huntington Beach General Plan Update Program Environmental Impact Report* (General Plan Update EIR; SCH No. 2015101032) was certified by the City Council in 2017 and analyzed potential environmental impacts associated with the *City of Huntington Beach General Plan Update* (General Plan Update). The General Plan is a statement of long-range public policy to guide the use of private and public lands within the City and the City's Sphere of Influence (SOI). The General Plan Update establishes an overall development capacity for the City and serves as a policy guide for determining the appropriate physical development and character of Huntington Beach over an approximate 25-year planning horizon (to 2040). The General Plan Update includes a GHG Reduction Program, a Coastal Resiliency Program (CRP) as well as identifies preparedness goals, actions and an implementation strategy. The General Plan Update provides updates to nine elements of the General Plan, which include Land Use, Circulation, Environmental Resources/Conservation, Natural and Environmental Hazards, Noise, Infrastructure/Public Services, Historic/Cultural Resources, Housing, and Coastal.

The General Plan Update EIR analyzes the environmental impacts associated with buildout of the General Plan Update in accordance with CEQA. As noted in the General Plan Update EIR, implementation of the General Plan Update would result in significant and unavoidable impacts related to air quality, cultural resources, greenhouse gas emissions, noise, and utilities and service systems. All other potentially significant impacts were determined to be less than significant upon compliance with existing regulations and implementation of mitigation measures.

2.1.2 Applicability of CEQA Streamlined Review Exemption

Pursuant to CEQA Guidelines Section 15183(d), this section shall only apply to projects which meet the following conditions:

1. The project is consistent with:
    a. A community plan adopted as part of the general plan,
    b. A zoning action which zoned or designated the parcel on which the project would be located to accommodate a particular density of development, or
    c. A general plan of a local agency, and
2. An EIR was certified by the lead agency for the zoning action, the community plan, or the general plan.

The streamlined review exemption pursuant to Section 15183 of the CEQA Guidelines applies only to the extent that all feasible mitigation measures for a significant effect specified in the EIR are or will be undertaken by the public agency having jurisdiction to implement such mitigation measures (CEQA Guidelines Section 15183(e)(1) and (2)).

As required by CEQA, the City prepared the Final Program Environmental Impact Report for the City of Huntington Beach General Plan Update (General Plan Update EIR) which analyzed the environmental impacts of the General Plan Update. The City of Huntington Beach City Council certified the General Plan Update EIR on October 2, 2017.

Accordingly, the Section 15183 streamlined review exemption applies because the proposed project is consistent with the General Plan Update, the General Plan Update EIR was certified for the General Plan Update, and all feasible mitigation measures identified in the General Plan Update EIR MMRP as being applicable to the proposed project would be implemented, as further discussed in this CEQA Environmental Compliance Checklist.

2.1.3 Scope of CEQA Streamlined Review Exemption

In evaluating whether a project is exempt from further environmental review, CEQA Guidelines Section 15183(b) specifies that a public agency shall limit its examination of environmental effects to those which the agency determines, in an initial study or other analysis:

1. Are peculiar to the project or the parcel on which the project would be located,
2. Were not analyzed as significant effects in a prior EIR on the zoning action, general plan, or community plan, with which the project is consistent,
3. Are potentially significant off-site impacts and cumulative impacts which were not discussed in the prior EIR prepared for the general plan, community plan or zoning action, or
4. Are previously identified significant effects which, as a result of substantial new information that was not known at the time the EIR was certified, are determined to have a more severe adverse impact than discussed in the prior EIR.

An additional EIR, or other environmental document, need not be prepared for a project solely on the basis of an impact that is not peculiar to the parcel or to the project, has been addressed as a significant effect in the prior EIR, or can be substantially mitigated by the imposition of uniformly applied development policies or standards (CEQA Guidelines Section 15183(c)). An impact is not peculiar if uniformly applied development standards or procedures have been previously adopted by the city or county with a finding that the development standards or procedures will substantially mitigate that environmental impact (CEQA Guidelines Section 15183(f)). The finding shall be based on substantial evidence which does not need to be addressed in an EIR and such uniformly adopted policies or procedures does not need to be included in the general plan or any community plan.

2.2 PROJECT BACKGROUND

1.	**Project Title:** Edison Park Reconfiguration and Improvements Project
2.	**Lead Agency Name and Address:** City of Huntington Beach Community & Library Services Department 2000 Main Street Huntington Beach, CA 92648
3.	**Contact Person and Phone Number:** Ashley Wysocki, Director of Community & Library Services Community & Library Services Department (714) 374-5302 Ashley.Wysocki@SurfCity-HB.org
4.	**Project Location:** The project site consists of Edison Community Park located at 21377 Magnolia Street. The approximately 35.5-acre site encompasses four parcels (Assessor's Parcel Numbers [APNs] 148-012-04, 06, -12, and 148-071-29) and is generally bound by Stilwell Drive to the north, Magnolia Street to the east, Hamilton Avenue to the south, and a portion of Seaforth Lane to the west. The approximately 4.5-acre lot with three ball fields to the northwest of the site is owned and operated by the Huntington Beach City School District (HBCSD) and is not part of the project site.
5.	**Project Sponsor's Name and Address:** City of Huntington Beach Community & Library Services Department 2000 Main Street Huntington Beach, CA 92648
5.	**General Plan Designation:** The majority of project site is designated Open Space – Park (OS-P), with the southwestern portion of the site (APN 148-071-29, owned by Southern California Edison [SCE]) designated as Public (P).
7.	**Zoning:** The majority of project site is zoned Open Space – Parks and Recreation Subdistrict (OS-PR), while the southwestern corner (parcel with APN 148-071-29, owned by SCE) and the fire station area in the southeastern corner of the site are zoned Public-Semipublic (PS).

8.	**Description of the Project:** The west side of the current park site was previously used as a sand and gravel pit and a landfill in the 1950s through 1960s. As such, some of the existing facilities/amenities at the park constructed on top of waste material have been affected by land settlement over the years. The project proposes to reconfigure the park and create new park amenities over non-landfill land. The various new and upgraded amenities, including new sports courts, wheel sports, playground, trees, walkways, parking lot, and access, would offer diversified recreation and allow for more park engagement. The resettling and sinking amenities would be cleared under the project to allow for more open space. Additional details regarding the proposed project are provided in Section 1.3, *Project Characteristics*.
9.	**Surrounding Land Uses and Setting:** The project is located within a highly developed and urbanized area surrounded by primarily residential, recreational, and educational facilities. Refer to Table 1-1, *On-Site and Surrounding Land Uses*, that summarizes the on-site and surrounding land uses.
10.	**Other public agencies whose approval is required (e.g., permits, financing approval or participation agreement):** Santa Ana Regional Water Quality Control Board (General Construction Permit)

2.3 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The project would potentially affect the environmental factors checked below, involving at least one impact that is 1) a peculiar impact that was not identified as a significant impact under the General Plan Update EIR, 2) a significant impact that was not analyzed as significant in the General Plan Update EIR, 3) a potentially significant off-site impact or cumulative impact not discussed in the General Plan Update EIR, or 4) a more severe impact due to substantial new information that was not known at the time the General Plan Update EIR was certified. Impacts would be mitigated to a less than significant level as indicated by the checklist on the following pages.

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

2.4 ENVIRONMENTAL DETERMINATION

On the basis of this initial evaluation:

I find that the proposed project WOULD NOT result in 1) a peculiar impact that was not identified as a significant impact under the prior EIR; 2) a significant impact that was not analyzed as significant in the prior EIR; 3) a potentially significant off-site impact or cumulative impact not discussed in the prior EIR; or 4) a more severe impact due to substantial new information that was not known at the time of the prior EIR. NO FURTHER ACTION is required and a Notice of Exemption will be filed indicating that the project IS ELIGIBLE for an EXEMPTION under CEQA Guidelines Section 15183. ✓

I find that the project WOULD result in 1) a peculiar impact that was not identified as a significant impact under the prior EIR; 2) a significant impact that was not analyzed as significant in the prior EIR; 3) a potentially significant off-site impact or cumulative impact not discussed in the prior EIR; or 4) a more severe impact due to substantial new information that was not known at the time of the prior EIR. I find that FURTHER ENVIRONMENTAL REVIEW is necessary to analyze those effects that are subject to CEQA, and therefore, this project is NOT ELIGIBLE for an EXEMPTION under CEQA Guidelines Section 15183. –

Signature: Ashley Wysocki

Printed Name: Ashley Wysocki

Title: Director of Community & Library Services

Date: 2/17/26

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3.0 ENVIRONMENTAL ANALYSIS

3.1 AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:	Prior EIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-Site/ Cumulative Impact?	New Information, More Severe Adverse Impact?
a. Have a substantial adverse effect on a scenic vista?	Less Than Significant	No	No	No	No
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Less Than Significant	No	No	No	No
c. In non-urbanized 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	No	No	No	No
d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	Less Than Significant	No	No	No	No

3.1.1 General Plan Update EIR Summary

As concluded on the General Plan Update EIR, upon compliance with identified goals and policies of the General Plan Update and the regulations of the Huntington Beach Zoning and Subdivision Ordinance (Zoning Code), adopted Citywide Design Guidelines, and applicable state and City regulations, implementation of development associated with the General Plan Update would result in a less than significant impact on scenic vistas.

As concluded on the General Plan Update EIR, adherence to and implementation of the General Plan Update policies and compliance with state and local regulations would reduce potential impacts from new development on scenic resources to less than significant levels.

According to the General Plan Update EIR, the most substantial growth and development would occur within the areas designated as Transform, which focus any intensification of uses and an associated change in visual character in specific areas of the City. This would ensure that the majority of the City, including the City's identified aesthetic and scenic resources, will not be affected by the future growth. As such, the aesthetic and visual character of the City would not be substantially altered as a result of growth associated with the General Plan Update. Further, the visual character and quality

of the City would be preserved through the application of various policies aimed at enhancing the distinct aesthetic identity of existing and future areas and districts. The General Plan Update policies would ensure that unique neighborhoods and districts would be preserved and plans would enhance the character and appearance of these areas. As concluded on the General Plan Update EIR, implementation of development allowed by the General Plan Update would have a less than significant impact on to the substantial degradation of the visual character and quality of the City and its surroundings.

According to the General Plan Update EIR, adherence to and implementation of the General Plan Update policies, Specific Plan development standards and design guidelines, and compliance with the City's Zoning Code and all applicable state and local regulations would reduce potential impacts from new development light and glare on day or nighttime views.

3.1.2 Project-Specific Impacts

a) Have a substantial adverse effect on a scenic vista?

According to the General Plan Update EIR, scenic vistas within the City include views of the Pacific Ocean and the Bolsa Chica Ecological Reserve, which covers approximately 1,400 acres. The Pacific Ocean is considered the most prominent visual asset in the City and the Bolsa Chica Ecological Reserve provides quality views of wetland marshes and wildlife. The General Plan Update EIR identified three categories of character changes proposed throughout the City: preserve, conserve and transform. As shown on the General Plan Update EIR Figure 4.1-3, *Character Change*, Edison Community Park is considered a "Conserve" land use and is not anticipated to undergo transformational changes due to development. Further, the project site is located 0.6-mile from the Pacific Ocean and 3.9 miles from the Bolsa Chica Ecological Reserve; with this distance and intervening development, structures, and vegetation in between, the project would not have a substantial adverse effect on these scenic vistas. Overall, as a park reconfiguration project that would not include any new habitable structures, the proposed project would not substantially impact a scenic vista.

As analyzed in the General Plan Update EIR, impacts related to scenic vistas were analyzed in the General Plan Update EIR and found to be less than significant. No substantial new information shows that project impacts related to scenic vistas would be more significant than described in the General Plan Update EIR because project impacts related to scenic vistas are less than significant. Therefore, there are no impacts peculiar to the project site related to scenic vistas that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to scenic vistas that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

According to California Department of Transportation's (Caltrans') California State Scenic Highway System Map, no officially designated State scenic highway is located within site vicinity and the Pacific Coast Highway (eligible for designation) is located 0.45-mile southwest; due to the distance and

intervening topography, there are no views available between Pacific Coast Highway and the project site. As such, no impacts would occur in this regard.

With regard to local scenic corridors, the City organizes corridors into two categories: 1) major corridors, which carry larger volumes of traffic, typically crossing municipal boundaries, and often are lined by commercial and multiple-family residential uses; and 2) minor corridors, which carry less traffic, often originate and terminate within the city boundaries, and are predominantly lined by perimeter tract walls that line single-family residential neighborhoods. According to General Plan Update EIR Figure 4.1-1, *Scenic Corridors*, Magnolia Street, which borders the site to the east, is considered a Minor Urban Scenic Corridor by the City.

The most prominent scenic resources within the City are the Pacific Ocean and associated beaches. However, no view of the Pacific Ocean and beaches is afforded at or adjacent to the project site. Given the project would involve reconfiguration of park amenities and would not result in the construction of any permanent buildings, the project would not be distinguishable from the existing park nor would they adversely impact existing scenic vistas from Magnolia Street. As such, no scenic resources along Magnolia Street would be impacted, and no impacts would occur in this regard.

As analyzed in the General Plan Update EIR, no impacts related to scenic resources within a State scenic highway were found to occur. No substantial new information shows that project impacts related to scenic resources within a State scenic highway would be more significant than described in the General Plan Update EIR because no impacts related to scenic resources within a State scenic highway would occur. Therefore, there are no impacts peculiar to the project site related to scenic resources within a State scenic highway that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to scenic resources within a State scenic highway that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

c) In non-urbanized 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?

The proposed project is located within an urban and developed area of the City. As such, the following analysis focuses on evaluating the project's consistency with applicable zoning and other regulations governing scenic quality.

CONSTRUCTION

Project construction would occur for a duration of approximately 13 months. During this time, construction of the project could result in short-term visible construction activities, equipment, and staging areas, all of which would temporarily impact the visual character and quality of the project site and surrounding area. However, given the nature of project improvements (reconfiguration of existing park improvements), the intensity of construction activities would be relatively limited. The project

would not require substantial earthwork, and the stockpiling of soils, equipment, and building materials would be minimal. Moreover, project construction activities would adhere to the City's Municipal Code Section 8.40.090, *Special Provisions*, that prohibits construction during the hours of 7:00 p.m. to 7:00 a.m. during the week and prohibited at any time on Sunday or a Federal holiday unless otherwise permitted by the City. Following construction, the character of the project site would be similar to existing conditions. As such, temporary construction related activities would not conflict with zoning or other regulations governing scenic quality, and impacts would be less than significant in this regard.

OPERATIONS

According to the *City of Huntington Beach Zoning Map* (Zoning Map), the majority of project site is zoned Open Space – Parks and Recreation Subdistrict (OS-PR), and the southwestern corner (parcel with APN 148-071-29, owned by SCE) and the fire station area in the southeastern corner of the site are zoned Public-Semipublic (PS).[3] The OS District provides areas for public or private use and areas for preservation and enhancement. The PS District provides areas for large public or semipublic uses.

The proposed project would reconfigure existing park facilities within existing park boundaries. The project does not propose any change in land use or operations, and would be consistent with the existing zoning of OS-PR and PS. Further, the proposed project would not conflict with applicable requirements for minimal lot area; minimum lot width; minimum setbacks to the front, side, street side, and back side (rear); maximum height of structures; or maximum lot coverage specific to the OS-PR district in accordance with Municipal Code Section 213.08, *Development Standards*. The project would also comply with design standards for minimum site landscaping, fences and walls, outdoor facilities, screening of mechanical equipment, refuse storage areas, underground utilities, performance standards applicable to the OS-PR zoning located in other sections of the Municipal Code. Upon project completion, the park would continue to be compatible with the established physical scale of the area and would not encroach on major view corridors. The project is not located within the coastal zone. No building design standards for OS-PR would apply to the project as the project does not propose any permanent buildings or structures; none of the proposed improvements would exceed maximum height.

No improvements or modifications are proposed to areas zoned PS. As such, no impacts would occur in these areas.

Overall, the project would consist of relocated or new park amenities and would look similar to the existing park. The project would be designed to be compatible with existing zoning and other regulations governing scenic quality. As such, long-term visual impacts would be minimal and would not conflict with zoning and other regulations governing scenic quality. Impacts would be less than significant in this regard.

[3] City of Huntington Beach, *City of Huntington Beach Zoning*, https://huntingtonbeach.maps.arcgis.com/apps/webappviewer/index.html?id=7ab822c02ded4940acd7e4593bba7cb7, accessed July 22, 2025.

Impacts related to project consistency with regulations governing scenic quality were analyzed in the General Plan Update EIR and found to be less than significant. No substantial new information indicates that project impacts related to regulations governing scenic quality would be more significant than described in the General Plan Update EIR because project impacts related to regulations governing scenic quality are less than significant. Therefore, there are no impacts peculiar to the project site related to regulations governing scenic quality that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to regulations governing scenic quality that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

Glare results from reflected light caused by sunlight or artificial light reflecting from highly finished surfaces (e.g., window glass, mirrored finishes, or brightly colored surfaces). Land uses that are typically sensitive to excess light and glare include residential, hospitals, senior housing, and other types of uses where excessive light and glare may disrupt sleep. In addition, light and glare may interfere with the vision of drivers.

The proposed project is located within an urban and developed area of the City; as such, areas surrounding the project site are urbanized and contain various sources of light and glare. Currently, the sport courts (including tennis courts, basketball courts, and racquetball courts) and softball fields are illuminated until 10:00 p.m. every night, and there is security lighting interspersed throughout open space areas and the parking lot.

The project is not anticipated to result in substantial light or glare during the short-term construction process. Given the minimal nature of grading and earthwork required for project improvements, it is not anticipated that construction equipment capable of generating significant daytime glare will be required. In addition, based on the Municipal Code Section 8.40.090, *Special Provisions*, construction activities are limited to occur only between the hours of 7:00 a.m. and 7:00 p.m., Monday through Saturday, and prohibited at any time on Sunday or a Federal holiday unless otherwise permitted by the City. Therefore, construction of the proposed project would occur primarily during daylight hours. Light and glare impacts related to construction activities would be less than significant in this regard.

At project completion, the new sports courts and practice fields would introduce additional sport lights to the project site. Security lighting would also be provided for the reconfigured open space areas and parking lot. As such, implementation of the proposed project would result in additional nighttime lighting with a potential for glare impacts to adjacent uses.

Based on existing conditions, the closest sport light(s) to an adjacent sensitive receptor is associated with the baseball fields in the western portion of the park, located approximately 80 feet from the nearest sensitive receptors (single-family residences to the west). Based on the proposed site plan, the closest newly proposed sport light(s) to an adjacent sensitive receptor is associated with the tennis courts in the northeastern portion of the park, which is approximately 300 feet from the nearest sensitive receptors (single-family residences to the north). As such, the new sport lights would not be

closer to any adjacent receptor than the existing light(s) discussed above. Proposed lighting would also be similar in lighting intensity as compared to existing conditions and would be directed, shielded, and of the appropriate intensity to minimize impacts to adjacent receptors, consistent with the City's Municipal Code. Furthermore, the project would not introduce highly reflective building materials (such as large expanses of glass or windows) and would therefore result in minimal glare impacts. Overall, compliance with applicable regulations would ensure light and glare impacts associated with construction and operations of the project are minimized to less than significant levels.

Impacts related to light and glare were analyzed in the General Plan Update EIR and found to be less than significant. No substantial new information shows that project impacts related to light and glare would be more significant than described in the General Plan Update EIR because project impacts related to light and glare are less than significant. Therefore, there are no impacts peculiar to the project site related to light and glare that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to light and glare that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

3.2 AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:	Prior EIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-Site/ Cumulative Impact?	New Information, More Severe Adverse Impact?
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	No Impact	No	No	No	No
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	No Impact	No	No	No	No
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 122220(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	No	No	No	No
d. Result in the loss of forest land or conversion of forest land to non-forest use?	No Impact	No	No	No	No
e. Involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use?	No Impact	No	No	No	No

3.2.1 General Plan Update EIR Summary

As detailed in the General Plan Update EIR, there are approximately 81 acres (less than 1 percent of the City) of agricultural land, primarily nurseries located in the southeastern portion of the City within SCE rights-of-way and designated as Public on the General Plan Update Land Use Map. The Zoning Code previously identified a residential agricultural (RA) district to serve as a transition or holding zone for property with existing agricultural activities, and as a zone where restricted residential development is permitted. Although this zone is no longer part of the Zoning Code, there are several locations throughout the City that still have an RA zoning designation, with the largest concentration of RA-zoned parcels occurring in the southeastern portion of the City. It should be noted that there is no RA designation under the existing General Plan Update. Also, there are no areas zoned for forestry purposes within the City. No federal plans, policies, regulations, or laws related to agricultural resources apply to the City. Therefore, the buildout of the General Plan Update would not conflict with existing zoning for agricultural use or Williamson Act contract land. No portion of the City is designated or zoned as forestry land or timberland and would not result in the conversion of forest land to non-forestry use; therefore, no impact would occur. The General Plan Update does not include changes to any current agricultural or forestry resources; therefore, the effects of the General Plan Update were found not to be significant.

3.2.2 Project-Specific Impacts

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The project site is an existing park use and has been previously disturbed and does not contain any farmland. According to the California Department of Conservation's online mapping tool, the project site is not associated with an area designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.[4] Thus, no impacts would occur in this regard.

As analyzed in the General Plan Update EIR, no impacts related to converting farmland to non-agricultural use were found to occur. No substantial new information shows that project impacts related to converting farmland to non-agricultural use would be more significant than described in the General Plan Update EIR because no project impacts related to converting farmland to non-agricultural use would occur. Therefore, there are no impacts peculiar to the project site related to converting farmland to non-agricultural use that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to converting farmland to non-agricultural use that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

The project site is zoned Open Space – Parks and Recreation Subdistrict (OS-PR) and Public-Semipublic (PS). No zoning for agricultural use currently applies to the project site and surrounding areas. Additionally, according to the General Plan Update EIR, no Federal plans, policies, regulations, or laws related to agricultural resources (including Williamson Act contracts) apply to the City, which includes the project site. Thus, no impacts would occur in this regard.

As analyzed in the General Plan Update EIR, no impacts related to agricultural zoning or Williamson Act contracts were found to occur. No substantial new information shows that project impacts related to agricultural zoning or Williamson Act contracts would be more significant than described in the General Plan Update EIR because no project impacts related to agricultural zoning or Williamson Act contracts would occur. Therefore, there are no impacts peculiar to the project site related to agricultural zoning or Williamson Act contracts that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to agricultural zoning or Williamson Act contracts that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 122220(g)), timberland as defined by Public Resources Code

[4] California Department of Conservation, *Farmland Mapping and Monitoring Program, California Important Farmland Finder*, https://maps.conservation.ca.gov/dlrp/ciff/, accessed on September 10, 2025.

section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

Refer to Responses 3.2.2(a) and (b). No zoning for forest land or timberland exists within the project site, and no impacts would occur in this regard.

As analyzed in the General Plan Update EIR, no impacts related to zoning for forest land or timberland were found to occur. No substantial new information shows that project impacts related to zoning for forest land or timberland would be more significant than described in the General Plan Update EIR because no project impacts related to zoning for forest land or timberland would occur. Therefore, there are no impacts peculiar to the project site related to zoning for forest land or timberland that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to zoning for forest land or timberland that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

Refer to Responses 3.2.2(a) through (c). No impacts would occur in this regard.

As analyzed in the General Plan Update EIR, no impacts related to conversion of forest land to non-forest use were found to occur. No substantial new information shows that project impacts related to conversion of forest land to non-forest use would be more significant than described in the General Plan Update EIR because no project impacts related to conversion of forest land to non-forest use would occur. Therefore, there are no impacts peculiar to the project site related to conversion of forest land to non-forest use that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to conversion of forest land to non-forest use that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

e) Involve other changes in the existing environment, which due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use?

As stated above in Responses 3.2.2(a) through (c), the project site occurs within an urbanized area and is void of any agricultural or forest resources. Thus, there is no potential for the conversion of these resources and no impacts would occur in this regard.

As analyzed in the General Plan Update EIR, no impacts related to conversion of farmland to non-agricultural use were found to occur. No substantial new information shows that project impacts related to conversion of farmland to non-agricultural use would be more significant than described in the General Plan Update EIR because no project impacts related to conversion of farmland to non-agricultural use would occur. Therefore, there are no impacts peculiar to the project site related to conversion of farmland to non-agricultural use that would exceed what was previously disclosed in

the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to conversion of farmland to non-agricultural use that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

3.3 AIR QUALITY

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:	Prior EIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-Site/ Cumulative Impact?	New Information, More Severe Adverse Impact?
a. Conflict with or obstruct implementation of the applicable air quality plan?	Significant and Unavoidable Impact	No	No	No	No
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard?	Significant and Unavoidable Impact	No	No	No	No
c. Expose sensitive receptors to substantial pollutant concentrations?	Significant and Unavoidable Impact	No	No	No	No
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less Than Significant Impact	No	No	No	No

3.3.1 General Plan Update EIR Summary

As detailed in the General Plan Update EIR, the General Plan Update would be consistent with South Coast Air Quality Management District's (SCAQMD) *2012 Air Quality Management Plan* (AQMP) and 2016 AQMP in the reduction of vehicle miles traveled and the 2012 and 2016 AQMP forecasts for population/employment/housing levels. As such, implementation of the General Plan Update would not conflict with or obstruct the implementation of the AQMP and/or applicable portions of the State Implementation Plan (SIP), and impacts would be less than significant in this regard.

As discussed in the General Plan Update EIR, implementation of the General Plan Update would potentially violate air quality standards or contribute substantially to an existing or projected air quality violation even with adherence to the General Plan policies, Specific Plan development standards, compliance with state and local regulations, and identified mitigation measures; therefore, impacts on air quality would be significant and unavoidable. Implementation of future development projects under the General Plan Update would result in construction activities that generate emissions of criteria air pollutants and toxic air contaminants (TACs), including diesel particulate matter and volatile organic compounds (VOCs). While these emissions have the potential to exceed SCAQMD thresholds, a comprehensive suite of mitigation measures have been identified to reduce air quality impacts associated with construction activities.

Specifically, General Plan Update EIR mitigation measures (MM) 4.2-1 through MM4.2-11 require project applicants to incorporate contract specifications that mandate the use of diesel retrofit technologies (e.g., engine catalysts), low nitrogen oxides diesel fuel where feasible, proper engine maintenance, reliance on grid electricity over combustion-powered generators, and extensive fugitive dust control measures consistent with SCAQMD Rule 403. Additional measures require construction

equipment to be turned off when idle, traffic interference to be minimized through parking and scheduling strategies, and the use of temporary traffic controls and designated haul routes to reduce emissions and congestion. Project applicants of future development would also be responsible to for providing community notification and on-site construction management protocols to ensure compliance and transparency throughout the construction period.

Furthermore, VOC emissions associated with architectural coatings during the operational phase of future development may exceed SCAQMD significance thresholds. To address this, MM4.2-12 through MM4.2-14 requires the use of low-VOC coatings (125 grams per liter or less) and encourages the use of pre-painted or paint-free construction materials to the extent feasible.

Although these mitigation measures would substantially reduce emissions of criteria pollutants and TACs during both construction and operation, the General Plan Update EIR acknowledges that future project-specific development scenarios cannot be fully quantified at this time. As such, in the absence of detailed project-level data to confirm a less than significant impact, and in an abundance of caution, the General Plan Update EIR concludes that potential air quality impacts—including those related to construction emissions, operational VOCs, and cumulative effects—would remain significant and unavoidable.

Further, according to the General Plan Update EIR, implementation of the General Plan Update would potentially expose sensitive receptors to substantial pollutant concentrations, specifically fueling stations and distribution centers, and no mitigation measures are feasible; therefore, impacts on air quality would be significant and unavoidable.

The General Plan Update EIR determined that impacts from potential odors generated from land uses associated with the General Plan Update are considered less than significant.

3.3.2 Project-Specific Impacts

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

The General Plan Update EIR analyzed consistency with SCAQMD's 2012 and 2016 AQMP, which were the latest AQMPs when the General Plan Update EIR was prepared. The 2012 AQMP and 2016 AQMP incorporated scientific and technological information and planning assumptions from the Southern California Association of Governments' (SCAG's) *2012–2035 Regional Transportation Plan/Sustainable Communities Strategy* (2012–2035 RTP/SCS) and 2016-2040 RTP/SCS, respectively. However, these documents have since been updated.

On December 2, 2022, the SCAQMD Governing Board adopted the 2022 AQMP. The 2022 AQMP incorporates the latest scientific and technical information as well as planning assumptions, including the latest applicable growth assumptions and updated emission inventory methodologies for various source categories. While SCAG has recently updated and adopted its RTP/SCS, SCAQMD has not released an updated AQMP that utilizes information and data from Connect SoCal 2024. As such, this consistency analysis is based on the 2022 AQMP and the RTP/SCS that was adopted at the time.

The SCAQMD considers projects that are consistent with the AQMP, which is intended to bring the South Coast Air Basin (SCAB) into attainment for all criteria pollutants, to also have less than significant cumulative impacts. The SCAQMD's *CEQA Air Quality Handbook* provides the following criteria to evaluate the consistency of a project with applicable air quality plans:[5]

- Criterion 1: Will the project result in any of the following:
  - An increase in the frequency or severity of existing air quality violations;
  - Cause or contribute to new air quality violations; or
  - Delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP?
- Criterion 2: Will the project exceed the assumptions utilized in preparing the AQMP?
  - Would the project be consistent with the population, housing, and employment growth projections utilized in the preparation of the AQMP?
  - Would the project implement all feasible air quality mitigation measures?
  - Would the project be consistent with the land use planning strategies set forth in the AQMP?

CRITERION 1

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

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

Since the consistency criteria identified under the first criterion pertains to pollutant concentrations, rather than to total regional emissions, an analysis of the project's pollutant emissions relative to localized pollutant concentrations is used as the basis for evaluating project consistency. As discussed in Response 3.3.2(c), localized concentrations of CO, nitrogen oxides (NO_X), particulate matter less than 10 microns in diameter (PM_{10}), and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) would be less than significant during project construction and operations. Therefore, the proposed project would not result in an increase in the frequency or severity of existing air quality violations.[6]

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

As discussed in Response 3.3.2(b), the proposed project would result in emissions that are below the SCAQMD thresholds. Therefore, the project would not have the potential to cause or affect a violation of the ambient air quality standards.

[5] SCAQMD is in the process of developing an Air Quality Analysis Guidance Handbook to replace the 1993 CEQA Air Quality Handbook. SCAQMD has not provided supplemented information regarding consistency analysis while the new handbook is being prepared, therefore the criteria in the 1993 CEQA Air Quality Handbook are used.

[6] Due to the role reactive organic gases (ROGs) plays in ozone formation, it is classified as a precursor pollutant and only a regional emissions threshold has been established.

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

The proposed project would result in less than significant impacts with regard to regional and localized concentrations during project construction and operations; refer to Responses 3.3.2(b) and 3.3.2(c). As such, the project would not delay the timely attainment of air quality standards or 2022 AQMP emissions reductions.

CRITERION 2

With respect to the second criterion for determining consistency with SCAQMD and SCAG air quality policies, it is important to recognize that air quality planning within the SCAB focuses on attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends. Thus, the SCAQMD's second criterion for determining project consistency focuses on whether the proposed project exceeds the assumptions utilized in preparing the forecasts presented in the 2022 AQMP. Determining whether a project exceeds the assumptions reflected in the 2022 AQMP involves the evaluation of the three criteria outlined below. The following discussion provides an analysis of each of these criteria.

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

Consistency Criterion No. 2 refers to SCAG's growth forecasts and associated assumptions included in the 2022 AQMP. The future air quality levels projected in the 2022 AQMP are based on SCAG's growth projections, which are based, in part, on the general plans of cities located within the SCAG region. Therefore, projects that are consistent with the applicable assumptions used in 2022 AQMP development would not jeopardize attainment of the air quality levels identified in the 2022 AQMP, even if they exceed the SCAQMD's recommended daily emissions thresholds.

Regarding Consistency Criterion No. 2, the AQMP contains air pollutant reduction strategies based on SCAG's latest growth forecasts; SCAG's growth forecasts were defined in consultation with local governments and with reference to local general plans. Therefore, it is reasonable to conclude that if a project is consistent with the applicable general plan land use designation, and if the general plan was adopted prior to the applicable AQMP, then the increase in vehicle miles traveled (VMT) and/or population generated by said project would have been included in the applicable AQMP's assumed VMT and population growth.

The project proposes to reconfigure the park and create new park amenities over non-landfill land. The various new and upgraded amenities, including new sports courts, wheel sports, playground, trees, walkways, parking lot, and access, would offer diversified recreation and allow for more park engagement. According to the *City of Huntington Beach General Plan* (General Plan), the majority of project site is designated as Open Space – Park (OS-P), with the southwestern portion of the site (APN 148-071-29 owned by Southern California Edison [SCE]) designated as Public (P).[7] The OS-P designation provides for public parks and

7 City of Huntington Beach, *General Plan, City of Huntington Beach, General Plan Designations*, August 2022.

recreational facilities and supporting ancillary uses (e.g., maintenance equipment storage). The P designation provides for public and private schools, hospitals, churches, cultural facilities, institutional, and similar semi-public community service uses. According to the *City of Huntington Beach Zoning Map* (Zoning Map), the majority of project site is zoned Open Space – Parks and Recreation Subdistrict (OS-PR), and the southwestern corner (parcel with APN 148-071-29, owned by SCE) and the fire station area in the southeastern corner of the site are zoned Public-Semipublic (PS).[8] The OS District provides areas for public or private use and areas for preservation and enhancement. The PS District provides areas for large public or semipublic uses. As such, the project is consistent with the General Plan designation and zoning.

The project involves redeveloping and reconfiguring the existing park use and would not generate additional employment over the existing conditions. Therefore, given the nature of the project, the project (park use) would not induce substantial unplanned population growth within the City and would be consistent with the development assumptions in the General Plan Update. Further, as detailed in Section 3.14, *Population and Housing*, the project would not result in substantial increase in employment or population. Therefore, the proposed project's forecast population growth and VMT would be consistent with the 2022 AQMP's assumed population growth and VMT for the proposed project site. It is also noted that the project's construction and operational air emissions would not exceed the SCAQMD regional thresholds, and localized emissions during construction and operations would not exceed SCAQMD localized significance thresholds (LST); refer to Responses 3.3.2(b) and 3.3.2(c) below for further analysis. As such, the proposed project would be consistent with this criterion.

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

Compliance with all feasible emission reduction rules and measures identified by the SCAQMD would be required as identified in Responses 3.3.2(b) and 3.3.2(c), and impacts would be less than significant without implementation of mitigation measures. As such, the proposed project meets this 2022 AQMP consistency criterion and no mitigation measures are required.

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

Land use planning strategies set forth in the 2022 AQMP are primarily based on the 2020-2045 RTP/SCS. The project site is located less than 0.1-mile from a bus stop located along Magnolia Street operated by Orange County Transportation Authority (OCTA). Further, the project would also provide electric vehicle (EV) parking spaces to promote alternative transportation options. Therefore, the project would be consistent with the actions and strategies of the 2020-2045 RTP/SCS.

8 City of Huntington Beach, City of Huntington Beach Zoning, https://huntingtonbeach.maps.arcgis.com/apps/webappviewer/index.html?id=7ab822c02ded4940acd7e4593bba7cb7, accessed July 22, 2025.

In conclusion, the determination of 2022 AQMP consistency is primarily concerned with the long-term influence of a project on air quality in the SCAB. The proposed project would not result in a long-term impact on the region's ability to meet State and federal air quality standards. Further, the proposed project's long-term influence on air quality in the SCAB would also be consistent with the SCAQMD and SCAG's goals and policies and is considered consistent with the 2022 AQMP. Project impacts related to consistency with the 2022 AQMP are less than significant.

Impacts related to consistency with applicable air quality plans were analyzed in the General Plan Update EIR and found to be less than significant. No substantial new information shows that project impacts related to consistency with air quality plans would be more significant than described in the General Plan Update EIR because project impacts related to consistency with air quality plans are less than significant. Therefore, there are no impacts peculiar to the project site related to consistency with air quality plans that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to consistency with air quality plans that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

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

CRITERIA POLLUTANTS

Carbon Monoxide (CO)

CO is an odorless, colorless toxic gas that is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions. CO replaces oxygen in the body's red blood cells. Individuals with a deficient blood supply to the heart, patients with diseases involving heart and blood vessels, fetuses (unborn babies), and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes are most susceptible to the adverse effects of CO exposure. People with heart disease are also more susceptible to developing chest pain when exposed to low levels of carbon monoxide.

Ozone (O_3)

O_3 occurs in two layers of the atmosphere. The layer surrounding the Earth's surface is the troposphere. The troposphere extends approximately 10 miles above ground level, where it meets the second layer, the stratosphere. The stratosphere (the "good" ozone layer) extends upward from about 10 to 30 miles and protects life on Earth from the sun's harmful ultraviolet rays. "Bad" O_3 is a photochemical pollutant, and needs volatile organic compounds (VOCs), NO_x, and sunlight to form; therefore, VOCs and NO_x are O_3 precursors. To reduce O_3 concentrations, it is necessary to control the emissions of these O_3 precursors. Significant O_3 formation generally requires an adequate amount of precursors in the atmosphere and a period of several hours in a stable atmosphere with strong

sunlight. High O_3 concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

While O_3 in the upper atmosphere (stratosphere) protects the Earth from harmful ultraviolet radiation, high concentrations of ground-level O_3 (in the troposphere) can adversely affect the human respiratory system and other tissues. O_3 is a strong irritant that can constrict the airways, forcing the respiratory system to work hard to deliver oxygen. Individuals exercising outdoors, children, and people with pre-existing lung disease such as asthma and chronic pulmonary lung disease are considered to be the most susceptible to the health effects of O_3. Short-term exposure (lasting for a few hours) to O_3 at elevated levels can result in aggravated respiratory diseases such as emphysema, bronchitis and asthma, shortness of breath, increased susceptibility to infections, inflammation of the lung tissue, increased fatigue, as well as chest pain, dry throat, headache, and nausea.

Nitrogen Dioxide (NO_2)

NO_x are a family of highly reactive gases that are a primary precursor to the formation of ground-level ozone and react in the atmosphere to form acid rain. NO_2 (often used interchangeably with NO_x) is a reddish-brown gas that can cause breathing difficulties at elevated levels. Peak readings of NO_2 occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations). NO_2 can irritate and damage the lungs and lower resistance to respiratory infections such as influenza. The health effects of short-term exposure are still unclear. However, continued or frequent exposure to NO_2 concentrations that are typically much higher than those normally found in the ambient air may increase acute respiratory illnesses in children and increase the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO_2 may aggravate eyes and mucus membranes and cause pulmonary dysfunction.

Coarse Particulate Matter (PM_{10})

PM_{10} refers to suspended particulate matter, which is smaller than 10 microns or ten one-millionths of a meter. PM_{10} arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. PM_{10} scatters light and significantly reduces visibility. In addition, these particulates penetrate into the lungs and can potentially damage the respiratory tract. On June 19, 2003, the California Air Resources Board (CARB) adopted amendments to the Statewide 24-hour particulate matter standards based upon requirements set forth in the Children's Environmental Health Protection Act (Senate Bill 25).

Fine Particulate Matter ($PM_{2.5}$)

Due to recent increased concerns over health impacts related to $PM_{2.5}$, both State and federal $PM_{2.5}$ standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease. In 1997, the U.S. Environmental Protection Agency (EPA) announced new $PM_{2.5}$ standards. Industry groups challenged the new standard in court and the implementation of the standard was blocked. However, upon appeal by the EPA, the United States Supreme Court reversed this decision and upheld the EPA's new standards. On January 5, 2005, the EPA published a final rule in the Federal Register that designates the basin as a nonattainment area for federal $PM_{2.5}$ standards. On June 20, 2002, CARB adopted amendments for Statewide annual

ambient particulate matter air quality standards. These standards were revised and established due to increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current State standards during some parts of the year, and the Statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging.

Sulfur Dioxide (SO_2)

SO_2 is a colorless, irritating gas with a rotten egg smell; it is formed primarily by the combustion of sulfur-containing fossil fuels. SO_2 is often used interchangeably with SO_x. Exposure of a few minutes to low levels of SO_2 can result in airway constriction in some asthmatics.

Volatile Organic Compounds (VOC)

VOCs are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form O_3 to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include: CO, CO_2, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The SCAQMD uses the terms VOC and ROG interchangeably (see below).

Reactive Organic Gases (ROG)

Similar to VOC, ROG are also precursors in forming O_3 and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and NO_x react in the presence of sunlight. ROGs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant.

CONSTRUCTION EMISSIONS

Project construction activities would generate short-term criteria air pollutant emissions. The criteria air pollutants of primary concern at the proposed project site include ozone-precursor pollutants (i.e., ROG and NO_X) and PM_{10} and $PM_{2.5}$. Construction-related emissions are short term and temporary, lasting only while construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the SCAQMD's thresholds of significance.

Project construction would primarily generate temporary criteria pollutants from construction equipment operation on-site and construction worker vehicle trips to and from the project site, and from construction material deliveries to and from the project site. Construction input data for California Emissions Estimator Model (CalEEMod) version 2022.1 include, but are not limited to, (1) the anticipated start and finish dates of construction activity; (2) inventories of construction

equipment to be used; and (3) areas to be excavated and graded. Construction emissions were quantified by estimating the types and quantity of equipment that would be used on-site during each construction phase, as provided by the model defaults. CalEEMod also estimates off-site emissions from worker, vendor, and hauling truck trips.

The project involves construction activities associated with demolition (of existing tennis and handball courts), grading, building construction (improvements to existing community center and restrooms), paving, and architectural coating applications. The project would be constructed over approximately 13 months and would not require import/export of soil. It should be noted that, although the project proposes improvements to the existing park amenities, for the purpose of this analysis, it is conservatively modeled in CalEEMod as a new park. The proposed project would demolish the existing tennis and handball courts and generate approximately 402 tons of debris during demolition.[9]

The analysis of daily construction emissions has been prepared utilizing CalEEMod. Refer to Appendix A, *Air Quality/Greenhouse Gas/Energy Data*, for the CalEEMod outputs and results. Table 3.3-1, *Maximum Daily Construction Air Emissions*, presents the anticipated daily short-term construction emissions.

Table 3.3-1
Maximum Daily Construction Air Emissions

Year	Pollutant (pounds per day)[1,2]					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Year 1 Emissions	3.11	27.30	28.50	0.06	3.78	2.04
Year 2 Emissions	1.03	9.39	12.9	0.02	0.49	0.32
Maximum Daily Emissions	**3.11**	**27.30**	**28.50**	**0.06**	**3.78**	**2.04**
SCAQMD Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	***No***	***No***	***No***	***No***	***No***	***No***

Notes: ROG = reactive organic gases; NO_X = nitrogen oxides; CO = carbon monoxide; SO_2 = Sulfur Dioxide; PM_{10} = particulate matter smaller than 10 microns; $PM_{2.5}$ = particulate matter smaller than 2.5 microns
Notes:
1. Emissions were calculated using CalEEMod version 2022.1. Higher emissions between winter and summer are represented as the worst-case scenario.
2. The reduction/credits for construction emissions are based on "mitigation" included in CalEEMod and are required by the SCAQMD Rules. The adjustments applied in CalEEMod include the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stockpiles with tarps; and limit speeds on unpaved roads to 15 miles per hour. The emissions results in this table represent the "mitigated" emissions shown in Appendix A.

Source: Refer to Appendix A, *Air Quality/Greenhouse Gas/Energy Data*.

[9] To estimate the amount of demolished materials (asphalt weight) anticipated from demolition, the depth (thickness) of the asphalt layer and the weight of asphalt per cubic foot are considered. A standard depth of one-inch is assumed for this analysis. The industry standard weight of asphalt is 145 pounds (lbs) per cubic foot. The proposed project would remove existing tennis and handball courts (approximately 66,500 square feet; based on Google Earth) of asphalt surface area. Area x depth/12 lbs*145 = 5,503 lbs (402 tons). As such, 402 tons of demolished materials has been considered in CalEEMod.

Fugitive Dust Emissions

Construction activities are a source of fugitive dust emissions that may have a substantial, temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the project area. Fugitive dust emissions are associated with land clearing, ground excavation, cut-and-fill, and truck travel on unpaved roadways (including demolition as well as construction activities). Fugitive dust emissions vary substantially from day to day, depending on the level of activity, specific operations, and weather conditions. Fugitive dust from grading, excavation and construction is expected to be short-term and would cease upon project completion. Most of this material is inert silicates, rather than the complex organic particulates released from combustion sources, which are more harmful to health.

Dust (larger than 10 microns) generated by such activities usually becomes more of a local nuisance than a serious health problem. Of particular health concerns is the amount of PM_{10} generated as part of fugitive dust emissions. PM_{10} poses a serious health hazard alone or in combination with other pollutants. $PM_{2.5}$ is mostly produced by mechanical processes. These include automobile tire wear, industrial processes such as cutting and grinding, and re-suspension of particles from the ground or road surfaces by wind and human activities such as construction or agriculture. $PM_{2.5}$ is mostly derived from combustion sources, such as automobiles, trucks, and other vehicle exhaust, as well as from stationary sources. These particles are either directly emitted or are formed in the atmosphere from the combustion of gases such as NO_X and SO_X combining with ammonia. $PM_{2.5}$ components from material in the Earth's crust, such as dust, are also present, with the amount varying in different locations.

The project would implement required SCAQMD dust control techniques (i.e., daily watering), limitations on construction hours, and adhere to SCAQMD Rules 402 and 403 (which require watering of inactive and perimeter areas, track out requirements, etc.), to reduce PM_{10} and $PM_{2.5}$ emissions. Compliance with applicable SCAQMD Rules 402 and 403 are accounted for in the CalEEMod results. As depicted in Table 3.3-1, total PM_{10} and $PM_{2.5}$ emissions would not exceed the SCAQMD thresholds during construction. Thus, PM_{10} and $PM_{2.5}$ emissions impacts associated with project construction would be less than significant.

Construction Equipment and Worker Vehicle Exhaust

Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the project site, construction worker commutes to the project site, emissions produced on-site as the equipment is used, and emissions from trucks transporting materials to/from the site. As presented in Table 3.3-1, construction equipment and worker vehicle exhaust emissions (i.e., ROG, NO_X, CO, SO_2, PM_{10}, and $PM_{2.5}$) would not exceed the established SCAQMD thresholds for all criteria pollutants. Therefore, impacts in this regard would be less than significant.

ROG Emissions

In addition to gaseous and particulate emissions, the application of asphalt and surface coating creates ROG emissions, which are O_3 precursors. In accordance with the methodology prescribed by the

SCAQMD, ROG emissions associated with paving have been quantified with the CalEEMod model. As previously stated, the project primarily involves redeveloping and reconfiguring the existing park amenities, with the expansion of the exterior park restrooms at Edison Community Center being the only building modification involved. The additional new restroom/building square footage is unknown at this time; as such, this improvement was not quantified in CalEEMod. However, as the additional restroom/building area (for the purpose of meeting ADA requirements and provide additional stalls to meet park needs) is expected to be nominal, ROG emissions associated with architectural coating on new restroom areas are anticipated to be negligible. Further, as required by SCAQMD Rule 1113, all architectural coatings would comply with specifications on painting practices as well as regulation on the ROG content of paint. Overall, ROG emissions associated with the proposed project would be less than significant; refer to Table 3.3-1.

Total Daily Construction Emissions

As indicated in Table 3.3-1, criteria pollutant emissions during construction of the proposed project would not exceed the SCAQMD significance thresholds. Thus, total construction related air emissions would be less than significant.

NATURALLY OCCURRING ASBESTOS

Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by State, federal, and international agencies and was identified as a toxic air contaminant by CARB in 1986.

Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry operations. All of these activities may have the effect of releasing potentially harmful asbestos into the air. Natural weathering and erosion processes can act on asbestos bearing rock and make it easier for asbestos fibers to become airborne if such rock is disturbed. According to the California Department of Conservation Division of Mines and Geology, serpentinite and ultramafic rocks are not known to occur within the project area.[10] Thus, no impacts would occur in this regard.

OPERATIONAL EMISSIONS

Long-term operational air quality impacts consist of mobile source emissions generated from project-related traffic and emissions from area and energy sources. It should be noted that, although the project proposes improvements to the existing park amenities, for the purpose of this analysis, it is conservatively modeled in CalEEMod as a new park. Emissions associated with each source area detailed in Table 3.3-2, *Maximum Daily Operational Air Emissions*, are discussed below.

[10] California Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report*, August 2000.

Table 3.3-2
Maximum Daily Operational Air Emissions

Emissions Source	Pollutant (pounds per day)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer Operational Emissions						
Mobile	0.10	0.09	1.07	<0.01	0.29	0.08
Area	0.86	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Total Emissions	**0.96**	**0.09**	**1.07**	**<0.01**	**0.29**	**0.08**
SCAQMD Significance Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Threshold Exceeded?	***No***	***No***	***No***	***No***	***No***	***No***
Winter Operational Emissions						
Mobile	0.10	0.10	0.98	<0.01	0.29	0.08
Area	0.86	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Total Emissions	**0.96**	**0.10**	**0.98**	**<0.01**	**0.29**	**0.08**
SCAQMD Significance Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Threshold Exceeded?	***No***	***No***	***No***	***No***	***No***	***No***

Notes: CO = carbon monoxide; ROG = reactive organic gases; NO_X = nitrogen oxides; PM_{10} = particulate matter smaller than 10 microns; $PM_{2.5}$ = particulate matter smaller than 2.5 microns

Source: Refer to Appendix A, *Air Quality/Greenhouse Gas/Energy Data*.

Mobile Source Emissions

Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_X, SO_X, PM_{10}, and $PM_{2.5}$ are all pollutants of regional concern (NO_X and ROG react with sunlight to form O_3 [photochemical smog], and wind currents readily transport SO_X, PM_{10}, and $PM_{2.5}$). However, CO tends to be a localized pollutant, dispersing rapidly at the source.

Project-generated vehicle emissions have been estimated using CalEEMod. Based on the *Edison Park Reconfiguration and Improvements – Vehicle Miles Traveled* (VMT Analysis), prepared by Michael Baker International and dated August 22, 2025, the project would generate a total of 31 average daily trips (ADT). As shown in Table 3.3-2, emissions generated by vehicle traffic associated with the project would not exceed established SCAQMD thresholds.

Area Source Emissions

Area source emissions would be generated from consumer products, architectural coatings, and landscaping. The project's criteria pollutant emissions from area sources would not exceed the established thresholds; refer to Table 3.3-2.

Energy Source Emissions

In terms of emissions from energy consumption, the primary use of electricity by the project would be for space heating and cooling, water heating, ventilation, lighting, appliances, landscaping

equipment, and electronics. Criteria air pollutant emissions from electricity use were not quantified since criteria pollutants emissions occur at the site of the power plant, which is off-site. Therefore, only emissions associated with on-site natural gas consumption are qualified in CalEEMod. However, the proposed project would not introduce a new structure or facilities that would require additional natural gas usage. As shown in Table 3.3-2, the project's criteria pollutant emissions associated with energy sources would be zero and would not exceed established thresholds.

Total Daily Operational Emissions

Based on the proposed land uses and operational characteristics, Table 3.3-2, summarizes the CalEEMod estimated emissions from proposed project operations and indicates the proposed project's area, energy, and mobile source emissions combined would not exceed SCAQMD thresholds for maximum daily emissions for any criteria air pollutants. As such, the proposed project would not violate any air quality standards or contribute substantially to an existing or projected air quality violation. The proposed project's operational air quality impacts would be less than significant.

AIR QUALITY HEALTH IMPACTS

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

As noted in the Brief of Amicus Curiae by SCAQMD, the SCAQMD acknowledged it would be extremely difficult, if not impossible to quantify health impacts of criteria pollutants for various reasons including modeling limitations as well as where in the atmosphere air pollutants interact and form.[11] Further, as noted in the Brief of Amicus Curiae by the San Joaquin Valley Air Pollution Control District (SJVAPCD), SJVAPCD has acknowledged that currently available modeling tools are not equipped to provide a meaningful analysis of the correlation between an individual development project's air emissions and specific human health impacts.[12]

The SCAQMD acknowledges that health effects quantification from ozone, as an example is correlated with the increases in ambient level of ozone in the air (concentration) that an individual person breathes. SCAQMD's Brief of Amicus Curiae states that it would take a large amount of

[11] South Coast Air Quality Management District, *Application of the South Coast Air Quality Management District for Leave to File Brief of Amicus Curiae in Support of Neither Party and Brief of Amicus Curiae. In the Supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno,* April 3, 2015.

[12] San Joaquin Valley Air Pollution Control District, *Application for Leave to File Brief of Amicus Curiae Brief of San Joaquin Valley Unified Air Pollution Control District in Support of Defendant and Respondent, County of Fresno and Real Party In Interest and Respondent, Friant Ranch, L.P. In the Supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno*, April 13, 2015.

additional emissions to cause a modeled increase in ambient ozone levels over the entire region. The SCAQMD states that based on their own modeling in the SCAQMD's 2012 Air Quality Management Plan, a reduction of 432 tons (864,000 pounds) per day of NO_X and a reduction of 187 tons (374,000 pounds) per day of VOCs would reduce ozone levels at highest monitored site by only nine parts per billion. As such, the SCAQMD concludes that it is not currently possible to accurately quantify ozone-related health impacts caused by NO_X or VOC emissions from relatively small projects (defined as projects with regional scope) due to photochemistry and regional model limitations. As such, for the purpose of this analysis, since the project would not exceed SCAQMD thresholds for construction and operational air emissions, the project would have a less than significant impact for air quality health impacts as well.

CUMULATIVE IMPACTS

With respect to the proposed project's construction-related air quality emissions and cumulative Basin-wide conditions, the SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the 2022 AQMP pursuant to FCAA mandates. As such, the proposed project would comply with SCAQMD Rule 403 requirements and the adopted 2022 AQMP emissions control measures. Rule 403 requires that fugitive dust be controlled with the best available control measures in order to reduce dust so that it does not remain visible in the atmosphere beyond the property line of the proposed project. Per SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted 2022 AQMP emissions control measures) would also be imposed on construction projects throughout the Basin, which would include related projects.

According to the SCAQMD *CEQA Air Quality Handbook*, project-related emissions that fall below the established construction and operational thresholds should be considered less than significant unless there is pertinent information to the contrary. As discussed previously, the proposed project would not result in short- or long-term air quality impacts, as emissions would not exceed the SCAQMD adopted construction or operational thresholds. Additionally, adherence to SCAQMD rules and regulations would alleviate potential impacts related to cumulative conditions on a project-by-project basis. As a result, the proposed project would not contribute a cumulatively considerable net increase of any nonattainment criteria pollutant. Therefore, the project's incremental construction and operational impacts would be less than cumulatively considerable and impacts in this regard are less than significant.

CONCLUSION

Overall, as discussed above, the General Plan Update EIR determined that the General Plan Update would result in significant short- and long-term air quality impacts, and the General Plan Update would result in significant and unavoidable impacts in this regard. As shown in Table 3.3-1 and Table 3.3-2, the project's emissions would not exceed the SCAQMD adopted construction and operational thresholds. As such, the proposed project would not violate any air quality standards or contribute substantially to an existing or projected air quality violation, and would not result in significant short-

or long-term air quality impacts. A less than significant impact would occur in this regard, and the project would result in less impacts than those identified for the General Plan Update.

Impacts related to criteria air pollutants were analyzed in the General Plan Update EIR and found to be significant and unavoidable. No substantial new information shows that project impacts related to criteria air pollutants would be more significant than described in the General Plan Update EIR because project impacts related to criteria air pollutants are less than significant. Therefore, there are no impacts peculiar to the project site related to criteria air pollutants that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to criteria air pollutants that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

c) Expose sensitive receptors to substantial pollutant concentrations?

LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the Final Localized Significance Threshold Methodology for guidance. The LST methodology assists lead agencies in analyzing localized air quality impacts. The SCAQMD provides the LST lookup tables for one-, two-, and five-acre projects emitting CO, NO_X, $PM_{2.5}$, and/or PM_{10}. The project is located within Source Receptor Area (SRA) 18, *North Orange County Coastal.*

CONSTRUCTION LST

The SCAQMD guidance on applying CalEEMod to LSTs specifies the number of acres a particular piece of equipment would likely disturb per day.[13] SCAQMD provides LST thresholds for one-, two-, and five-acre site disturbance areas; SCAQMD does not provide LST thresholds for projects over five acres. The project would actively disturb approximately three acres per day during the grading phase of construction. However, because SCAQMD does not provide LST thresholds for intermediate acreages such as three acres, the two-acre LST thresholds were conservatively applied in this analysis. Therefore, by applying thresholds for a smaller disturbance area than what is actually expected, the analysis provides a more conservative assessment of potential air quality impacts on nearby sensitive receptors.

The SCAQMD recommends that the nearest sensitive receptor be considered when determining a project's localized air quality impacts. Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

[13] The number of acres represent the total acres traversed by grading equipment. To properly grade a piece of land, multiple passes with equipment may be required. The disturbance acreage is based on the equipment list and days of the grading phase according to the anticipated maximum number of acres a given piece of equipment can pass over in an 8-hour workday.

The nearest sensitive receptors to the project site are the existing single-family residences located immediately adjacent to the west of the project site. These sensitive land uses may be potentially affected by air pollutant emissions generated during on-site construction activities. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. The nearest sensitive receptors (single-family residences) are located adjacent to the project site to the west. Although construction activities would occur further away from these sensitive receptors to the west, as a conservative analysis, the LST values for 25 meters were used.

Table 3.3-3, *Localized Emissions Significance During Construction*, shows the localized construction-related emissions for NO_X, CO, $PM_{2.5}$, and PM_{10} compared to LSTs for SRA 18. It is noted that the localized emissions presented in Table 3.3-3 are less than those in Table 3.3-1 because localized emissions include only on-site emissions (e.g., from construction equipment and fugitive dust) and do not include off-site emissions (e.g., from hauling activities). As shown in Table 3.3-3, the project's localized construction emissions would not exceed the LSTs for SRA 18. Therefore, the localized significance impacts from project-related construction activities would be less than significant.

Table 3.3-3
Localized Emissions Significance During Construction

Source	Pollutant (pounds/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions[1]	27.2	27.6	3.51	1.98
Localized Significance Threshold[2]	*131.0*	*962.0*	*7.0*	*5.0*
Thresholds Exceeded?	***No***	***No***	***No***	***No***

Notes:
1. The grading phase emissions would present the worst-case scenario for NO_X, CO, PM_{10}, and $PM_{2.5}$.
2. The Localized Significance Threshold (LST) was determined using Appendix C of the SCAQMD's *Final Localized Significant Threshold Methodology* guidance document for pollutants NO_X, CO, PM_{10}, and $PM_{2.5}$. The LST was based on the anticipated daily acreage disturbance for construction (two acres) and distance to sensitive receptor (25 meters) for SRA 18, *North Orange County Coastal*.

Source: Refer to Appendix A, *Air Quality/Greenhouse Gas/Energy Data*.

OPERATIONS LST

According to SCAQMD LST methodology, LSTs would apply to operational activities if the project includes stationary sources or attracts mobile sources that may spend extended periods queuing and idling at the site (e.g., warehouse or transfer facilities). The proposed project is a park use and would not attract mobile sources that would spend extended periods queuing and idling at the site. Therefore, no substantial vehicle queuing or idling on-site for extended periods of time are anticipated. Thus, due to the lack of such emissions, no long-term LST analysis is needed. Operational LST impacts would be less than significant in this regard.

CARBON MONOXIDE HOTSPOTS

CO emissions are a function of vehicle idling time, meteorological, and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may

reach unhealthful levels (e.g., adversely affecting residents, school children, hospital patients, and the elderly).

The SCAB is designated as an attainment/maintenance area for the federal CO standards and an attainment area under State standards. There has been a decline in CO emissions even though VMT on U.S. urban and rural roads have increased; estimated anthropogenic CO emissions have decreased 68 percent between 1990 and 2014. In 2014, mobile sources accounted for 82 percent of the nation's total anthropogenic CO emissions.[14] Three major control programs have contributed to the reduced per-vehicle CO emissions, including exhaust standards, cleaner burning fuels, and motor vehicle inspection/maintenance programs. According to the SCAQMD *CEQA Air Quality Handbook*, a potential CO hotspot may occur at any location where the background CO concentration already exceeds 9.0 parts per million (ppm), which is the 8-hour California ambient air quality standard, the closest monitoring station to the project site that monitors CO concentration is the Anaheim – 812 West Vermont Street, located approximately 11.9 miles north of the project site. The most recent maximum one-hour average CO concentration at this monitoring station is available for 2024 and was measured at 3.326 ppm.[15] Given that the background CO concentration does not currently exceed 9.0 ppm, a CO hotspot would not occur at the project site. Therefore, CO hotspot impacts would be less than significant in this regard.

CONCLUSION

Overall, as discussed above, the General Plan Update EIR determined that the General Plan Update would result in significant localized air quality impacts, and the General Plan Update would result in significant and unavoidable impacts in this regard. As discussed above and as shown in Table 3.3-3, the project's localized air quality emissions would not exceed the SCAQMD adopted construction and operational localized thresholds. As such, the proposed project would not result in significant localized air quality impacts. A less than significant impact would occur in this regard, and the project would result in less impacts than those identified in the General Plan Update EIR.

Impacts related to localized pollution were analyzed in the General Plan Update EIR and found to be significant and unavoidable. No substantial new information shows that project impacts related to localized pollution to sensitive receptors would be more significant than described in the General Plan Update EIR because project impacts related to localized pollution to sensitive receptors are less than significant. Therefore, there are no impacts peculiar to the project site related to localized pollution to sensitive receptors that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to localized pollution to sensitive receptors that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

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

[14] U.S. Environmental Protection Agency, *Carbon Monoxide Emissions*, https://cfpub.epa.gov/roe/indicator_pdf.cfm?i=10, accessed August 21, 2025.

[15] California Air Resources Board, *Air Quality Data*, https://www.arb.ca.gov/aqmis2/aqdselect.php?tab=specialrpt, accessed August 21, 2025.

According to the SCAQMD CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding.

The project does not contain land uses typically associated with emitting objectionable odors. Potential odor sources associated with the project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities and the temporary storage of typical solid waste (refuse) associated with the project's (long-term operational) uses. Standard construction requirements would minimize odor impacts from construction. The construction odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction and is thus considered less than significant. It is expected that project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with current solid waste regulations. The project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, odors and other emissions (such as those leading to odors) associated with construction and operations activities of the project would be less than significant.

Impacts related to odors were analyzed in the General Plan Update EIR and found to be less than significant. No substantial new information shows that project impacts related to odors would be more significant than described in the General Plan Update EIR because project impacts related to odors are less than significant. Therefore, there are no impacts peculiar to the project site related to odors that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to odors that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

3.4 BIOLOGICAL RESOURCES

Would the project:	Prior EIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-Site/ Cumulative Impact?	New Information, More Severe Adverse Impact?
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	Less Than Significant Impact with Mitigation Measures Incorporated	No	No	No	No
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	Less Than Significant Impact	No	No	No	No
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?	Less Than Significant Impact with Mitigation Measures Incorporated	No	No	No	No
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?	Less Than Significant Impact	No	No	No	No
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No Impact	No	No	No	No
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?	No Impact	No	No	No	No

3.4.1 General Plan Update EIR Summary

As detailed in the General Plan Update EIR, the City's planning area supports suitable habitats for a variety of special-status plant and animal species. However, implementation of the General Plan Update would not directly convert any existing open space areas containing native vegetation and/or habitat for special-status species to developed uses. Nevertheless, buildout of the General Plan Update has the potential to indirectly impact habitat for special-status species by increasing environmental pollutants, promoting habitat fragmentation, and introducing invasive species. As such, the General Plan Update EIR recommended that all future development within the City would comply with all federal and state regulations and General Plan Update policies enacted to protect special-status species. Additionally, the General Plan Update EIR determined that while the General Plan Update would

result in less than significant impacts on migratory birds, they recommend the implementation of mitigation measure MM4.3-1 which would require a preconstruction nesting bird survey at development sites 14 days prior to construction activities. If an active nest of a Migratory Bird Treaty Act protected species is located, a 100-foot no-work buffer would be established around the nest. With implementation of mitigation measure MM4.3-1, the General Plan Update EIR determined that implementation of the General Plan Update would not have a substantial adverse effect on any species identified as a candidate, sensitive, or special status species. Impacts would be less than significant in this regard.

The General Plan Update EIR identified that the City contains a total of 1,171 acres of sensitive natural communities within its planning areas. As stated above, the General Plan Update would not propose any land use changes that would directly convert riparian habitat or other sensitive vegetation communities to developed use. However, future development could potentially result in indirect loss or degradation of riparian habitat or sensitive communities through increased pollutants through urban runoff, introduction of invasive species, and habitat fragmentation. The General Plan Update EIR states that implementation of General Plan Update policies would reduce the potential direct and indirect impacts on riparian habitat and sensitive natural communities. Upon compliance with General Plan Update policies aimed at reducing potential impacts to riparian habitats and sensitive natural communities, impacts would be less than significant in this regard.

The General Plan Update EIR identified that the City's planning area supports riparian and wetland plant communities. As stated above, the General Plan Update would not propose any land use changes that would directly convert protected wetlands to developed use. However, future development could potentially result in the indirect loss or degradation of wetlands. The General Plan Update EIR stated that implementation of General Plan Update policies would reduce the potential indirect impacts on protected wetlands. Additionally, future development would comply with all applicable state and federal regulations governing protected wetlands. While the General Plan Update EIR stated that the General Plan Update would result in less than significant impacts on wetland habitats, they recommend the implementation of mitigation measure MM4.3-2 which would further reduce potential impacts. Mitigation measure MM4.3-2 would require a wetland delineation to be conducted prior to the development of any vacant (nondeveloped) land. If wetlands are found, the project applicant will be required to obtain all necessary wetland permits and mitigate for impacts to wetland habitats. Upon compliance with federal, state, and local regulations and incorporation of mitigation measure MM4.3-2, as applicable, impacts would be less than significant in this regard.

The General Plan Update EIR acknowledged that the City's planning areas contain several linkages that serve as wildlife corridors. Implementation of the General Plan Update would not propose any land use changes that would directly convert existing open space areas containing wildlife connections, corridors, and habitat into developed uses. Nevertheless, future development may result in indirect loss or degradation of wildlife corridors. The General Plan Update EIR stated that implementation of General Plan Update polices would ensure wildlife corridors would be preserved and enhanced. Upon compliance with General Plan Update policies aimed at preserving wildlife corridors, impacts would be less than significant in this regard.

As detailed in the General Plan Update EIR, the City adopted two local policies protecting biological resources: the Local Costal Program and the City of Huntington Beach Municipal Code Chapter 13.50,

Regulations of Trees. All future development anticipated under the General Plan Update would be required to comply with these local policies. As such, the General Plan Update EIR determined that implementation of the General Plan Update would not conflict with any local policy or ordinance protecting biological resources and no impacts would occur.

As discussed in the General Plan Update EIR, the City's planning area is not located within an adopted Natural Community Conservation Plan (NCCP), Habitat Conservation Plan (HCP), nor any other approved local, regional, or state habitat conservation plan. As such, implementation of the General Plan Update would not conflict with such plans and no impacts would occur.

3.4.2 Project-Specific Impacts

This section is based on the *Biological Resources Assessment for the Edison Park Reconfiguration and Improvements Project in the City of Huntington Beach, Orange County, California* (Biological Resources Assessment), prepared by Michael Baker International and date September 8, 2025; refer to Appendix B, *Biological Resources Assessment*.

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?

As detailed in the Biological Resources Assessment, the project site is developed and supports ornamental landscaping which is not a suitable habitat for most special-status plant or wildlife species. As a result of the lack of suitable habitat, no special-status plants are expected to be located on the project site. Additionally, the Biological Resources Assessment acknowledges that monarch butterflies may utilize the existing trees on-site to roost temporarily. However, if monarch butterflies occur on the project site, they are expected to occur in very low numbers due to the developed and urbanized nature of the site and surrounding area.

During the biological survey conducted for the project, suitable burrowing owl burrows and habitats were observed. However, no signs of burrowing owls (i.e., whitewash, pellets, and feathers) were located on the project site. Nevertheless, to further minimize the project's potential impact on burrowing owls, the proposed project would implement Standard Conditions of Approval (SCA) BIO-1 which would require a preconstruction burrowing owl clearance survey as recommended by the Biological Resource Assessment. The preconstruction burrowing owl clearance survey would be conducted 14 days prior to any vegetation removal or ground disturbing activities and would be conducted with the methods outlined by the Staff Report on Burrowing Owl Mitigation.[16] If no burrowing owls or occupied owls are located, construction activities may commence. In the event that burrowing owls or an occupied burrow is located on the project site, a burrowing owl exclusion and mitigation plan would be prepared in coordination with the California Department of Fish and Wildlife (CDFW). If an occupied burrow is located outside, but within 500 feet of the project site, a "no disturbance" buffer would be established around the burrow. Impacts would be less than significant in this regard.

[16] California Department of Fish and Game, *Staff Report on Burrowing Owl Mitigation*, 2012.

Impacts related to special-status species were analyzed in the General Plan Update EIR and found to be less than significant with mitigation measures incorporated. No substantial new information shows that project impacts related to special-status species would be more significant than described in the General Plan Update EIR because project impacts related to special-status species are less than significant. Therefore, there are no impacts peculiar to the project site related to special-status species that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to special-status species that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

Project Condition:

SCA BIO-1 Pre-construction Surveys. No more than 14 days before any vegetation removal or ground disturbing activities, a qualified biologist shall conduct a preconstruction clearance survey to determine if any burrowing owls are located on the project site. If no burrowing owls or occupied burrows are detected, project activities may begin, and no additional avoidance or minimization measures are required.

If burrowing owls are located on the project site, a burrowing owl exclusion and mitigation plan shall be prepared in coordination with the California Department of Fish and Wildlife (CDFW) and approved prior to project activities. If an occupied burrow is detected outside but within 500 feet of the project site, a "no disturbance" buffer shall be established around the burrow locations. The size of the buffer shall be determined in coordination with CDFW.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

According to the Biological Resources Assessment, the project site is completely developed and only supports ornamental landscaping and weedy vegetation. There are no riparian habitats, wetlands, or other sensitive natural communities present within the project site boundaries. Therefore, development of the proposed project is not expected to result in impacts to State or federal jurisdictional areas or require regulatory approvals/permits from the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), California Department of Fish and Wildlife (CDFW), or the California Coastal Commission (CCC). As such, no impact would occur in this regard.

Impacts related to riparian habitat or other sensitive natural community were analyzed in the General Plan Update EIR and found to be less than significant. No substantial new information shows that project impacts related to riparian habitat or other sensitive natural community would be more significant than described in the General Plan Update EIR because no project impacts related to the riparian habitats or other sensitive natural communities would occur. Therefore, there are no impacts peculiar to the project site related to riparian habitat or other sensitive natural community that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or

cumulatively-considerable impacts of the proposed project related to riparian habitats or other sensitive natural communities that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

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?

Refer to Response 3.4.2(b) above. No impacts would occur in this regard.

As analyzed in the General Plan Update EIR, impacts related to State or federally protected wetlands were found to less than significant with mitigation measures incorporated. No substantial new information shows that project impacts related to State or federally protected wetlands would be more significant than described in the General Plan Update EIR because no project impacts related to State or Federally protected wetlands would occur. Therefore, there are no impacts peculiar to the project site that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to State or Federally protected wetlands that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

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?

According to the Biological Resources Assessment, the project site is within a developed urban area and is completely surrounded by existing development. Additionally, the project site does not have any connectivity to any natural habitats that would serve as migratory corridors. As such, impacts on the movement along migratory corridors would be less than significant in this regard.

Nesting birds are protected pursuant to the federal Migratory Bird Treaty Act (MBTA) of 1918 and the California Fish and Game Code (CFGC). To maintain compliance with the MBTA and CFGC, clearance surveys are typically required prior to any ground disturbance or vegetation removal activities to avoid direct or indirect impacts to active bird nests and/or nesting birds. Consequently, if an active bird nest is destroyed or if project activities result in indirect impacts (e.g., nest abandonment, loss of reproductive effort) to nesting birds, it is considered "take" and is potentially punishable by fines and/or imprisonment.

To minimize the project's potential impacts on nesting birds, the project would be required to comply with General Plan Update EIR mitigation measure MM4.3-1. General Plan Update EIR mitigation measure MM4.3-1 would require a nesting bird survey to be conducted if construction activities or vegetation removal occurs between February 15 and August 31. Nesting Bird Surveys would also be conducted no less than 14 days and no more than 30 days prior to the commencement of any construction activities. If no active nests are identified on or within 250 feet of the construction site, no further mitigation is required. If an active bird nest is found, a 100 foot "no-disturbance" buffer

shall be established around the active nest and shall be monitored until the young have fledged and left the nest or the nest otherwise becomes inactive under natural conditions. The buffer size would be determined based on consultation with the CDFW and/or United States Fish and Wildlife Service. Upon implementation of General Plan Update EIR mitigation measure MM4.3-1 and compliance with existing regulations pertaining to nesting birds protected by the MBTA, impacts would be less than significant in this regard.

Impacts related to wildlife corridors were analyzed in the General Plan Update EIR and found to be less than significant. No substantial new information shows that project impacts related to wildlife corridors would be more significant than described in the General Plan Update EIR because project impacts related to wildlife corridors are less than significant. Therefore, there are no impacts peculiar to the project site related to wildlife corridors that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to wildlife corridors that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

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

The City of Huntington Beach Municipal Code Chapter 13.50, *Regulation of Trees*, contains regulations on tree removal, and maintenance, including the protection of all trees located along streets, alleys, courts, or other public places during construction activities. Specifically, City of Huntington Beach Municipal Code Section 13.50.120 requires that removal of any trees would require a permit. As discussed in Section 1.0, *Project Description*, the proposed project would require the removal of existing trees and vegetation. Additionally, the proposed project would install new trees on-site; refer to Exhibit 3. Nevertheless, the proposed project would comply with all applicable local policies and ordinance regarding the removal, maintenance, and protection of trees during construction activities. Consequently, the proposed project would not conflict with any local policies protecting biological resources. No impacts would occur in this regard.

Impacts related to local policies or ordinances protecting biological resources were analyzed in the General Plan Update EIR and were determined to have no impacts. No substantial new information shows that project impacts related to local policies or ordinances protecting biological resources would be more significant than described in the General Plan Update EIR because the project would have no impact related to potential conflicts with local policies or ordinances protecting biological resources. Therefore, there are no impacts peculiar to the project site related to local policies or ordinances protecting biological resources that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to local policies or ordinances protecting biological resources that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

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?

According to the Biological Resources Assessment, the project site is not located within an adopted NCCP, HCP, nor any other approved local, regional, or state habitat conservation plan. Additionally, the General Plan Update EIR states that the City of Huntington Beach does not have an NCCP, HCP, nor any other approved local, regional, or state habitat conservation plan within its planning area. As such, there would be no impact in this regard.

As analyzed in the General Plan Update EIR, no impacts related to approved local, regional, or state habitat conservation plans were found to occur. No substantial new information shows that project impacts related to approved local, regional, or state habitat conservation plans would be more significant than described in the General Plan Update EIR because no project impacts related to approved local, regional, or state habitat conservation plans would occur. Therefore, there are no impacts peculiar to the project site related to approved local, regional, or state habitat conservation plans that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to approved local, regional, or state habitat conservation plans that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

3.5 CULTURAL RESOURCES

Would the project:	Prior EIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-Site/ Cumulative Impact?	New Information, More Severe Adverse Impact?
a. Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines §15064.5?	Less Than Significant Impact with Mitigation Measures Incorporated	No	No	No	No
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?	Less Than Significant Impact with Mitigation Measures Incorporated	No	No	No	No
c. Disturb any human remains, including those interred outside of formal cemeteries?	Less Than Significant Impact with Mitigation Measures Incorporated	No	No	No	No

3.5.1 General Plan Update EIR Summary

The General Plan Update EIR concluded that construction activities associated with the implementation of the General Plan Update would potentially cause substantial adverse changes in the significance of a historical resource pursuant to Section 15064.5 of the CEQA Guidelines. Specifically, the General Plan Update EIR stated that this would occur within the area designated by the City as transformation areas. A total of 17 properties listed as eligible for local landmarks are located within the transformation areas. Additionally, four known historic age sites and one multi-component site that includes historic and prehistoric era cultural resources are located within the City's planning area. As such, future development under the General Plan Update would have the potential to disturb unknown historical resources. All future projects would be required to complete environmental review, in order to prevent damage and disruption of unknown historical resources while construction activities take place.

With regard to historic resources, the General Plan Update EIR include mitigation measure MM4.4-1 which would require the retention of a cultural resource professional to prepare a cultural resource investigation for any buildings or structures that are 45 years old or older. Additionally, the General Plan Update include objectives and policies which would minimize impacts to historic resources. As such, upon compliance with the City's General Plan Update policies, State and City regulations, and incorporation of mitigation measure MM4.4-1, impacts on historical resources would be less than significant.

The General Plan Update EIR also concluded that the presence of known and previously recorded cultural resources in close proximity of the City indicates an increased sensitivity for cultural resources within the planning area. The City contains three prehistoric cultural resource sites and one multi-component site. As such, construction activities associated with the implementation of the General Plan Update may uncover presently buried and previously unknown cultural resources. With regards

to archaeological resources, the General Plan Update EIR includes mitigation measure MM4.4-2 which would require the retention of an archaeologist to prepare a technical report or memorandum which determines if site-specific development would result in a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the CEQA Guidelines or human remains. The technical report or memorandum would also include recommendations or methods for elimination or avoiding impacts on archaeological resources or human remains. Additionally, the General Plan Update EIR also includes mitigation measure MM4.4-3 which would require all earth-disturbing activities to cease within 100 feet of a discovered archaeological site or suspected historical resources. The discovered archaeological site or suspected historical resources would be assessed by an archaeologist and handled in accordance with established regulations. As such, the General Plan Update EIR concluded that compliance with the General Plan Update policies, State and City regulations, and incorporation of mitigation measure MM4.4-2 and mitigation measure MM4.4-3 would ensure adverse impacts on archaeological resources are reduced to less than significant levels.

The General Plan Update EIR stated that while there are no known human remains within the City's planning area, there are previously recorded archaeological sites outside of the City's planning area which contain human remains. Due to known archaeological sites within the City, there is an increased sensitivity for unknown informal cemeteries which could be located within the City's planning area. Future construction activities (i.e., grading, excavation, utilities installation) would have the potential to cause adverse impacts to undiscovered remains. Adherence to and implementation of the General Plan Update policies, Specific Plan development standards, and compliance with existing State and local regulations, specifically California State Health and Safety Code Section 7050.5, would reduce potential impacts to human remains in areas where soil has not been previously disturbed. Additionally, the General Plan Update EIR recommends the implementation of mitigation measure MM4.4-2 and MM4.4-3 which would further prevent impacts to any potential human remains.

3.5.2 Project-Specific Impacts

This section is based on the *Cultural Resources Assessment for the Edison Park Reconfiguration and Improvement Project, City of Huntington Beach, Orange County, California* (Cultural Resources Assessment), prepared by Michael Baker International and date September 9, 2025; refer to Appendix C, *Cultural Resources Assessment*.

a) Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines §15064.5?

Edison Park was developed in 1974. According to the Cultural Resources Assessment, a South Central Coastal Information Center (SCCIC) records search, literature review, field survey, Native American Heritage Commission Sacred Lands File search, and tribal outreach identified one cultural resource (Edison Community Park) within the project area. To be eligible for listing in the California Register of Historical Resources (CRHR), a property must be at least 50 years of age and possess significance at the local, State, or national level, under one or more of the following criteria:

- **Criterion 1.** It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

- **Criterion 2.** It is associated with the lives of persons important in our past;
- **Criterion 3.** It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic value;
- **Criterion 4.** It has yielded, or may yield, information important in history or prehistory.

According to the Cultural Resources Assessment, the existing Edison Community Park was determined to be ineligible for listing in the CRHR and would not be classified as a historical resource as defined by CEQA Section 15064.5(a). The evaluation of the project's eligibility is discussed below:

- **Criterion 1.** The park was developed between 1972 and 1974 but was not one of the area's first parks, does not have any development features that influence park or landscape design, and did not contribute to recreation development of the City, county, State, or nation in a important way. As such, the project does not meet the threshold for historical significance under California Register Criterion 1.
- **Criterion 2.** The Cultural Resources Assessment failed to identify significant individuals associated with the park. Therefore, the subject property does not meet the threshold for historical significance under California Register Criterion 2.
- **Criterion 3.** The park was developed with the generic layout of post-World War II era community park. However, while this park follows the distinctive characteristics of a type, period, and method of construction, this park was one of thousands of parks developed with this style. Additionally, the landscape architect, Richard Bigler, was not considered as a master landscape architect. As such, the existing park does not embody the distinctive characteristics of a type, period, or method of construction, nor are they known to be the work of a master architect or craftsman. Therefore, Edison Community Park does not meet the threshold for historical significance under California Register Criteria 3.
- **Criterion 4.** The site is not expected to yield important information pertaining to prehistory or history since the park is not a principal source of important information pertaining to park development. The subject property does not meet the threshold for historical significance under California Register Criteria 4.

Thus, less than significant impacts would occur in this regard.

Impacts related to historical resources were analyzed in the General Plan Update EIR and found to be less than significant with mitigation measures incorporated. No substantial new information shows that project impacts related to historical resources would be more significant than described in the General Plan Update EIR because project impacts related to historical resource are less than significant. Therefore, there are no impacts peculiar to the project site related to historical resources that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to historical resources that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?

As detailed in the Cultural Resources Assessment, no archaeological remains or prehistoric cultural resources were identified within the project site during the records search or pedestrian survey, and the project site is not considered sensitive for buried archaeological resources. Additionally, the soils at the project site have been heavily disturbed from the development of the existing park, sport amenities, and parking lot. Due to the developed and disturbed nature of the project site, the archaeological sensitivity of prehistoric and historic-period archaeological sites is low. However, it should be noted that the sensitivity for archaeological resources increases with depth, especially if earthwork extends beyond the previously disturbed soil depth.

Most of the proposed park reconfiguration and improvement activities would occur within the existing previously disturbed soils and would extend to a maximum of eight feet below grade surface. According to the Cultural Resources Assessment, sensitivity for archaeological resources would increase if disturbance extends to depths greater than 10 feet. However, since earthwork activities associated with the proposed project would only extend to a maximum depth of eight feet below grade surface, it is not anticipated that the project would adversely impact previously undiscovered archaeological resources. Therefore, it is not expected that archaeological resources would be encountered during project construction and a less than significant impact would occur in this regard.

Impacts related to archaeological resources were analyzed in the General Plan Update EIR and found to be less than significant with mitigation measures incorporated. No substantial new information shows that project impacts related to archaeological resources would be more significant than described in the General Plan Update EIR because project impacts related to archaeological resources are less than significant. Therefore, there are no impacts peculiar to the project site related to archaeological resources that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to archaeological resources that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

c) Disturb any human remains, including those interred outside of formal cemeteries?

As discussed above, the project site has been subject to substantial disturbance due to previous use as a landfill and current use as a park. As such, it is not anticipated that human remains, including those interred outside of formal cemeteries, would be encountered during earth removal or ground-disturbing activities. While grading and excavation would occur, these activities would occur within the existing previously disturbed soils and would extend to a maximum of eight feet below grade surface.

Due to the level of disturbance on the project site and in the site vicinity, it is not anticipated that human remains, including those interred outside of formal cemeteries, would be encountered during earth removal or ground-disturbing activities. Nonetheless, if human remains are found, those remains would require proper treatment, in accordance with applicable laws. State of California Public

Resources Health and Safety Code Section 7050.5 through 7055 describe the general provisions for human remains. Specifically, Health and Safety Code Section 7050.5 describes the requirements if any human remains are accidentally discovered during excavation of a site. As required by State law, the requirements and procedures set forth in Section 5097.98 of the California Public Resources Code would be implemented, including notification of the County Coroner, notification of the Native American Heritage Commission, and consultation with the individual identified by the Native American Heritage Commission to be the most likely descendant. If human remains are found during excavation, excavation must stop near the find and any area that is reasonably suspected to overlay adjacent remains until the County Coroner has been called out, the remains have been investigated, and appropriate recommendations have been made for the treatment and disposition of the remains. Following compliance with the aforementioned regulations, impacts related to the disturbance of human remains are less than significant.

Impacts related to human remains were analyzed in the General Plan Update EIR and found to be less than significant with mitigation measures incorporated. No substantial new information shows that project impacts related to human remains would be more significant than described in the General Plan Update EIR because project impacts related to human remains are less than significant. Therefore, there are no impacts peculiar to the project site related to human remains that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to human remains that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

3.6 ENERGY

Would the project:	Prior EIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-Site/ Cumulative Impact?	New Information, More Severe Adverse Impact?
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Not Analyzed	No	No	No	No
b. Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?	Not Analyzed	No	No	No	No

3.6.1 General Plan Update EIR Summary

The General Plan Update EIR did not address impacts to energy resources as thresholds related to energy resources were added to Appendix G of the CEQA Guidelines after certification of the General Plan Update EIR. However, energy use and infrastructure considerations were evaluated under *Chapter 4.15, Utilities and Service Systems,* consistent with the requirements of Appendix F, which has long mandated the analysis of energy consumption and conservation. The General Plan Update EIR acknowledged that implementation of the General Plan Update would result in increased energy use within the City, thereby increasing the demand for energy services. However, no proposals for energy production facilities or transmission facilities are included as part of the General Plan Update. According to the General Plan Update EIR, increased motor vehicle travel within the City resulting from buildout of the General Plan Update would also be accompanied by increased consumption of petroleum products. The General Plan Update EIR concluded that implementation of the General Plan Update could potentially result in the need for new energy infrastructure. Should Southern California Edison (SCE) or Southern California Gas (SCG) determine that additional energy production or transmission facilities are required in the future, such projects would be subject to separate CEQA review, and their environmental impacts would be assessed at that time. Implementation of General Plan Update policies, combined with the requirement for future CEQA compliance for any new energy infrastructure, would ensure that potential impacts related to the construction or expansion of energy facilities are reduced to a less-than-significant level.

3.6.2 Project-Specific Impacts

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Per CEQA Guidelines Appendix F, *Energy Conservation*, in order to ensure energy implications are considered in project decisions, CEQA requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary energy consumption (Public Resources Code Section 21100(b)(3)). Environmental effects may include:

- The proposed project's energy requirements and its energy use efficiencies by amount and fuel type during demolition, construction, and operation; (Criterion 1)
- The effects of the proposed project on local and regional energy supplies; (Criterion 2)
- The effects of the proposed project on peak and base period demands for electricity and other forms of energy; (Criterion 3)
- The degree to which the proposed project complies with existing energy standards; (Criterion 4)
- The effects of the proposed project on energy resources; (Criterion 5) and
- The proposed project's projected transportation energy use requirements and its overall use of efficient transportation alternatives, if applicable. (Criterion 6)

The following impact analysis focuses on the two sources of energy that are relevant to the proposed project: electricity and transportation fuel for vehicle trips associated with project operations as well as the fuel necessary for project construction. The project would not introduce new land uses that would consume natural gas. The California Emissions Estimator Model (CalEEMod) version 2022.1 was utilized to calculate the project's construction and operational energy consumption. CalEEMod modeling assumes that the proposed project would construct a new park which presents a more conservative estimate on construction and operational energy consumptions, as in reality, the project proposes improvements to the existing park use. The project's estimated energy consumption is summarized in Table 3.6-1, *Project and Countywide Energy Consumption*. Refer to Appendix A for CalEEMod output and energy calculations.

CONSTRUCTION ENERGY CONSUMPTION

During construction, the project would consume energy in two general forms: (1) the fuel energy consumed by construction vehicles and equipment; and (2) bound energy in construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Fossil fuels used for construction vehicles and other energy-consuming equipment would be used during demolition, grading, building construction, paving, and architectural coatings. Fuel energy consumed during construction would be temporary and would not represent a significant demand on energy resources. In addition, some incidental energy conservation would occur during construction through compliance with State requirements that heavy-duty diesel equipment not in use for more than five minutes be turned off. Project construction equipment would also be required to comply with the latest U.S. Environmental Protection Agency (EPA) and California Air Resources Board (CARB) engine emissions standards. These emissions standards require highly efficient combustion systems that maximize fuel efficiency and reduce unnecessary fuel consumption. Due to increasing

transportation costs and fuel prices, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction (Criterion 4).

Table 3.6-1
Project and Countywide Energy Consumption

Energy Consumption Type	Project Annual Energy Consumption[1]	Orange County Annual Energy Consumption[2]	Percentage Increase Countywide
Construction			
Construction Off-Road Fuel Consumption	27,613 gallons	15,230,871 gallons	0.1813%
Construction On-Road Fuel Consumption	2,786 gallons	1,056,094,532 gallons	0.0003%
Operation			
Electricity Consumption[3]	25 MWh	18,759,229 MWh	0.0001%
Operational Automotive Fuel Consumption	628 gallons	1,012,273,716 gallons	0.0001%

Notes:
1. Project electricity consumptions as modeled in California Emissions Estimator Model Version 2022.1 (CalEEMod) computer model. Project fuel consumption calculated based on CalEEMod results. Countywide operational fuel consumption, off-road construction equipment diesel fuel consumption, and on-road fuel consumption are from CARB EMFAC2021.
2. The project's increase in electricity consumption is compared to the total consumption in Orange County in 2023 (latest year where data is available). Construction on-road and off-road fuel consumption was compared with the projected Orange Countywide off-road and on-road fuel consumption in 2026 (first year of construction). The project increases in operational automotive fuel consumption is compared with the projected Countywide on-road fuel consumption in 2027 (first year of operation).
3. Orange County electricity consumption data source: California Energy Commission, *Electricity Consumption by County*, https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/california-energy-consumption-dashboards-0, accessed August 25, 2025.

Source: Refer to Appendix A, *Air Quality/Greenhouse Gas/Energy Data*.

The project-related incremental increase in the use of energy bound in construction materials, such as asphalt, steel, concrete, pipes and manufactured or processed materials (e.g., lumber and gas), would not substantially increase demand for energy compared to overall local and regional demand for construction materials. As indicated in Table 3.6-1, the proposed project's construction off-road fuel consumption would be approximately 27,613 gallons, which would account for 0.1813 percent of the County's annual off-road construction fuel consumption, and on-road fuel consumption from construction would be approximately 2,786 gallons, which would account for approximately 0.0003 percent of the County's annual on-road fuel consumption. As previously stated, CalEEMod modeling assumes that the proposed project would construct a new park which presents a more conservative estimate on construction energy consumption, as in reality, the project proposes improvements to the existing park use. Therefore, project related construction energy consumption would be lower than what is shown in Table 3.6-1. As such, project construction would have a minimal effect on the local and regional energy supplies and would not require additional capacity (Criterion 2).

Construction fuel use is temporary and would cease upon completion of construction activities. Construction activities would be planned and sequenced to maximize the efficiency of construction. Therefore, there are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or State (Criterion 5). Additionally, construction contractors would be required to comply with the provisions of California Code of Regulations Title 13, Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and off-road diesel vehicles from idling for more than five minutes

and would minimize unnecessary fuel consumption. Construction equipment would be subject to the EPA Construction Equipment Fuel Efficiency Standard, which would also minimize inefficient, wasteful, or unnecessary fuel consumption. Furthermore, the project would comply with applicable regulatory requirements and the City's Construction and Demolition Recycling Program, which require compliance with waste reduction measures throughout construction activities. Therefore, construction fuel consumption would not be any more inefficient, wasteful, or unnecessary than other similar development projects, and a less than significant impact would occur in this regard during project construction.

OPERATIONAL ENERGY CONSUMPTION

Transportation Energy Demand. Pursuant to the Federal Energy Policy and Conservation Act of 1975, the National Highway Traffic and Safety Administration is responsible for establishing additional vehicle standards and for revising existing standards. Compliance with Federal fuel economy standards is not determined for each individual vehicle model. Rather, compliance is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the United States.

Project-generated vehicle emissions have been estimated using CalEEMod. Based on the *Edison Park Reconfiguration and Improvements – Vehicle Miles Traveled* (VMT Analysis), prepared by Michael Baker International and dated August 22, 2025, the project would generate a total of 31 average daily trips (ADT). As indicated in Table 3.6-1, the project's operational automotive transportation at buildout is estimated to consume approximately 628 gallons of fuel per year. As such, project-related mobile sources would account for approximately 0.0001 percent of the County's forecasted annual consumption of fuel starting in 2027 (first year of operation). The proposed project would account for a nominal percentage of the forecasted annual operational automotive fuel consumption for the County and, thus, would have a nominal effect on the local and regional energy supplies. (Criterion 1 and Criterion 2).

The key drivers of transportation-related fuel consumption rely on many personal choices on when and where to drive for various purposes. The project site would be located within 0.25 mile of the nearest bus stop and the project would also provide electric vehicle (EV) parking spaces, which would promote an alternative mode of transportation and reduce fuel consumption (Criterion 4 and Criterion 6). Therefore, fuel consumption associated with vehicle trips generated by the project would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region. A less than significant impact would occur.

Stationary Energy Demand. The CEC developed 2024 to 2040 forecasts for energy consumption and peak demand in support of the *2023 Integrated Energy Policy Report* (2023 IEPR) for each of the major electricity and natural gas planning areas and the State based on the economic and demographic growth projections. CEC forecasted baseline electricity consumption grows at a rate of about 1.7

percent annually through 2040.[17] The natural gas consumption grows at a rate of about 0.2 percent annually through 2035.[18]

It should be acknowledged that the project is not proposing to introduce land uses that would consume natural gas. As shown in Table 3.6-1, operational energy consumption of the project would represent approximately a 0.0001 percent increase in electricity consumption over the current Countywide usage, which would be significantly below CEC's forecasts and the current Countywide usage. Therefore, the project would be consistent with the CEC's energy consumption forecasts and would not require additional energy capacity or supplies (Criterion 1 and Criterion 2). The project would also consume energy during the same time periods as other surrounding residential and commercial developments. As a result, the project would not result in unique or more intensive peak or base period electricity demand (Criterion 3).

Furthermore, the electricity provider, SCE, is subject to California's Renewable Portfolio Standards (RPS). The RPS requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 60 percent of total procurement by 2030 and 100 percent of total procurement by 2045. Renewable energy is generally defined as energy that comes from resources which are naturally replenished within a human timescale such as sunlight, wind, tides, waves, and geothermal heat. The increase in the reliance of such energy resources further ensures that new development projects will not result in the waste of the finite energy resources. (Criterion 4).

Based on the analysis above, the project would not cause wasteful, inefficient, and unnecessary consumption of energy during project operation, or preempt future energy development or future energy conservation. Further, implementation of the proposed project would not warrant new energy production facilities or transmission facilities. As such, impacts resulting from the proposed project would be less than significant.

CONCLUSION

Impacts related to energy consumption were analyzed in the General Plan Update EIR and found to be less than significant. No substantial new information shows that project impacts related to energy consumption would be more significant than described in the General Plan Update EIR because project impacts related to energy consumption would be less than significant. Therefore, there are no impacts peculiar to the project site related to energy consumption that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to energy consumption that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

[17] California Energy Commission, *2023 Integrated Energy Policy Report, page 130*, July 14, 2024.

[18] Based on the *2023 Integrated Energy Policy Report*, the gas forecast is updated every two years, in odd years. As such, the natural gas consumption shown here is based on the California Energy Commission, *Final 2022 Integrated Energy Policy Report Update, page 140*, May 10, 2023.

b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

As discussed above, operational energy consumption of the proposed project would be a nominal fraction of County's projected energy consumption and substantially below CEC's forecasts in the 2023 IEPR (i.e., Statewide annual average growth rates of energy demand would be 1.7 percent for electricity); refer to Table 3.6-1. The proposed project supports energy efficiency and sustainability objectives by maintaining low operational energy demand, promoting transit use, and avoiding the need for new energy infrastructure. Therefore, the project would be consistent with the CEC's 2023 IEPR. Further, the City of Huntington Beach General Plan includes goals and policies regarding energy reduction/efficiency. However, these only apply to new and existing buildings. The proposed project would reconfigure the existing park and would not result in any new structures that would consume additional energy. As such, these goals are not applicable to the proposed project.

Impacts related to consistency with State or local plans pertaining to renewable energy or energy efficiency were analyzed in the General Plan Update EIR and found to be less than significant. No substantial new information shows that project impacts related to energy consumption would be more significant than described in the General Plan Update EIR because project impacts related to energy consumption are less than significant. Therefore, there are no impacts peculiar to the project site related to energy consumption that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to energy consumption that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

3.7 GEOLOGY AND SOILS

Would the project:	Prior EIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-Site/ Cumulative Impact?	New Information, More Severe Adverse Impact?
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:					
1) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	Less Than Significant Impact with Mitigation Measures Incorporated	No	No	No	No
2) Strong seismic ground shaking?	Less Than Significant Impact with Mitigation Measures Incorporated	No	No	No	No
3) Seismic-related ground failure, including liquefaction?	Less Than Significant Impact with Mitigation Measures Incorporated	No	No	No	No
4) Landslides?	Less Than Significant Impact with Mitigation Measures Incorporated	No	No	No	No
b. Result in substantial soil erosion or the loss of topsoil?	Less Than Significant Impact	No	No	No	No
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?	Less Than Significant Impact with Mitigation Measures Incorporated	No	No	No	No
d. Be located on expansive soil, as defined in Table 18-1-B of the California Building Code (2001), creating substantial direct or indirect risks to life or property?	Less Than Significant Impact with Mitigation Measures Incorporated	No	No	No	No
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	No Impact	No	No	No	No
f. Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	Less Than Significant Impact with Mitigation Measures Incorporated	No	No	No	No

3.7.1 General Plan Update EIR Summary

As detailed in the General Plan Update EIR, the Newport-Inglewood Fault Zone runs directly through the western part of the City, with other active faults (San Andreas Fault, San Jacinto Fault, San Joaquin Hills Thrust Fault, and Puente Hills Thrust Fault) located within approximately 50 miles; refer to General Plan Update EIR Figure 4.5-2, *Local Fault Locations*. The General Plan Update EIR concluded that the City's planning area would be subjected to strong seismic ground shaking and the intensity would vary based on the magnitude of the earthquakes. Ground shaking from earthquakes would potentially cause landslides and liquefaction events from various factors such as steep topography, unstable terrain, and proximity to fault lines. The General Plan Update EIR stated that there are small areas along coastal bluffs that have the potential for earthquake-induced landslides and parts of the City's planning area that are at an elevated risk for liquefaction. Nevertheless, implementation of land use policies from the General Plan Update would reduce the exposure of people or new structures to hazards associated with fault ruptures. Additionally, implementation of Mitigation measures MM4.5-1 and MM4.5-2 would reduce impacts associated with fault ruptures, landslides, liquefaction, expansive soils, and faulting. Mitigation measure MM4.5-1 would require the preparation of a detailed soil and geotechnical analysis which includes soil sampling and laboratory testing of materials to provide recommendations for grading, chemical and fill properties, liquefaction, expansive soil, soil erosion, earthquake faulting, and landscaping. Mitigation measure MM4.5-2 would require any future development to comply with recommendations from a final soil and geotechnical report (mitigation measure MM4.5-1). The General Plan Update EIR recommended the implementation of mitigation measure MM4.5-3 which require a site-specific evaluation of soil conditions with the submittal of grading plans. The submittal would also require recommendations for ground preparation and earthwork specific to the construction site.

As detailed in the General Plan Update EIR, new construction activities within the City's planning area would potentially induce erosion. Construction activities would be conducted consistent with existing regulations (i.e., building code requirements, National Pollution Discharge Elimination System permits, Regional Water Quality Control Board Water Quality Control Plan, etc.) which would minimize polluting effects of erosion. Additionally, construction activities would implement standard best management practices regarding post-erosion and sediment control. The General Plan Update EIR concluded that upon compliance with the General Plan Update policies as well as applicable regulations and requirements, impacts associated with erosion and loss of topsoil would be less than significant.

With the exception of the Sunset Beach area, the City's existing sewer system is operated and maintained by two different agencies: the City of Huntington Beach and the Orange County Sanitation District (OCSD). Sewer collection pipelines in the Sunset Beach area are owned and maintained by the Sunset Beach Sanitary District. All sewage collected by the Sunset Beach Sanitary District is conveyed through the City's pipelines to the OCSD. No new septic tanks or alternative waste systems are proposed as part of the General Plan Update.

As detailed in the General Plan Update EIR, future development allowed under the General Plan Update would result in potentially significant direct and indirect impacts on known and unknown paleontological resources. Subsequent construction activities resulting from development allowed under the General Plan Update would have the possibility to damage or destroy fossils in the

underlying rock units. Ground-disturbing activities in high or moderate sensitivity fossil-bearing geologic formations have the potential to damage or destroy paleontological resources that may be present below the ground surface. With regards to paleontological resources, the General Plan Update EIR included mitigation measure MM4.4-4 which requires construction activities to cease within 100 feet of a discovered paleontological resource. The paleontological resource would be evaluated by a qualified professional and mitigated based on consultation with institutional/academic paleontologists and researchers. With compliance with applicable General Plan Update policies, state and City regulations, and incorporation of mitigation measure MM4.4-4, impacts relating to paleontological resources would be less than significant.

3.7.2 Project-Specific Impacts

This section is based on the *Geotechnical Report Proposed Improvements Edison Park, Huntington Beach, California* (Geotechnical Report), prepared by Geosyntec Consultants and date November 30, 2025; refer to Appendix D, *Geotechnical Report*.

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

1) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

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

According to the Geotechnical Report, the project site does not lie within an Alquist-Priolo Earthquake Fault Zone. The nearest identified fault zone (Newport-Inglewood Fault Zone) is located approximately 1.2 miles to the northeast of the project site. Therefore, the Geotechnical Report concluded that the potential for surface rupture occurring on-site from earthquake-induced fault displacements propagating to the surface is very low. Thus, impacts would be less than significant in this regard.

Impacts related to surface ground rupture were analyzed in the General Plan Update EIR and found to be less than significant with mitigation measure incorporated. No substantial new information shows that project impacts related to surface ground rupture would be more significant than described in the General Plan Update EIR because project impacts related to surface ground rupture would be less than significant. Therefore, there are no impacts peculiar to the project site related to surface ground rupture that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to surface ground rupture that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

2) Strong seismic ground shaking?

Southern California has numerous active seismic faults subjecting residents to potential earthquake and seismic-related hazards. Seismic activity poses two types of potential hazards for residents and structures, categorized either as primary or secondary hazards. Primary hazards include ground rupture, ground shaking, ground displacement, subsidence, and uplift from earth movement. Primary hazards can also induce secondary hazards such as ground failure (lurch cracking, lateral spreading, and slope failure), liquefaction, water waves (seiches), movement on nearby faults (sympathetic fault movement), dam failure, and fires. Both primary and secondary hazards pose a threat to the community as a result of the project's proximity to active regional faults.

The region surrounding the City's planning area is characterized by a relatively high seismic activity. The greatest damage from earthquakes results from ground shaking. Ground shaking is generally most severe near quake epicenters and generally become weaker further out from the epicenter. According to the Geotechnical Report, the Newport-Inglewood Fault, located approximately 1.2 northeast of the site, is the closest known active fault. As such, the Geotechnical Report noted that seismic risk is considered relatively high at the project site compared to other Californian areas because of the proximity to active faulting activities.

The proposed project would not comprise of any permanent habitable structures. Nevertheless, the proposed project would still be subject to any required seismic design parameters pertaining to structures in conformance with the City of Huntington Beach Municipal Code and California Building Code (CBC) in order to reduce potential geotechnical hazards including seismic shaking. Additionally, the proposed project would implement recommendations contained in the Geotechnical Report; refer to Section 5, *Geotechnical Engineering Assessments and Recommendations*, of the Geotechnical Report. Recommendations from the Geotechnical Report include the proper removal of debris and organic material at grading areas, over excavation of existing subgrade materials at proposed concrete slab locations, the use of concrete slabs-on-grade for hardscape, subgrade soil recommendations, drainage recommendations, and utilization of fill materials that meet the requirements outlined in the Geotechnical Report; refer to Appendix D for the full discussion of recommendations.. The Geotechnical Report also recommends that an engineering representative with experience in landfill engineering review be present full-time for construction quality assurance during earthwork operations. Adherence to existing State and local building standards and implementation of recommendations would minimize potential impacts related to seismic ground shaking to less than significant levels.

Impacts related to seismic ground shaking were analyzed in the General Plan Update EIR and found to be less than significant with mitigation measures incorporated. No substantial new information shows that project impacts related to seismic ground shaking would be more significant than described in the General Plan Update EIR because project impacts related to seismic ground shaking are less than significant. Therefore, there are no impacts peculiar to the project site related to seismic ground shaking that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to seismic ground shaking that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

3) Seismic-related ground failure, including liquefaction?

Liquefaction of cohesionless soils can be caused by strong vibratory motion due to earthquakes. Liquefaction is characterized by a loss of shear strength in the affected soil layers, thereby causing the soils to behave as a viscous liquid. Susceptibility to liquefaction is based on geologic and geotechnical data. River channels and floodplains are considered most susceptible to liquefaction, while alluvial fans have a lower susceptibility. Depth to groundwater is another important element in the susceptibility to liquefaction. Groundwater shallower than 30 feet results in high to very high susceptibility to liquefaction, while deeper water results in low and very low susceptibility.

According to the Geotechnical Report, the project site is located within a Liquefaction Seismic Hazard Zone, and groundwater was encountered at a depth of approximately eight to 12 feet below the existing ground surface (bgs). However, the Geotechnical Report concluded that due to the project site use (open space) and proposed range of improvements (park amenities), no liquefaction mitigation improvements are recommended. Specifically, the proposed project would not construct any permanent habitable structures, and only minimal grading is proposed. Nonetheless, as stated above, the proposed project would still be subject to any required seismic design parameters pertaining to structures in conformance with the City of Huntington Beach Municipal Code and CBC in order to reduce potential geotechnical hazards. The design measures are intended to maximize stability in the event of liquefaction hazards. Additionally, the proposed project would implement recommendations contained in the Geotechnical Report; refer to Section 5, *Geotechnical Engineering Assessments and Recommendations*, of the Geotechnical Report. Adherence to existing State and local building standards and implementation of recommendations would minimize potential impacts related to liquefaction to less than significant levels.

Impacts related to liquefaction were analyzed in the General Plan Update EIR and found to be less than significant with mitigation measures incorporated. No substantial new information shows that project impacts related to liquefaction would be more significant than described in the General Plan Update EIR because project impacts related to liquefaction are less than significant. Therefore, there are no impacts peculiar to the project site related to liquefaction that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to liquefaction that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

4) Landslides?

Landslides are a geologic hazard, with some moving slowly and causing damage gradually, and others moving rapidly and causing unexpected damage. Gravity is the force driving landslide movement. Factors that commonly allow the force of gravity to overcome the resistance of earth material to landslide movement include saturation by water, steepening of slopes by erosion or construction, alternate freezing or thawing, and seismic shaking.

The project site is relatively flat with no steep slopes located on-site or nearby. Based on the California Geological Survey's *Earthquake Zones of Required Investigation* interactive map, the project site is not

located in an area susceptible to seismically-induced landslides.[19] Consequently, there is a low potential for landslides to occur on or near the project site as a result of the proposed project. Less than significant impacts would occur in this regard.

Impacts related to landslides were analyzed in the General Plan Update EIR and found to be less than significant with mitigation measures incorporated. No substantial new information shows that project impacts related to landslides would be more significant than described in the General Plan Update EIR because project impacts related to landslides would be less than significant. Therefore, there are no impacts peculiar to the project site related to landslides that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to landslides that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

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

The primary concern with regard to soil erosion or loss of topsoil would be during the construction phase of the project. Grading and earthwork activities associated with construction of the proposed project and its improvements would be minimal. Additionally, earthwork and grading associated with the proposed project would be conducted in accordance with geotechnical recommendations, the project specifications, applicable sections of the California Building Code, applicable Orange County grading regulations, and other applicable regulations and rules.

The project would also be required to adhere to construction standards related to erosion control and comply with the National Pollutant Discharge Elimination System (NPDES) program's General Construction Permit. The General Construction Permit requires the development and implementation of a project-specific Storm Water Pollution Prevention Plan (SWPPP), which would identify specific erosion and sediment control best management practices (BMPs) to be implemented in order to minimize potential impacts related to soil erosion and the loss of topsoil. Overall, adherence to existing State and local building standards and NPDES requirements would minimize potential soil erosion impacts during construction to less than significant levels.

Impacts related to soil erosion or loss of topsoil were analyzed in the General Plan Update EIR and found to be less than significant. No substantial new information shows that project impacts related to soil erosion or loss of topsoil would be more significant than described in the General Plan EIR because project impacts related to soil erosion or loss of topsoil are less than significant. Therefore, there are no impacts peculiar to the project site related to soil erosion or loss of topsoil that would exceed what was previously disclosed in the General Plan EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to soil erosion or loss of topsoil that were not already evaluated by the General Plan EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

[19] Department of Conservation, California Geological Survey, *Earthquake Zone of Required Investigation, Interactive Map*, https://maps.conservation.ca.gov/cgs/informationwarehouse/eqzapp/#data_s=id%3AdataSource_4-191d8e4b825-layer-21%3A1165, accessed September 10, 2025.

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?

Refer to Responses 3.7.2(a)(3) and 3.7.2(a)(4) regarding liquefaction and landslide impacts, respectively.

Lateral spreading occurs when the surficial soil moves parallel to the ground surface due to the liquefaction of underlying subsurface soil layers. It usually occurs where the ground surface has a slope of less than six percent and may damage structures or other improvements due to differential lateral movements. According to the Geotechnical Report, the potential for lateral spreading at the project site during seismic events is considered low due to the lack of a steel slope or vertical face. Less than significant impacts would occur in this regard.

As detailed above, the project does not propose any permanent habitable structures, and only minimal grading associated with the proposed improvements would occur. Nevertheless, the proposed project would be subject to any required seismic design parameters pertaining to structures in conformance with City of Huntington Beach Municipal Code and CBC in order to reduce potential geotechnical hazards and maximize structural stability. Additionally, the proposed project would implement recommendations contained in the Geotechnical Report; refer to Section 5, *Geotechnical Engineering Assessments and Recommendations*, of the Geotechnical Report. The design measures are intended to minimize the potential for impacts related to subsidence, liquefaction or collapse. Adherence to existing State and local building standards and implementation of recommendations would minimize risks related to unstable soils to less than significant levels.

Impacts related to unstable soils were analyzed in the General Plan Update EIR and found to be less than significant with mitigation measures incorporated. No substantial new information shows that project impacts related to unstable soils would be more significant than described in the General Plan Update EIR because project impacts related to unstable soils are less than significant. Therefore, there are no impacts peculiar to the project site related to unstable soils that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to unstable soils that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

d) Be located on expansive soil, as defined in Table 18-1-B of the California Building Code (2001), creating substantial direct or indirect risks to life or property?

Expansive soils are defined as soils possessing clay particles that react to moisture changes by shrinking (when dry) or swelling (when wet). As discussed above, the proposed project would not construct any permanent habitable structures. Nevertheless, the Geotechnical Report recommends that fill material within five feet of retaining walls would consist of fill with an expansion index of less than 20 (classified as "Very Low") and all other fill areas would consist of fill with an expansion index of less than 50 (classified as "Low). Therefore, less than significant impacts would occur in this regard.

Impacts related to expansive soil were analyzed in the General Plan Update EIR and found to be less than significant with mitigation measures incorporated. No substantial new information shows that project impacts related to expansive soil would be more significant than described in the General Plan Update EIR because project impacts related to expansive soil are less than significant. Therefore, there are no impacts peculiar to the project site related to expansive soil that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to expansive soil that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

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

No septic tanks or alternative wastewater disposal systems would be constructed as part of the project. Thus, no impacts would occur in this regard.

As analyzed in the General Plan Update EIR, no impacts related to septic tanks or alternative wastewater disposal systems were found to occur. No substantial new information shows that project impacts related to septic tanks or alternative wastewater disposal systems would be more significant than described in the General Plan Update EIR because no project impacts related to septic tanks or alternative wastewater disposal systems would occur. Therefore, there are no impacts peculiar to the project site related to septic tanks or alternative wastewater disposal systems that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to septic tanks or alternative wastewater disposal systems that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

Earthwork associated with the proposed project would include minor grading, limited excavation, and subgrade preparation. The majority of the project site was originally a sand and gravel pit which was then later used as a landfill from the 1950s through the 1960s. The entirety of the project site has been previously disturbed by earthwork and grading due to its current use as a park. Given the previous amount of disturbance on-site, it is not anticipated that proposed construction activities would directly or indirectly impact paleontologically sensitive sedimentary deposits or unique geologic features. Nevertheless, to minimize the potential adverse impact on paleontological resources, the project would be require to comply with General Plan Update EIR mitigation measure MM4.4-4 which would require construction activities to cease within 100 feet of a discovered paleontological resource. The paleontological resource would be evaluated by a qualified professional and mitigated based on consultation with institutional/academic paleontologists and researchers. With incorporation with General Plan Update EIR mitigation measure MM4.4-4, impacts would be less than significant in this regard.

Impacts related to paleontological resources and geologic features were analyzed in the General Plan EIR and found to be less than significant with mitigation measures incorporated. No substantial new information shows that project impacts related to paleontological resource would be more significant than described in the General Plan Update EIR because project impacts related to paleontological resources are less than significant with mitigation measures incorporated. Therefore, there are no impacts peculiar to the project site related to paleontological resource that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to paleontological resource that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

3.8 GREENHOUSE GAS EMISSIONS

Would the project:	Prior EIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-Site/ Cumulative Impact?	New Information, More Severe Adverse Impact?
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less Than Significant Impact	No	No	No	No
b. Conflict with an applicable plan, policy, or regulations adopted for the purpose of reducing the emissions of greenhouse gases?	Significant and Unavoidable Impact	No	No	No	No

3.8.1 General Plan Update EIR Summary

According to the General Plan Update EIR, since the issuance of the Notice of Preparation for the General Plan Update EIR, California has adopted Senate Bill (SB) 32, which mandates a statewide reduction in greenhouse gas (GHG) emissions to 40 percent below 1990 levels by 2030. In alignment with this legislation, the California Air Resources Board (CARB) developed the 2030 Target Scoping Plan Update, which recommends—but does not require—local governments to achieve per capita GHG emissions targets of 6.0 metric tons of carbon dioxide equivalent ($MTCO_2e$) by 2030 and 2.0 $MTCO_2e$ by 2050. The City of Huntington Beach prepared a draft Greenhouse Gas Reduction Plan (GGRP) that outlines strategies to reduce GHG emissions consistent with the State's long-term reduction trajectory. Although the measures in the draft GGRP were not specifically evaluated for 2030, they are projected to achieve a 53.33 percent reduction below 2020 levels by 2040, resulting in approximately 1.87 $MTCO_2e$ per capita which would surpass the recommended 2030 and 2050 targets identified in the Scoping Plan Update.

It is important to note that GHG emissions are inherently cumulative in nature. While full implementation of the draft GGRP strategies is expected to reduce emissions below the recommended thresholds, uncertainties remain regarding the feasibility and effectiveness of these strategies. Many of the proposed measures require future action by City staff and elected officials, and their implementation is subject to variables such as economic conditions, technological advancements, and evolving community and political priorities. Moreover, the City is not legally obligated—under State, federal, or local law—to implement the draft GGRP strategies, and the plan does not include project-specific GHG emissions analyses. As a result, actual future emissions may vary due to factors such as accelerated growth or underperformance of reduction measures.

Given these uncertainties, and in the absence of enforceable mechanisms to ensure full implementation of the draft GGRP, the implementation of the General Plan Update is anticipated to result in a potentially significant cumulative impact related to GHG emissions. No additional feasible mitigation measures beyond those identified in the draft GGRP are available at this time. Therefore, despite the City's efforts to align with State climate goals, cumulative GHG impacts due to the implementation of the General Plan Update would remain significant and unavoidable.

3.8.2 Project-Specific Impacts

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

GLOBAL CLIMATE CHANGE

The natural process through which heat is retained in the troposphere is called the "greenhouse effect."[20] The greenhouse effect traps heat in the troposphere through a threefold process as follows: short wave radiation emitted by the sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long wave radiation; and GHGs in the upper atmosphere absorb this long wave radiation and emit this long wave radiation into space and toward the Earth. This "trapping" of the long wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect.

California is a substantial contributor of global GHGs, emitting approximately 371.1 million $MTCO_2e$ in 2022.[21] A carbon dioxide equivalent is defined as the number of metric tons of CO_2 emissions with the same global warming potential as one metric ton of another GHG. Methane (CH_4) is also an important GHG that potentially contributes to global climate change. GHGs are global in their effect, which is to increase the earth's ability to absorb heat in the atmosphere. As primary GHGs have a long lifetime in the atmosphere, accumulate over time, and are generally well-mixed, their impact on the atmosphere is mostly independent of the point of emission. Every nation emits GHGs and as a result makes an incremental cumulative contribution to global climate change; therefore, global cooperation will be required to reduce the rate of GHG emissions enough to slow or stop the human-caused increase in average global temperatures and associated changes in climatic conditions.

The impact of human activities on global climate change is apparent in the observational record. Air trapped by ice has been extracted from core samples taken from polar ice sheets to determine the global atmospheric variation of CO_2, CH_4, and nitrous oxide (N_2O) from before the start of industrialization (approximately 1750), to over 650,000 years ago. For that period, it was found that CO_2 concentrations ranged from 180 to 300 parts per million (ppm). For the period from approximately 1750 to the present, global CO_2 concentrations increased from a pre-industrialization period concentration of 280 to 379 ppm in 2005, with the 2005 value far exceeding the upper end of the pre-industrial period range. As of August 2025, the highest monthly average concentration of CO_2 in the atmosphere was recorded at 424.87 ppm.[22]

The Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. It concluded that a

[20] The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth's surface to 10 to 12 kilometers.

[21] California Air Resources Board, *California Greenhouse Gas Emissions for 2000 to 2022, Trends of Emissions and Other Indicators,* September 20, 2024, https://ww2.arb.ca.gov/sites/default/files/2024-09/nc-2000_2022_ghg_inventory_trends.pdf, accessed August 21, 2025.

[22] Scripps Institute of Oceanography, *Carbon Dioxide Concentration at Mauna Loa Observatory*, https://scripps.ucsd.edu/programs/keelingcurve/, accessed August 24, 2025.

stabilization of GHGs at 400 to 450 ppm CO_2e[23] concentration is required to keep global mean warming below 2 degrees Celsius (°C), which in turn is assumed to be necessary to avoid dangerous climate change.

REGULATORY FRAMEWORK

Amendments to CEQA Guidelines Section 15064.4 were adopted to assist lead agencies in determining the significance of the impacts of GHG emissions. Consistent with existing CEQA practice, Section 15064.4 gives lead agencies the discretion to determine whether to assess those emissions quantitatively or qualitatively. This section recommends certain factors to be considered in the determination of significance (i.e., the extent to which a project may increase or reduce GHG emissions compared to the existing environment; whether the project exceeds an applicable significance threshold; and the extent to which the project complies with regulations or requirements adopted to implement a plan for the reduction or mitigation of GHGs). The amendments do not establish a quantified or performance-based threshold of significance; rather, lead agencies are granted discretion to establish significance thresholds for their respective jurisdictions, including looking to thresholds developed by other public agencies or suggested by other experts, such as the California Air Pollution Control Officers Association (CAPCOA), so long as any threshold chosen is supported by substantial evidence (see CEQA Guidelines Section 15064.7(c)).

The California Natural Resources Agency (CNRA) has also clarified that the CEQA Guidelines amendments focus on the effects of GHG emissions as cumulative impacts, and therefore GHG emissions should be analyzed in the context of CEQA's requirements for cumulative impact analyses (see CEQA Guidelines Section 15064(h)(3)). A project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements to avoid or substantially lessen the cumulative problem within the geographic area of the project (see 14 CCR Section 15064[h][3].)

However, CEQA Guidelines Section 15064.4 does not establish a threshold of significance. CEQA Guidelines Section 15064.6 provides lead agencies the discretion to establish significance thresholds for their respective jurisdictions, and in establishing those thresholds, a lead agency may appropriately look to thresholds developed by other public agencies or suggested by other experts, if any threshold chosen is supported by substantial evidence.

The City has not adopted a numerical significance threshold for assessing impacts related to GHG emissions nor, California Air Resources Board (CARB), or any other State or regional agency adopted a numerical significance threshold for assessing GHG emissions that is applicable to the proposed project. However, it should be noted that the General Plan Update EIR discussed that SCAQMD adopted a 10,000 $MTCO_2e$ per year threshold for permitted stationary sources. Additionally, SCAQMD was in the process of adopting a "bright-line" screening threshold of 3,000 $MTCO_2e$ for all land use types for any projects that are not exempt from CEQA or where no qualifying GHG reduction plans are applicable. For any project that exceeds the "bright-line" screening threshold, the SCAQMD proposes an efficiency threshold per service population. Specifically, SCAQMD proposes an efficiency threshold of 4.8 $MTCO_2e$ per year per service population (SP) for project level analysis

[23] Carbon Dioxide Equivalent (CO_2e) – A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

and 6.6 $MTCO_2e$ per year per SP for plan level projects. The General Plan Update EIR utilized the efficiency threshold of 6.6 $MTCO_2$ per year per SP for the year 2020 and 4.0 $MTCO_2$ per year per SP for the year 2035.
However, it should be noted that the General Plan Update EIR included this "bright-line" threshold in May 2017. As previously discussed, the SCAQMD has yet to adopt this GHG threshold. The proposed project would reconfigure and redevelop the existing park use and does not introduce new land uses that would result in substantial GHG emissions due to construction and operation over the existing conditions. Therefore, the project's GHG emissions would be minimal and would not warrant a detailed quantitative analysis. However, for the purpose of this analysis, quantitative GHG emissions have been provided below. The project's consistency with Statewide, regional, and local plans adopted for reducing GHG emissions is also discussed to determine the significance of the project's GHG-related impacts on the environment.

PROJECT-RELATED SOURCES OF GREENHOUSE GASES

The proposed project would result in direct and indirect GHG emissions. Direct project-related GHG emissions would include emissions from construction activities, area sources, mobile sources, and refrigerants, while indirect sources would include emission from energy consumption, water demand, and solid waste generation. The most recent version of the California Emissions Estimator Model (CalEEMod), version 2022.1 was used to calculate project-related GHG emissions; refer to Appendix A. CalEEMod modeling assumes that the proposed project would construct a new park which presents a more conservative estimate on construction and operational emissions, as in reality, the project proposes improvements to the existing park use. As a conservative estimate, emissions from the existing uses on-site were not modeled or deducted from project-generated emissions.

CONSTRUCTION EMISSIONS

Construction sources of GHG emissions include GHG emissions from construction equipment operation on-site and construction worker vehicle trips to and from the project site, and from construction material deliveries to and from the project site. Construction input data for CalEEMod include, but are not limited to, (1) the anticipated start and finish dates of construction activity; (2) inventories of construction equipment to be used; and (3) trips associated with construction activities (i.e., hauling, vendor, and worker trips). Construction GHG emissions were quantified by estimating the types and quantity of equipment that would be used on-site during each construction phase, as provided by the model defaults. CalEEMod also includes off-site GHG emissions from worker, vendor, and hauling truck trips. Construction of the proposed project is anticipated to take approximately 13 months. The default number of trips and lengths were used for hauling, worker, and vendor trips. Project construction would consist of demolition, grading, building construction, paving, and the application of architectural coatings.

Construction GHG emissions are amortized (i.e., total construction emissions divided by the lifetime of the project, assumed to be 30 years),[24] then added to the operational emissions. As shown in Table

[24] In accordance with the SCAQMD guidance, projected GHGs from construction have been quantified and amortized over 30 years, which is the number of years considered to represent the life of the project. The amortized construction emissions are added to the annual average operational emissions.

3.8-1, *Estimated Greenhouse Gas Emissions*, construction of the proposed project would result in a total of 12.73 $MTCO_2e$ per year when amortized over 30 years. This would represent a total of approximately 382 $MTCO_2e$ from all construction activities.

Table 3.8-1
Estimated Greenhouse Gas Emissions

Source	CO_2	CH_4	N_2O	Refrigerants	CO_2e
	Metric Tons/year[1]				
Direct Emissions					
Construction (amortized over 30 years)	12.67	<0.01	<0.01	<0.01	12.73
Area Source	0.00	0.00	0.00	0.00	0.00
Mobile Source	49.30	0.01	0.01	0.07	50.00
Refrigerants	--	--	--	0.00	0.00
Total Direct Emissions[2]	***61.97***	***0.01***	***0.01***	***0.07***	***62.73***
Indirect Emissions					
Energy	6.13	<0.01	<0.01	0.00	6.16
Water Demand	0.27	0.03	0.00	0.00	0.95
Solid Waste	55.40	<0.01	<0.01	0.00	55.60
Total Indirect Emissions[2]	***61.80***	***0.05***	***0.02***	***0.00***	***62.71***
Total Project-Related Emissions[2]	***125.44 $MTCO_2e$/year***				

Notes:
1. Emissions calculated using California Emissions Estimator Model Version 2022.1 (CalEEMod) computer model.
2. Totals may be slightly off due to rounding.

Source: Refer to Appendix A, *Air Quality/Greenhouse Gas/Energy Data*.

Mobile Source Emissions

Mobile source GHG emissions are estimated by multiplying the project's total vehicle miles traveled (VMT) by the vehicle emission factors. The vehicle emission factors were CalEEMod default values for the Orange County. Project-generated vehicle emissions have been estimated using CalEEMod. Based on the *Edison Park Reconfiguration and Improvements – Vehicle Miles Traveled* (VMT Analysis), prepared by Michael Baker International and dated August 22, 2025, the project would generate a total of 31 average daily trips (ADT). It should be noted that reconfiguration and redevelopment of the proposed project would not introduce new land uses that would generate additional traffic over the existing conditions. As such, this analysis assumes a conservative approach by including emissions from mobile sources that currently exist on-site. The proposed project would result in approximately 50.00 $MTCO_2e$ per year of mobile source-generated GHG emissions as modeled in CalEEMod; refer to Table 3.8-1.

Area Source Emissions

GHG emissions associated with area sources include consumer products, landscape maintenance, and architectural coating. Area source GHG emissions were calculated using standard emission rates from CARB, EPA, SCAQMD, and CalEEMod model defaults. As previously stated, the project primarily involves redeveloping and reconfiguring the existing park use amenities, with the expansion of the exterior park restrooms at Edison Community Center being the only building modification involved. The additional new restroom/building square footage is unknown at this time; as such, the land use

(and associated area source GHG emissions) was not quantified in CalEEMod. However, as the additional restroom/building area (for the purpose of meeting ADA requirements and providing additional stalls to meet park needs) is expected to be nominal in square footage, GHG emissions from new restroom areas would be negligible; refer to Table 3.8-1.

Refrigerants

Refrigerants are substances used in equipment for air conditioning and refrigeration. Most of the refrigerants used today are hydrochlorofluorocarbons (HFCs) or blends thereof, which can have high global warming potential (GWP) values. All equipment that use refrigerants have a charge size (i.e., quantity of refrigerant the equipment contains), and an operational refrigerant leak rate, and each refrigerant has a GWP that is specific to that refrigerant. CalEEMod quantifies refrigerant emissions from leaks during regular operation and routine servicing over the equipment lifetime and then derives average annual emissions from the lifetime estimate. The proposed project consists of improving an existing park use and does not propose permanent structures with air conditioning or refrigeration units. Therefore, the project would not generate GHG emissions from refrigerants; refer to Table 3.8-1.

Energy Consumption

Energy consumption emissions were calculated using CalEEMod and project-specific land use data. SCE would provide electricity to the project site. The proposed project would not introduce new land uses that would result in natural gas consumption during operation. The project would indirectly result in 6.16 $MTCO_2e$ per year of GHG emissions due to energy consumption; refer to Table 3.8-1.

Water Demand

Water consumption from the proposed project was calculated using CalEEMod default values for the entire park. Emissions from indirect energy impacts due to water supply would result in 0.95 $MTCO_2e$/year; refer; refer to Table 3.8-1.

Solid Waste

CalEEMod quantifies GHG emissions associated with solid waste in landfills. While the proposed project would not directly emit GHG emissions from solid waste, CalEEMod quantifies the GHG emissions from the decomposition over a span of 20 to 30 years of solid waste generated from a project. Solid waste associated with operations of the proposed project would result in 55.60 $MTCO_2e$ per year; refer to Table 3.8-1.

CONCLUSION

As shown in Table 3.8-1, the total amount of project-related GHG emissions from direct and indirect sources combined would total 125.44 $MTCO_2e$ per year. This estimate is based on CalEEMod modeling assumptions that conservatively analyzed the project as new park construction. In reality,

the project involves improvements or reconfiguration to an existing park facility, which would result in substantially lower construction-related emissions.

Furthermore, as the proposed improvements would not generate additional vehicle trips beyond existing baseline conditions and emissions from existing uses were not modeled or subtracted from the project-generated totals, the emissions presented in Table 3.8-1 are therefore intended for informational purposes only, as the net change in GHG emissions attributable to the proposed project is expected to be negligible relative to existing conditions. As such, the proposed project would not result in a significant impact.

Impacts related to GHG emissions were analyzed in the General Plan Update EIR and found to be significant and unavoidable. No substantial new information shows that project impacts related to GHG emissions would be more significant than described in the General Plan Update EIR because project impacts to GHG emissions are less than significant. Therefore, there are no impacts peculiar to the project site related to GHG that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project-related GHG that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

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

The GHG plan consistency analysis for the project is based on the project's consistency with SCAG's 2020-2045 *Regional Transportation Plan/Sustainable Communities Strategy* (2020-2045 RTP/SCS), CARB's 2022 Scoping Plan, and the City of Huntington Beach General Plan goals. The 2020-2045 RTP/SCS is a regional growth management strategy that targets per-capita GHG reduction from passenger vehicles and light-duty trucks in the Southern California region. The 2020-2045 RTP/SCS incorporates local land use projections and circulation networks in city and county general plans. The 2022 Scoping Plan describes the approach California will take to reduce GHG emissions by 40 percent below 1990 levels by the year 2030.

SCAG 2020-2045 RTP/SCS CONSISTENCY ANALYSIS

The latest 2024-2050 RTP/SCS was adopted on April 4, 2024. However, CARB concluded that the technical methodology SCAG used to quantify the GHG emission reductions for the 2024-2050 RTP/SCS does not operate accurately. SCAG resubmitted the Sustainable Communities Strategy (SCS) Submittal Package for CARB's review in June 2024. Review by CARB is limited to acceptance or rejection of SCAG's determination that its SCS would, if implemented, achieve the region's GHG emission reduction target. If CARB rejects SCAG's determination of meeting the GHG emission target, SCAG will need to revise the SCS or adopt an alternative planning strategy demonstrating the ability to achieve the target. As such, until CARB makes the decision, 2024-2050 RTP/SCS is not a fully adopted document and is potentially subject to further updates, especially from the GHG reduction perspective of the methods and assumptions of the calculation of Auto Operating Costs (AOC), induced travel, electric vehicle incentives, job center parking and parking deregulation, off-model strategy assumptions, and emissions factors. As CARB has not made the decision at the time

of preparation of this document, the consistency analysis relies upon the 2020-2045 RTP/SCS. Table 3.8-2, *Consistency with the 2020-2045 RTP/SCS*, shows the project's consistency with the five strategies found within the 2020-2045 RTP/SCS. As shown therein, the proposed project would be consistent with the GHG emission reduction strategies contained in the 2020-2045 RTP/SCS.

Table 3.8-2
Consistency with the 2020-2045 RTP/SCS

Reduction Strategy	Applicable Land Use Tools	Project Consistency Analysis
Focus Growth Near Destinations and Mobility Options		
• Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations	**Center Focused Placemaking, Priority Growth Areas (PGA), Job Centers, High Quality Transit Areas (HQTAs), Transit Priority Areas (TPA), Neighborhood Mobility Areas (NMAs), Livable Corridors, Spheres of Influence (SOIs), Green Region, Urban Greening.**	Consistent. Although the project is not located in a HQTA or TPA, the project is located within close proximity to existing bus stops. Existing bus stops are located less than 0.25 miles to the east of the project site along Magnolia Street. Furthermore, the project site is surrounded by existing residential uses. Based on the VMT Screening Memo, the project meets the "Municipal/Public Service Land Use" Screening Criteria for land uses which means the proposed project is mostly used by the residents surrounding the park and would result in less VMT. Therefore, the project would focus growth near destinations and mobility options.
• Focus on a regional jobs/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets		
• Plan for growth near transit investments and support implementation of first/last mile strategies		
• Promote the redevelopment of underperforming retail developments and other outmoded nonresidential uses		
• Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods		
• Encourage design and transportation options that reduce the reliance on and number of solo car trips (this could include mixed uses or locating and orienting close to existing destinations)		
• Identify ways to "right size" parking requirements and promote alternative parking strategies (e.g. shared parking or smart parking)		
Promote Diverse Housing Choices		
• Preserve and rehabilitate affordable housing and prevent displacement	**PGA, Job Centers, HQTAs, NMA, TPAs, Livable Corridors, Green Region, Urban Greening.**	Not Applicable. The proposed project is not a residential project nor is the site designated or zoned for residential use. Thus, the project would not displace existing affordable housing.
• Identify funding opportunities for new workforce and affordable housing development		Not Applicable. This strategy only pertains to governmental agencies and would not be applicable to development projects.
• Create incentives and reduce regulatory barriers for building context sensitive accessory dwelling units to		Not Applicable. The proposed project is not a residential development and does not include accessory dwelling units.

Reduction Strategy	Applicable Land Use Tools	Project Consistency Analysis
increase housing supply		
Leverage Technology Innovations		
• Promote low emission technologies such as neighborhood electric vehicles (EV), shared rides hailing, car sharing, bike sharing and scooters by providing supportive and safe infrastructure such as dedicated lanes, charging and parking/drop-off space	**HQTA, TPAs, NMA, Livable Corridors.**	Consistent. The proposed project would include various new and upgraded amenities (sports courts, wheel sports, playground, trees, walkways, parking lot, and access) to allow for more park use (by offering diversified recreation) as well as opportunities for more open space, by clearing the currently resettling and sinking amenities that are becoming unusable. Further, the proposed project would include bicycle parking spaces and EV parking spaces in accordance with Title 24 standards. Therefore, incorporation of the features and technology would reduce overall GHG emissions from transportation related emissions.
• Improve access to services through technology—such as telework and telemedicine as well as other incentives such as a "mobility wallet," an app-based system for storing transit and other multi-modal payments		Not Applicable. This strategy focuses on SCAG's support on technology which may reduce VMT or allow for easier access to transportation options.
• Identify ways to incorporate "micro-power grids" in communities, for example solar energy, hydrogen fuel cell power storage and power generation		Not Applicable. This strategy focuses on SCAG's support on promoting "micro-power grids".
Support Implementation of Sustainability Policies		
• Pursue funding opportunities to support local sustainable development implementation projects that reduce greenhouse gas emissions	**Center Focused Placemaking, PGA, Job Centers, HQTAs, TPA, NMAs, Livable Corridors, SOIs, Green Region, Urban Greening.**	Consistent. As previously discussed, the proposed project would be located close to bus stops which would promote alternative modes of transportation. Additionally, the project would provide EV parking spaces. The project would include outdoor areas with landscaped planters, trees, recreational facilities, and seating. Further, the project would comply with sustainable practices included in the CALGreen Code and Title 24 standards. Thus, the project would be consistent with this reduction strategy.
• Support Statewide legislation that reduces barriers to new construction and that incentivizes development near transit corridors and stations		Not Applicable. This strategy focuses on SCAG's support on Statewide legislation.
• Support local jurisdictions in the establishment of Enhanced Infrastructure Financing Districts (EIFDs), Community Revitalization and Investment Authorities (CRIAs), or other tax increment or value capture tools to finance sustainable infrastructure and development projects, including parks and open space		Not Applicable. This strategy focuses on SCAG's support of local jurisdictions to establish financing tools for sustainable infrastructure.
• Work with local jurisdictions/ communities to identify opportunities and assess barriers to implement		Consistent. The project would comply with sustainable practices included in the CALGreen Code and Title 24 standards. Thus, the project would be consistent with this reduction strategy.

Reduction Strategy	Applicable Land Use Tools	Project Consistency Analysis
sustainability strategies		
• Enhance partnerships with other planning organizations to promote resources and best practices in the SCAG region		Not Applicable. This strategy focuses on SCAG's support of local planning organizations.
• Continue to support long range planning efforts by local jurisdictions		Not Applicable. This strategy focuses on SCAG's support of local jurisdictions long range planning efforts.
Promote a Green Region		
• Support development of local climate adaptation and hazard mitigation plans, as well as project implementation that improves community resiliency to climate change and natural hazards	**Green Region, Urban Greening, Greenbelts and Community Separators.**	Not Applicable. This strategy focuses on SCAG's support of local climate and hazard mitigation plans.
• Support local policies for renewable energy production, reduction of urban heat islands and carbon sequestration		Consistent. As discussed, the proposed project would redevelop existing park use with more trees and thus help reduce heat islands and promote carbon sequestration.
• Integrate local food production into the regional landscape		Not Applicable. This strategy focuses on incorporation of food production (community gardens) into the regional landscape.
• Promote more resource efficient development focused on conservation, recycling and reclamation		Consistent. As discussed, the project would comply with sustainable practices included in the CALGreen Code and Title 24 standards. The project would also comply with local and regional regulations for recycling and composting.
• Preserve, enhance and restore regional wildlife connectivity		Not Applicable. The project is located within an urbanized and built environment with no existing regional wildlife corridors in the area.
• Reduce consumption of resource areas, including agricultural land		Not Applicable. The project is located within an urbanized and built environment. Project development would not remove any agricultural land.
• Identify ways to improve access to public park space		Consistent. The proposed project would include various new and upgraded amenities (sports courts, wheel sports, playground, trees, walkways, parking lot, and access) to allow for more park use (by offering diversified recreation). Thus, the project would be consistent with this reduction strategy.

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

2022 SCOPING PLAN CONSISTENCY ANALYSIS

The CARB *2022 Scoping Plan* (2022 Scoping Plan) identifies reduction measures necessary to achieve the goal of carbon neutrality by 2045 or earlier. Actions that reduce GHG emissions are identified for each Assembly Bill 32 (AB 32) inventory sector. Provided in Table 3.8-3, *Consistency with the 2022 Scoping Plan*, is an evaluation of applicable reduction actions/strategies by emissions source category to determine how the project would be consistent with or exceed reduction actions/strategies outlined in the 2022 Scoping Plan.

Table 3.8-3
Consistency with the 2022 Scoping Plan

Actions and Strategies	Project Consistency Analysis
Smart Growth / Vehicles Miles Traveled (VMT)	
Reduce VMT per capita to 25% below 2019 levels by 2030, and 30% below 2019 levels by 2045	Consistent. As previously stated, the project is located within close proximity to existing bus stops. Existing bus stops are located less than 0.25 miles to the east of the project site along Magnolia Street. Furthermore, the project site is surrounded by existing residential developments. Based on the VMT Screening Memo, the project meets the "Municipal/Public Service Land Use" Screening Criteria for land uses which means the proposed project is mostly used by the residents surrounding the park and would result in less VMT. Therefore, the project would focus growth near destinations and mobility options.
New Residential and Commercial Buildings	
All electric appliances beginning 2026 (residential) and 2029 (commercial), contributing to 6 million heat pumps installed statewide by 2030	Not Applicable. The proposed project would not consume natural gas during operation. Additionally, the proposed project would not develop any new structures that would utilize electrical appliances. Also, the proposed project would not construct any new residential or commercial buildings.
Construction Equipment	
Achieve 25% of energy demand electrified by 2030 and 75% electrified by 2045	Not Applicable. It should be noted that project construction would be completed prior to 2030. As such, the project would not be required to have 25 percent of construction equipment energy demand electrified. Additionally, the City of Huntington Beach has not adopted an ordinance or program requiring electricity-powered construction equipment which would be consistent with the 2022 Scoping Plan. However, if such programs or ordinances are adopted in the future, the project would be required to comply with the applicable goals or policies requiring the use of electric construction equipment in the future.
Non-combustion Methane Emissions	
Divert 75% of organic waste from landfills by 2025	Consistent. SB 1383 establishes targets to achieve a 50 percent reduction in the level of Statewide disposal of organic waste to a 75 percent reduction by 2025. The law establishes an additional target that not less than 20 percent of currently disposed edible food is recovered for human consumption by 2025. The project would comply with local and regional regulations and recycle or compost 75 percent of waste by 2025 pursuant to SB 1383.
Source: California Air Resources Board, *2022 Scoping Plan*, November 16, 2022.	

CITY OF HUNTINGTON BEACH GENERAL PLAN

The City of Huntington Beach General Plan includes Goal ERC-5, which seeks to reduce GHG emissions from activities occurring in Huntington Beach to levels consistent with state goals. Table 3.8-4, *Consistency with the General Plan* evaluates the proposed project's consistency with Goal ERC-5 and demonstrates how the project's design and operational characteristics contribute to the City's long-term GHG reduction objectives.

Table 3.8-4
Consistency with the General Plan

Actions and Strategies	Project Consistency Analysis
Goal ERC-5. Greenhouse gas emissions from activities occurring in Huntington Beach are reduced to levels consistent with state goals.	
A. By 2020, reduce community-wide greenhouse gas emissions to 15 percent below 2005 levels. By 2040, reduce greenhouse gas emissions by 53.33 percent below the 2020 target, placing the community on a path to meet the state's 2050 greenhouse gas emissions reduction goals. B. Encourage oil drilling operators to implement cost-effective best practices to reduce greenhouse gas emissions associated with oil extraction. C. Explore strategies to reduce greenhouse gas emissions from off-road construction and landscaping equipment. D. Support efforts by the South Coast Air Quality Management District and the California Air Resources Board to decrease greenhouse gas emissions from large industrial facilities and other stationary sources. E. Pursue funding sources to develop and implement programs and projects identified in the Greenhouse Gas Reduction Program	Consistent. As previously stated, the proposed project would only result in nominal increase in GHG emissions over the existing conditions. The redevelopment and reconfiguration of the proposed project would not introduce land uses that would result in substantial increase in GHG emissions. Further, the project site is located within close proximity to existing bus stops. Existing bus stops are located less than 0.25 miles to the east of the project site along Magnolia Street. Furthermore, the project site is surrounded by existing residential developments. Based on the VMT Screening Memo, the project meets the "Municipal/Public Service Land Use" Screening Criteria for land uses which means the proposed project is mostly used by the residents surrounding the park and would result in less VMT. Therefore, by limiting new emissions sources, enhancing transit accessibility, and maintaining low VMT, the proposed project supports the City's efforts to meet Goal ERC-5 and contributes to broader state climate objectives. The project's negligible net increase in GHG emissions and its alignment with sustainable land use practices demonstrate consistency with the General Plan's environmental resource and conservation policies.
Source: City of Huntington Beach General Plan (Adopted October 2, 2017).	

CONCLUSION

Overall, as discussed above, the General Plan Update EIR determined that despite the City's efforts to align with State climate goals, cumulative GHG impacts due to the implementation of the General Plan Update would remain significant and unavoidable. As shown in Tables 3.8-2, 3.8-3, and 3.3-4, the project would be consistent with SCAG's 2020-2045 RTP/SCS, CARB's 2022 Scoping Plan, and the City of Huntington Beach General Plan goals. As such, the project would result in less impacts than those identified for the General Plan Update.

Impacts related to consistency with applicable plans, policies, or regulations adopted to reduce GHG emissions were analyzed in the General Plan Update EIR and found to be significant and unavoidable. No substantial new information shows that project impacts related to GHG emissions would be more significant than described in the General Plan Update EIR because project impacts related to GHG emissions are less than significant. Therefore, there are no impacts peculiar to the project site related to GHG emissions that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project-related

GHG emissions that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

3.9 HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Prior EIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-Site/ Cumulative Impact?	New Information, More Severe Adverse Impact?
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Less Than Significant With Mitigation Incorporated	No	No	No	No
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?	Less Than Significant With Mitigation Incorporated	No	No	No	No
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Less Than Significant	No	No	No	No
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?	Less Than Significant	No	No	No	No
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?	No Impacts	No	No	No	No
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Less Than Significant With Mitigation Incorporated	No	No	No	No
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	Less Than Significant	No	No	No	No

3.9.1 General Plan Update EIR Summary

As detailed in the General Plan Update EIR, although the overall quantity of hazardous materials and waste generated in the City could increase as a result of the land use changes in the General Plan Update, all new developments that handle or use hazardous materials would be required to comply with the regulations, standards, and guidelines related to storage, use, and disposal of hazardous materials established by the U.S. Environmental Protection Agency, the State, and local agencies. Transportation of hazardous materials on roadways is regulated by the California Highway Patrol and Caltrans, and use of these materials is regulated by the Department of Toxic Substances Control. As such, the General Plan Update EIR concluded that compliance with and enforcement of existing

Federal, State, and local laws and regulations, supported by implementation of the General Plan Update policies (policies HAZ-5.A through HAZ-5.C and HAZ-6.A through HAZ-6.D), would ensure that impacts to the public and the environment concerning the routine transport, use, storage, or disposal of hazardous materials would be less than significant. Nonetheless, portions of the City are located within a methane district and impacts from development accommodated through the General Plan Update could potentially be significant. As such, the City has set minimum requirements for new building construction within the methane overlay districts to reduce the hazards presented from accumulations of methane gas by requiring the appropriate testing and mitigation measures for all new buildings within the methane districts. Specifically, implementation of General Plan Update EIR mitigation measure MM4.7-1 (testing of soils for the presence of methane gas) would further reduce the scale of the identified less than significant impact.

As detailed in the General Plan Update EIR, future development in accordance with the General Plan Update may expose construction workers and the public to hazardous materials, such as contaminated soils, lead, or asbestos. In addition, there is the possibility that future development may also uncover previously undiscovered soil contamination and impacts could potentially be significant. Nonetheless, the routine transport, storage, and use of hazardous substances during construction of future development would be regulated (i.e., SCAQMD Rules and Regulations [including Rule 1403]; Construction Safety Orders 1529 and 1532.1 from Title 8 of the California Code of Regulations; Part 61, Subpart M of the Code of Federal Regulations; and lead exposure guidelines provided by the U.S. Department of Housing and Urban Development [HUD]; State Department of Health Services overseeing asbestos and lead abatements; and the California Department of Occupational Safety and Health [Cal OSHA] regulations concerning the use of hazardous materials, including requirements for safety training, availability of safety equipment, hazardous materials exposure warnings, and emergency action and fire prevention plan preparation) and assessed for all future development. As such, a significant hazard is not expected with regard to the public or the environment during construction. During operations of future development under the General Plan Update, common maintenance products and chemicals would be consumed through moderate use and with adherence to warning labels and storage recommendations from individual manufacturers, so these hazardous materials would not pose any greater risk compared to existing conditions. Overall, compliance with applicable laws and regulations would ensure that impacts associated with hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving hazardous materials would be less than significant. Although development under the General Plan is anticipated to result in a less than significant impact due to the foreseeable release of hazardous materials into the environment, implementation of General Plan Update EIR mitigation measures MM4.7-2 (preparation of a preliminary environmental site assessment) and MM4.7-3 (procedures for uncovering unknown contamination and development of a Risk Management Plan) would further reduce impacts in this regard.

As detailed in the General Plan Update EIR, the City is served primarily by Huntington Beach Union High School, Huntington Beach City School, and Ocean View School Districts, as well as portions of the Westminster School and Fountain Valley School Districts. Although hazardous materials and waste generated by future development may pose a health risk to nearby schools, all businesses that handle or have on-site transportation of hazardous materials would be required to comply with the provisions of Federal, State, and local regulations for hazardous wastes. Specifically, Chapter 6.95 of the California Health and Safety Code requires businesses that handle more than a specified amount

of hazardous materials on-site to submit a Hazardous Materials Business Plan. The business plan would include an inventory of the hazardous materials handled, facility floor plans showing where hazardous materials are stored, an emergency response plan, and provisions for employee safety and emergency response training. In addition, the California Education Code (Section 17210) outlines the requirements of siting school facilities near or on known or suspected hazardous materials sites, or near facilities that emit hazardous air emissions or handle hazardous materials, substances, or waste. Overall, compliance with Federal, State, and local regulations would minimize the risks associated with the exposure of school children to hazardous materials. Therefore, future development under the General Plan Update would result in a less than significant impact related to the emissions or handling of hazardous materials within one-quarter mile of school facilities.

As detailed in the General Plan Update EIR, the City contains sites that historically have been contaminated by the release of hazardous substances into the soil or groundwater, including sites containing leaking underground storage tanks and cleanup sites. However, compliance with existing Federal, State, and local regulations, supported by implementation of the identified General Plan Update policies, would ensure that impacts to the public and environment associated with sites on the Cortese List within the City would be less than significant.

As detailed in the General Plan Update EIR, the Huntington Beach Emergency Operations Plan and Hazard Mitigation Plan directs the municipal government's emergency preparation, response, and recovery activities. Future land uses consistent with the General Plan Update may create additional traffic and result in new residences requiring evacuation in the event of an emergency. However, the General Plan Update policies (HAZ-8.A, HAZ-8.B, HAZ-9.B, and AZ-9.C) as well as policies for traffic management are proposed to reduce impacts to emergency response and evacuation (including traffic) to the maximum extent possible. The General Plan Update EIR concluded that compliance with existing Federal, State, and local laws and regulations, supported by implementation of the General Plan Update policies, would ensure that impacts to the public and environment due to interference with emergency response or evacuation plans would be less than significant. Although development under the General Plan would result in a less than significant impact due to the impacts to emergency response and evacuation plans, to further reduce the scale of the identified less than significant impact, General Plan Update EIR mitigation measure MM4.7-4 (temporary lane or roadway closures management) shall be implemented.

The General Plan Update EIR determined that as the City is not located within an airport land use plan or within two miles of a public use airport, implementation of the General Plan Update would have no impact.

As detailed in the General Plan Update EIR, the City is not located within at-risk areas designated as Fire Hazard Severity Zones (moderate, high, and very high) according to Cal Fire. The General Plan Update Natural and Environmental Hazards Element includes policies (HAZ-4.A, HAZ-4.B) to reduce risk of urban fires in the City. Overall, the General Plan Update EIR concluded that compliance with existing Federal, State, and local laws and regulations, supported by implementation of the General Plan Update policies, would ensure that impacts to the public and environment related to risk of hazards due to wildland fire would be less than significant.

3.9.2 Project-Specific Impacts

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

Project construction could expose construction workers and the public to temporary hazards related to the transport, use, and maintenance of construction materials (i.e., oil, diesel fuel, transmission fluid, etc.). These activities would be short-term, and the materials used would not be in such quantities or stored in such a manner as to pose a significant safety hazard. All project construction activities would demonstrate compliance with the applicable laws and regulations governing the use, storage, and transportation of hazardous materials, ensuring that all potentially hazardous materials are used and handled in an appropriate manner. As such, impacts concerning the routine transport, use, or disposal of hazardous materials during project construction would be less than significant.

Typical hazardous materials to be used during long term operations would primarily involve, but not limited to, petroleum-based fuels and hydraulic fluids for landscape maintenance, and/or cleaning solvents. The level of risk associated with the accidental release of hazardous substances during project operation is not considered significant due to the small volume and low concentration of hazardous materials utilized. Compliance with applicable laws and regulations governing the use, storage, and transportation of hazardous materials would ensure that all potentially hazardous materials are used and handled in an appropriate manner and would minimize the potential for hazardous impacts to occur. Therefore, impacts concerning the routine transport, use, or disposal of hazardous materials during project operations would be less than significant.

As analyzed in the General Plan Update EIR, impacts related to the routine transport, use, or disposal of hazardous materials were found to be less than significant with mitigation incorporated. No substantial new information shows that project impacts related to the routine transport, use, or disposal of hazardous materials would be more significant than described in the General Plan Update EIR because project impacts related to the routine transport, use, or disposal of hazardous materials would be less than significant. Therefore, there are no impacts peculiar to the project site related to the routine transport, use, or disposal of hazardous materials that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to the routine transport, use, or disposal of hazardous materials that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

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?

CONSTRUCTION

During project construction, there is a possibility of accidental release of hazardous substances such as petroleum-based fuels or hydraulic fluid used for construction equipment. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the

small volume and low concentration of hazardous materials utilized during construction. The construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, State, and Federal law. Impacts in this regard would be less than significant.

Historical Oil Production Use

According to the General Plan Update, Huntington Beach Oil Field was the first of the Los Angeles basin oil fields discovered in Southern California in the 1920s, transforming the area into an urban oil boom town. The maximum production of Huntington Beach Field was reached on July 13, 1923 at 127,163 barrels per day from 199 wells. By early 1929, the major oil companies were suffering from an oversupply of oil. Standard Oil shut down 30 producing wells in Huntington Beach, which marked the end of the era of the early oil booms.

The project site is located within an area historically associated with oil production. Accordingly, a *Letter Report – Geophysical Oil Well Locating Survey Edison Park, Huntington Beach, California* (Geophysical Testing Report), prepared by Geosyntec Consultants, Inc. and dated July 27, 2023 was previously prepared for the project.[25] According to the Geophysical Testing Report, two historical oil wells [Aldrich Fee #1 (API: 0405905847) and Aldrich #2 (API: 0405901101)] are potentially located at the northeast corner of the site. The status of the two oil wells were listed as "plugged" per the State of California Geologic Energy Management Division's (CalGEM's) database. While CalGEM records provide the approximate locations of the wells, the exact locations of these oil wells were unknown and needed to be confirmed to avoid potential disturbance to the wells. Accordingly, a non-intrusive geophysical survey was conducted to attempt to identify the interpreted locations of the two oil wells at the site. Based on the results of Geophysical Testing Report, both wells are located outside of the former 27.5-acre CSL site that the park was built over, generally in the northeast corner of the park; refer to Exhibit 3.

The proposed project would protect these two existing plugged wells in place, and no disturbance to these wells would occur. Therefore, less than significant impacts would occur in this regard.

Historical Landfill Uses

As detailed in Section 1.2.2, *Background and History*, the park site was originally used by SCE as a sand and gravel pit in the 1950s, and later used as CSL in the 1950s through 1960s. CSL was approximately 27.5 acres in size (63.3 percent of the park) and encompassed the west side of the current park site. The former landfill received non-hazardous waste materials such as construction debris, stumps, logs, and large timber. Upon completion of waste placement activities, the former owner of CSL (County of Orange) dedicated the site to the City in 1974. To comply with the park restriction zoning, the City developed the area into the public park that is now the Edison Community Park in the same year (1974).

[25] Geosyntec Consultants, Inc., *Letter Report – Geophysical Oil Well Locating Survey Edison Park, Huntington Beach, California*, July 27, 2023.

The *Geotechnical Report, Proposed Improvements, Edison Park, Huntington Beach, California* (Geotechnical Report) prepared by Geosyntec Consultants, Inc. and dated November 30, 2023, was prepared for the project. The Geotechnical Report documents available geotechnical subsurface information from previous field investigations, geotechnical engineering assessment, and provides preliminary geotechnical recommendations.[26]

According to the Geotechnical Report, the waste disposed of at the site was placed directly into standing water in the landfill (pit). Liners were not placed, nor were leachate or gas collection systems installed, at the site. The waste was confined to the rectangular westerly 20.5 acres of the site. The edge of native soils around the waste varies from 20 feet in width to less than 12 feet at some points along the west and north boundaries. Further, a groundwater Solid Waste Assessment Test (SWAT) was conducted in 1989, and the results indicated the need for quarterly groundwater monitoring at the site. Six groundwater monitoring wells were installed in June 1990 and monitored from 1990 to 1994. The results of groundwater monitoring indicated that groundwater quality was naturally poor both upgradient and downgradient of the site due to saltwater intrusion. No organic compounds were detected in the wells at the site during monitoring. The California Regional Water Quality Control Board (CRWQCB) approved the termination of the groundwater monitoring program in 1994.

Further a previous Environmental Assessment report conducted in 2001 notes that "boundaries of the refuse prism remained constant during its construction based on a review of aerial photographs dated 1953, 1959, and 1967 and project documents. Thus, the refuse appears to have been placed within reasonably well-defined limits within the site."[27]

According to the Geotechnical Report, the waste materials uncovered during the field investigation did not have any unusual odor, and characteristics of the waste material was consistent throughout the investigation locations. Composite samples of drill cuttings were collected and sent to laboratory for analytical testing for Total Petroleum Hydrocarbons (TPH), Volatile Organic Compounds (VOCs), Title 22 Metals, and Lead. Results of the testing indicated that the waste was non-hazardous. In addition, excavation associated with the project would be minimal (anticipated to be a maximum of eight feet). The current condition of the park is largely similar to what was originally constructed in 1974 and no other land uses would be introduced that may result in contamination to soil, soil gas, and/or groundwater. Impacts in this regard would be less than significant.

A former landfill (Ascon Landfill) is located to the south of the site across Hamilton Avenue. Ascon Landfill operated as an active landfill from around 1938 to 1984. In the early years of operation, the landfill received waste from oil drilling such as waste drilling muds, wastewater brines, and other drilling waste. In later years, it received construction debris such as asphalt, concrete, and metal. This former landfill is currently undergoing cleanup work under the oversight of the Department of Toxic Substances Control (DTSC) and the South Coast Air Quality Management District (SCAQMD).

Historic landfills have a potential of leaching chemicals into soil, soil gas, and/or groundwater. The adjoining Ascon Landfill is currently undergoing cleanup work under the oversight of the DTSC and the SCAQMD. As such, it is not anticipated that accidental release of hazardous materials into the

[26] Geosyntec Consultants, Inc., *Geotechnical Report, Proposed Improvements, Edison Park, Huntington Beach, California*, November 30, 2023.

[27] TRC, *Environmental Site Assessment Report, Former Cannery Street Refuse Disposal Station*, January 2001.

environment from these historical on-site and adjoining uses during project construction and operations would occur.

Nonetheless, proposed excavation activities of up to eight feet below ground surface could result in the disturbance of existing landfill materials and could expose construction workers to hazardous materials during site disturbance activities. To minimize potential impacts related to methane gas, the project would be subject to General Plan Update EIR mitigation measure MM4.7-1. In accordance with General Plan Update EIR mitigation measure MM4.7-1, a plan for the testing of soils for the presence of methane gas shall be prepared and submitted to the Huntington Beach Fire Department for review and approval, prior to the commencement of sampling. To minimize the potential for construction workers to uncover contaminated materials, the project would be required to comply with General Plan Update EIR mitigation measures MM4.7-2 and MM4.7-3. General Plan Update EIR mitigation measure MM4.7-2 would require the City to investigate the project site to determine whether it or immediately adjacent areas have a record of hazardous material contamination via the preparation of a preliminary environmental site assessment, which shall be submitted to the City for review prior to the issuance of grading permits. If contamination is found, the report shall characterize the site according to the nature and extent of contamination that is present before development activities precede at that site. If contamination is determined to be on site, the City, in accordance with appropriate regulatory agencies, shall determine the need for further investigation and/or remediation of the soil's conditions on the contaminated site. If further investigation or remediation is required, it shall be the responsibility of the City to complete such investigation and/or remediation prior to construction of the project. General Plan Update EIR mitigation measure MM4.7-3 would require construction activities to halt in the immediate vicinity of the contamination in the event that previously unknown or unidentified soil and/or groundwater contamination that could present a threat to human health or the environment is encountered during construction. If contamination is encountered, a Risk Management Plan shall be prepared and implemented that (1) identifies the contaminants of concern and the potential risk each contaminant would pose to human health and the environment during construction and post-development and (2) describes measures to be taken to protect workers, and the public from exposure to potential site hazards. Upon implementation of applicable General Plan Update EIR mitigation measures and compliance with existing regulations pertaining to hazardous materials, impacts from the historic oil and landfill uses of the site and adjoining landfill site would be reduced to less than significant levels.

OPERATIONS

Typical hazardous materials to be used during long term operations would primarily involve, but not limited to, petroleum-based fuels and hydraulic fluids for landscape maintenance, and/or cleaning solvents. The level of risk associated with the accidental release of hazardous substances during project operation is not considered significant due to the small volume and low concentration of hazardous materials utilized. Compliance with applicable laws and regulations governing the use, storage, and transportation of hazardous materials would ensure that all potentially hazardous materials are used and handled in an appropriate manner and would minimize the potential for hazardous impacts to occur. Therefore, impacts concerning accident conditions involving the release of hazardous materials into the environment during project operations would be less than significant.

As analyzed in the General Plan Update EIR, impacts pertaining to reasonably foreseeable upset and accident conditions were found to be less than significant with mitigation incorporated. No substantial

new information shows that project impacts related to reasonably foreseeable upset and accident conditions would be more significant than described in the General Plan Update EIR because project impacts related to reasonably foreseeable upset and accident conditions are less than significant. Therefore, there are no impacts peculiar to the project site related to reasonably foreseeable upset and accident conditions that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to reasonably foreseeable upset and accident conditions that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

The closest school to the project site is Edison High School located immediately east of the project site across Magnolia Avenue. As detailed under Impact 3.9[b], the project would be required to implement General Plan Update EIR mitigation measures MM4.7-2 (preparation of a preliminary environmental site assessment) and MM4.7-3 (procedures for uncovering unknown contamination and the development of a Risk Management Plan) to minimize potential risks pertaining to the disturbance of existing landfill materials and exposure of construction workers to hazardous materials during site disturbance activities. Upon implementation of applicable General Plan Update EIR mitigation measures and compliance with existing regulations pertaining to hazardous materials, less than significant impacts would occur in this regard.

The project does not propose new structures or uses that would emit hazardous emissions or handle hazardous or acutely hazardous materials (other than common chemicals used for maintenance as detailed in Impact 3.9[b] above). As a park reconfiguration project, the project would result in no change in use upon project completion. As such, less than significant impacts would occur in this regard.

As analyzed in the General Plan Update EIR, less than significant impacts related to emitting hazardous emissions within one-quarter mile of an existing or proposed school were found to occur. No substantial new information shows that project impacts related to emitting hazardous emissions within one-quarter mile of an existing or proposed school would be more significant than described in the General Plan Update EIR because no project impacts related to emitting hazardous emissions within one-quarter mile of an existing or proposed school would occur. Therefore, there are no impacts peculiar to the project site related to emitting hazardous emissions within one-quarter mile of an existing or proposed school that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to emitting hazardous emissions within one-quarter mile of an existing or proposed school that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

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?

Government Code Section 65962.5 requires the Department of Toxic Substances Control (DTSC) and the State Water Resources Control Board (SWRCB) to compile and update a regulatory site listing (per the criteria of the Section). The California Department of Health Services is also required to compile and update, as appropriate, a list of all public drinking water wells that contain detectable levels of organic contaminants and that are subject to water analysis pursuant to Section 116395 of the Health and Safety Code. Government Section 65962.5 requires the local enforcement agency, as designated pursuant to Section 18051 of Title 14 of the California Code of Regulations (CCR), to compile, as appropriate, a list of all solid waste disposal facilities from which there is a known migration of hazardous waste. The project site is not listed pursuant to Government Code Section 65962.5.[28] However, as detailed above, a portion of the site was used as landfill until the late 1960's. As detailed under Impact 3.9[b], the project would be required to implement General Plan Update EIR mitigation measures MM4.7-2 (preparation of a preliminary environmental site assessment) and MM4.7-3 (procedures for uncovering unknown contamination and the development of a Risk Management Plan) to minimize potential risks pertaining to the disturbance of existing landfill materials and exposure of construction workers to hazardous materials during site disturbance activities. Upon implementation of applicable General Plan Update EIR mitigation measures and compliance with existing regulations pertaining to hazardous materials, less than significant impacts would occur in this regard.

As analyzed in the General Plan Update EIR, less than significant impacts related to listed hazardous materials sites were found to occur. No substantial new information shows that project impacts related to listed hazardous materials sites would be more significant than described in the General Plan Update EIR because no project impacts related to listed hazardous materials sites would occur. Therefore, there are no impacts peculiar to the project site related to listed hazardous materials sites that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to listed hazardous materials sites that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The nearest airport to the project site is the John Wayne Airport in Santa Ana, located approximately 5.45 miles northeast of the project site. Due to the distance and according to the Airport Land Use Commission for Orange County, the project site is located outside of the John Wayne Airport Influence Area.[29] Further, the proposed park reconfiguration project does not propose new structures that would expose people to aircraft-related safety or noise hazards. Therefore, less than significant impacts would occur in this regard.

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[28] California Environmental Protection Agency, *Cortese Listing*, https://calepa.ca.gov/sitecleanup/corteselist/, accessed January 27, 2025.

[29] Airport Land Use Commission for Orange County, *Airport Environs Land Use Plan for John Wayne Airport,* April 17, 2008.

Impacts regarding airport-related safety and noise were analyzed in the General Plan Update EIR and no impacts were found to occur. No substantial new information shows that project impacts regarding airport-related safety and noise would be more significant than described in the General Plan Update EIR because no project impacts regarding airport-related safety and noise would occur. Therefore, there are no impacts peculiar to the project site regarding airport-related safety and noise that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project regarding airport-related safety and noise that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

According to the City's *Tsunami Evacuation Routes* map, Magnolia Street that bounds the project site to the east is a designated evacuation route during tsunami events.[30] The project does not propose any modifications to Magnolia Street; as such, project operations would not impact an existing evacuation route on an adopted emergency evacuation plan. While project construction activities occurring adjacent to Magnolia Street may require a partial lane closure along the roadway, any such closure would be short-term in nature and traffic lanes in the inland direction would be unaffected. Thus, impacts in this regard would be less than significant.

Impacts related to an emergency response plan or emergency evacuation plan were analyzed in the General Plan Update EIR and found to be less than significant with mitigation incorporated. No substantial new information shows that project impacts related to an emergency response plan or emergency evacuation plan would be more significant than described in the General Plan Update EIR because project impacts related to an emergency response plan or emergency evacuation plan are less than significant with mitigation incorporated. Therefore, there are no impacts peculiar to the project site related to an emergency response plan or emergency evacuation plan that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to an emergency response plan or emergency evacuation plan that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

[30] City of Huntington Beach, *Tsunami Evacuation Routes*, 2023, https://cms3.revize.com/revize/huntingtonbeachca/Documents/Departments/Fire/Our%20Community%20and%20Risk%20Reduction/Emergency%20Preparedness/Tsunami%20Evacuation%20Map.pdf, accessed September 14, 2025.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The project site is located within an urbanized area and the California Department of Forestry and Fire Protection does not map any part of site as a Very High Fire Hazard Severity Zone.[31] The project would include the reconfiguration of existing park facilities and would not have the capacity to expose people or structures to wildland fire risks. Thus, no impacts would occur in this regard.

As analyzed in the General Plan Update EIR, less than significant impacts related to the wildland fires were found to occur. No substantial new information shows that project impacts related to wildland fires would be more significant than described in the General Plan Update EIR because no project impacts related to wildland fires would occur. Therefore, there are no impacts peculiar to the project site related to wildland fires that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to wildland fires that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

[31] California Department of Forestry and Fire Protection, *City of Huntington Beach – Orange County, Local Responsibility Area Fire Hazard Severity Zones*, March 24, 2025.

3.10 HYDROLOGY AND WATER QUALITY

Would the project:	Prior EIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-Site/ Cumulative Impact?	New Information, More Severe Adverse Impact?
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	Less Than Significant With Mitigation Incorporated	No	No	No	No
b. 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 With Mitigation Incorporated	No	No	No	No
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river or through the addition of impervious surfaces, in a manner which would:					
1) Result in substantial erosion or siltation on- or off-site?	Less Than Significant	No	No	No	No
2) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	Less Than Significant With Mitigation Incorporated	No	No	No	No
3) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	Less Than Significant With Mitigation Incorporated	No	No	No	No
4) Impede or redirect flood flows?	Less Than Significant	No	No	No	No
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	Less Than Significant	No	No	No	No
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Not a Required Topic Previously	No	No	No	No

3.10.1 General Plan Update EIR Summary

The General Plan Update EIR determined that impacts related to water quality would be less than significant because of compliance with regulatory requirements and adherence to policies that aim to maintain high water quality standards despite population and buildout increases from implementation of the General Plan Update. Although development under the General Plan is anticipated to result in a less than significant impact to water quality, implementation of mitigation measure MM4.8-1 (preparation of a preliminary Water Quality Management Plan [WQMP]), in conjunction with existing regulatory requirements, would ensure that impacts on water quality are further reduced to a less than significant level.

The General Plan Update EIR determined that impacts related to groundwater supply and recharge would be less than significant because of mandatory compliance with the Orange County Water District (OCWD) groundwater management plan and adherence to the water resources protection and conservation goals outlined in the Environmental Resources and Conservation Element of the General Plan Update would ensure that groundwater supply and recharge are maintained, despite population and buildout increases from implementation of the General Plan Update. The General Plan Update EIR concluded impacts to groundwater would be less than significant with mitigation incorporated.

The General Plan Update notes that as the City is a developed, urban landscape, and that future development under the General Plan Update, particularly in focused areas, would not substantially alter the existing drainage patterns within the City such that significant increases in erosion would be expected. Further, the General Plan Update does not include proposals for the alteration of existing watercourses and streams, thereby reducing impacts to erosion. As such, the General Plan Update EIR concluded that implementation of the General Plan Update would not substantially alter the existing drainage patterns of the City or Santa Ana River Basin and would not result in substantial erosion or siltation activities and impacts would be less than significant.

The General Plan Update EIR concluded that implementation of the General Plan Update would not substantially alter the existing drainage pattern of the City or substantially increase the rate or amount of surface runoff such that it would result in flooding on- or off-site, exceed the capacity of existing or planned stormwater drainage systems, or provide substantial additional sources of polluted runoff. Therefore, impacts would be less than significant. Although development under the General Plan Update is anticipated to result in a less than significant impact to the stormwater drainage systems, implementation of General Plan Update EIR mitigation measure MM4.8-3 would require the assessment of each future, project-level development application for the contribution to potential system capacity constraints and provide for mitigation of constraints such that impacts to storm drain system capacities would be less than significant.

As detailed in the General Plan Update EIR, approval of the General Plan Update would not result in the alteration of existing drainage patterns leading to substantial erosion or redirect flood flow, or result pollution from flood/tsunami/seiche. As such, the General Plan Update EIR concluded that impacts in this regard would be less than significant.

Threshold (e) regarding potential conflicts with a water quality control plan or sustainable groundwater management plan was not a required topical area of discussion under CEQA when the General Plan Update EIR was prepared. Nonetheless, impacts pertaining to a groundwater management plan were discussed alongside discussions pertaining to groundwater supply and recharge. The General Plan Update EIR determined that impacts on groundwater supply and recharge would be less than significant because of compliance with the OCWD groundwater management plan and adherence to the water resources protection and conservation goals outlined in the Environmental Resources and Conservation Element of the General Plan Update despite population and buildout increases from implementation of the General Plan Update. Although development under the General Plan Update is anticipated to result in a less than significant impact to groundwater, implementation of General Plan Update EIR mitigation measure MM4.8-2 (preparation of a groundwater hydrology study) would

ensure that permanent groundwater dewatering does not cause or contribute to a lowering of the local groundwater table that would affect nearby water supply wells.

3.10.2 Project-Specific Impacts

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

As part of Section 402 of the Clean Water Act, the U.S. Environmental Protection Agency (EPA) has established regulations under the NPDES program to control direct stormwater discharges. In California, the SWRCB administers the NPDES permitting program and is responsible for developing NPDES permitting requirements. The NPDES program regulates industrial pollutant discharges, which include construction activities. The SWRCB works in coordination with the RWQCB to preserve, protect, enhance, and restore water quality. The City of Huntington Beach is within the jurisdiction of the Santa Ana RWQCB.

Water quality standards and water discharger requirements would be addressed in the project design and development phase pursuant to a Storm Water Pollution Prevention Plan (SWPPP) and Water Quality Management Plan (WQMP) prepared in accordance with NPDES regulations and approved by the City of Huntington Beach Department of Public Works. The SWPPP is required to include a site map(s) that shows the construction site perimeter, existing buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP and WQMP would identify Best Management Practices (BMPs) for construction and post-construction operation of the facility, including source, site and treatment controls to be installed and maintained at the site. Compliance with applicable State and local requirements would reduce project-related water quality impacts to a less than significant level.

Impacts related to water quality were analyzed in the General Plan Update EIR and found to be less than significant. No substantial new information shows that project impacts related to water quality would be more significant than described in the General Plan Update EIR because project impacts related to water quality are less than significant. Therefore, there are no impacts peculiar to the project site related to water quality that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to water quality that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

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

Groundwater extraction or recharge activities do not occur on-site; the project site does not currently affect groundwater directly (through pumping, wells, or injection) nor would the proposed project include any components that would directly affect groundwater supplies. Further, the project does not propose any habitable structures that may have the potential to increase demand for water supply that could be sourced from groundwater supplies. As a park reconfiguration project, some components of

the project (e.g., reconfigured parking lots and sports courts) could result in an increase in impervious area. However, any such increase in impervious area would be nominal and would not be of the scope or nature to affect groundwater supplies in the project area. As such, project implementation would not decrease groundwater supplies or interfere with groundwater recharge in a way that could impede sustainable groundwater management. Impacts in this regard would be less than significant.

Impacts related to groundwater were analyzed in the General Plan Update EIR and found to be less than significant. No substantial new information shows that project impacts related to groundwater would be more significant than described in the General Plan Update EIR because project impacts related to groundwater are less than significant. Therefore, there are no impacts peculiar to the project site related to groundwater that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to groundwater that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river or through the addition of impervious surfaces, in a manner which would:

1) Result in substantial erosion or siltation on- or off-site?

Refer to Response 3.10.2(a) for a discussion of short-term construction impacts. The project would be subject to compliance with the requirements set forth in the NPDES Stormwater Construction General Permit for construction activities. Compliance with the NPDES requirements, including preparation of a SWPPP, would reduce the volume of sediment-laden runoff discharging from the site during construction. Implementation of BMPs, such as storm drain inlet protection and fiber rolls, would reduce the potential for sediment and stormwater runoff containing pollutants from entering receiving waters. Therefore, project implementation would not substantially alter the existing drainage pattern of the site during the construction process such that substantial erosion or siltation would occur.

For long-term operation of the park, a WQMP prepared in accordance with NPDES regulations and approved by the City of Huntington Beach Department of Public Works would identify BMPs, including source, site and treatment controls, and have them installed and maintained at the site. Implementation of BMPswould reduce the potential for sediment and stormwater runoff containing pollutants from entering receiving waters. Compliance with applicable State and local requirements would ensure impacts related to erosion or siltation due to changes in drainage patterns would be minimized. Impacts would be less than significant in this regard.

Impacts related to erosion or siltation due to changes in drainage patterns were analyzed in the General Plan Update EIR and found to be less than significant. No substantial new information shows that project impacts related to erosion or siltation due to drainage pattern change would be more significant than described in the General Plan Update EIR because project impacts related to erosion or siltation due to drainage pattern change are less than significant. Therefore, there are no impacts peculiar to the project site related to erosion or siltation due to drainage pattern change that would exceed what

was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to flooding due to drainage pattern change that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

2) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Refer to Response 3.10.2(b). There are no streams or rivers on the project site or in the surrounding area. The project proposes to reconfigure an existing park and add new amenities. Although areas of hardscape may increase upon project completion, any increase in hardscape would be nominal and would not have the capacity to substantially alter the drainage pattern of the project site. Further, the project would be subject to compliance with the requirements set forth in the NPDES Stormwater Construction General Permit for construction activities. Compliance with the NPDES requirements would also include preparation of a SWPPP and WQMP. The SWPPP is required to include a site map(s) that shows the construction site perimeter, existing buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP and WQMP would identify BMPs for construction and post-construction operation of the facility, including source, site and treatment controls to be installed and maintained at the site. Specifically, BMPs such as storm drain inlet protection and fiber rolls would reduce the potential for sediment and stormwater runoff containing pollutants from entering receiving waters. Therefore, project implementation would not substantially alter the existing drainage pattern of the site during the construction process such that flooding on- or off-site would occur. Less than significant impact would occur in this regard.

Impacts related to flooding due to drainage pattern changes were analyzed in the General Plan Update EIR and found to be less than significant with mitigation incorporated. No substantial new information shows that project impacts related to flooding due to drainage pattern changes would be more significant than described in the General Plan Update EIR because project impacts related to flooding due to drainage pattern changes are less than significant. Therefore, there are no impacts peculiar to the project site related to flooding due to drainage pattern changes that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to flooding due to drainage pattern changes that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

3) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

Refer to Response 3.10.2(b), 3.10.2(c)(1), and 3.10.2(c)(2). The drainage pattern of the project site would be similar to the existing site upon project completion, as the project would consist of the reconfiguration of existing park facilities and grading would be minimal. The project would be subject to compliance with the requirements set forth in the NPDES requirements, including compliance with

the General Construction Permit and preparation of a SWPPP and WQMP, which would identify BMPs for construction and post-construction operation of the facility. Overall, adherence to existing State and local standards and NPDES requirements would minimize potential impacts in regard to stormwater drainage systems and water quality to less than significant levels.

Impacts related to substantial additional sources of polluted runoff were analyzed in the General Plan Update EIR and found to be less than significant with mitigation incorporated. No substantial new information shows that project impacts related to substantial additional sources of polluted runoff would be more significant than described in the General Plan Update EIR because project impacts related to substantial additional sources of polluted runoff are less than significant. Therefore, there are no impacts peculiar to the project site related to substantial additional sources of polluted runoff that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to substantial additional sources of polluted runoff that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

4) Impede or redirect flood flows?

Refer to Response 3.10.2(c)(2). As detailed above, the project proposes park reconfiguration improvements, and stormwater drainage in the project area would be similar to existing conditions upon project implementation. At project completion, no substantial changes would occur to the existing topography or drainage pattern of the site and surrounding area in a manner that would impede or redirect flood flows. As such, impacts in this regard would be less than significant.

Impacts related to flood flows were analyzed in the General Plan Update EIR and found to be less than significant. No substantial new information shows that project impacts related to flood flows would be more significant than described in the General Plan Update EIR because project impacts related to flood flows are less than significant. Therefore, there are no impacts peculiar to the project site related to flood flows that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to flood flows that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

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

<u>Flood Hazard</u>

According to the Federal Emergency Management Agency's (FEMA's) *Flood Insurance Rate Maps* for the project area, the project site is located within "Zone X", an area with one percent annual chance flood.[32] As such, no impacts would occur in this regard.

[32] Federal Emergency Management Agency, *National Flood Hazard Layer FIRMette*, https://msc.fema.gov/portal/home, accessed September 12, 2025.

Tsunami

A tsunami is a great sea wave, commonly referred to as a tidal wave, produced by a significant undersea disturbance such as tectonic displacement of a sea floor associated with large, shallow earthquakes. According to the City's *Tsunami Evacuation Routes* map, the project site is not located within identified tsunami advisory evacuation area or tsunami warning evacuation area.[33] As such, no impacts would occur in this regard.

Seiche

A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin, such as a reservoir, harbor, lake, or storage tank. No water body is located on-site. Although the Huntington Beach Channel is situated southwest of the project site, it is not anticipated to have the capacity to result in substantive seiche impacts and is located approximately 600 feet away from the project site. As such, no impacts would occur in this regard.

Impacts related to pollution from a flood hazard, tsunami, or seiche were analyzed in the General Plan Update EIR and found to be less than significant. No substantial new information shows that project impacts related to pollution from a flood hazard, tsunami, or seiche would be more significant than described in the General Plan Update EIR because no project impacts related to pollution from a flood hazard, tsunami, or seiche would occur. Therefore, there are no impacts peculiar to the project site related to pollution from a flood hazard, tsunami, or seiche that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to pollution from a flood hazard, tsunami, or seiche that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The *Santa Ana River Basin Water Quality Control Plan* (Basin Plan) establishes water quality standards for ground and surface waters within the Santa Ana River Basin, which includes the City, and is the basis for the Santa Ana RWQCB's regulatory programs.

The 2014 Sustainable Groundwater Management Act requires local public agencies and groundwater sustainability agencies in high- and medium-priority basins to develop and implement groundwater sustainability plans (GSPs) or prepare an alternative to a GSP. The City is located within the Orange County groundwater basin, which is designated as a medium-priority basin and regulated by the OCWD. OCWD, in conjunction with the City of La Habra and Irvine Ranch Water District, prepared the *Basin 8-1 Alternative*, which is functionally equivalent to a GSP and sets forth basin management goals and objectives and describes how the basin is managed, including a description of basin hydrogeology, water supply monitoring programs, management and operation of recharge facilities,

[33] City of Huntington Beach, *Tsunami Evacuation Routes*, 2023, https://cms3.revize.com/revize/huntingtonbeachca/Documents/Departments/Fire/Our%20Community%20and%20Risk%20Reduction/Emergency%20Preparedness/Tsunami%20Evacuation%20Map.pdf, accessed September 14, 2025.

water quality protection and management, and natural resource and collaborative watershed programs. Specifically, the City of Santa Ana and project site are located within the OCWD Management Area of the Coastal Plan of Orange County groundwater basin. According to the *Basin 8-1 Alternative*, the Sustainability Goal for the OCWD Management Area is to continue to sustainably manage the groundwater basin to prevent conditions that would lead to significant and unreasonable (1) lowering of groundwater levels, (2) reduction in storage, (3) water quality degradation, (4) seawater intrusion, (5) inelastic land subsidence and (6) adverse impacts on hydrologically connected surface water.

Project construction and operations would comply with existing NPDES program requirements established by the Santa Ana RWQCB; refer to Response 3.10.2(a). As indicated in Response 3.10(b), the project site does not currently affect groundwater directly (through pumping, wells, or injection) nor would the proposed project include any components that would directly affect groundwater. As such, the proposed project would not substantially deplete groundwater supplies or interfere with groundwater recharge. For these reasons, the proposed project is not anticipated to conflict with or obstruct the Santa Ana RWQCB's Basin Plan or *Basin 8-1 Alternative*. Accordingly, the proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Impacts would be less than significant in this regard.

3.11 LAND USE AND PLANNING

Would the project:	Prior EIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-Site/ Cumulative Impact?	New Information, More Severe Adverse Impact?
a. Physically divide an established community?	Less Than Significant	No	No	No	No
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?	Less Than Significant	No	No	No	No

3.11.1 General Plan Update EIR Summary

The General Plan Update EIR notes that while most of the City would be preserved in its existing land use type, the majority of planned development and change would occur within certain transform areas. The General Plan Update Land Use Plan focuses on these areas specifically. In these transform areas, the land use policies provide for contextual infill and redevelopment, which builds upon the existing development landscape in accordance with long-term goals of the City. Thus, the General Plan Update EIR determined that implementation of the General Plan Update would not physically divide or conflict with an established community as development would occur within existing urbanized areas. Impacts would be less than significant in this regard.

The General Plan Update EIR also determined, implementation of the General Plan Update would not conflict with the objectives or goals contained within the Southern California Association of Governments' (SCAG) *2008 Regional Comprehensive Plan* (2008 RCP), SCAG's *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* (2016-2040 RTP/SCS), SCAG's Compass Growth Visioning Plan (CGVP), the Municipal Code, Zoning Code, Local Coastal Program or other applicable land use plans. Therefore, impacts due to inconsistencies with land use plans were determined to be less than significant.

3.11.2 Project-Specific Impacts

a) Physically divide an established community?

Factors that could physically divide a community include, but are not limited to:

- Construction of major highways or roadways;
- Construction of storm channels;
- Closing bridges or roadways; and
- Construction of utility transmission lines.

The key factor with respect to this threshold is the potential to create physical barriers that change the connectivity between areas of a community to the extent that persons are separated from other areas

of the community. The project does not propose to construct any major highways or roadways, storm channels, bridges or roadways, utility transmission lines, or any other linear facilities that would physically divide a community. The project site is an existing park and the project would reconfigure facilities within existing park boundaries. As such, the proposed project would not physically divide the existing community nor change the connectivity between the community and the surrounding uses. No impacts would result in this regard.

Impacts regarding the division of an established community were analyzed in the General Plan Update EIR and found to be less than significant. No substantial new information shows that project impacts regarding the division of an established community would be more significant than described in the General Plan Update EIR because no impacts regarding the division of an established community would occur. Therefore, there are no impacts peculiar to the project site regarding the division of an established community that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project regarding the division of an established community that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

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?

GENERAL PLAN CONSISTENCY

According to the *City of Huntington Beach General Plan* (General Plan), the majority of project site is designated as Open Space – Park (OS-P), with the southwestern portion of the site (APN 148-071-29 owned by SCE) designated as Public (P).[34] The OS-P designation provides for public parks and recreational facilities and supporting ancillary uses (e.g., maintenance equipment storage). The P designation provides for public and private schools, hospitals, churches, cultural facilities, institutional, and similar semi-public community service uses.

The project proposes to reconfigure and improve recreational uses within existing park boundaries. Thus, the proposed project is consistent with the General Plan land use designation and would not require a General Plan Amendment. The subject site has operated as a community park since 1974. The proposed park improvements would be similar in nature to the activities presently occurring on the site and other community parks within the City. Throughout the City, OS-PR zones are situated amidst residential zones in order to provide needed recreational amenities to the surrounding neighborhoods. The proposed park improvements would provide modern park amenities and sport fields for the community. The park improvements (including practice fields and parking areas) are situated on the site where adequate buffer would be provided between park amenities and nearby residential uses.

Furthermore, the project is consistent with the goals and objectives of the General Plan; refer to Table 3.11-1, *General Plan Consistency Analysis*. As such, no impacts would occur in this regard.

[34] City of Huntington Beach, *General Plan, City of Huntington Beach, General Plan Designations*, August 2022.

Table 3.11-1
General Plan Consistency Analysis

Applicable General Plan Goals And Policies	Project Consistency Analysis
LAND USE ELEMENT	
Goal LU-3. Neighborhoods and attractions are connected and accessible to all residents, employees, and visitors.	
Policy A. Ensure that future development and reuse projects are consistent with the Land Use Map to provide connections between existing neighborhoods and city attractions.	Consistent. The proposed project would be consistent with the OS-P and P land use designations and would not require a General Plan Amendment. The project would reconfigure the existing park to provide space for additional amenities and relocate existing ones that are resettling and sinking. Such improvements would allow the City to provide additional recreational opportunities.
B. Improve trail, bicycle pathway, roadway, sidewalk, and transit connections to new development and reuse projects.	Consistent. As part of the project, existing trails, bicycle pathways, and sidewalks within the site would be improved.
ENVIRONMENTAL RESOURCES AND CONSERVATION	
Goal ERC-1. Adequately sized and located parks meet the changing recreational and leisure needs of existing and future residents.	
D. Require all park improvement projects to consider ways to improve access to park facilities by foot and bicycle.	Consistent. Refer to response to Goal LU-3 Policy B.
F. Continue to balance and maintain a mix of recreational focused and passive and natural environment areas that preserve and protect special-status species within open spaces.	Consistent. As detailed in Section 3.4, *Biological Resources*, the proposed park reconfiguration project would not result in significant impacts to special-status species.
G. Develop a comprehensive trails network linking hiking, biking, and equestrian trails to parks, beaches, recreation facilities, and open spaces both within and outside the City.	Consistent. Refer to response to Goal LU-3 Policy B.
Goal ERC-2. Diverse recreational and sports facilities provide active and educational opportunities that meet the changing needs of residents and visitors of all ages.	
A. Enhance and expand accessible and affordable recreation programs and sports facilities, providing new programs and adaptive facilities that respond to changing community demographics and needs.	Consistent. This City-initiated project proposes to reconfigure the park and create new park amenities over non-landfill land; refer to Exhibit 3, *Conceptual Reconfiguration Plan*. The various new and upgraded amenities, including new sports courts, wheel sports, playground, trees, walkways, parking lot, and access, would offer diversified recreation and allow for more park engagement. The resettling and sinking amenities would be cleared under the project to allow for more open space. Overall, the project would enhance and expand accessible and affordable recreation programs and sports facilities.
B. Ensure that buildings, equipment, fields, and other recreation amenities are in full use and capable of accommodating changing program demands.	Consistent. Refer to response to Goal LU-3 Policy B. As detailed throughout this Checklist, the project proposes to clear some of the existing park facilities that have been affected by land settlement over the years. Specifically, two of the four existing tennis courts located within the landfill limits have shifted to the point of creating severe grade changes and developing cracks in the concrete playing surface; these two

	courts are no longer in use by the public. Sections of the tot playground and softball field areas have also shown significant settling. Upon project implementation, the fulL use of the park land would be utilized.

Source: City of Huntington Beach, *City of Huntington Beach General Plan*, 2017.

ZONING CODE CONSISTENCY

According to the *City of Huntington Beach Zoning Map* (Zoning Map), the majority of project site is zoned Open Space – Parks and Recreation Subdistrict (OS-PR), and the southwestern corner (parcel with APN 148-071-29, owned by SCE) and the fire station area in the southeastern corner of the site are zoned Public-Semipublic (PS).[35] The OS District provides areas for public or private use and areas for preservation and enhancement. The PS District provides areas for large public or semipublic uses.

The proposed project would reconfigure existing park facilities within existing park boundaries. The project does not propose any change in land use or operations, and would be consistent with the existing zoning of OS-PR and PS. As such, no impacts would occur in this regard.

Impacts related to land use plan consistency were analyzed in the General Plan Update EIR and found to be less than significant. No substantial new information shows that project impacts related to land use plan consistency would be more significant than described in the General Plan Update EIR because no impacts related to land use plan consistency would occur. Therefore, there are no impacts peculiar to the project site related to land use plan consistency that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to land use plan consistency that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

[35] City of Huntington Beach, *City of Huntington Beach Zoning*, https://huntingtonbeach.maps.arcgis.com/apps/webappviewer/index.html?id=7ab822c02ded4940acd7e4593bba7cb7, accessed July 22, 2025.

3.12 MINERAL RESOURCES

Would the project:	Prior EIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-Site/ Cumulative Impact?	New Information, More Severe Adverse Impact?
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	Less Than Significant	No	No	No	No
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?	Less Than Significant	No	No	No	No

3.12.1 General Plan Update EIR Summary

Mineral resources are discussed in Section 4.5, *Geology, Soils, and Minerals* of the General Plan Update EIR. The General Plan Update EIR notes that although mineral resources may be present within the City, no mining has occurred in areas designated Mineral Resource Zone 3 (MRZ-3), and active mining no longer occurs and new uses have been introduced to areas designated MRZ-2, which deters future mining activities. Additionally, the urbanized character of the City generally precludes mining activities. Overall, the General Plan Update EIR determined that implementation of the General Plan Update would not cause a loss of availability of known mineral resources or locally-important mineral resource recovery sites within the City. As such, less than significant impact would occur in this regard.

3.12.2 Project-Specific Impacts

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?

As detailed in Section 1.2.2, *Background and History*, the park site was originally used by SCE as a sand and gravel pit in the 1950s. However, no mining activities has occurred on-site since the 1950s, and the site was developed into the current use (public park) in 1974.

According to the General Plan Update Environmental Resources and Conservation Element Figure ERC-5, *Mineral Resource Zones*, the project site is designated MRZ-3, which indicates information is unavailable or historic mining has not occurred, and therefore the significance of mineral resources is unknown. Furthermore, the site is not designated for mineral resource recovery in the General Plan Update.

The project proposes reconfiguration of recreational facilities within an existing park, and operation of the proposed project would not involve mineral resource extraction activities, and there are no existing or proposed mineral resource extraction activities occurring in the vicinity. Thus, development of the proposed project would not result in a loss of availability of the identified mineral resources and no impacts would occur.

As analyzed in the General Plan Update EIR, less than significant impacts related to the loss of availability of identified mineral resources were found to occur. No substantial new information shows that project impacts related to the loss of availability of identified mineral resources would be more significant than described in the General Plan Update EIR because no impacts related to mineral resources would occur. Therefore, there are no impacts peculiar to the project site related to the loss of availability of identified mineral resources that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to the loss of availability of identified mineral resources that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

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?

Refer to Response 3.12.2(a). No impacts would occur in this regard.

As analyzed in the General Plan Update EIR, less than significant impacts related to the loss of availability of a locally-important mineral resource recovery site were found to occur. No substantial new information shows that project impacts related to the loss of availability of a locally-important mineral resource recovery site would be more significant than described in the General Plan Update EIR because no impacts related to mineral resources would occur. Therefore, there are no impacts peculiar to the project site related to the loss of availability of a locally-important mineral resource recovery site that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to the loss of availability of a locally-important mineral resource recovery site that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

3.13 NOISE

Would the project result in:	Prior EIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-Site/ Cumulative Impact?	New Information, More Severe Adverse Impact?
a. Generation of a substantial temporary or permanent increase in ambient noise levels in in the vicinity of the project excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Significant and Unavoidable	No	No	No	No
b. Generation of excessive groundborne vibration or groundborne noise levels?	Significant and Unavoidable	No	No	No	No
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?	No Impact	No	No	No	No

3.13.1 General Plan Update EIR Summary

As detailed in the General Plan Update EIR, construction activities associated with development allowed under the General Plan Update could result in substantial increases in ambient noise levels that could potentially exceed permitted noise levels on a temporary basis. However, under the City of Huntington Beach Municipal Code Section 8.40.090, *Special Provisions*, construction noise is exempt from noise standards if the project is granted a permit from the City and adheres to allowed construction hours. Nevertheless, while construction may occur adjacent to sensitive receptors, the General Plan Update EIR states that construction noise is a necessary part of new development and would not create an unacceptable public nuisance when conducted during the least noise-sensitive hours of the day.

The General Plan Update EIR considers any construction activities occurring outside the allowed hours for construction as significant. While construction activities with permits granted by the City and occurring within the allowed hours of construction are less than significant, the General Plan Update EIR recommends the implementation of General Plan Update EIR mitigation measure MM4.10-1 to MM4.10-3. General Plan Update EIR mitigation measure MM4.10-1 would require the implementation of best management practices to reduce noise (i.e., properly muffled equipment, locating staging grounds away from receptors, adhering to recommended hours for high noise-producing activities, etc.). General Plan Update EIR mitigation measure MM4.10-2 would require contract specifications that would require locating staging grounds away from receptors which would be reviewed by the City. General Plan Update EIR mitigation measure MM4.10-3 would require routing loaded trucks away from residential streets. To further reduce construction-related noise impacts to sensitive receptors, General Plan Update EIR mitigation measure MM4.10-5 requires any

construction activities within 500 feet of a sensitive receptor to implement best management practices (i.e., consideration of temporary noise walls, properly muffled equipment, restricting of haul routes, etc.). With the implementation of mitigation measures, the General Plan Update EIR concluded that implementation of the General Plan Update would result in less than significant impacts for construction-related noise.

With adherence to and implementation of the General Plan Update policies, stationary noise sources would not exceed the Municipal Code thresholds at noise sensitive receptors. Similarly, new residential uses that would be constructed under the General Plan Update would be required to reduce interior and exterior noise levels to meet the standards established by the City. The General Plan Update EIR also recommends the implementation of General Plan Update EIR mitigation measure MM4.10-4 which requires the preparation of an acoustical study for each development ensuring that exterior and interior noise adheres with the City's standards. As such, impacts associated with stationary operational noise levels in excess of established standards would be less than significant.

The General Plan Update EIR determined that implementation of the policies within the General Plan Update would reduce roadway noise levels. However, community ambient noise levels would increase substantially by the 2040 horizon year. Because the increase in ambient noise levels would result from vehicle-related noise, the General Plan Update EIR could not identify any available or feasible mitigation measures that would reduce ambient noise levels and exposure below thresholds. Therefore, vehicular-related noise impact would remain significant and unavoidable.

The General Plan Update EIR determined that adherence to the General Plan Update Policies N-4.A and N-4.D and implementation of General Plan Update EIR mitigation measure MM4.10-5 would help reduce potential groundborne vibration impacts from future construction activities. Nevertheless, even with adherence to applicable policies and recommended mitigation measures, the General Plan Update EIR determined that construction-related vibration impacts would be significant due to the proximity to nearby receptors. As such, impacts associated with construction-related vibrations would be significant and unavoidable. The General Plan Update EIR also determined that operation of land uses consistent with the General Plan Update would not expose sensitive receptors to excessive groundborne vibration levels and impacts would be less than significant.

According to the General Plan Update EIR, the City of Huntington Beach does not contain any airports within its planning area. The closest airport to the City is the Long Beach Airport, approximately 12.5 miles northwest of the City, and John Wayne Airport, approximately 3.5 miles southeast of the City. The City is still exposed to airplane noise since flights approaching the Long Beach Airport regularly pass over the City at an altitude ranging from 1,600 feet and 2,100 feet. Residents of the City may experience noise levels up to 72 dBA from these airplanes. Nevertheless, the City has no control of these airplane operations since they are under the jurisdiction of the Federal Aviation Administration. Since the City does not have an airport and is not within two miles of a public airport, public use airport, or private airstrip, the General Plan Update EIR concludes that no impacts would occur regarding the exposure of sensitive receptors to excessive noise levels from aircraft noise sources.

3.13.2 Project-Specific Impacts

REGULATORY FRAMEWORK

State

The State Office of Planning and Research *Noise Element Guidelines* include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The *Noise Element Guidelines* contain a land use compatibility table that describes the compatibility of various land uses with a range of environmental noise levels in terms of the CNEL. A noise environment of 50 CNEL to 60 CNEL is "normally acceptable" for residential uses. The Office of Planning and Research recommendations also note that, under certain conditions, more restrictive standards than the maximum levels cited may be appropriate.

Local

City of Huntington Beach General Plan

The City of Huntington Beach General Plan (General Plan) consists of nine elements: Land Use Element, Circulation Element, Environmental Resources and Conservation Element, Natural and Environmental Hazards Element, Noise Element, Public Services and Infrastructure Element, Housing Element, and Coastal Element. On October 2, 2017, the City Council adopted a comprehensive update to the General Plan, including the Noise Element. The Noise Element describes how the City considers noise control in the planning process. The element identifies noise-sensitive land uses and noise sources, evaluates existing noise issues, defines potential noise impact areas, and advocates creative methods to protect the community from excessive noise, and provides proactive solutions to noise problems varying from construction noise and clamoring mechanical equipment to roadway noise and the cacophony of barking dogs, and describes noise control measures designed to avoid noise problems before they occur.

The General Plan includes noise standards for various land use categories in the City as show in Table 3.13-1, *City of Huntington Beach Land Use Compatibility Standards*.

Table 3.13-1
City of Huntington Beach Land Use Compatibility Standards

General Plan Land Use Designation	Proposed Uses	Community Noise Exposure (CNEL, dBA)			
		Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential					
Low Density	Single-family, mobile home, senior housing	Up to 60	61-65	≥ 66	45
Medium Density, Medium High Density, High Density	Attached single-family,	Up to 65	66-70	≥ 71	45
Mixed-Use					
Mixed-Use	Combination of commercial and residential uses	Up to 70	71-75	≥ 76	45
Commercial					
Neighborhood Commercial, General Commercial	Retail, professional office, health services, restaurant, government offices, hotel/motel	Up to 70	71-75	≥ 76	45
Visitor Commercial	Hotel/motel, timeshares, recreational commercial, cultural facilities	Up to 65	66-75	≥ 75	45
Office	Office, financial institutions	NA	NA	NA	NA
Public/Semi-public					
Semi-public (School)	Schools	Up to 60	61-65	≥ 66	45
Semi-public (Other)	Hospitals, churches, cultural facilities	Up to 65	66-70	≥ 71	45
Public	Public utilities, parking lot	NA	NA	NA	NA
Industrial					
Research and Technology	Research and development, technology, warehousing, business park	NA	NA	NA	NA
Industrial	Manufacturing, construction, transportation, logistics, auto repair	NA	NA	NA	NA
Open Space and Recreational					
Conservation	Environmental resource conservation	NA	NA	NA	NA
Park	Public Park	Up to 65	65-75	≥ 76	NA
Recreation	Golf courses, recreational water bodies	Up to 65	66-75	≥ 76	NA
Shore	City and state beaches	NA	NA	NA	NA

CNEL = community noise equivalent level; NA = not applicable
Notes:
1. Normally acceptable means that land uses may be established in areas with the stated ambient noise level, absent any unique noise circumstances.
2. Conditionally acceptable means that land uses should be established in areas with the stated ambient noise level only when exterior areas are omitted from the project or noise levels in exterior areas can be mitigated to the normally acceptable level. Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use. Where it is not practical to mitigate exterior noise levels at patio or balconies of apartment complexes, a common area such as a pool or recreation area may be designated as the outdoor activities area.
3. Normally unacceptable means that land uses should generally not be established in areas with the stated ambient noise level. If the benefits

General Plan Land Use Designation	Proposed Uses	Community Noise Exposure (CNEL, dBA)			
		Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
of the project in addressing other General Plan goals and policies outweigh concerns about noise, the use should be established only where exterior areas are omitted from the project or where exterior areas are located and shielded from noise sources to mitigate noise to the maximum extent feasible. Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use. Where it is not practical to mitigate exterior noise levels at patio or balconies of apartment complexes, a common area such as a pool or recreation area may be designated as the outdoor activity area. 4. Interior acceptable means that the building must be constructed so that interior noise levels do not exceed the stated maximum, regardless of the exterior noise level. Stated maximums are as determined for a typical worst-case hour during periods of use.					
Sources: City of Huntington Beach, *City of Huntington Beach General Plan,* Noise Element, adopted October 2, 2017.					

The Noise Element includes the following goals and policies related to the proposed project:

Goal N-1: *Noise-sensitive land uses are protected in areas with acceptable noise levels.*

Policy A: Maintain acceptable stationary noise levels at existing noise-sensitive land uses such as schools, residentials areas, and open spaces.

Policy B: Incorporate design and construction features into residential, mixed-use, commercial, and industrial projects that shield noise-sensitive land uses from excessive noise.

Goal N-2: *Land use patterns are compatible with current and future noise levels.*

Policy A: Require an acoustical study for proposed projects in areas where the existing or projected noise level exceeds or would exceed the maximum allowable levels identified in Table N-2 (Table 3 above). The acoustical study shall be performed in accordance with requirements set forth in the Noise Element.

Goal N-3: *The community is not disturbed by excessive noise from mobile sources such as vehicles, rail traffic, and aircraft.*

Policy B: Prioritize use of site planning and project design techniques to mitigate excessive noise. The use of noise barriers shall be considered as a means of achieving the noise standards only after all other practical design-related noise mitigation measures have been integrated into the project.

Goal N-4: *Noise from construction activities associated with discretionary projects, maintenance vehicles, special events, and other nuisances is minimized in residential areas and near noise-sensitive land uses.*

Policy A: Reduce construction, maintenance, and nuisance noise at the source as the first and preferred strategy to reduce noise conflicts.

Policy B: Require that new discretionary uses and special events such as restaurants, bars, entertainments, parking facilities, and other commercial uses or beach events where large numbers of people may be present adjacent to sensitive noise receptors comply with the noise standards in Table N-2 (Table 3 above) and the City Noise Ordinance.

Policy C: Encourage shielding for construction activities to reduce noise levels and protect adjacent noise-sensitive land uses.

Policy D: Limit allowable hours for construction activities and maintenance operations located adjacent to noise-sensitive land uses.

Huntington Beach Noise Ordinance

The City's Municipal Code, Title 8, Chapter 8.40, *Noise Control*, contains the City's noise standards and regulations. As outlined in Section 8.40.050, *Exterior Noise Standards*, maximum exterior noise levels are based on land uses. Table 3.13-2, *Exterior Noise Standards*, summarizes the exterior noise limits for the various land uses within the City.

Table 3.13-2
Exterior Noise Standards

Land Use	L_{eq} Noise Level dBA	L_{max} Noise Level dBA	Time Period
Low Density Residential	55	75	7 a.m. – 10 p.m.
	50	70	10 p.m. – 7 a.m.
Medium, Medium High Density Residential, Hotels, Motels	60	80	7 a.m. – 10 p.m.
	50	70	10 p.m. – 7 a.m.
Schools	55	75	Hours of Operation
Hospitals, Churches, Cultural, Museum, Library, Public Park, Recreational	60	80	Hours of Operation
Commercial/Office	65	85	Hours of Operation

Sources: City of Huntington Beach, *City of Huntington Beach Municipal Code Section 8.40.050, Exterior Noise Standards, adopted July 1, 2025.*

The following noise regulations contained in the City's Noise Ordinance are applicable to the project:

Section 8.40.090, *Special Provisions*:

D. Noise sources associated with construction, repair, remodeling, or grading of any real property, provided that: (1) the City has issued a building, grading or similar permit for such activities; (2) said activities do not take place between the hours of 7:00 p.m. and 7:00 a.m., Monday through Saturday, or at any time on Sunday or a Federal holiday; and (3) the average construction noise levels do not exceed 80 dBA L_{eq} at nearby noise-sensitive land uses. If outdoor construction activities are permitted by the City after 7:00 p.m. or before 7:00 a.m., the average construction Noise Levels at nearby noise-sensitive land uses shall be limited to 50 dBA L_{eq}.

F. Noise sources associated with the maintenance of real property and use of domestic power tools provided said activities take place between the hours of 8:00 a.m. and 7:00 p.m. Monday through Saturday or between the hours of 9:00 a.m. and 6:00 p.m. on Sunday or a Federal holiday. Noise from typical and occasional property maintenance and the use of domestic power tools which does not require a building permit shall not be subject to the noise limits in subsection D of this section.

Section 8.40.095, *Leaf Blowers:*

A. Unlawful to Propel Debris Beyond Parcel Boundary. It is unlawful for any person to use or operate any leaf blower in such a manner as to blow, dispel or make airborne, dust, leaves, grass cuttings, paper, trash or any other type of unattached debris or material, beyond the parcel boundaries of the parcel being cleaned, unless the consent of the adjoining owner or person in possession is obtained. It is unlawful for any person to use or operate any leaf blower within the City in such a way as to blow leaves, dirt and other debris onto the public rights-of-way or private property and to allow such debris to remain there in excess of 30 minutes.

B. Special Prohibitions. It is unlawful for any person to operate a leaf blower within a residential zone or within 100 feet of a residential zone of the City of Huntington Beach, except under the following conditions:

1. Time Restriction. Noise sources associated with the maintenance of real property provided said activities take place between the hours of 8:00 a.m. and 7:00 p.m. Monday through Saturday or between the hours of 9:00 a.m. and 6:00 p.m. on Sunday or a Federal holiday.

2. Distance Restriction. Leaf blowers shall not be operated within a horizontal distance of 10 feet of any operable window, door, or mechanical air intake opening or duct.

3. Duration of Use Restriction. Leaf blowers shall not be operated for more than 15 minutes per hour, per day, on parcels less than one-half acre and no more than 30 minutes per hour on parcels greater than one-half acre up to one acre. Leaf blowers shall not be operated for more than two hours on parcels of one acre or more.

4. Number Restriction. No person shall operate more than one leaf blower per parcel on one-half acre, no more than two leaf blowers on parcels greater than one-half acre and no more than three leaf blowers on parcels greater than one acre or more.

5. The maximum decibel level of 70 dBA as measured 10 feet from the leaf blower shall not be exceeded.

Section 8.40.113, *Vibration*:

Notwithstanding other sections of this chapter, it is unlawful for any person to create, maintain or cause any operational ground vibration on any property which exceeds 72 VdB at nearby vibration-sensitive land uses. The vibration limit at vibration-sensitive uses with high sensitivity such as operations conducting medical research and imaging shall be 65 VdB.

EXISTING NOISE SETTING

Noise Sensitive Receptors

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses

such as parks, historic sites, cemeteries, and recreation areas are considered sensitive to increases in exterior noise levels. Schools, places of worship, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses. The nearest sensitive receptors to the project site are the single-family residential dwellings adjacent to the project site to the west. Additionally, single-family dwellings are also located north of the project site, approximately 20 feet away. Edison High School is also located to the east of the project site, approximately 65 feet away.

Existing Stationary Noise Levels

The primary sources of stationary noise in the project vicinity are urban-related activities (i.e., mechanical equipment). The noise associated with these sources may represent a single-event noise occurrence, short-term, or long-term/continuous noise.

Mobile Sources

Most of the existing noise in the project area is generated from traffic along surrounding roadways, including Stilwell Drive, Magnolia Street, and Hamilton Avenue.

Existing Ambient Noise Levels

To quantify existing ambient noise levels in the project area, four short-term noise measurements were conducted in the project vicinity on July 31, 2025*;* refer to Appendix E, *Noise Data and Report*. The noise measurement locations are representative of the typical existing noise exposure at the nearest sensitive receptors. The 10-minute measurements were taken between 10:30 a.m. and 12:00 p.m. Short-term (L_{eq}) measurements are considered representative of the noise levels throughout the day. The noise measurements were taken during "off-peak" (9:00 a.m. through 3:00 p.m.) traffic noise hours as this provides a more conservative baseline. During rush hour traffic, vehicle speeds and heavy truck volumes are often low. Free-flowing traffic conditions just before or after rush hour often yield higher noise levels. The noise levels measured near the project site are identified in Table 3.13-3, *Short-Term Noise Measurements*.

Table 3.13-3
Short-Term Noise Measurements

Site No.	Location	Land Use[1]	L_{eq} (dBA)	L_{min} (dBA)	L_{max} (dBA)	Start Time
NM-1	In front of the single-family residence at 21362 Breton Lane	Low Density Residential	50.4	35.4	74.6	10:54 a.m.
NM-2	In front of the single-family residence at 8931 Stilwell Drive	Low Density Residential	53.3	41.2	67.8	11:11 a.m.
NM-3	In Front of Edison High School	School	68.1	49.9	82.5	11:25 a.m.
NM-4	In between single-family residences at 9001 and 9021 Regatta Drive	Low Density Residential	53.7	45.1	63.3	11:41 a.m.

Notes: dBA = A-weighted decibels; L_{eq} = Average Sound Level; L_{min} = Lowest time-weighted sound level measured; L_{max} = Highest time-weighted sound level measured
1. Land uses of the closest sensitive receptor based on the land use designation for exterior noise standards; refer to Table 3.13-2.

Source: Michael Baker International, July 31, 2025; refer to Appendix E, *Noise Data and Report*.

Meteorological conditions were cloudy, cool temperatures (71 degrees Fahrenheit [°F]), and wind speeds of approximately 6 miles per hour. Noise monitoring equipment used for the short-term noise survey consisted of a Brüel & Kjær Hand-held Analyzer Type 2250 equipped with a Type 4189 pre-polarized microphone. The monitoring equipment complies with applicable requirements of the American National Standards Institute (ANSI) for Type I (precision) sound level meters. Refer to Appendix E for the results of the field measurement.

a) Generation of a substantial temporary or permanent increase in ambient noise levels in in the vicinity of the project excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

CONSTRUCTION NOISE

Construction Equipment Noise

Ground-borne noise and other types of construction-related noise impacts typically occur during the initial grading phase, which has the potential to create the highest levels of noise. Construction equipment produces maximum noise levels when equipment is operating under full power conditions (i.e., the equipment engine at maximum speed). However, equipment used on construction sites typically operates under less than full power conditions, or part power. To characterize construction-period noise levels more accurately, the average (L_{eq}) noise level associated with each construction stage is calculated based on the quantity, type, and usage factors for each type of equipment that would be used during each construction stage. These noise levels are typically associated with multiple pieces of equipment simultaneously operating on part power.

The project proposes to reconfigure the park and create new park amenities over non-landfill land. The various new and upgraded amenities, including new sports courts, wheel sports, playground, trees, walkways, parking lot, and access, would offer diversified recreation and allow for more park engagement. It should be noted that, although the project proposes improvements to the existing park amenities, for the purpose of this analysis, it is conservatively modeled as a new park. The reconfiguration of the existing park and creation of new park amenities would involve construction

activities associated with demolition of existing asphalt pavement, grading, building construction, paving, and architectural coating applications. The project would be constructed over approximately 13 months and would not require import/export of soil. The proposed project would demolish the existing tennis and handball courts and generate approximately 402 tons of debris during demolition.[36]

The nearest sensitive receptors to the project site are the existing single-family residences located immediately adjacent to the west of the project site. However, it should be noted that the improvements and construction associated with the proposed project would be focused primarily within the eastern portion of the site; refer to Exhibit 3. The portions of the site bordering the sensitive receptors to the west would generally be undisturbed. As such, the following evaluation would utilize the sensitive receptors to the north to evaluate construction noise impacts associated with the proposed project.

Additionally, construction activities would occur throughout the eastern portion of the project site, and it should also be noted that the maximum construction noise levels would intermittently occur for a few days when construction equipment is operating closest to the nearest sensitive uses. The remainder of the time, the construction noise levels would be much lower because the equipment would be working in an area farther away from the existing sensitive uses. The following evaluation utilizes a construction noise threshold of 80 dBA at the nearest residential receptor to the north pursuant to the City of Huntington Beach Municipal Code Section 8.40.090. As such, the project would result in a significant impact if project-related construction noise levels exceed this established noise level threshold.

The General Noise Assessment methodology prescribed in the Federal Transit Administration (FTA) Manual recommends evaluating construction noise from the center of the site, stating under the variable distance in its construction noise calculation to "assume that all equipment operates at the center of the project." As such, the construction noise levels shown in Table 3.13-4, *Construction Noise Levels at the Nearest Residential Receptors* are estimated using the distance from the center of the eastern portion of the project site to the property line of the existing sensitive receptors, which is approximately 685 feet to the closest sensitive receptors to the north. As previously discussed, while the sensitive receptors to the west would be closest to the project site, improvements associated with the proposed project would be constructed on the eastern portion of the site, and the sensitive receptors to the north would be the closest to the construction activities. Noise levels from construction equipment and activities were modeled using the Federal Highway Administration's Roadway Construction Noise Model (RCNM). To present a conservative impact analysis, the estimated noise levels were calculated for a scenario in which all heavy construction equipment were assumed to operate simultaneously; refer to Appendix E.

[36] To estimate the amount of demolished materials (asphalt weight) anticipated from demolition, the depth (thickness) of the asphalt layer and the weight of asphalt per cubic foot are considered. A standard depth of one-inch is assumed for this analysis. The industry standard weight of asphalt is 145 pounds (lbs) per cubic foot. The proposed project would remove existing tennis and handball courts (approximately 66,500 square feet; based on Google Earth) of asphalt surface area. Area x depth/12 lbs*145 = 5,503 lbs (402 tons). As such, 402 tons of demolished materials has been considered in CalEEMod.

Table 3.13-4
Construction Noise Levels at the Nearest Residential Receptors

Phase	Estimated Exterior Construction Noise Level at 685 feet (Center of the Eastern Portion of the Project Site to the Northern Receptors) (dBA L_{eq})[1]	Construction Noise Threshold[2]
Demolition	63.7	80 dBA L_{eq} for residential uses during daytime hours
Grading	65.5	
Building Construction	63.6	
Paving	58.9	
Architectural Coating	51.0	

Notes:
1. These noise levels conservatively assume the simultaneous operation of all heavy construction equipment at the same precise location. Refer to Appendix E for modeled construction equipment.
2. Construction noise threshold pursuant to Section 8.40.090, *Special Provisions*.

Source: Federal Highway Administration, *Roadway Construction Noise Model (RCNM)*, 2006; refer to Appendix E, *Noise Data and Report*, for modeling outputs.

City of Huntington Beach Municipal Code Section 8.40.090, *Special Provisions*, states that noise sources associated with construction activities are exempt from the provisions of the Noise Ordinance provided that they adhere to the following:

1. The City of Huntington Beach has issued a building, grading, or similar permit for such construction activities;
2. Construction adheres to the allowed hours of construction (i.e., 7:00 a.m. to 7:00 p.m. Monday through Saturday with construction being prohibited on Sundays and on federal holidays);
3. Construction noise levels does not exceed 80 dBA at the nearest noise-sensitive land use; and
4. If construction activities are permitted by the City outside of the allowed hours of construction, construction noise levels shall not exceed 50 dBA.

As shown in Table 3.13-4, construction-generated noise levels would range from 51.0 dBA L_{eq} to 65.5 dBA L_{eq} at the nearest sensitive receptor property boundary located approximately 685 feet north from the geographic center of the eastern portion of the project site and would not exceed the applicable threshold of 80 dBA. As such, project construction would not exceed the City's noise threshold of 80 dBA for construction activities, and impacts related to construction noise would be less than significant.

Further, all construction activities would be conducted in accordance with the City of Huntington Beach Municipal Code Section 8.40.090, which limits construction activities to the hours of 7:00 a.m. to 7:00 p.m. on Monday to Saturday. Construction activities are prohibited on Sunday and federal holidays. Additionally, construction activities would require either a building, grading or similar permit prior to construction. Construction of the proposed project would not require any nighttime construction activities.

The proposed project would also incorporate the General Plan Update EIR mitigation measures MM4.10-1 to MM4.10-3 which are recommended construction-related noise mitigation measures (i.e., routing loaded construction trucks away from residential streets, locating staging grounds away from receptors, adherence to construction hours, prohibiting idling of equipment, etc.) Since the closest

sensitive receptor is within 500 feet, the project would also comply with the General Plan Update EIR mitigation measure MM4.10-5 by implementing best management practices to further reduce potential construction-period noise impacts for nearby sensitive receptors. Specifically, General Plan Update EIR mitigation measure MM4.10-5 would consider the installation of temporary sound barriers for construction activities adjacent to sensitive structures, equip construction equipment with mufflers, restrict haul routes and construction-related traffic, reduce nonessential idling, and submitting best management practice on all site plans/construction management plans to the City's Planning Division for approval.

Construction Mobile Noise

Construction activities would also cause increased noise along access routes along Magnolia Street and Hamilton Avenue due to the movement of equipment and workers, as well as haul trips. Pursuant to the General Plan Update EIR mitigation measure MM4.10-3, construction trucks would be routed away from residential streets. As such, local residential streets such as Stilwell Drive and Seaforth Lane would not be used. According to Caltrans, a doubling of traffic (100 percent increase) on a roadway would result in a perceptible increase in traffic noise levels (3 dBA).[37] As such, a significant impact would occur if construction-related trips double existing traffic volumes.

According to Appendix A, *Air Quality/Greenhouse Gas/Energy Data*, it is anticipated that project construction would generate a total maximum of 60 two-way trips per day, including 40 two-way worker trips per day and 10 two-way hauling trips per day. Per the City of Huntington Beach Circulation Element EIR, 2012 traffic counts along Magnolia Street and Hamilton Avenue are 17,000 and 9,000 average daily trips (ADTs), respectively.[38] As such, project-related construction trips would not result in a doubling of the traffic volumes along Magnolia Street and Hamilton Avenue, and therefore, would not be a perceptible increase (3 dBA) in traffic noise. Additionally, mobile traffic noise from construction trips would be temporary and would cease upon project construction completion. Thus, impacts in this regard would be less than significant.

OPERATIONAL NOISE

Off-Site Mobile Noise

The proposed project would result in additional traffic on adjacent roadways, thereby increasing vehicular noise in the vicinity of existing land uses. As discussed above and according to Caltrans, a doubling in roadway traffic volumes is required to generate any noticeable increase in roadway noise levels. Based on the *Edison Park Reconfiguration and Improvements – Vehicle Miles Traveled* (VMT Analysis), prepared by Michael Baker International and dated August 22, 2025, the project would generate a total of 31 ADTs. As previously stated, the ADTs along Magnolia Street and Hamilton Avenue are 17,000 and 9,000 ADTs, respectively. As such, the project's trip generation (approximately 31 ADTs) would not double existing traffic volumes along Magnolia Street or Hamilton Avenue. Impacts would remain less than significant.

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37 California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol,* September 2013.

38 City of Huntington Beach, *Huntington Beach Circulation Element EIR, Exhibit 4.8-2, Existing Averaghe Daily Traffic Volumes,* https://cms3.revize.com/revize/huntingtonbeachca/Documents/Business/Demographics/traffic-counts-map.pdf. Accessed August 28, 2025.

Mechanical Equipment

Stationary noise sources associated with the existing condition include the use of HVAC units on top of the existing Edison Community Center and existing Fire Station. However, it should be noted that the proposed project would only construct exterior restrooms at the Edison Community Center. This improvement would not require additional HVAC units on the Edison Community Center, and no improvements to the fire station are proposed. Since HVAC units are already present on the project site and the proposed project would not construct any new additional HVAC units, no impact would occur in this regard.

Outdoor Gathering Area Noise

The project would reconfigure the existing park and construct new facilities. The park has the potential to be accessed by groups of people intermittently for various occasions (e.g., events, other social gatherings, etc.). Noise generated by groups of people (i.e., crowds) is dependent on several factors including vocal effort, impulsiveness, and the random orientation of the crowd members. Crowd noise is estimated at 60 dBA at one meter (3.28 feet) away for raised normal speaking.[39] This noise level would have a +5 dBA adjustment for the impulsiveness of the noise source, and a -3 dBA adjustment for the random orientation of the crowd members.[40] Therefore, crowd noise would be approximately 62 dBA at one meter from the source (i.e., open space).

The proposed project would include various facilities that would be accessed by large groups of people. Such facilities include soccer fields, tennis courts, basketball courts, sport court plaza that includes crowd seating, etc. The closest facility would be the soccer courts along the southern portion of the project site which are within the Southern California Edison Corridor; refer to Exhibit 3. At approximately 75 feet, the distance from the potential soccer field (pending Southern California Edison review and approval) to the property line of the sensitive receptor to the west, crowd noise levels would be approximately 35 dBA; refer to Exhibit 3. According to the City of Huntington Beach Municipal Code Section 8.40.050, if a noise source comprises of impact noise, simple tone noise, speech, music, or of any combination of sources mentioned, noise standards would be reduced by 5 dBA. As such, the following evaluation would analyze the project's impact to a more stringent threshold of 50 dBA (55 dBA threshold for low density residential minus 5 dBA). Nevertheless, crowd noise from the proposed project would not exceed the more stringent threshold of 50 dBA. Additionally, a solid masonry wall is located at the project boundary along the western property line which would help attenuate crowd noise by 8 dBA.[41] As such, crowd noise would be approximately 27 dBA which would not be audible over the existing ambient noise level of 50.4 dBA; refer to Table 3.13-3. Impacts would be less than significant in this regard.

Pickleball Noise

The proposed project would include pickleball courts that may result in potential noise impacts to surrounding sensitive receptors. A pickleball noise impact study was previously conducted for the

39 M.J. Hayne, et al, *Prediction of Crowd Noise*, Acoustics, November 2006.
40 Ibid.
41 Federal Highway Administration, *Roadway Construction Noise Model Users' Guide*, January 2006.

proposed project – *Edison Park Pickleball Courts Noise Impact Study* (Pickleball Noise Study) prepared by RK Engineering Group, Inc. and dated December 15, 2023, refer to Appendix E. This Pickleball Noise Study analyzed the first variation of the conceptual plan for the project that included the conversion of two existing tennis courts into eight pickleball courts within the central portion of the site, and the creation of eight new pickleball courts within the northeastern portion of the site (Option 1). Since that time, the City has considered a second variation of the conceptual plan where the creation of eight new pickleball courts would instead be located within the southeastern corner of the project site immediately west of the existing Huntington Beach Fire Station (Option 2); refer to Exhibit 3. At this time, these new pickleball court locations have not been finalized and both options are being considered. As such, pickleball noise for both configurations is analyzed below.

According to the City of Huntington Beach Municipal Code Section 8.40.050, if a noise source comprises of impact noise, simple tone noise, speech, music, or of any combination of sources mentioned, noise standards would be reduced by 5 dBA. As such, the following evaluation would analyze the project's impact to a more stringent threshold of 50 dBA L_{eq} and 70 dBA L_{max}.

Option 1. According to the Pickleball Noise Study, proposed pickleball courts would generate noise from the movement of players and the connection of the paddle to the ball; refer to Appendix E. Reference data of four pickleball courts was collected at the Bonita Canyon Pickleball Courts in the City of Newport Beach and was used to model the potential impacts from the proposed project. Additionally, due to the nature of pickleball activities (instantaneous impact noise), the Pickleball Noise Study also analyzed the project's noise impact to the City's L_{max} threshold of 75 dBA in addition to the exterior noise standard of 55 dBA. As shown in Table 3.13-5, *Pickleball Daytime Noise Impact - L_{eq}* and Table 3.13-6, *Pickleball Daytime Noise Impact – L_{max}*, activities at the proposed pickleball courts would not exceed the more stringent threshold of 50 dBA L_{eq} and 70 dBA L_{max}. Additionally, the operation of pickleball courts would be restricted to the hours of 7:00 a.m. to 10:00 p.m. As such, impacts would be less than significant in this regard.

Option 2. To analyze potential noise impacts from the proposed pickleball courts at the alternate location (at the southeastern corner of the project site immediately west of the existing fire station), updated SoundPLAN noise modeling was prepared by Michael Baker International; refer to Appendix E. In order to be consistent, the updated SoundPLAN modeling utilized the same methodology, reference noise levels and sensitive receptor locations as those identified in the Pickleball Noise Study. As shown in Table 3.13-5 and Table 3.13-6, activities at the proposed pickleball courts for Option 2 would not exceed the more stringent threshold of 50 dBA L_{eq} and 70 dBA L_{max}. As discussed above, the operation of pickleball courts would be restricted to the hours of 7:00 a.m. to 10:00 p.m. As such, impacts would be less than significant in this regard.

Table 3.13-5
Pickleball Daytime Noise Impact - L_{eq}

Receptors	Distance		Receiver Number	Daytime Exterior Noise Level (dBA)			
	Option 1	Option 2		Project Noise Contribution (L_{eq})		Noise Level Criteria (L_{eq})[1]	Exceed-ance?
				Option 1	Option 2		
Northern Receptors (Single Family Residential)	Approx. 244 feet away from the closest pickleball court study	Approx. 500 feet away from the closest pickleball court	1	43.6	45.1	Noise Standard of 50 dBA L_{eq}	No
			2	45.6	45.2		No
			3	46.9	44.5		No
Western Receptors (Single Family Residential)	Approx. 600 feet away from the closest pickleball court	Approx. 600 feet away from the closest pickleball court	4	38.5	41.7		No
			5	42.4	43.8		No
			6	38.0	42.7		No
Eastern Receptors (Edison High School)	Approx. 360 feet away from the closest pickleball court	Approx. 360 feet away from the closest pickleball court	7	43.9	45.5		No
Southern Receptors (Single Family Residential)	N/A	Approx. 500 feet away from the closest pickleball court	8	N/A	44.7		No

Note: Pursuant to the City of Huntington Beach Municipal Code Section 8.40.050, if a noise source comprises of impact noise, simple tone noise, speech, music, or of any combination of sources mentioned, noise standards would be reduced by 5 dBA. As such, the City's exterior noise standard of 55 dBA L_{eq} for low density residential uses would be reduced to a more stringent threshold of 50 dBA L_{eq}.

Source: RK Engineering Group, Inc., *Edison Park Pickleball Courts Noise Impact Study*, December 15, 2023; refer to Appendix E, *Noise Data and Report*. Michael Baker International, *Sound PLAN*, January 2026; refer to Appendix E.

Table 3.13-6
Pickleball Daytime Noise Impact – L_{max}

Receptors	Distance		Receiver Number	Daytime Exterior Noise Level (dBA)			
	Option 1	Option 2		Project Noise Contribution (L_{eq})		Noise Level Criteria (L_{eq})[1]	Exceed-ance?
				Option 1	Option 2		
Northern Receptors (Single Family Residential)	Approx. 244 feet away from the closest pickleball court	Approx. 500 feet away from the closest pickleball court	1	57.9	59.4	Noise Standard of 70 dBA L_{max}	No
			2	59.9	59.5		No
			3	61.2	58.8		No
Western Receptors (Single Family Residential)	Approx. 600 feet away from the closest pickleball court	Approx. 600 feet away from the closest pickleball court	4	52.8	56.0		No
			5	56.7	58.1		No
			6	52.3	57.0		No
Eastern Receptors (Edison High School)	Approx. 360 feet away from the closest pickleball court	Approx. 360 feet away from the closest pickleball court	7	58.2	59.8		No
Southern Receptors (Single Family Residential)	N/A	Approx. 500 feet away from the closest pickleball court	8	N/A	59.0		No

Note: Pursuant to the City of Huntington Beach Municipal Code Section 8.40.050, if a noise source comprises of impact noise, simple tone noise, speech, music, or of any combination of sources mentioned, noise standards would be reduced by 5 dBA. As such, the City's L_{max} noise standard of 75 dBA L_{max} would be reduced to a more stringent threshold of 70 dBA L_{max}.

Source: RK Engineering Group, Inc., *Edison Park Pickleball Courts Noise Impact Study*, December 15, 2023; refer to Appendix E, *Noise Data and Report*. Michael Baker International, *Sound PLAN*, January 2026; refer to Appendix E.

Conclusion

As previously discussed, the General Plan Update EIR concluded that the General Plan Update would result in less than significant impact in regard to construction noise with implementation of General Plan Update EIR mitigation measures MM4.10-1 to MM4.10-3 and MM4.10-5. Additionally, it determined that operational noise (new stationary source noise and new residential uses) would be less than significant upon adherence to applicable General Plan Update policies and implementation of MM4.10-4. The General Plan Update EIR also determined that vehicular-related noise impacts would be significant and unavoidable with the implementation of the General Plan Update.

Impacts related to a substantial temporary or permanent increase in ambient noise levels were analyzed in the General Plan Update EIR and found to be less than significant with mitigation measures incorporated. No substantial new information shows that project impacts related to substantial

temporary or permanent increase in ambient noise levels would be more significant than described in the General Plan Update EIR because project impacts related to noise are less than significant. Therefore, there are no impacts peculiar to the project site related to noise that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to noise that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Project construction can generate varying degrees of groundborne vibration, depending on the construction procedure and the construction equipment used. Operation of some heavy-duty construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibrations from construction activities rarely reach levels that damage structures.

The types of construction vibration impacts include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. The Caltrans *Transportation and Construction Vibration Guidance Manual* identifies various vibration damage criteria for different building classes. The nearest sensitive receptors to the project site are the single-family dwellings located immediately adjacent to the west of the project site, approximately 25 feet away when measured from the building façade to the project's property line. However, it should be noted that construction would not occur along the western part of the site and would be localized along the eastern portion instead. Nevertheless, to present a more conservative analysis, the following evaluation would utilize the 25 feet distance to determine potential vibratory impacts. Additionally, the proposed project may utilize vibratory rollers during the pavement of the new reconfigured parking lot; refer to Exhibit 3. The new reconfigured parking lot would be located along the eastern portion of the project site. As such, the closest sensitive receptor would be the single-family residential dwellings to the north, approximately 65 feet away when measured from the sensitive receptor's building façade to the project's northern property line. Since the sensitive receptors (single-family dwelling) to the north and west are likely to be older residential structure, a significant vibration impact pertaining to building damage would occur if the project resulted in an exceedance of 0.3 in/sec PPV at this nearest sensitive receptor structure.

Table 3.13-7, *Vibration Levels of Construction Equipment* shows the reference vibration levels of construction equipment at 25 feet which would also represent the vibration levels of construction equipment from the closest sensitive receptor structure.

As indicated in Table 3.13-7, vibration velocities from typical heavy construction equipment used during project construction would range from 0.003 to 0.089 in/sec PPV at 25 feet from the source of activity (property line of the proposed project), which would not exceed the Caltrans's significant

vibration threshold of 0.3 in/sec PPV for older residential structures. Additionally, the use of vibratory rollers would result in vibration velocities of approximately 0.0734 in/sec PPV at 65 feet. Since construction related activities do not exceed the applicable significance threshold, impacts are less than significant in this regard.

Table 3.13-7
Vibration Levels of Construction Equipment

Equipment	Approximate peak particle velocity at 25 feet (in/sec)[1]	Approximate peak particle velocity at 65 feet (in/sec)[1]
Large bulldozer	0.089	-
Loaded trucks	0.076	-
Small bulldozer	0.003	-
Vibratory Rollers	-	0.0734

Notes:
1. Calculated using the following formula:

$PPV_{equip} = PPV_{ref} \times (25/D)^{1.1}$

where: PPV_{equip} = the peak particle velocity in in/sec of the equipment adjusted for the distance
PPV_{ref} = the reference vibration level in in/sec from Table 7-4 of the FTA *Transit Noise and Vibration Impact Assessment Manual*.
D = the distance from the equipment to the receiver

Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, Table 7-4 *Vibration Source Levels for Construction Equipment*, September 2018.

Pursuant to the City of Huntington Beach Municipal Code Section 8.40.113, operational ground vibrations that exceed 72 Vdb (or 0.016 in/sec PPV) at any nearby sensitive receptors are prohibited. However, the project would construct new facilities and improvements to the existing park which would not include railroads operations or heavy truck activities. As such, the operation of the park and its associated facilities would not generate groundborne vibration that could be felt by surrounding uses. Therefore, the proposed project would not result in any operational vibrations and impacts would be less than significant in this regard.

Conclusion

As discussed above, the proposed project would not expose persons to construction and operational vibration levels in excess of Caltrans' construction threshold and the City's operational threshold, and the project would result in less impacts compared to the conclusion identified in the General Plan Update EIR, which was determined to be a significant and unavoidable even with the incorporation of General Plan Update EIR mitigation measure MM4.10-5. However, it should be noted that General Plan Update EIR mitigation measure MM4.10-5 would only apply to projects that require pile driving activities. As discussed above, the proposed project would reconfigure the existing park and construct new facilities which would not require pile driving.

Impacts related to vibration were analyzed in the General Plan Update EIR and found to be significant and unavoidable. No substantial new information shows that project impacts related to vibration would be more significant than described in the General Plan Update EIR because project impacts related to vibration are less than significant. Therefore, there are no impacts peculiar to the project site related to vibration that would exceed what was previously disclosed in the General Plan Update

EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project impacts related to vibration that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The proposed project site is not located within an airport land use plan or within two miles of a public airport or public use airport. The nearest airport to the project site is John Wayne Airport, located approximately 5.60 miles to the northeast of the project site. According to John Wayne Airport, the project site is located outside of the airport's noise contours.[42] Therefore, no impact would occur in this regard.

As analyzed in the General Plan Update EIR, no impacts related to the exposure of sensitive receptors to aircraft noise were found to occur No substantial new information shows that project impacts related to the exposure of sensitive receptors to aircraft noise would be more significant than described in the General Plan Update EIR because project impacts are less than significant. Therefore, there are no impacts peculiar to the project site related to the exposure of sensitive receptors to aircraft noise that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to the exposure of sensitive receptors to aircraft noise that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

[42] John Wayne Airport, *John Wayne Airport Orange County – 2024 Annual Community Noise Equivalent Level (CNEL) Contours,* https://files.ocair.com/media/2025-03/CNEL%20Noise%202024.pdf?VersionId=sP5JZJ.HJkeYtq9jJslfTN9s.mULi1n, accessed August 28, 2025.

3.14 POPULATION AND HOUSING

Would the project:	Prior EIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-Site/ Cumulative Impact?	New Information, More Severe Adverse Impact?
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Less Than Significant	No	No	No	No
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Less Than Significant	No	No	No	No

3.14.1 General Plan Update EIR Summary

The General Plan Update would allow for the construction of an additional 7,228 dwelling units throughout the City by 2040. The General Plan Update Land Use Plan builds upon the existing land uses and patterns established throughout the City. However, no lands that are designated as a residential land use are proposed to be changed to a different (non-residential land use designation) under the General Plan Update. Further, the General Plan Update allows for new residential and non-residential growth throughout the City as indicated on the Land Use Plan, via General Plan Update goals and policies. However, the General Plan Update does not directly propose new development or construction that would displace existing housing or residents. As such, implementation of the General Plan Update would not result in the loss or demolition of any residential land uses or the displacement of substantial numbers of existing residents. Further, implementation of the General Plan Update would provide a wide range of housing types within the City to accommodate the anticipated population growth and changing housing demographics. As such, the General Plan Update EIR determined that implementation of the General Plan Update would not induce substantial unplanned population growth in the City. The General Plan Update EIR concluded that less than significant impacts would occur in this regard.

The General Plan Update EIR notes that implementation of the General Plan Update would result in an increase in housing and population growth; however, the General Plan Update outlines goals and policies to manage this growth. Further, this growth is consistent with the County and other regional projections, and would be reconciled as/when SCAG next updates their forecasts (to include the growth and population projections proposed under the General Plan Update). As such, the General Plan Update EIR determined that the General Plan Update would result in a less than significant impact with regard to the induction of population growth.

3.14.2 Project-Specific Impacts

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)?

A project could induce population growth in an area either directly, through the development of new residences or businesses, or indirectly, through the extension of roads or other infrastructure. No residential uses would be developed as part of the project. Therefore, the project would not induce direct population growth in the City through new housing development.

As a park reconfiguration project, the project would not result in a change in use upon project completion; the project site would continue to be a park. Proposed park improvements are not of the scope or magnitude to require additional maintenance staffing that could result in a substantial number of new employees relocating to the City. Additionally, while the project's construction phase would result in the need for construction workers, given the short-term nature of construction it is not anticipated that workers would relocate to the City as a result of the project. Given the nature of the project, the proposed park reconfiguration would not induce substantial unplanned population growth within the City and would be consistent with the development assumptions in the General Plan Update. Impacts would be less than significant in this regard.

Impacts related to unplanned population growth were analyzed in the General Plan Update EIR and found to be less than significant. No substantial new information shows that project impacts related to unplanned population growth would be more significant than described in the General Plan Update EIR because less than significant impacts related to unplanned population growth would occur. Therefore, there are no impacts peculiar to the project site related to unplanned population growth that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to unplanned population growth that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The project site is currently an existing park; no housing exists on-site and no people or housing would be displaced. No impact would result in this regard.

Impacts related to the displacement of existing people or housing were analyzed in the General Plan Update EIR and found to be less than significant. No substantial new information shows that project impacts related to the displacement of existing people or housing would be more significant than described in the General Plan Update EIR because less than significant impacts related to the displacement of existing people or housing would occur. Therefore, there are no impacts peculiar to the project site related to the displacement of existing people or housing that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to the displacement of existing people or housing

that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

3.15 PUBLIC SERVICES

Would the project:	Prior EIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-Site/ Cumulative Impact?	New Information, More Severe Adverse Impact?
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:					
1) Fire protection?	Less Than Significant With Mitigation Incorporated	No	No	No	No
2) Police protection?	Less Than Significant With Mitigation Incorporated	No	No	No	No
3) Schools?	Less Than Significant With Mitigation Incorporated	No	No	No	No
4) Parks?	Less Than Significant	No	No	No	No
5) Other public facilities?	Less Than Significant With Mitigation Incorporated	No	No	No	No

3.15.1 General Plan Update EIR Summary

The General Plan Update EIR determined that implementation of the General Plan Update policies, General Plan Update EIR mitigation measures MM4.12-1 (use of General Fund monies to maintain the City's standard, average level of service) and MM4.12-2 (payment of fire facilities development impact fees), and future requirement to comply with CEQA (for the construction of new fire facilities), would reduce impacts related to the construction and expansion of fire protection facilities to a less than significant level.

The General Plan Update EIR determined that implementation of the General Plan Update policies, General Plan Update EIR mitigation measures MM4.12-1 and MM4.12-3 (payment of police facilities development impact fees), and future requirement to comply with CEQA (for the construction of new police facilities), would reduce impacts related to the construction and expansion of police protection facilities to a less than significant level.

The General Plan Update EIR determined that implementation of the General Plan Update policies, implementation of General Plan Update EIR mitigation measures MM4.12-4 through MM4.12-8 (payment of development impact fees to Huntington Beach City School District , Ocean View School District, Huntington Beach Union High School District, Westminster School District, and Fountain Valley School District), and future requirement to comply with CEQA (for the construction of new school facilities), would result in a less than significant impact related to school facilities.

The General Plan Update EIR determined that implementation of the General Plan Update would not result in a significant impact because library service needs would be met with the policy goals laid out in the General Plan Update and therefore would not require the construction of additional library facilities that could cause significant environmental impacts. Further, as outlined in General Plan Update EIR mitigation measure MM4.12-9, the development of any new housing units under the General Plan Update would be required to pay library development impact fees that would ensure any necessary improvements to library facilities and collections can take place as growth occurs. As such, impacts related to the construction and expansion of library facilities would be reduced to a less than significant level.

Refer to Section 3.16, *Recreation*, for a summary of the General Plan Update EIR's analysis regarding parks and other recreational facilities.

3.15.2 Project-Specific Impacts

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

1) Fire protection?

Project implementation would not induce substantial unplanned growth; refer to Section 3.14, *Population and Housing*. The proposed project would include reconfiguration of existing park facilities that would not result in a substantive increase in intensity and the range of recreational facilities would be similar in scope and scale to the existing condition. Thus, the proposed project is not anticipated to create an increased demand for fire protection services, and payment of the fire facilities development impact fees would not be required. As with the existing park, any fire services required for future users of the park would be adequately provided by the Huntington Beach Fire Department (HBFD). As such, project implementation is not anticipated to adversely impact existing fire protection services upon compliance with existing regulations. No impacts would occur in this regard.

Impacts related to fire protection services were analyzed in the General Plan Update EIR and found to be less than significant with mitigation incorporated. No substantial new information shows that project impacts related to fire protection services would be more significant than described in the General Plan Update EIR because no impacts related to fire protection services would occur. Therefore, there are no impacts peculiar to the project site related to fire protection services that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively considerable impacts of the proposed project related to fire protection services that were

not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

2) Police protection?

Project implementation would not induce substantial unplanned growth; refer to Section 3.14. The proposed project would include reconfiguration of existing park facilities that would not result in a substantive increase in intensity and the range of recreational facilities would be similar in scope and scale to the existing condition. Thus, the proposed project is not anticipated to create an increased demand for police protection services, and payment of the police facilities development impact fees would not be required. As with the existing park, any police services required for future users of the park would be adequately provided by Huntington Beach Police Department (HBPD). As such, project implementation is not anticipated to adversely impact existing HBFD services upon compliance with existing regulations. No impacts would occur in this regard.

Impacts related to police protection services were analyzed in the General Plan Update EIR and found to be less than significant with mitigation incorporated. No substantial new information shows that project impacts related to police protection services would be more significant than described in the General Plan Update EIR because no impacts related to police protection services would occur. Therefore, there are no impacts peculiar to the project site related to police protection services that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively considerable impacts of the proposed project related to police protection services that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

3) Schools?

Project implementation would not induce substantial unplanned growth; refer to Section 3.14. Given the nature of the project, it is not anticipated that permanent residents would be generated by the project that could result in increased student population within service areas of the Huntington Beach City School District, Westminster School District, Ocean View School District, Westminster School District, and Fountain Valley School District. As such, payment of the applicable school development impact fees would not be required, and no impacts would result in this regard.

Impacts related to school services were analyzed in the General Plan Update EIR and found to be less than significant with mitigation incorporated. No substantial new information shows that project impacts related to school services would be more significant than described in the General Plan Update EIR because no impacts related to school services would occur. Therefore, there are no impacts peculiar to the project site related to school services that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively considerable impacts of the proposed project related to school services that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

4) Parks?

Refer to Section 3.16, *Recreation*, for an analysis regarding parks and other recreational facilities. The proposed project would result in beneficial impacts related to the provision of recreational facilities to the local community. Less than significant impacts would occur in this regard.

Impacts related to parks and recreational facilities were analyzed in the General Plan Update EIR and found to be less than significant. No substantial new information shows that project impacts related to parks and recreational facilities would be more significant than described in the General Plan Update EIR because no project impacts related to parks and recreational facilities would occur. Therefore, there are no impacts peculiar to the project site related to parks and recreational facilities that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively considerable impacts of the proposed project related to parks and recreational facilities that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

5) Other public facilities?

Project implementation would not induce significant unplanned growth; refer to Section 3.14. Given the nature of the project, it is not anticipated that permanent residents would be generated by the project that could result in a substantial increase in demand for library facilities or any other public facilities. As such, payment of the library development impact fees would not be required, and no impacts would result in this regard.

Impacts related to libraries and other public facilities were analyzed in the General Plan Update EIR and found to be less than significant with mitigation incorporated. No substantial new information shows that project impacts related to libraries and other public facilities would be more significant than described in the General Plan Update EIR because no impacts related to libraries and other public facilities would occur. Therefore, there are no impacts peculiar to the project site related to libraries and other public facilities that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively considerable impacts of the proposed project related to libraries and other public facilities that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

3.16 RECREATION

Would the project:	Prior EIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-Site/ Cumulative Impact?	New Information, More Severe Adverse Impact?
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	Less Than Significant	No	No	No	No
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	No	No	No	No

3.16.1 General Plan Update EIR Summary

The General Plan Update EIR determined that although the General Plan Update EIR would result in population increase through 2040, the level of service for parkland would remain above the established service level of 5.0 acres per 1,000 residents. Therefore, no new or expanded recreational facilities would be required to maintain service levels. Additionally, implementation of development allowed under the General Plan Update would not result in the substantial physical deterioration of existing parks and other recreational facilities. Impacts were determined to be less than significant in this regard.

3.16.2 Project-Specific Impacts

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?

The proposed project does not involve the creation of new homes or businesses that would result in permanent population growth and thereby increase the use of existing parks and recreational facilities. Rather, the project proposes to reconfigure and improve the existing Edison Park; these improvements would enhance an existing community park located within the City, resulting in beneficial impacts. Less than significant impacts would occur in this regard.

Impacts related to parks and other recreational facilities were analyzed in the General Plan Update EIR and found to be less than significant. No substantial new information shows that project impacts related to parks and other recreational facilities would be more significant than described in the General Plan Update EIR because project impacts related to parks and other recreational facilities would also be less than significant. Therefore, there are no impacts peculiar to the project site related to parks and other recreational facilities that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to parks and other recreational facilities that were not already evaluated by

the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The project itself involves the construction of new recreational amenities within Edison Community Park in addition to reconfiguration of existing amenities. Project-related physical effects on the environment are discussed throughout this Checklist. As demonstrated, the project would not result in significant environmental impacts or result in impacts that are more significant than what was analyzed in the General Plan Update EIR. As such, impacts in this regard would be less than significant.

Impacts related to new or expanded recreational facilities were analyzed in the General Plan Update EIR and found to be less than significant. No substantial new information shows that project impacts related to new or expanded recreational facilities would be more significant than described in the General Plan Update EIR because project impacts related to new or expanded recreational facilities are less than significant. Therefore, there are no impacts peculiar to the project site related to new or expanded recreational facilities that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to new or expanded recreational facilities that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

3.17 TRANSPORTATION

Would the project:	Prior EIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-Site/ Cumulative Impact?	New Information, More Severe Adverse Impact?
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?	Less Than Significant	No	No	No	No
b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	Not a Required Topic Previously	No	No	No	No
c. 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	No	No	No	No
d. Result in inadequate emergency access?	Less Than Significant	No	No	No	No

3.17.1 General Plan Update EIR Summary

It should be noted that, since the General Plan Update EIR was certified in 2017 (prior to Senate Bill 743 taking effect), it utilized level of service (LOS) as the metric of significance impacts related to potential project conflicts with applicable transportation plans, ordinances and policies and also for potential conflicts with an applicable congestion management program. The LOS metric of significance has been replaced by vehicle miles traveled (VMT). Based on the analysis related to LOS within the General Plan Update EIR, the EIR concluded that buildout of the General Plan Update would result in traffic that could exceed the City's identified LOS thresholds. However, upon implementation of planned transportation improvements within the City and General Plan Update goals and policies related to the circulation system, impacts were determined to be less than significant.

The General Plan Update EIR also notes that the General Plan Update would not change any roadway, pedestrian or bicycle facilities within the City. Additionally, future projects, particularly commercial and residential, would be required to integrate with pedestrian and bicycle networks adjacent and nearby to project locations, and provide for the necessary space within a project to allow for this type infrastructure. Therefore, the General Plan Update EIR determined that implementation of General Plan Update goals and policies and compliance with existing development regulations would reduce impacts to alternative transportation plans and policies to a less than significant level.

The threshold (b) regarding VMT/CEQA Guidelines Section 15064.3(b) consistency was not a required topical area of discussion when the General Plan Update EIR was prepared.

The General Plan Update EIR determined that with implementation of applicable General Plan Update Circulation Element goals and policies and compliance with existing design regulations, the General Plan Update would not result in substantially increased hazards due to a design feature or incompatible uses or result in inadequate emergency access. Impacts were determined to be less than significant in this regard.

The General Plan Update EIR determined that with implementation of General Plan Update goals and policies and compliance with existing regulations, impacts to emergency access from implementation of the General Plan Update would be less than significant.

3.17.2 Project-Specific Impacts

The information presented in this analysis is based in part on *Edison Park Reconfiguration and Improvements – Vehicle Miles Traveled Assessment* (VMT Assessment), prepared by Michael Baker International and dated August 22, 2025; refer to Appendix F, *VMT Assessment*.

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?

The project would not conflict with any established program, plan, ordinance or policy supporting transit, roadways, bicycle and pedestrian facilities. Short-term project construction would not result in significant impacts to established programs, plans, ordinances or policies addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities, as these plans typically address long-term changes to the environment. Moreover, the proposed project does not propose highly-intensive construction activities requiring substantial soil import or export that would generate high volumes of truck trips.

The proposed park reconfiguration project would involve improvements within an existing park, and no new land uses would be introduced. A portion of future park users may utilize alternative modes of transportation, including bicycle facilities and pedestrian facilities. Existing bicycle and pedestrian facilities (i.e., walkways, bike racks, etc.) on-site would remain upon project completion. No impacts would occur in this regard.

As noted above, since the General Plan Update EIR was certified in 2017 (prior to Senate Bill 743 taking effect), it utilized LOS as the metric of significance impacts related to potential project conflicts with applicable transportation plans, ordinances and policies and also for potential conflicts with an applicable congestion management program. Based on the analysis related to LOS within the General Plan Update EIR, the EIR concluded that buildout of the General Plan Update would result in traffic that could exceed the City's identified LOS thresholds. However, upon implementation of planned transportation improvements within the City and General Plan Update goals and policies related to the circulation system, impacts were determined to be less than significant. As shown below in Response 3.17(b), the project would result in a minimal trip generation since it would include recreational improvements within the existing Edison Park. The project would result in 31 weekday vehicle trips, which is considered highly conservative since this trip generation estimate assumes all new park facilities, and does not account for the fact that many project components would replace or relocate existing components within the existing park. Moreover, the project would result in only one AM peak hour trip and four PM peak hour trips, which means that the majority of project-generated trips would occur outside of the AM and PM peak hours, further minimizing impacts related to congestion and potential impacts related to LOS. As such, given the project's minimal trip generation, project impacts related to traffic and LOS are anticipated to be less than significant.

Impacts related to conflicts with a program, plan, ordinance, or policy addressing the circulation system were analyzed in the General Plan Update EIR and found to be less than significant. No substantial new information shows that project impacts related to conflicts with a program, plan, ordinance, or policy addressing the circulation system would be more significant than described in the General Plan Update EIR because no impacts in regard to consistency with applicable programs, plans, ordinances, and policies related to transit, roadway, bicycle, and pedestrian facilities would occur. Therefore, there are no impacts peculiar to the project site related to conflicts with a program, plan, ordinance, or policy addressing the circulation system that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively considerable impacts of the proposed project related to conflicts with a program, plan, ordinance, or policy addressing the circulation system that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

To assist in determining which development projects would conflict with CEQA Guidelines section 15064.3, subdivision (b)(1), the City of Huntington Beach utilizes VMT thresholds in its *Vehicle Miles Traveled Guidelines* in October 2023 (City Guidelines). Land use projects that meet one or more of the screening thresholds documented in the City Guidelines can be presumed to result in a less than significant transportation impact under CEQA, without conducting a detailed VMT study. For land development projects, these criteria include proximity to transit, location, or project type; each of the screening criteria and the individual project evaluation and results are detailed in the VMT Assessment Table 4, *VMT Screening Criteria Summary*, and summarized below.

TRANSIT PRIORITY AREA SCREENING

A Transit Priority Area (TPA) is defined as a 0.5-mile area around an existing major transit stop or an existing stop along a high-quality transit corridor. Projects located within a TPA may be presumed to have a less than significant impact absent substantial evidence to the contrary.

Based on the TPA Screening Maps provided in the City Guidelines, the project is not within a TPA. As such, this criterion is not satisfied.

LOW VMT AREA SCREENING

A low VMT-generating area is defined as a traffic analysis zone (TAZ) where VMT per capita or VMT per employee is 15 percent below the City of Huntington Beach's average VMT per capita or VMT per employee. If a project is located in a low VMT-generating area, then the project may be presumed to have a less than significant impact absent substantial evidence to the contrary. To qualify for this screening, the project must be within a low VMT-generating area and be consistent with the SCAG RTP/SCS, as confirmed by the City of Huntington Beach. Additionally, the analyst shall confirm if the project is consistent with the existing land uses within that TAZ and use engineering judgement to verify that there is nothing unique about the project when compared to the existing land uses.

Based on the Low VMT Screening Maps provided in the City Guidelines, the project is not within a Low VMT area. As such, this criterion is not satisfied.

PROJECT TYPE SCREENING

Some project types have been identified as having the presumption of a less than significant impact as listed below, absent substantial evidence to the contrary.

Project Generating less than 110 net Daily Vehicle Trips

A project that generates less than 110 net daily vehicle trips (less pass-by, diverted and/or internal capture vehicle trips) is presumed to have a less than significant transportation impact, absent substantial evidence to the contrary.

Affordable Housing

If a project is 100% affordable-housing units, it is presumed to have a less than significant impact, absent substantial evidence to the contrary.

Local Serving Retail

If a project is a local-serving retail use of less than 50,000 square-feet (SF), it is presumed to have a less than significant impact, absent substantial evidence to the contrary. If the retail project is greater than 50,000 SF in total, each building size less than 50,000 SF shall be screened out. Local-serving retail generally reduces VMT by shortening trips that would occur. The final determination of whether the development is local serving would be made by the City Engineer on a case-by-case basis.

Educational/Institutional Land Use

If a project is an educational or institutional land use, it is presumed to have a less than significant impact, absent substantial evidence to the contrary.

Municipal/Public Service Land Use

If a project is a municipal/public service land use, it is presumed to have a less than significant impact, absent substantial evidence to the contrary.

Transit and Active Transportation Projects

Transit and active transportation projects generally reduce VMT and therefore are presumed to cause a less than significant impact on transportation. This presumption may apply to all passenger rail projects, bus and bus rapid transit projects, and bicycle and pedestrian infrastructure projects.

PROJECT TRIP GENERATION

As detailed in Table 3.17-1, *Project Trip Generation*, the project is forecast to generate 31 weekday vehicle trips. This trip generation estimate is considered highly conservative since it assumes all new park facilities, and does not account for the fact that many project components would replace or relocate existing components within the existing park.

Table 3.17-1
Project Trip Generation

Land Use	Intensity	Weekday Trips	AM Peak Hour Trips		PM Peak Hour Trips		Saturday Peak Hour Trips	
			Total	In / Out	Total	In / Out	Total	In / Out
Public Park (ITE Code 411)	39.69 acres	31	1	1 / 0	4	2 / 2	11	6 / 5

Source: Michael Baker International, *Edison Park Reconfiguration and Improvements – Vehicle Miles Traveled Assessment*, prepared by Michael Baker International and dated August 22, 2025; refer to Appendix F, *VMT Assessment*.

VMT SCREENING FINDING AND CONCLUSION

As shown in Table 3.17-1 above, the project is anticipated to generate 31 weekday vehicle trips, which is less than 110 daily trips. Additionally, as a public park project, it falls under a "typical" development for municipal/public service land uses. Therefore, the project satisfies the Project Type screening threshold. A detailed VMT analysis for the project is therefore not required and the project is presumed to have a less than significant impact on CEQA Guidelines Section 15064.3, subdivision (b).

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

The project proposes recreational improvements within an existing park, and would not introduce any new land uses to the site. The project does not propose changes to the City's circulation system, such as sharp curves or dangerous intersections, and would not introduce incompatible uses to area roadways (e.g., farm equipment). However, the project does propose reconfiguration of the vehicular access point to the park from Poston Lane; refer to Exhibit 3. The new driveway would be constructed in accordance with applicable City standards and would not result in increased hazards to traffic along Poston Lane or Stilwell Drive. Thus, the project would not increase hazards due to geometric design features or incompatible uses and impacts would be less than significant in this regard.

Impacts related to geometric design feature hazards or incompatible uses were analyzed in the General Plan Update EIR and found to be less than significant. No substantial new information shows that project impacts related to geometric design feature hazards or incompatible uses would be more significant than described in the General Plan Update EIR because project impacts related to geometric design feature hazards or incompatible uses would also be less than significant. Therefore, there are no impacts peculiar to the project site related to geometric design feature hazards or incompatible uses that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to geometric design feature hazards or incompatible uses that were not already evaluated by the General

Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

d) Result in inadequate emergency access?

The project does not propose changes to the City's circulation system; as such, project operation would not impact emergency access. The project's proposed on-site circulation network would be consistent with City standards for emergency access and circulation.

While project construction activities occurring adjacent to Poston Lane and Stilwell Drive (e.g., driveway improvements associated with the reconfigured parking lot) and park improvements occurring along Magnolia Street may require a partial lane closure along the roadway, any such closure would be short-term in nature and traffic in both directions would be maintained at all times. Thus, impacts in this regard would be less than significant. Overall, project implementation is not anticipated to result in inadequate emergency access, and impacts would be less than significant in this regard.

Impacts related to emergency access were analyzed in the General Plan Update EIR and found to be less than significant. No substantial new information shows the project impacts related to emergency access would be more significant than described in the General Plan Update EIR because project impacts related to emergency access would also be less than significant. Therefore, there are no impacts peculiar to the project site related to emergency access that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to emergency access that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

3.18 TRIBAL CULTURAL RESOURCES

Would the project:	Prior EIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-Site/ Cumulative Impact?	New Information, More Severe Adverse Impact?
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:					
1) 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	Less Than Significant With Mitigation Incorporated	NA	NA	NA	NA
2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	Less Than Significant With Mitigation Incorporated	NA	NA	NA	NA

3.18.1 General Plan Update EIR Summary

Although the General Plan Update EIR did not analyze tribal cultural resources as a standalone topical area, tribal cultural resources impacts associated with the General Plan Update were analyzed in General Plan Update EIR Section 4.4, *Cultural Resources*. The City of Huntington Beach has undertaken the consultation with local tribes required as part of Assembly Bill 52 by submitting a request for a Local Government Tribal Consultation List in October 2015. The City also sent consultation letters to the following tribes requesting notice of consultation: the Gabrielino Band of Mission Indians – Kizh Nation, Gabrielino – Tongva Band of Mission Indians, Juaneno Band of Mission Indians – Acjachemen Nation, and the Soboba Band of Luiseno Indians specifically, with a notice of the opportunity to engage in early consultation with the city regarding the General Plan Update. The City received one response in relation to these notices, from the Gabrieleno Band of Mission Indians – Kizh Nation. In general, their letter recognized the changing requirements of excavation during construction, noting that advances in geotechnical science now require greater depths of excavation to ensure stability of construction. As such, there is the potential for discovery of archaeological resources that have not previously been uncovered and they request that tribal monitors be on site for future projects, especially those tiered off of the General Plan Update EIR.

However, the General Plan Update EIR determined that adherence to and implementation of the General Plan Update policies, development standards, General Plan Update EIR mitigation measures MM4.4-2 (cultural resources investigation) and MM4.4-3 (procedure in the event of uncovering potential cultural resources), and compliance with state and local regulations would reduce potential impacts of tribal cultural resources to a less than significant level.

3.18.2 Project-Specific Impacts

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:

1) 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

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

With respect to tribal consultation for the proposed project, AB 52 states that prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project, a lead agency shall begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project, if the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation. As this environmental document (i.e., a CEQA Guidelines Section 15183 Compliance Checklist) is not a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report, AB 52 consultation would not apply to the proposed project.

Additionally, as detailed in Section 3.5, *Cultural Resources*, the existing Edison Community Park was determined to be ineligible for listing in the California Register and would not be classified as a historical resource as defined by CEQA Section 15064.5(a); no archaeological remains or prehistoric cultural resources were identified within the project site during the records search or pedestrian survey, and the project site is not considered sensitive for buried archaeological resources. The project site has been heavily disturbed as part of previous uses as a sand and gravel pit, landfill, and through its current use as a park. Moreover, earthwork associated with the proposed recreational improvements would be minimal, with an anticipated maximum depth of disturbance of eight feet. Although impacts to potential tribal cultural resources are not expected, General Plan Update mitigation measure MM4.4-3 would minimize impacts in this regard by requiring earth-disturbing activities within 100 feet of an unexpected discovery of cultural resource to be halted, City notified, and such find assessed by a qualified archaeologist. Thus, similar to the General Plan Update EIR, impacts in this regard would be less than significant with mitigation.

No substantial new information shows that project impacts related to tribal cultural resources would be more significant than described in the General Plan Update EIR because the proposed project would not be subject to AB 52 and SB 18 consultation requirements. Therefore, there are no impacts peculiar to the project site related to tribal cultural resources that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to tribal cultural resources that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

3.19 UTILITIES AND SERVICE SYSTEMS

Would the project:	Prior EIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-Site/ Cumulative Impact?	New Information, More Severe Adverse Impact?
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	Less Than Significant With Mitigation Incorporated/Not a Required Topic Previously	No	No	No	No
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	Significant And Unavoidable	No	No	No	No
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Less Than Significant With Mitigation Incorporated	No	No	No	No
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?	Less Than Significant	No	No	No	No
e. Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?	Less Than Significant	No	No	No	No

3.19.1 General Plan Update EIR Summary

WATER FACILITIES

The General Plan Update EIR determined that implementation of goals, policies, and implemented programs identified in the General Plan Update as well as standard conditions of approval would guide the development of water facilities and infrastructure as development occurs, thus reducing the demand for use of water facilities and infrastructure. Therefore, impacts to water from implementation of the General Plan Update would be less than significant.

WASTEWATER FACILITIES

The General Plan Update EIR determined that implementation of goals, policies, and implemented programs identified in the General Plan Update as well as standard conditions of approval would guide the development of wastewater facilities and infrastructure as development occurs, thus reducing the demand for use of wastewater facilities and infrastructure. Therefore, impacts to wastewater facilities from implementation of the General Plan Update would be less than significant.

STORMWATER FACILITIES

Impacts to stormwater facilities were detailed in the General Plan Update EIR Section 4.8, *Hydrology and Water Quality*. The General Plan Update EIR noted that, although impervious surfaces would be added to the planning area as part of implementation of the General Plan Update, due to the extent of the existing developed and urban nature of the planning area, this increase in impervious areas would be a small fraction of the overall impervious area across the city. The General Plan Update EIR concluded that implementation of the General Plan Update would not substantially increase the rate or amount of surface runoff such that it would exceed the capacity of existing or planned stormwater drainage systems. Therefore, impacts would be less than significant. Although development under the General Plan Update is anticipated to result in a less than significant impact to the stormwater drainage systems, implementation of General Plan Update EIR mitigation measure MM4.8-3 would require the assessment of each future, project-level development application for the contribution to potential system capacity constraints and provide for mitigation of constraints such that impacts to storm drain system capacities would be less than significant.

The General Plan Update EIR determined that storm water treatment control BMPs would have to be designed and implemented on a site-specific and project-specific basis. The General Plan Update, and potential growth allowed by the General Plan Update, would not affect or prohibit the design or installation of BMPs and would therefore result in no impact.

ELECTRIC AND NATURAL GAS FACILITIES

The General Plan Update EIR determined that implementation of the General Plan Update could result in a need for new energy infrastructure; however, no proposals for energy production facilities or transmission facilities are included as part of the General Plan Update. The General Plan Update EIR noted that if Southern California Edison (SCE) or Southern California Gas Company (SCG) determine that energy production facilities or transmission facilities are needed at a later date, such projects would be required to undergo separate CEQA review, and their impacts assessed at that time. The General Plan Update EIR determined that implementation of the General Plan Update policies and the future requirement to comply with CEQA (for the construction of new energy production or transmission facilities), would reduce impacts related to the construction and expansion of energy infrastructure to a less than significant level.

TELECOMMUNICATION FACILITIES

Discussion on telecommunication facilities required as part of Thresholds (a) was not a required topical area of discussion when the General Plan Update EIR was prepared.

WATER SUPPLIES

The General Plan Update EIR determined adherence to and implementation of the General Plan Update policies and compliance with state and local regulations would reduce potential impacts from implementation of the General Plan Update on existing water supplies. However, given the uncertainty of water supply across the western United States and throughout the State of California, a supply deficit could extend into the next decade that would result in a significant and unavoidable impact. Although the City has demonstrated significant water conservation over the last 10 years, and

Orange County Water District (OCWD)'s Urban Water Management Plan (UWMP) approved in 2016 indicates sufficient water supply, until such time as greater confidence in and commitment from water suppliers can be made, or the water supply situation improves, the General Plan Update could result in a significant and unavoidable impact.

WASTEWATER TREATMENT CAPACITIES

The General Plan Update EIR determined that development under the General Plan is anticipated to result in a less than significant impact related to wastewater capacities. Although development under the General Plan Update is anticipated to result in a less than significant impact to wastewater and associated capacities, implementation of General Plan Update EIR mitigation measure MM4.15-1 would require future, project-level development to demonstrate that adequate capacity remains in the wastewater collection system in Orange County Sanitary District main or trunk line to accommodate discharges from the specific development project.

SOLID WASTE CAPACITIES AND REGULATIONS

The General Plan Update EIR determined that the existing landfill facilities that serve the City have the capacity to accommodate the solid waste disposal needs of the General Plan Update and therefore, with compliance with existing solid waste regulations and implementation of the current City policies and programs to reduce solid waste, the General Plan Update would result in less than significant impacts in this regard.

3.19.2 Project-Specific Impacts

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 telecommunication facilities, the construction or relocation of which could cause significant environmental effects?

The project site is currently served by existing water, wastewater treatment, stormwater, electricity, natural gas, and telecommunication facilities. The project proposes recreational improvements and a reconfiguration of facilities within the existing park. All proposed recreational improvements would be similar in scope and nature to what exists today, and no new land uses or habitable buildings are proposed. While the project would include an expansion of the exterior restrooms at the existing community center, this expansion would not require the construction of new water or wastewater facilities that could cause significant environmental effects. As such, less than significant impacts would occur in this regard.

The General Plan Update EIR analyzed impacts related to the relocation or construction of new or expanded utility facilities and found such impacts to be less than significant. No substantial new information shows that impacts related to the relocation or construction of new or expanded utility facilities would be more significant than described in the General Plan Update EIR because the project impacts related to relocation or construction of new or expanded utility facilities would be less than significant. Therefore, there are no impacts peculiar to the project site related to the relocation or construction of new or expanded utility facilities that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of

the proposed project related to the relocation or construction of new or expanded utility facilities that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

Refer to Response 3.19.2(a). The project site is currently served by existing water facilities. Specifically, the project site is equipped with existing water connections for potable, irrigation, and fire protection uses. Project implementation would not induce substantial unplanned growth; refer to Section 3.14. As a park reconfiguration project, the proposed project is not anticipated to substantially increase demand for water. While the project would include an expansion of the exterior restrooms at the existing community center, this expansion would not have the capacity to increase water demand such that future water supplies to the City would be affected. No impacts would occur in this regard.

Impacts related to sufficient water supplies were analyzed in the General Plan Update EIR and found to be less than significant and unavoidable. No substantial new information shows the project impacts related to sufficient water supplies would be more significant than described in the General Plan Update EIR because no project impacts related to sufficient water supplies would occur. Therefore, there are no impacts peculiar to the project site related to sufficient water supplies that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to sufficient water supplies that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

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

Refer to Response 3.19.2(a). The project site is currently served by existing wastewater treatment facilities. Project implementation would not induce substantial unplanned growth; refer to Section 3.14. As a park reconfiguration project, the proposed project is not anticipated to create an increased demand for wastewater treatment. While the project would include an expansion of the exterior restrooms at the existing community center, this expansion would not be of the scope or magnitude to exceed wastewater treatment demand. No impacts would occur in this regard.

Impacts related to wastewater treatment provider capacities were analyzed in the General Plan Update EIR and found to be less than significant with mitigation incorporated. No substantial new information shows the project impacts related to wastewater treatment provider capacities would be more significant than described in the General Plan Update EIR because project impacts related to wastewater treatment provider capacities would also be less than significant. Therefore, there are no impacts peculiar to the project site related to wastewater treatment provider capacities that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to wastewater treatment provider

capacities that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

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?

Project construction is not anticipated to generate significant quantities of solid waste with the potential to affect the capacity of regional landfills. Further, all construction activities would be subject to conformance with relevant federal, State, and local requirements related to solid waste disposal. Specifically, the project would be required to demonstrate compliance with the California Integrated Waste Management Act of 1989 (AB 939), which requires all California cities to "reduce, recycle, and re-use solid waste generated in the State to the maximum extent feasible." The 2022 CALGreen standards requires that demolition and construction activities to recycle or reuse a minimum of 65 percent of the nonhazardous construction and demolition waste. CALGreen also includes design and construction measures that act to reduce construction-related waste through material conservation and other construction-related efficiency measures. Compliance with these regulations would ensure the project's construction-related solid waste impacts would be less than significant.

Project implementation would not induce substantial unplanned growth that could result in the indirect generation of solid waste; refer to Section 3.14. As noted above, the project proposes recreational improvements and a reconfiguration of facilities within the existing park. All proposed recreational improvements would be similar in scope and nature to what exists today, and no new land uses or habitable buildings are proposed. Thus, it is not anticipated that a substantial increase in solid waste generation would occur.

Furthermore, the nearest landfill (Frank R. Bowerman Sanitary Landfill located in the City of Irvine) has a remaining capacity of 160,896,082 tons (maximum permit capacity is 266,000,000 tons).[43] In a recent inspection, the highest daily tonnage (from July 2025 to August 2025) was 8,952.47 tons, which was below the maximum 11,500 tons per day permitted in the facility's Solid Waste Facility Permit.[44] Overall, the project would not substantively impact the capacity of the existing landfill as a result of construction or operations. Less than significant impacts are anticipated.

The General Plan Update EIR analyzed impacts related to solid waste and found such impacts to be less than significant. No substantial new information shows that impacts related to solid waste would be more significant than described in the General Plan Update EIR because the project impacts related to solid waste would also be less than significant. Therefore, there are no impacts peculiar to the project site related to solid waste that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to solid waste that were not already evaluated by the General Plan Update EIR. Therefore,

[43] CalRecycle, *SWIS Facility/Site Activity Details, Frank R. Bowerman Landfill (30-AB-0360), Activities*, https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2767?siteID=2103, accessed September 15, 2025.

[44] CalRecycle, *SWIS Facility/Site Activity Details, Frank R. Bowerman Landfill (30-AB-0360), Inspections*, August 18, 2025,https://www2.calrecycle.ca.gov/SolidWaste/SiteInspection/Index/2103, accessed September 15, 2025.

pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

e) Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?

The proposed park reconfiguration project would not impact solid waste management associated with the existing park. The project would continue to be required to demonstrate compliance with the California Integrated Waste Management Act of 1989 (AB 939), which requires all California cities to reduce, recycle, and re-use solid waste generated in the State to the maximum extent feasible. Specifically, AB 939 requires that at least 50 percent of waste produced is recycled, reduced, or composted. The project would also be required to demonstrate compliance with the 2022 Green Building Code, which includes design and construction measures that act to reduce construction-related waste though material conservation and other construction-related efficiency measures. Additionally, compliance with these existing regulations would ensure the project would comply with Federal, State, and local management and reduction statutes and regulations related to solid waste. No impacts would occur in this regard.

Impacts related to complying with solid waste regulations were analyzed in the General Plan Update EIR and found to be less than significant. No substantial new information shows the project impacts related to complying with solid waste regulations would be more significant than described in the General Plan Update EIR because no project impacts related to complying with solid waste regulations would occur. Therefore, there are no impacts peculiar to the project site related to complying with solid waste regulations that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to complying with solid waste regulations that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

3.20 WILDFIRE

If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Prior EIR Determination	CEQA Section 15183(b) Criteria			
		Effect Peculiar to Project or Site?	New Significant Effect?	New Significant Off-Site/ Cumulative Impact?	New Information, More Severe Adverse Impact?
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	Less Than Significant	No	No	No	No
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?	Less Than Significant	No	No	No	No
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?	Less Than Significant	No	No	No	No
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?	Less Than Significant	No	No	No	No

3.20.1 General Plan Update EIR Summary

Although the General Plan Update EIR did not analyze wildfire as a standalone topical area, wildfire impacts associated with the General Plan Update were analyzed in General Plan Update EIR Section 4.8, *Hazards and Hazardous Materials*. As detailed in the General Plan Update EIR, the City is not located within at-risk areas designated as Fire Hazard Severity Zones (moderate, high, and very high) according to Cal Fire. The General Plan Update Natural and Environmental Hazards Element includes policies (HAZ-4.A, HAZ-4.B) to reduce risk of urban fires in the City. Overall, the General Plan Update EIR concluded that compliance with existing Federal, State, and local laws and regulations, supported by implementation of the General Plan Update policies, would ensure that impacts to the public and environment related to risk of hazards due to wildland fire would be less than significant.

3.20.2 Project-Specific Impacts

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

The project site is located within an urbanized area and the California Department of Forestry and Fire Protection does not map any part of site as a Very High Fire Hazard Severity Zone.[45] Thus, no impacts would occur in this regard.

As analyzed in the General Plan Update EIR, less than significant impacts related to the wildland fires were found to occur. No substantial new information shows that project impacts related to wildland fires would be more significant than described in the General Plan Update EIR because no project impacts related to wildland fires would occur. Therefore, there are no impacts peculiar to the project site related to wildland fires that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to wildland fires that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

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?

Refer to Response 3.20.2(a). No impact would occur in this regard.

As analyzed in the General Plan Update EIR, less than significant impacts related to the wildland fires were found to occur. No substantial new information shows that project impacts related to wildfires would be more significant than described in the General Plan Update EIR because no impacts related to wildfires would occur. Therefore, there are no impacts peculiar to the project site related to wildfires that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to wildland fires that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

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?

Refer to Response 3.20.2(a). No impact would occur in this regard.

As analyzed in the General Plan Update EIR, less than significant impacts related to the wildland fires were found to occur. No substantial new information shows that project impacts related to wildfires

[45] California Department of Forestry and Fire Protection, *City of Huntington Beach – Orange County, Local Responsibility Area Fire Hazard Severity Zones*, March 24, 2025.

would be more significant than described in the General Plan Update EIR because no impacts related to wildfires would occur. Therefore, there are no impacts peculiar to the project site related to wildfires that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to wildland fires that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

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?

Refer to Response 3.20.2(a) regarding wildfire hazard, Response 3.7(a)(iv) regarding landslides, Response 3.7(c) regarding unstable soils, and Response 3.10(c)(ii) regarding flooding. No impact would occur in this regard.

As analyzed in the General Plan Update EIR, less than significant impacts related to the wildland fires were found to occur. No substantial new information shows that project impacts related to wildfires would be more significant than described in the General Plan Update EIR because no impacts related to wildfires would occur. Therefore, there are no impacts peculiar to the project site related to wildfires that would exceed what was previously disclosed in the General Plan Update EIR. Further, there are no direct or cumulatively-considerable impacts of the proposed project related to wildland fires that were not already evaluated by the General Plan Update EIR. Therefore, pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183, no further environmental review is required.

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4.0 DETERMINATION/CHECKLIST CONCLUSION

Based on the analysis contained in this CEQA Environmental Compliance Checklist, the proposed project is consistent with the development density established by the General Plan for which an EIR (i.e., the General Plan Update EIR) was certified. Consistent with CEQA Guidelines Section 15183(b), there are no project specific effects which are peculiar to the project or its site. There are no project specific impacts which the General Plan Update EIR failed to analyze as significant effects. Further, there are no potentially significant off-site and/or cumulative impacts which the General Plan Update EIR failed to evaluate. Furthermore, there is no substantial new information which results in more severe impacts than discussed in the General Plan Update EIR. Therefore, pursuant to CEQA Guidelines Section 15183, no further environmental review is required.

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Edison Park Improvements Detailed Report

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5.12.2. Mitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.13.2. Mitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.14.2. Mitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

5.18.2.2. Mitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Edison Park Improvements
Construction Start Date	9/1/2026
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	19.2
Location	Edison Pk, 21377 Magnolia St, Huntington Beach, CA 92646, USA
County	Orange
City	Huntington Beach
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5801
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.30

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
City Park	35.5	Acre	35.5	0.00	1,500,000	1,500,000	—	—

Parking Lot	74.0	Space	0.67	0.00	1,000	—	—	—
Other Asphalt Surfaces	30.0	1000sqft	0.69	0.00	1,000	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Construction	C-10-B	Water Active Demolition Sites
Construction	C-10-C	Water Unpaved Construction Roads
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.81	2.34	21.1	20.0	0.03	0.85	0.67	1.52	0.78	0.13	0.91	—	3,937	3,937	0.17	0.08	1.32	3,967
Mit.	2.81	2.34	21.1	20.0	0.03	0.85	0.53	1.38	0.78	0.11	0.89	—	3,937	3,937	0.17	0.08	1.32	3,967
% Reduced	—	—	—	—	—	—	21%	9%	—	17%	2%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.69	3.11	27.3	28.5	0.06	1.12	9.47	10.6	1.03	3.72	4.75	—	6,846	6,846	0.27	0.06	0.02	6,872
Mit.	3.69	3.11	27.3	28.5	0.06	1.12	2.65	3.78	1.03	1.01	2.04	—	6,846	6,846	0.27	0.06	0.02	6,872
% Reduced	—	—	—	—	—	—	72%	64%	—	73%	57%	—	—	—	—	—	—	—

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.68	0.57	5.09	6.08	0.01	0.21	1.16	1.36	0.19	0.45	0.63	—	1,189	1,189	0.05	0.01	0.08	1,195
Mit.	0.68	0.57	5.09	6.08	0.01	0.21	0.34	0.55	0.19	0.13	0.32	—	1,189	1,189	0.05	0.01	0.08	1,195
% Reduced	—	—	—	—	—	—	70%	60%	—	72%	50%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.12	0.10	0.93	1.11	< 0.005	0.04	0.21	0.25	0.03	0.08	0.12	—	197	197	0.01	< 0.005	0.01	198
Mit.	0.12	0.10	0.93	1.11	< 0.005	0.04	0.06	0.10	0.03	0.02	0.06	—	197	197	0.01	< 0.005	0.01	198
% Reduced	—	—	—	—	—	—	70%	60%	—	72%	50%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	2.81	2.34	21.1	20.0	0.03	0.85	0.67	1.52	0.78	0.13	0.91	—	3,937	3,937	0.17	0.08	1.32	3,967
2027	1.23	1.03	9.39	12.9	0.02	0.34	0.20	0.49	0.31	0.05	0.32	—	2,397	2,397	0.10	0.02	0.61	2,405
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.69	3.11	27.3	28.5	0.06	1.12	9.47	10.6	1.03	3.72	4.75	—	6,846	6,846	0.27	0.06	0.02	6,872
2027	1.23	1.03	9.39	12.9	0.02	0.34	0.00	0.34	0.31	0.00	0.31	—	2,397	2,397	0.10	0.02	0.00	2,405
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.68	0.57	5.09	5.34	0.01	0.21	1.16	1.36	0.19	0.45	0.63	—	1,189	1,189	0.05	0.01	0.08	1,195
2027	0.58	0.49	4.37	6.08	0.01	0.16	0.01	0.17	0.15	< 0.005	0.15	—	1,105	1,105	0.04	0.01	0.02	1,109
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2026	0.12	0.10	0.93	0.98	< 0.005	0.04	0.21	0.25	0.03	0.08	0.12	—	197	197	0.01	< 0.005	0.01	198
2027	0.11	0.09	0.80	1.11	< 0.005	0.03	< 0.005	0.03	0.03	< 0.005	0.03	—	183	183	0.01	< 0.005	< 0.005	184

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	2.81	2.34	21.1	20.0	0.03	0.85	0.53	1.38	0.78	0.11	0.89	—	3,937	3,937	0.17	0.08	1.32	3,967
2027	1.23	1.03	9.39	12.9	0.02	0.34	0.20	0.49	0.31	0.05	0.32	—	2,397	2,397	0.10	0.02	0.61	2,405
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.69	3.11	27.3	28.5	0.06	1.12	2.65	3.78	1.03	1.01	2.04	—	6,846	6,846	0.27	0.06	0.02	6,872
2027	1.23	1.03	9.39	12.9	0.02	0.34	0.00	0.34	0.31	0.00	0.31	—	2,397	2,397	0.10	0.02	0.00	2,405
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.68	0.57	5.09	5.34	0.01	0.21	0.34	0.55	0.19	0.13	0.32	—	1,189	1,189	0.05	0.01	0.08	1,195
2027	0.58	0.49	4.37	6.08	0.01	0.16	0.01	0.17	0.15	< 0.005	0.15	—	1,105	1,105	0.04	0.01	0.02	1,109
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.12	0.10	0.93	0.98	< 0.005	0.04	0.06	0.10	0.03	0.02	0.06	—	197	197	0.01	< 0.005	0.01	198
2027	0.11	0.09	0.80	1.11	< 0.005	0.03	< 0.005	0.03	0.03	< 0.005	0.03	—	183	183	0.01	< 0.005	< 0.005	184

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.97	0.96	0.09	1.07	< 0.005	< 0.005	0.29	0.29	< 0.005	0.07	0.08	1.65	678	679	0.20	0.01	0.97	689
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.97	0.96	0.10	0.98	< 0.005	< 0.005	0.29	0.29	< 0.005	0.07	0.08	1.65	666	668	0.20	0.01	0.03	677
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.97	0.96	0.10	1.01	< 0.005	< 0.005	0.29	0.29	< 0.005	0.07	0.07	1.65	669	671	0.20	0.01	0.42	680
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.18	0.17	0.02	0.18	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	0.27	111	111	0.03	< 0.005	0.07	113

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.12	0.10	0.09	1.07	< 0.005	< 0.005	0.29	0.29	< 0.005	0.07	0.08	—	306	306	0.01	0.01	0.97	311
Area	0.86	0.86	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	37.0	37.0	< 0.005	< 0.005	—	37.2
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	334	334	0.02	< 0.005	—	336
Waste	—	—	—	—	—	—	—	—	—	—	—	1.65	0.00	1.65	0.16	0.00	—	5.76
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	0.97	0.96	0.09	1.07	< 0.005	< 0.005	0.29	0.29	< 0.005	0.07	0.08	1.65	678	679	0.20	0.01	0.97	689
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.11	0.10	0.10	0.98	< 0.005	< 0.005	0.29	0.29	< 0.005	0.07	0.08	—	295	295	0.01	0.01	0.03	298
Area	0.86	0.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	37.0	37.0	< 0.005	< 0.005	—	37.2
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	334	334	0.02	< 0.005	—	336
Waste	—	—	—	—	—	—	—	—	—	—	—	1.65	0.00	1.65	0.16	0.00	—	5.76
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	0.97	0.96	0.10	0.98	< 0.005	< 0.005	0.29	0.29	< 0.005	0.07	0.08	1.65	666	668	0.20	0.01	0.03	677
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.11	0.10	0.10	1.01	< 0.005	< 0.005	0.29	0.29	< 0.005	0.07	0.07	—	298	298	0.01	0.01	0.42	302
Area	0.86	0.86	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	37.0	37.0	< 0.005	< 0.005	—	37.2
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	334	334	0.02	< 0.005	—	336
Waste	—	—	—	—	—	—	—	—	—	—	—	1.65	0.00	1.65	0.16	0.00	—	5.76
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	0.97	0.96	0.10	1.01	< 0.005	< 0.005	0.29	0.29	< 0.005	0.07	0.07	1.65	669	671	0.20	0.01	0.42	680
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.02	0.02	0.02	0.18	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	49.3	49.3	< 0.005	< 0.005	0.07	50.0
Area	0.16	0.16	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	6.13	6.13	< 0.005	< 0.005	—	6.16
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	55.4	55.4	< 0.005	< 0.005	—	55.6
Waste	—	—	—	—	—	—	—	—	—	—	—	0.27	0.00	0.27	0.03	0.00	—	0.95
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	0.18	0.17	0.02	0.18	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	0.27	111	111	0.03	< 0.005	0.07	113

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	0.12	0.10	0.09	1.07	< 0.005	< 0.005	0.29	0.29	< 0.005	0.07	0.08	—	306	306	0.01	0.01	0.97	311
Area	0.86	0.86	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	37.0	37.0	< 0.005	< 0.005	—	37.2
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	334	334	0.02	< 0.005	—	336
Waste	—	—	—	—	—	—	—	—	—	—	—	1.65	0.00	1.65	0.16	0.00	—	5.76
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	0.97	0.96	0.09	1.07	< 0.005	< 0.005	0.29	0.29	< 0.005	0.07	0.08	1.65	678	679	0.20	0.01	0.97	689
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.11	0.10	0.10	0.98	< 0.005	< 0.005	0.29	0.29	< 0.005	0.07	0.08	—	295	295	0.01	0.01	0.03	298
Area	0.86	0.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	37.0	37.0	< 0.005	< 0.005	—	37.2
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	334	334	0.02	< 0.005	—	336
Waste	—	—	—	—	—	—	—	—	—	—	—	1.65	0.00	1.65	0.16	0.00	—	5.76
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	0.97	0.96	0.10	0.98	< 0.005	< 0.005	0.29	0.29	< 0.005	0.07	0.08	1.65	666	668	0.20	0.01	0.03	677
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.11	0.10	0.10	1.01	< 0.005	< 0.005	0.29	0.29	< 0.005	0.07	0.07	—	298	298	0.01	0.01	0.42	302
Area	0.86	0.86	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	37.0	37.0	< 0.005	< 0.005	—	37.2
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	334	334	0.02	< 0.005	—	336
Waste	—	—	—	—	—	—	—	—	—	—	—	1.65	0.00	1.65	0.16	0.00	—	5.76
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	0.97	0.96	0.10	1.01	< 0.005	< 0.005	0.29	0.29	< 0.005	0.07	0.07	1.65	669	671	0.20	0.01	0.42	680
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.02	0.02	0.02	0.18	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	49.3	49.3	< 0.005	< 0.005	0.07	50.0
Area	0.16	0.16	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	6.13	6.13	< 0.005	< 0.005	—	6.16
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	55.4	55.4	< 0.005	< 0.005	—	55.6
Waste	—	—	—	—	—	—	—	—	—	—	—	0.27	0.00	0.27	0.03	0.00	—	0.95
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	0.18	0.17	0.02	0.18	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	0.27	111	111	0.03	< 0.005	0.07	113

3. Construction Emissions Details

3.1. Demolition (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.72	2.29	20.7	19.0	0.03	0.84	—	0.84	0.78	—	0.78	—	3,427	3,427	0.14	0.03	—	3,438
Demolition	—	—	—	—	—	—	0.39	0.39	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.14	1.24	1.15	< 0.005	0.05	—	0.05	0.05	—	0.05	—	207	207	0.01	< 0.005	—	207

Demolition	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.23	0.21	< 0.005	0.01	—	0.01	0.01	—	0.01	—	34.2	34.2	< 0.005	< 0.005	—	34.3
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.05	0.79	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	195	195	< 0.005	0.01	0.68	198
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	< 0.005	0.38	0.17	< 0.005	< 0.005	0.08	0.09	< 0.005	0.02	0.03	—	315	315	0.02	0.05	0.64	331
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.4	11.4	< 0.005	< 0.005	0.02	11.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	19.0	19.0	< 0.005	< 0.005	0.02	19.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.88	1.88	< 0.005	< 0.005	< 0.005	1.91
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.14	3.14	< 0.005	< 0.005	< 0.005	3.30

3.2. Demolition (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.72	2.29	20.7	19.0	0.03	0.84	—	0.84	0.78	—	0.78	—	3,427	3,427	0.14	0.03	—	3,438
Demolition	—	—	—	—	—	—	0.25	0.25	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.14	1.24	1.15	< 0.005	0.05	—	0.05	0.05	—	0.05	—	207	207	0.01	< 0.005	—	207
Demolition	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.23	0.21	< 0.005	0.01	—	0.01	0.01	—	0.01	—	34.2	34.2	< 0.005	< 0.005	—	34.3
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.05	0.79	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	195	195	< 0.005	0.01	0.68	198
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	< 0.005	0.38	0.17	< 0.005	< 0.005	0.08	0.09	< 0.005	0.02	0.03	—	315	315	0.02	0.05	0.64	331
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.4	11.4	< 0.005	< 0.005	0.02	11.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	19.0	19.0	< 0.005	< 0.005	0.02	19.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.88	1.88	< 0.005	< 0.005	< 0.005	1.91
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.14	3.14	< 0.005	< 0.005	< 0.005	3.30

3.3. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.43	0.36	3.21	3.25	0.01	0.13	—	0.13	0.12	—	0.12	—	777	777	0.03	0.01	—	780
Dust From Material Movement	—	—	—	—	—	—	1.08	1.08	—	0.43	0.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.59	0.59	< 0.005	0.02	—	0.02	0.02	—	0.02	—	129	129	0.01	< 0.005	—	129
Dust From Material Movement	—	—	—	—	—	—	0.20	0.20	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.07	0.91	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	248	248	< 0.005	0.01	0.02	251
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	29.6	29.6	< 0.005	< 0.005	0.05	30.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.90	4.90	< 0.005	< 0.005	0.01	4.96
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Grading (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621

Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.43	0.36	3.21	3.25	0.01	0.13	—	0.13	0.12	—	0.12	—	777	777	0.03	0.01	—	780
Dust From Material Movement	—	—	—	—	—	—	0.28	0.28	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.59	0.59	< 0.005	0.02	—	0.02	0.02	—	0.02	—	129	129	0.01	< 0.005	—	129
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.07	0.91	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	248	248	< 0.005	0.01	0.02	251

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	29.6	29.6	< 0.005	< 0.005	0.05	30.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.90	4.90	< 0.005	< 0.005	0.01	4.96
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.08	0.06	0.60	0.79	< 0.005	0.02	—	0.02	0.02	—	0.02	—	145	145	0.01	< 0.005	—	146
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.11	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.1	24.1	< 0.005	< 0.005	—	24.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.06	0.60	0.79	< 0.005	0.02	—	0.02	0.02	—	0.02	—	145	145	0.01	< 0.005	—	146
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.11	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.1	24.1	< 0.005	< 0.005	—	24.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51	0.43	3.90	5.37	0.01	0.14	—	0.14	0.13	—	0.13	—	994	994	0.04	0.01	—	998
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.71	0.98	< 0.005	0.03	—	0.03	0.02	—	0.02	—	165	165	0.01	< 0.005	—	165
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Building Construction (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.51	0.43	3.90	5.37	0.01	0.14	—	0.14	0.13	—	0.13	—	994	994	0.04	0.01	—	998
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.71	0.98	< 0.005	0.03	—	0.03	0.02	—	0.02	—	165	165	0.01	< 0.005	—	165
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Paving (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.16	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.42	0.60	< 0.005	0.02	—	0.02	0.02	—	0.02	—	91.1	91.1	< 0.005	< 0.005	—	91.4
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.1	15.1	< 0.005	< 0.005	—	15.1
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.74	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	192	192	< 0.005	0.01	0.61	195
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.2	11.2	< 0.005	< 0.005	0.02	11.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.85	1.85	< 0.005	< 0.005	< 0.005	1.87
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Paving (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.88	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.16	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.42	0.60	< 0.005	0.02	—	0.02	0.02	—	0.02	—	91.1	91.1	< 0.005	< 0.005	—	91.4
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.1	15.1	< 0.005	< 0.005	—	15.1
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.74	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	192	192	< 0.005	0.01	0.61	195
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.2	11.2	< 0.005	< 0.005	0.02	11.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.85	1.85	< 0.005	< 0.005	< 0.005	1.87
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Architectural Coating (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.01	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.05	8.05	< 0.005	< 0.005	—	8.07
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.33	1.33	< 0.005	< 0.005	—	1.34
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Architectural Coating (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.05	8.05	< 0.005	< 0.005	—	8.07
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.33	1.33	< 0.005	< 0.005	—	1.34
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	0.12	0.10	0.09	1.07	< 0.005	< 0.005	0.29	0.29	< 0.005	0.07	0.08	—	306	306	0.01	0.01	0.97	311
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.12	0.10	0.09	1.07	< 0.005	< 0.005	0.29	0.29	< 0.005	0.07	0.08	—	306	306	0.01	0.01	0.97	311
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	0.11	0.10	0.10	0.98	< 0.005	< 0.005	0.29	0.29	< 0.005	0.07	0.08	—	295	295	0.01	0.01	0.03	298
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.11	0.10	0.10	0.98	< 0.005	< 0.005	0.29	0.29	< 0.005	0.07	0.08	—	295	295	0.01	0.01	0.03	298
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	0.02	0.02	0.02	0.18	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	49.3	49.3	< 0.005	< 0.005	0.07	50.0
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.02	0.18	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	49.3	49.3	< 0.005	< 0.005	0.07	50.0

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	0.12	0.10	0.09	1.07	< 0.005	< 0.005	0.29	0.29	< 0.005	0.07	0.08	—	306	306	0.01	0.01	0.97	311

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.12	0.10	0.09	1.07	< 0.005	< 0.005	0.29	0.29	< 0.005	0.07	0.08	—	306	306	0.01	0.01	0.97	311
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	0.11	0.10	0.10	0.98	< 0.005	< 0.005	0.29	0.29	< 0.005	0.07	0.08	—	295	295	0.01	0.01	0.03	298
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.11	0.10	0.10	0.98	< 0.005	< 0.005	0.29	0.29	< 0.005	0.07	0.08	—	295	295	0.01	0.01	0.03	298
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	0.02	0.02	0.02	0.18	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	49.3	49.3	< 0.005	< 0.005	0.07	50.0
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.02	0.18	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	49.3	49.3	< 0.005	< 0.005	0.07	50.0

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	37.0	37.0	< 0.005	< 0.005	—	37.2
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	37.0	37.0	< 0.005	< 0.005	—	37.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	37.0	37.0	< 0.005	< 0.005	—	37.2
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	37.0	37.0	< 0.005	< 0.005	—	37.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	6.13	6.13	< 0.005	< 0.005	—	6.16
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	6.13	6.13	< 0.005	< 0.005	—	6.16

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	37.0	37.0	< 0.005	< 0.005	—	37.2
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	37.0	37.0	< 0.005	< 0.005	—	37.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	37.0	37.0	< 0.005	< 0.005	—	37.2
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	37.0	37.0	< 0.005	< 0.005	—	37.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	6.13	6.13	< 0.005	< 0.005	—	6.16
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	6.13	6.13	< 0.005	< 0.005	—	6.16

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.86	0.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.86	0.86	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.86	0.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.86	0.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.16	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landsca Equipment	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.16	0.16	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.86	0.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.86	0.86	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.86	0.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.86	0.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.16	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	0.16	0.16	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	334	334	0.02	< 0.005	—	335
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.10	0.10	< 0.005	< 0.005	—	0.10
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.10	0.10	< 0.005	< 0.005	—	0.10
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	334	334	0.02	< 0.005	—	336
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	334	334	0.02	< 0.005	—	335
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.10	0.10	< 0.005	< 0.005	—	0.10
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.10	0.10	< 0.005	< 0.005	—	0.10
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	334	334	0.02	< 0.005	—	336
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	55.3	55.3	< 0.005	< 0.005	—	55.5

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.02	0.02	< 0.005	< 0.005	—	0.02
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.02	0.02	< 0.005	< 0.005	—	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	55.4	55.4	< 0.005	< 0.005	—	55.6

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	334	334	0.02	< 0.005	—	335
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.10	0.10	< 0.005	< 0.005	—	0.10
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.10	0.10	< 0.005	< 0.005	—	0.10
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	334	334	0.02	< 0.005	—	336
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	334	334	0.02	< 0.005	—	335
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.10	0.10	< 0.005	< 0.005	—	0.10
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.10	0.10	< 0.005	< 0.005	—	0.10
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	334	334	0.02	< 0.005	—	336
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	55.3	55.3	< 0.005	< 0.005	—	55.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.02	0.02	< 0.005	< 0.005	—	0.02
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.02	0.02	< 0.005	< 0.005	—	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	55.4	55.4	< 0.005	< 0.005	—	55.6

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	1.65	0.00	1.65	0.16	0.00	—	5.76
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.65	0.00	1.65	0.16	0.00	—	5.76
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	1.65	0.00	1.65	0.16	0.00	—	5.76
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.65	0.00	1.65	0.16	0.00	—	5.76
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	0.27	0.00	0.27	0.03	0.00	—	0.95
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.27	0.00	0.27	0.03	0.00	—	0.95

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	1.65	0.00	1.65	0.16	0.00	—	5.76
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.65	0.00	1.65	0.16	0.00	—	5.76
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	1.65	0.00	1.65	0.16	0.00	—	5.76

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.65	0.00	1.65	0.16	0.00	—	5.76
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	0.27	0.00	0.27	0.03	0.00	—	0.95
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.27	0.00	0.27	0.03	0.00	—	0.95

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	9/1/2026	9/30/2026	5.00	22.0	—
Grading	Grading	10/1/2026	11/30/2026	5.00	43.0	—
Building Construction	Building Construction	12/1/2026	7/31/2027	5.00	174	—
Paving	Paving	8/1/2027	8/31/2027	5.00	22.0	—
Architectural Coating	Architectural Coating	9/1/2027	9/30/2027	5.00	22.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73

Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48

Grading	Tractors/Loaders/Back	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	4.59	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	0.00	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	0.00	10.2	HHDT,MHDT

Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.00	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	4.59	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	0.00	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	0.00	10.2	HHDT,MHDT

Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.00	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	402	—
Grading	—	—	129	0.00	—

Paving	0.00	0.00	0.00	0.00	1.35

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
City Park	0.00	0%
Parking Lot	0.67	100%
Other Asphalt Surfaces	0.69	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	532	0.03	< 0.005
2027	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
City Park	31.0	31.0	31.0	11,314	412	412	412	150,483
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year

City Park	31.0	31.0	31.0	11,314	412	412	412	150,483
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
—	—	—	—	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
City Park	0.00	532	0.0330	0.0040	0.00
Parking Lot	25,414	532	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	532	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
City Park	0.00	532	0.0330	0.0040	0.00
Parking Lot	25,414	532	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
City Park	0.00	43,201,242
Parking Lot	0.00	12,960
Other Asphalt Surfaces	0.00	12,960

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
City Park	0.00	43,201,242
Parking Lot	0.00	12,960
Other Asphalt Surfaces	0.00	12,960

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
City Park	3.05	—
Parking Lot	0.00	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
City Park	3.05	—
Parking Lot	0.00	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit

Temperature and Extreme Heat	8.74	annual days of extreme heat
Extreme Precipitation	3.50	annual days with precipitation above 20 mm
Sea Level Rise	0.84	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	37.6
AQ-PM	55.4
AQ-DPM	30.8
Drinking Water	36.2
Lead Risk Housing	25.6
Pesticides	0.00
Toxic Releases	84.9

Traffic	51.3
Effect Indicators	—
CleanUp Sites	74.9
Groundwater	14.3
Haz Waste Facilities/Generators	35.6
Impaired Water Bodies	23.9
Solid Waste	89.3
Sensitive Population	—
Asthma	22.9
Cardio-vascular	30.5
Low Birth Weights	23.9
Socioeconomic Factor Indicators	—
Education	40.1
Housing	34.2
Linguistic	15.6
Poverty	25.3
Unemployment	53.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	93.14769665
Employed	58.62953933
Median HI	75.32400873
Education	—
Bachelor's or higher	64.96856153
High school enrollment	100

Preschool enrollment	39.48415244
Transportation	—
Auto Access	83.51084306
Active commuting	23.08481971
Social	—
2-parent households	73.87398948
Voting	38.00846914
Neighborhood	—
Alcohol availability	37.20005133
Park access	45.96432696
Retail density	23.27730014
Supermarket access	65.72565123
Tree canopy	19.87681252
Housing	—
Homeownership	70.64031823
Housing habitability	80.95726934
Low-inc homeowner severe housing cost burden	80.803285
Low-inc renter severe housing cost burden	69.40844347
Uncrowded housing	68.66418581
Health Outcomes	—
Insured adults	91.7875016
Arthritis	63.4
Asthma ER Admissions	86.6
High Blood Pressure	81.4
Cancer (excluding skin)	29.3
Asthma	58.2
Coronary Heart Disease	74.7
Chronic Obstructive Pulmonary Disease	68.2

Diagnosed Diabetes	90.6
Life Expectancy at Birth	36.8
Cognitively Disabled	74.6
Physically Disabled	73.0
Heart Attack ER Admissions	89.6
Mental Health Not Good	68.6
Chronic Kidney Disease	85.5
Obesity	80.7
Pedestrian Injuries	95.6
Physical Health Not Good	82.3
Stroke	84.7
Health Risk Behaviors	—
Binge Drinking	2.1
Current Smoker	61.3
No Leisure Time for Physical Activity	85.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	3.5
Children	91.6
Elderly	56.5
English Speaking	98.1
Foreign-born	7.8
Outdoor Workers	48.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	14.4
Traffic Density	34.4
Traffic Access	64.5
Other Indices	—

Hardship	5.2
Other Decision Support	—
2016 Voting	74.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	28.0
Healthy Places Index Score for Project Location (b)	74.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	In this scenario, single-phase project construction would occur for a duration of approximately 13 months and the project is anticipated to be operational by September 2027.
Operations: Vehicle Data	Based on the Edison Park Reconfiguration and Improvements – Vehicle Miles Traveled Assessment

Edison Park Improvement
Energy Calculations

Land Use	Electricity Use	
	(kWh/yr)	(MWh/yr)
Park Use	25,414	25
Totals	**25,414**	**25**

1 kBTU = 0.01 therms

Energy Type	Project Annual Energy Consumption	Orange County Annual Energy Consumption (2021)	Percentage Increase Countywide
Electricity (MWh)	25	276,212,886	0.00001%

Edison Park Improvement
Energy Calculations

Vehicle Type	Percent of Vehicle Trips[1]	Daily Trips[2]	Annual Vehicle Miles Traveled	Average Fuel Economy (miles per gallon)[3]	Total Annual Fuel Consumption (gallons)[4]
Passenger Cars	0.50	15	5,614	22	255
Light/Medium Trucks	0.46	14	5,258	17.3	304
Heavy Trucks/Other	0.04	1	443	6.4	69
TOTAL [6]	***1.00***	**31**	***11,314***	**--**	***628***

Notes:

1. Percent of Vehicle Trip distribution based on trip characteristics within the CalEEMod model.

2. Daily Trips taken from ITE manual.

3. Average fuel economy derived from the Department of Transportation.

4. Total Daily Fuel Consumption calculated by dividing the daily VMT by the average fuel economy (i.e., VMT/Average Fuel Economy).

5. Values may be slightly off due to rounding.

Source: Refer to CalEEMod outputs for assumptions used in this analysis.

County On-Road
2026
1,012,273,716
0.0001%

Edison Park Improvement
Energy Calculations

WORKER TRIPS

Phase	Phase Length (# days)	# Worker Trips	Worker Trip Length	Total VMT	Fuel Consumption Factor (Miles/Gallon/Day)	Total Fuel Consumption
Demolition	22	30	18.5	12,210		490.31
Grading	43	40	18.5	31,820		1,277.77
Building Construction	174	0	18.5	0	**24.90284233**	0.00
Paving	22	30	18.5	12,210		490.31
Architectural Coating	22	0	18.5	0		0.00
						2,258.38

VENDOR TRIPS

Phase	Phase Length (# days)	# Vendor Trips	Vendor Trip Length	Total VMT	Fuel Consumption Factor (Miles/Gallon/Day)	Total Fuel Consumption
Demolition	22	0	10.2	0		0.00
Grading	43	0	10.2	0		0.00
Building Construction	174	0	10.2	0	**8.343886151**	0.00
Paving	22	0	10.2	0		0.00
Architectural Coating	22	0	10.2	0		0.00
						0.00

HAULING TRIPS

Phase	Phase Length (# days)	# Hauling Trips	Hauling Trip Length	Total VMT	Fuel Consumption Factor (Miles/Gallon/Day)[1]	Total Fuel Consumption
Demolition	22	10	20	4,400		527.33
Grading	43	0	20	0		0.00
Building Construction	174	0	20	0	**8.343886151**	0.00
Paving	22	0	20	0		0.00
Architectural Coating	22	0	20	0		0.00
						527.33

TOTAL OFF-SITE MOBILE GALLONS CONSUMED DURING CONSTRUCTION	**2,785.71**
County On-road Gallons	1,056,094,532
2026	0.0003%

Edison Park Improvement
Energy Calculations

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Fuel Consumption Rate (gallons per hour)	Duration (total hours/day)	# days	Total Fuel Consumption (gallons)
Demolition	Concrete/Industrial Saws	1	8	33	0.73	0.9636	8	22	169.59
Demolition	Excavator	3	8	36	0.38	0.5472	24	22	288.92
Demolition	Rubber Tired Dozers	2	8	367	0.40	5.872	16	22	2066.94
Grading	Excavator	2	8	36	0.38	0.5472	16	43	376.47
Grading	Graders	1	8	148	0.41	2.4272	8	43	834.96
Grading	Rubber Tired Dozers	1	8	367	0.40	5.872	8	43	2019.968
Grading	Scrapers	2	8	423	0.48	8.1216	16	43	5587.66
Grading	Tractors/Loaders/Backhoes	2	8	84	0.37	1.2432	16	43	855.32
Building Construction	Cranes	1	7	367	0.29	4.2572	7	174	5185.27
Building Construction	Forklifts	3	8	82	0.20	0.656	24	174	2739.46
Building Construction	Generator Sets	1	8	14	0.74	0.4144	8	174	576.84
Building Construction	Tractors/Loaders/Backhoes	3	7	84	0.37	1.2432	21	174	4542.65
Building Construction	Welders	1	8	46	0.45	0.828	8	174	1152.58
Paving	Pavers	2	8	81	0.42	1.3608	16	22	479.00
Paving	Paving Equipment	2	8	89	0.36	1.2816	16	22	451.12
Paving	Rollers	2	8	36	0.38	0.5472	16	22	192.61
Architectural Coating	Air Compressors	1	6	37	0.48	0.7104	6	22	93.77
								Total:	**27,613.15**

Notes:

Fuel Consumption Rate = Horsepower x Load Factor x Fuel Consumption Factor

Where:

Fuel Consumption Factor for a diesel engine is 0.04 gallons per horsepower per hour (gal/hp/hr) and a gasoline engine is 0.06 gal/hp/hr.

Source: Refer to CalEEMod outputs for assumptions used in this analysis.

Michael Baker INTERNATIONAL

We Make a Difference

September 8, 2025 JN 208581

CITY OF HUNTINGTON BEACH
Ashley Wysocki, Director of Community & Library Services
Director of Community & Library Services
2000 Main Street
Huntington Beach, CA 92648

SUBJECT: Biological Resources Assessment for the Edison Park Reconfiguration and Improvements Project in the City of Huntington Beach, Orange County, California

Dear Ashley Wysocki,

Michael Baker International, Inc. is pleased to submit this technical report documenting the results of a biological resources assessment for the proposed Edison Park Reconfiguration and Improvements Project (project or project site) located at Edison Park in the City of Huntington Beach, Orange County, California. The biological study area (BSA) included in this assessment is 51.26 acres, which incorporates the proposed project's limits of disturbance (35.76 acres) plus a 100-foot buffer (15.5 acres). This report is intended to satisfy the requirements of the California Environmental Quality Act (CEQA).

1.0 PROJECT LOCATION

The approximately 35.76-acre project site is located in the City of Huntington Beach, Orange County (Attachment A, Figure 1, *Regional Vicinity*). The project site is located at 21377 Magnolia Street; is bounded by Hamilton Avenue to the south, Magnolia Street to the east, and residential development to the north and west; and is within Section 13, Township 06 South, Range 11 West, of the Newport Beach, California 7.5-minute United States Geological Survey (USGS) topographic quadrangle map (Attachment A, Figure 2, *Site Vicinity*). Surrounding land uses include residential development to the north, Edison High School to the east, commercial development and disturbed open space to the south, and residential development to the west.

2.0 PROJECT DESCRIPTION

The Edison Park Reconfiguration and Improvements Project aims to reconfigure the park and introduce new amenities primarily over non-landfill areas, addressing issues of land settlement affecting existing facilities (Attachment A, Figure 3, *Conceptual Reconfiguration Plan*). Proposed improvements may be implemented in up to three phases and include demolition of aging or condemned amenities, construction of new sports courts, an all-inclusive playground, expanded

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parking, and new walkways. Upon completion, the park will offer diversified recreational opportunities and improved accessibility.

3.0 EXISTING SITE CONDITIONS

The BSA is located within an urbanized area of Huntington Beach and has been developed with a city park since 1974. The elevation is approximately 5 feet above mean sea level. Soils on-site are mapped as Bolsa silt loam in the online Natural Resources Conservation Service (NRCS) web soil survey (NRCS 2025). Representative site photos are included in Attachment B.

4.0 METHODS

4.1 Literature Review

Prior to conducting the field survey, Michael Baker conducted a thorough literature review and records search to characterize existing site conditions and assess the potential for special-status biological resources to occur that might pose a constraint to project implementation.[1] A query of the California Natural Diversity Database (CNDDB; CNDDB 2025a) and California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants of California (CNPS 2025) was conducted to obtain a list of special-status plant and wildlife species occurrence records within the USGS Los Alamitos, Anaheim, Orange, Seal Beach, Newport Beach, Tustin, and Laguna Beach, California 7.5-minute quadrangle maps. The US Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) online database was also reviewed to identify special-status species and other resources, such as critical habitat, known or expected to occur on the project site or within the immediate vicinity (USFWS 2025a). Other sources of information about the project site and surrounding area include the NRCS Web Soil Survey (NRCS 2025), the USFWS National Wetlands Inventory (USFWS 2025b), Google Earth (2025), and Historic Aerials.com (2025). In addition, a 2022 arborist survey was reviewed prior to the site visit (Applegate 2022). All the information obtained informed our understanding of the BSA and assisted with the field survey and subsequent analysis. The results presented in this report provide a detailed assessment of the suitability of the habitat on-site to support special-status plant and wildlife species and other sensitive natural resources.

4.2 Habitat Assessment/Field Survey

Michael Baker biologists Stephen Anderson and Trina Ming conducted a general biological resources survey and habitat assessment on August 14, 2025, between 0700 and 0840 hours to document existing conditions and conduct a habitat assessment for special-status plant and wildlife species and sensitive natural communities, and to determine the presence of aquatic resources within the BSA. Weather conditions included overcast skies, temperatures ranging from 71 to 72 degrees Fahrenheit, and wind speeds ranging from 1 to 2 miles per hour.

1 Special-status refers to plant and wildlife species that are federal or state-listed, proposed, or candidates; plant species that have been designated a California Rare Plant Rank of 1, 2, or 4 by the California Native Plant Society; wildlife species that are designated by the California Department of Fish and Wildlife as Fully Protected or Species of Special Concern; and other state or locally rare vegetation communities.

Classification of the on-site vegetation communities and other land uses is based on the descriptions of terrestrial vegetation classification systems described in *A Manual of California Vegetation* (Sawyer et al. 2009). In addition, site characteristics such as soil condition, topography, hydrology, anthropogenic disturbances, indicator species, condition of on-site vegetation communities, and the presence of potentially regulated jurisdictional features were noted. A formal aquatic resources delineation was not conducted. Michael Baker used geographic information systems (GIS) software to digitize the mapped vegetation communities and overlaid the data onto an aerial photograph to further analyze existing conditions and quantify the acreages of each vegetation community on-site.

All plant and wildlife species observed during the field survey were recorded. Plant species observed were identified by visual characteristics and morphology in the field while unusual and less familiar plant species were photographed and later identified using taxonomic guides. Plant species nomenclature and taxonomy follows *The Jepson Manual: Vascular Plants of California*, second edition (Baldwin et al. 2012) and scientific names are provided immediately following common names of plant species (first reference only). Wildlife detections were made through aural and visual detection, as well as observation of sign including scat, trails, tracks, burrows, and nests. Field guides used to assist with identification of species during the field survey included *The Sibley Guide to Birds* (Sibley 2014) for birds, *A Field Guide to Western Reptiles and Amphibians* (Stebbins 2003) for herpetofauna, and *A Field Guide to Mammals of North America* (Reid 2006) for mammals. Wildlife species taxonomy follows the North American Butterfly Association (NABA 2025) for butterflies, the Society for the Study of Amphibians and Reptiles (Crother et al. 2017) for herpetofauna, the American Ornithological Society for birds (Chesser et al. 2024), and Wilson and Reeder (2005) for mammals. Scientific names are provided immediately following common names of wildlife species (first reference only).

4.3 Special-Status Species Potential to Occur Assessment

The potential for special-status species to occur in the BSA was evaluated based on each species' known geographic distribution and elevation range; species-specific habitat requirements (e.g., vegetation communities/land covers, soils, hydrology, slope/aspect, and other requirements); life history traits (e.g., disturbance tolerance); and Michael Baker biologists' expertise, knowledge, and best professional judgement. Current and historical records of species identified during the literature review were also considered during the analysis; however, a species' potential to occur determination was not solely based on the age or location of these previously documented records. The current regulatory/conservation status of special-status plant and wildlife species was verified through lists and resources provided by the California Department of Fish and Wildlife (CDFW), specifically the Special Animals List (CNDDB 2025b) and Special Vascular Plants, Bryophytes, and Lichens List (CNDDB 2024c). The potential to occur categories used in this analysis are defined as follows:

- **Present:** The species was observed or detected within the BSA.
- **Expected:** The BSA is within the known geographic distribution and elevation range of the species, there is high quality suitable habitat (considering vegetation, soils, and other factors) is present, and there is viable landscape connectivity to a local, known extant population(s) or sighting(s) within the study area.

- **Moderate:** The BSA is within the known geographic distribution and elevation range of the species, there is moderate to low quality suitable habitat (considering vegetation, soils, and other factors), and there is limited or no landscape connectivity to a local, known, extant population.
- **Not Expected:** The BSA is outside the known geographic distribution and elevation range of the species, there is marginal to no suitable habitat, and there is no connectivity to known, extant populations.
- **Absent:** The species was not detected during focused or agency-approved protocol surveys.

5.0 RESULTS

5.1 Vegetation Communities and Land Covers

The BSA consists entirely of ornamental landscaped and developed areas (Table 1 and Attachment A, Figure 4, *Vegetation Communities and Land Cover Types*). Ornamental landscaped areas within the project site consist of trees, landscape vegetation, and open grass fields associated with the park. Development within the project site includes buildings, asphalt parking areas, sports courts, and other associated structures. Vegetation on-site is limited to turf grass, ornamental landscaping, and planted trees. A total of 95 plant species were documented during the field survey, 7 (7 percent) native and 88 (93 percent) non-native species.

The dominant species on-site is Bermuda grass (*Cynodon dactylon*) due to the majority of the project site consisting of open grass fields of Bermuda grass. The southwest portion of the project site also had a large area entirely dominated by iceplant (*Carpobrotus edulis*). Multiple ornamental tree species are also present throughout the park, including red gum (*Eucalyptus camaldulensis*), olive (*Olea europaea*), Japanese black pine (*Pinus thunbergiana*), and holly oak (*Quercus ilex*). An arborist survey conducted in 2022 identified 228 individual trees on-site (Applegate 2022).

The area surrounding the BSA consists of residential and commercial development. Attachment B includes representative photos of the project site, and Attachment C contains a list of plant species observed.

TABLE 1. VEGETATION COMMUNITIES AND LAND COVER TYPES

Vegetation Community/Land Cover Type	Project Site (acres)	100-foot Buffer (acres)	Total (acres)
Developed	25.68	1.71	27.39
Ornamental Landscaping	10.08	13.79	23.87
Total	**35.76**	**15.5**	**51.26**

5.2 General Wildlife Inventory

Eleven wildlife species were observed during the field survey, eight native (73 percent) and three non-native (27 percent). These include American crow (*Corvus brachyrhynchos*), European

starling (*Sturnus vulgaris*), Eurasian collard-dove (*Streptopelia decaocto*), black phoebe (*Sayornis nigricans*), western bluebird (*Sialia mexicana*), Swinhoe's white-eye (*Zosterops simplex*), Cassin's kingbird (*Tyrannus vociferans*), mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), house finch (*Haemorhous mexicanus*), and California ground squirrel (*Otospermophilus beecheyi*) (Attachment C).

5.3 Special-Status Biological Resources

Sensitive Natural Communities

Nine natural communities considered sensitive by the CDFW were reported in the CNDDB from the region:

- California Walnut Woodland
- Southern California Arroyo Chub/Santa Ana Sucker Stream
- Southern Coast Live Oak Riparian Forest
- Southern Coastal Salt Marsh
- Southern Cottonwood Willow Riparian Forest
- Southern Dune Scrub
- Southern Foredunes
- Southern Sycamore Alder Riparian Woodland
- Valley Needlegrass Grassland

The project site is developed with ornamental and landscaped vegetation and does not support native vegetation. Therefore, these sensitive natural communities do not occur.

Special-Status Plant Species

Based on the results of the literature review and records search, a total of 55 special-status plant species were analyzed for their potential to occur within the BSA (Attachment D). After a review of specific habitat preferences, known distributions, and elevation ranges, and considering the existing developed conditions of the BSA and lack of native habitat, no special-status plant species have the potential to occur within the BSA. In addition, the BSA is not within designated critical habitat for any listed plant species.

Special-Status Wildlife Species

Based on the results of the literature review and records search, a total of 43 special-status wildlife species were analyzed for their potential to occur within the BSA (Attachment D). After a review of specific habitat preferences, known distributions, and elevation ranges, and considering the existing developed conditions of the BSA, two special-status wildlife species have a moderate potential to occur within the BSA: burrowing owl (*Athene cunicularia*) and monarch butterfly (*Danaus plexippus plexippus*). Although no sign (whitewash, pellets, feathers) of burrowing owls was observed within the BSA, suitable burrows and habitat are present, primarily within areas dominated by iceplant. Monarch may be observed flying through the BSA or utilizing trees to roost temporarily but is not expected to breed on-site due to the lack of suitable host plants (i.e.,

milkweed). Furthermore, monarch is not expected to overwinter within the BSA due to the lack of suitable habitat. The nearest known overwintering site is in Costa Mesa, approximately 1.7 miles east (Xerces n.d.). More than two individuals have not been observed at the overwintering site during any given year since 2014. The BSA is not within designated critical habitat for any listed wildlife species.

State and Federal Jurisdictional Aquatic Features

Three key agencies regulate activities within inland lakes, streams, wetlands, and riparian areas in California. The US Army Corps of Engineers (USACE) Regulatory Branch regulates activities that result in the discharge of dredged or fill material into waters of the U.S., including wetlands, pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. Of the state agencies, the Santa Ana Regional Water Quality Control Board (RWQCB) regulates discharges to waters of the State, including wetlands, pursuant to Section 401 of the Clean Water Act, Section 13263 of the California Porter-Cologne Water Quality Control Act, State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State; and the CDFW regulates alterations to lakes, streambeds, and associated riparian habitat pursuant to Section 1600 et seq. of the California Fish and Game Code (CFGC).

As noted previously, the BSA is underlain by one soil type, Bolsa silt loam. This soil type is characterized by somewhat poorly drained silt loam textures and no hydric soil indicators.

The USFWS National Wetlands Inventory does not have any mapped features within the BSA. The nearest known drainage feature is Huntington Beach Channel, a channelized drainage facility approximately 0.1 mile south of the BSA.

The site visit confirmed the absence of any features or riparian habitat that may be subject to the jurisdiction of the USACE, RWQCB, or CDFW. A formal jurisdictional delineation is not required.

5.4 Wildlife Corridors and Habitat Linkages

Wildlife corridors link areas of suitable habitat that are otherwise separated by areas of non-suitable habitat such as rugged terrain, changes in vegetation, or human disturbance. Wildlife corridors are essential to the regional ecology of a species because they provide avenues of genetic exchange and allow animals to access alternative territories as dictated by fluctuating population densities. Fragmentation of open space areas by urbanization creates “islands” of wildlife habitat that are more or less isolated from each other. Corridors mitigate the effects of this fragmentation by (1) allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk of catastrophic events (such as fire or disease) that could lead to local extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and shelter. Wildlife corridors are usually bounded by urban land areas or other areas unsuitable for wildlife. The corridor generally contains suitable cover, food, and/or water to support species and facilitate movement while in the corridor. Larger, landscape-level corridors (often referred to as “habitat or landscape linkages”) can provide both transitory and resident habitat for a variety of species. Although it is commonly used as a synonym for wildlife corridor, a habitat linkage refers

to a more substantial, or wider, land connection between two habitat areas. Habitat linkages allow for the periodic exchange of animals between habitat areas, which is essential to maintain adequate gene pools.

The BSA is within an urbanized area of the City of Huntington Beach. The BSA is not within or adjacent to any open space areas or other natural or human-made features that would be used by wildlife as a corridor or habitat linkage. The nearest features that may be used as wildlife corridors include the channelized Huntington Beach Channel approximately 0.1 mile south of the BSA and the channelized Talbert Channel approximately 0.25 miles east of the BSA.

6.0 IMPACT ANALYSIS

The following discussion examines the impacts to biological resources that may occur as a result of the proposed project. The determination of impacts is based on both the features of the proposed project and the biological values of the habitat and sensitivity of plant and wildlife species potentially affected.

Impacts to biological resources are evaluated using criteria consistent with the policy objectives of CEQA, including Section 21001(c) of the California Public Resources Code. The analysis considers the questions outlined in Appendix G of the CEQA guidelines, which are used to identify whether the project could result in impacts to biological resources. This assessment documents the potential for impacts and, where appropriate, provides avoidance and minimization measures that are part of the project design to further reduce the potential for adverse effects.

6.1 Impacts to Special-Status Species

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?

The project site is developed and supports ornamental landscaping, which is not suitable habitat for most special-status plant or wildlife species. No special-status plants are expected to occur due to the lack of suitable habitat.

Although no sign (whitewash, pellets, feathers) of burrowing owls was observed within the BSA, suitable burrows and habitat are present, and this species has the potential to occur. A preconstruction burrowing owl survey is recommended to avoid potential impacts associated with project construction.

Monarch may utilize the trees on-site to roost temporarily; however, if they occurred, they would be expected in very low numbers due to the developed nature of the BSA. Impacts would not remove habitat that would affect the long-term status of monarch populations.

6.2 Impacts to Sensitive Natural Communities

b) *Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

The project site is completely developed and supports ornamental landscaping and disturbed, weedy vegetation. There are no riparian habitats or other sensitive natural communities present within the project site boundaries. Therefore, the project would have no impact on riparian habitats or other sensitive natural communities.

6.3 Impacts to State or Federal Wetlands

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?*

The project site is entirely developed and does not contain any state or federally protected wetlands. Therefore, there would be no impact to state or federally protected wetlands.

6.4 Impacts to Wildlife Movement or Wildlife Corridors

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?*

The project site is within a developed, urban area and is surrounded on all sides by existing development. The project site has no connectivity to any natural habitats that would serve as migration corridors. Therefore, there would be no impact to native wildlife movement or wildlife corridors.

To maintain compliance with the federal Migratory Bird Treaty Act (MBTA) and the CFGC[2] it is recommended that a preconstruction nesting bird clearance survey be conducted if project-related activities are to be initiated during the bird nesting season (generally February 1 to August 31).

[2] Section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by CFGC or any regulation made pursuant thereto; Section 3503.5 makes it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey); and Section 3513 makes it unlawful to take or possess any migratory non-game bird except as provided by the rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA, as amended (16 United States Code § 703 et seq.).

6.5 Conflicts with Local Policies or Ordinances

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

The City of Huntington Beach Municipal Code Section 13.50.120 requires that a permit be obtained prior to the removal of any trees. The project will comply with all applicable local policies and ordinances.

6.6 Conflicts with Adopted Habitat Conservation Plan

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?

The project is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

7.0 AVOIDANCE AND MINIMIZATION MEASURES

7.1 Preconstruction Surveys

Burrowing Owl

A preconstruction burrowing owl clearance survey will be conducted no more than 14 days prior to any vegetation removal or ground disturbing activities to avoid impacts to burrowing owls and/or occupied burrows. The preconstruction clearance survey will be conducted by a qualified biologist using the methods outlined in the Staff Report on Burrowing Owl Mitigation (CDFG 2012). The survey findings will be documented and submitted to the City of Huntington Beach for review and file. If no burrowing owls or occupied burrows are detected, project activities may begin, and no additional avoidance and minimization measures are recommended.

If an occupied burrow is found within the development footprint and cannot be avoided, a burrowing owl exclusion and mitigation plan will be prepared in coordination with the California Department of Fish and Wildlife (CDFW) and approved by CDFW prior to initiating project activities. If an occupied burrow is detected outside, but within 500 feet of, the development footprint, a “no-disturbance” buffer will be established around the burrow location(s). The size of the buffer will be determined in coordination with CDFW and be based on the species breeding status and the proposed level of disturbance.

Nesting Birds

If construction commences during the bird breeding season (February 1 through August 31), a preconstruction survey for nesting birds will be conducted by a qualified biologist within three days prior to construction activities. The survey will occur within all suitable nesting habitat within the project impact area and a 100-foot buffer where access is permitted. If nesting birds are found,

an avoidance area will be established around the nest by the qualified biologist until it has been determined that the young have fledged or nesting activities have ceased. The size of the avoidance buffer will be determined by the qualified biologist based on the location of the nest and disturbance tolerance of the bird species. The project site will be resurveyed if there is a lapse in construction activities for more than seven days during the nesting season.

Please feel free to contact me at 949-330-4147 or at Stephen.Anderson@mbakerintl.com with any questions you may have regarding the results and/or conclusions of this report.

Sincerely,

Stephen Anderson
Senior Biologist

Attachments

A. *Figures*
B. *Site Photographs*
C. *Species Compendium*
D. *Special-Status Species Potential to Occur Tables*

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ATTACHMENT A

Figures

9/3/2025 \\Santca1\ubi\vica1fs1\HROOT\pdata\208581\GIS

EDISON PARK RECONFIGURATION AND IMPROVEMENTS PROJECT
BIOLOGICAL RESOURCES ASSESSMENT

Regional Vicinity

Michael Baker INTERNATIONAL

0 2.5 5 Miles

Source: ArcGIS Online, 2018

Figure 1

9/3/2025 \\Santca1\hub\invica1fs1\HROOT\pdata\2085811\GIS

Legend

Project Site

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0 0.5 1 Mile

Source: USGS 7.5-Minute topographic quadrangle maps: *Harrison Mountain, Lake Arrowhead, San Bernardino North, and Silverwood Lake, California (2021)*

EDISON PARK RECONFIGURATION AND IMPROVEMENTS PROJECT
BIOLOGICAL RESOURCES ASSESSMENT

Project Vicinity

Figure 2

9/3/2025 \\Santca1hublrivca1fs1\HROOT\pdata\208581\GIS

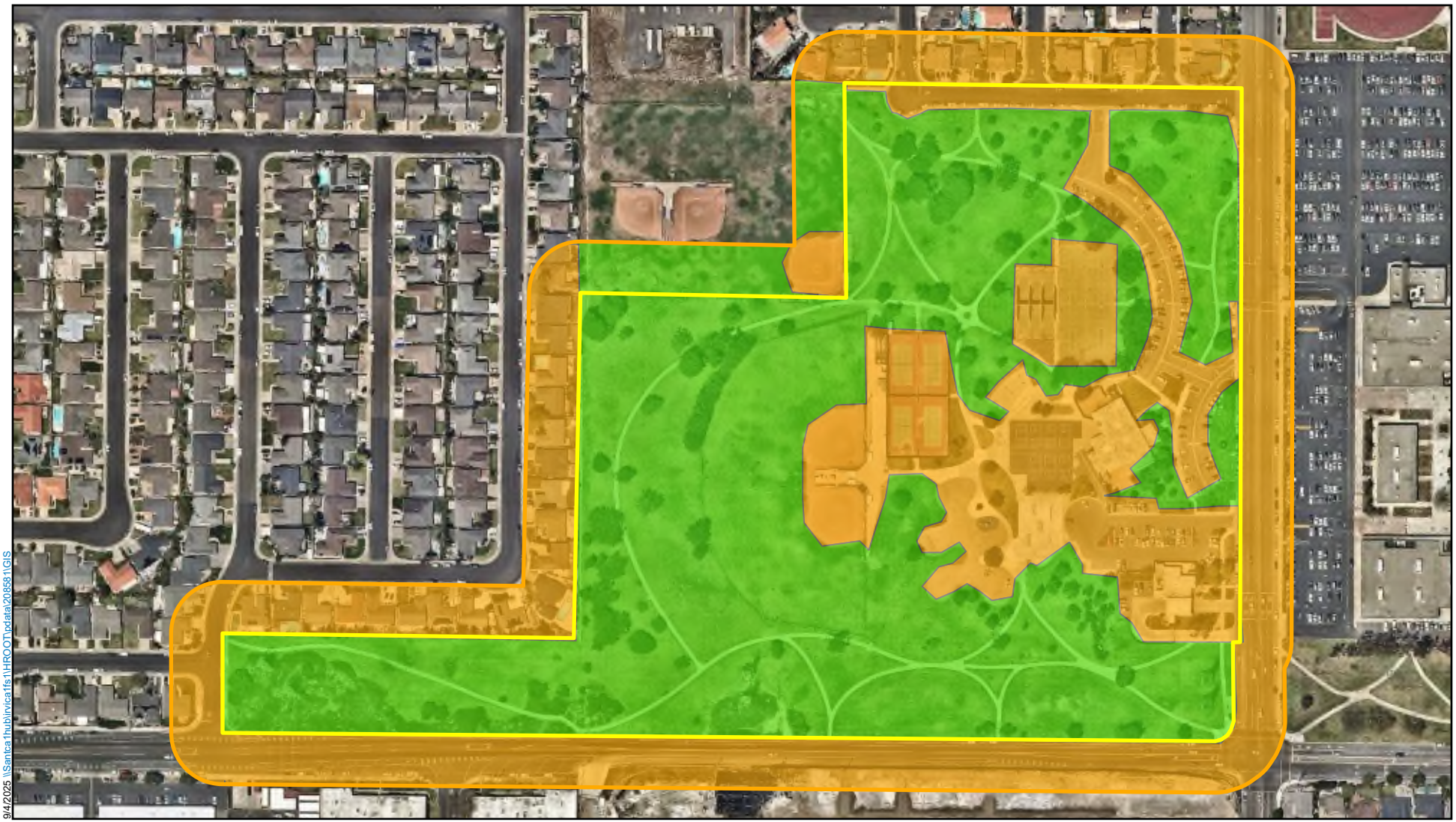
Michael Baker INTERNATIONAL

Source: Nearmap/Raymore Imagery Service (2025)

EDISON PARK RECONFIGURATION AND IMPROVEMENTS PROJECT
BIOLOGICAL RESOURCES ASSESSMENT

Conceptual Reconfiguration Plan

Figure 3



Legend

- Project Site
- Survey Area (100-foot Buffer)
- Developed (27.39 acres)
- Ornamental Landscaped (23.87 acres)

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0 75 150 300 Feet

Source: Nearmap/Raymore Imagery Service (2025)

EDISON PARK RECONFIGURATION AND IMPROVEMENTS PROJECT
BIOLOGICAL RESOURCES ASSESSMENT

Vegetation Communities and Land Cover Types

Figure 4

ATTACHMENT B

Site Photographs

Photograph 1. Northwest-facing view from the southeast corner of the project site (33.650615°, -117.971279°).

Photograph 2. North-facing view of the landscaped area at the southern end of the project site (33.650822°, -117.974437°).

Photograph 3. View looking towards a burrow within the southwest portion of the project site (33.650707°, -117.975418°).

Photograph 4. View looking east at the southwest end corner of the project site (33.650580°, -117.977448°).

Photograph 5. View looking south at the northern end of the project site (33.653911°, -117.973486°).

Photograph 6. View looking south at the northeast corner of the project site (33.653911°, -117.971223°).

ATTACHMENT C

Species Compendiums

Wildlife
Birds
CORVIDAE—CROWS & JAYS
Corvus brachyrhynchos—American crow
TROCHILIDAE—HUMMINGBIRDS
Calypte anna—Anna's hummingbird
TURDIDAE—THRUSHES
Sialia mexicana—western bluebird
FRINGILLIDAE—FRINGILLINE & CARDUELINE FINCHES & ALLIES
Haemorhous mexicanus—house finch
COLUMBIDAE—PIGEONS & DOVES
Streptopelia decaocto—Eurasian collared-dove*
Zenaida macroura—mourning dove
TYRANNIDAE—TYRANT FLYCATCHERS
Sayornis nigricans—black phoebe
Tyrannus vociferans—Cassin's kingbird
STURNIDAE—STARLINGS
Sturnus vulgaris—European starling*
Zosteropidae—
Zosterops simplex—Swinhoe's white eye*
Mammals
SCIURIDAE—SQUIRRELS
Otospermophilus beecheyi—California ground squirrel

Plants – Vascular Species
EUDICOTS
AIZOACEAE—Fig-marigold Family
Carpobrotus edulis—hottentot fig*
ANACARDIACEAE—Sumac Or Cashew Family
Schinus molle—Peruvian peppertree*
Schinus terebinthifolius—Brazilian peppertree*
APOCYNACEAE—Dogbane Family
Carissa macrocarpa—natal plun *
Nerium oleander—oleander*
Plumeria rubra—frangipani *
ASTERACEAE—Sunflower Family
Dimorphotheca fruticosa—shrubby daisybush*
Erigeron bonariensis—asthmaweed*
Gazania linearis—treasureflower*

*signifies introduced (non-native) species

Plants – Vascular Species
Sonchus asper—spiny sowthistle*
Sonchus oleraceus—common sowthistle*
Taraxacum officinale—common dandelion*
Senecio barbertonicus—succulent bush ragwort*
BERBERIDACEAE—Barberry Family
Nandina domestica—heavenly bamboo*
BETULACEAE—Birch Family
Alnus rhombifolia—white alder
BIGNONIACEAE—Bignonia Family
Spathodea campanulata—African tulip tree*
Tecoma stans—yellow bells *
Chilopsis xcatalpa—Chilopsis x Catalpa*
BORAGINACEAE—Borage Family
Echium candicans—pride of Madeira*
BRASSICACEAE—Mustard Family
Hirschfeldia incana—short podded mustard*
CARYOPHYLLACEAE—Pink Family
Spergularia marina—saltmarsh sand-spurrey
CONVOLVULACEAE—Morning-glory Family
Dichondra micrantha—Asian ponysfoot*
CRASSULACEAE—Stonecrop Family
Aeonium arboreum—tree aenium*
Crassula ovata—jade plant*
CUCURBITACEAE—Gourd Family
Cupaniopsis anacardioides—carrotwood*
EUPHORBIACEAE—Spurge Family
Euphorbia tirucalli—Indiantree spurge*
FABACEAE—Legume Family
Acacia stenophylla—shoestring acacia *
Caesalpinia gilliesii—bird-of-paradise shrub*
Cercis occidentalis—Texas redbud
Tipuanu tipu—tipu tree *
Trifolium repens—white clover*
FAGACEAE—Oak Family
Quercus ilex—holly oak*
LINACEAE—Flax Family
Liquidambar styraciflua—sweetgum*
LYTHRACEAE—Loosestrife Family
Lagerstroemia indica—crape myrtle *

*signifies introduced (non-native) species

Plants – Vascular Species
MAGNOLIACEAE—Magnolia Family
Magnolia grandiflora—southern magnolia *
MALVACEAE—Mallow Family
Brachychiton populneum—whiteflower kurrajong*
Lagunaria patersonia—cow itch tree*
Malvella leprosa—alkali mallow
MORACEAE—Mulberry Family
Ficus rubiginosa—rustyleaf fig*
Morus alba—white mulberry*
MYRTACEAE—Myrtle Family
Agonis flexuosa—peppermint tree*
Callistemon citrinus—lemon bottlebrush *
Corymbia citriodora—lemonscented gum*
Corymbia ficifolia—red flowering gum *
Eucalyptus camaldulensis—river redgum*
Eucalyptus cladocalyx—sugargum*
Eucalyptus polyanthemos—redbox*
Eucalyptus rudis—Western Australian floodedgum*
Eucalyptus sideroxylon—red ironbark*
Feijoa sellowiana—pineapple guava *
Lophostemon confertus—brisbane box *
Melaleuca quinquenervia—paperbark tree *
Tristaniopsis laurina—water gum *
NYCTAGINACEAE—Four O'clock Family
Bougainvillea spectabilis—great bougainvillea*
OLEACEAE—Olive Family
Fraxinus uhdei—evergreen ash*
Olea europaea—olive*
PLANTAGINACEAE—Plantain Family
Plantago major—common plantain*
PLATANACEAE—Plane Tree, Sycamore Family
Platanus ×hispanica—London planetree*
Platanus racemosa—California sycamore
POLYGALACEAE—Milkwort Family
Polygala fruticosa—petite butterflies*
PORTULACACEAE—Purslane Family
Portulaca oleracea—little hogweed*
ROSACEAE—Rose Family
Cotoneaster lacteus—milkflower cotoneaster*

*signifies introduced (non-native) species

Plants – Vascular Species
Pyrus calleryana—flowering pear *
Rhaphiolepis indica—Indian hawthorn*
SALICACEAE—Willow Family
Xylosma congestum—shiny xylosma*
SCROPHULARIACEAE—Figwort Family
Myoporum laetum—myoporum*
VERBENACEAE—Vervain Family
Lantana montevidensis—trailing shrubverbena*
Phyla nodiflora—turkey tangle fogfruit
GYMNOSPERMS AND GNETOPHYTES
CUPRESSACEAE—Cypress Family
Juniperus chinensis—Chinese juniper*
Platycladus orientalis—oriental arborvitae*
PINACEAE—Pine Family
Pinus canariensis—Canary Island pine*
Pinus eldarica—Eldarica pine*
Pinus halepensis—aleppo pine*
Pinus pinea—Italian stone pine*
Pinus thunbergiana—Japanese black pine *
PODOCARPACEAE—No Common Name
Podocarpus macrophyllus—yew pine *
MONOCOTS
AGAVACEAE—Agave Family
Agave attenuata—foxtail agave*
ARECACEAE—Palm Family
Howea forsteriana—kentia palm*
Syagrus romanzoffiana—queen palm*
Washingtonia robusta—Washington fan palm*
Dypsis lutescens—areca palm
ASPARAGACEAE—Asparagus Family
Asparagus aethiopicus—Sprenger's asparagus fern*
ASPHODELACEAE—Asphodel Family
Aloe maculata—no common name*
Phormium tenax—New Zealand flax*
IRIDACEAE—Iris Family
Dietes grandiflora—large fortnight lily*
LILIACEAE—Lily Family
Agapanthus africanus—lily of the nile*
Hemerocallis fulva—orange daylily*

*signifies introduced (non-native) species

Plants – Vascular Species
POACEAE—Grass Family
Brachypodium distachyon—purple false brome*
Bromus catharticus—rescuegrass*
Cynodon dactylon—Bermudagrass*
Eleusine indica—Indian goosegrass*
Festuca perennis—perennial rye grass*
Paspalum dilatatum—dallisgrass*
Poa annua—annual bluegrass*
Paspalum notatum—Bahia grass*

*signifies introduced (non-native) species

ATTACHMENT D

Special-Status Species Potential to Occur Tables

SPECIAL-STATUS PLANT SPECIES WITH POTENTIAL TO OCCUR IN STUDY AREA

Scientific Name	Common Name	Status (Federal/State/Other)	Habitats/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur in BSA
Abronia maritima	red sand-verbena	None/None/4.2/None	Coastal dunes/perennial herb/Feb–Nov/0–330	Not expected to occur. No suitable habitat is present.
Abronia villosa var. *aurita*	chaparral sand-verbena	None/None/1B.1/BLM-S, USFS-S	Chaparral, Coastal scrub, Desert dunes; Sandy/annual herb/(Jan)Mar–Sep/245–5250	Not expected to occur. The study area is outside of the species' known elevation range and there is no suitable habitat present.
Aphanisma blitoides	aphanisma	None/None/1B.2/None	Coastal bluff scrub, Coastal dunes, Coastal scrub; Gravelly (sometimes), Sandy (sometimes)/annual herb/Feb–June/5–1000	Not expected to occur. No suitable habitat is present.
Astragalus hornii var. *hornii*	Horn's milk-vetch	None/None/1B.1/BLM-S	Meadows and seeps, Playas; Alkaline, Lake Margins/annual herb/May–Oct/195–2790	Not expected to occur. The study area is outside of the species' known elevation range and there is no suitable habitat present.
Astragalus pycnostachyus var. *lanosissimus*	Ventura Marsh milk-vetch	FE/SE/1B.1/None	Coastal dunes, Coastal scrub, Marshes and swamps (edges, coastal salt, brackish)/perennial herb/(June)Aug–Oct/5–115	Not expected to occur. No suitable habitat is present.
Atriplex coulteri	Coulter's saltbush	None/None/1B.2/None	Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland; Alkaline (sometimes), Clay (sometimes)/perennial herb/Mar–Oct/10–1510	Not expected to occur. No suitable habitat is present.
Atriplex pacifica	south coast saltscale	None/None/1B.2/None	Coastal bluff scrub, Coastal dunes, Coastal scrub, Playas/annual herb/Mar–Oct/0–460	Not expected to occur. No suitable habitat is present.
Atriplex parishii	Parish's brittlescale	None/None/1B.1/USFS-S	Chenopod scrub, Playas, Vernal pools; Alkaline/annual herb/June–Oct/80–6235	Not expected to occur. The study area is outside of the species' known elevation range and there is no suitable habitat present.

Scientific Name	Common Name	Status (Federal/State/Other)	Habitats/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur in BSA
Atriplex serenana var. *davidsonii*	Davidson's saltscale	None/None/1B.2/None	Coastal bluff scrub, Coastal scrub; Alkaline/annual herb/Apr–Oct/35–655	Not expected to occur. The study area is outside of the species' known elevation range and there is no suitable habitat present.
Bahiopsis laciniata	San Diego County viguiera	None/None/4.3/None	Chaparral, Coastal scrub/perennial shrub/Feb–June(Aug)/195–2460	Not expected to occur. The study area is outside of the species' known elevation range and there is no suitable habitat present.
Berberis nevinii	Nevin's barberry	FE/SE/1B.1/None	Chaparral, Cismontane woodland, Coastal scrub, Riparian scrub; Gravelly (sometimes), Sandy (sometimes)/perennial evergreen shrub/(Feb)Mar–June/230–2705	Not expected to occur. The study area is outside of the species' known elevation range and there is no suitable habitat present.
Calochortus weedii var. *intermedius*	intermediate mariposa-lily	None/None/1B.2/USFS-S	Chaparral, Coastal scrub, Valley and foothill grassland; Rocky/perennial bulbiferous herb/May–July/345–2805	Not expected to occur. The study area is outside of the species' known elevation range and there is no suitable habitat present.
Calystegia felix	lucky morning-glory	None/None/1B.1/None	Meadows and seeps (sometimes alkaline), Riparian scrub (alluvial); Alkaline (sometimes), Loam (sometimes)/annual rhizomatous herb/Mar–Sep/100–705	Not expected to occur. The study area is outside of the species' known elevation range and there is no suitable habitat present.
Centromadia parryi ssp. *australis*	southern tarplant	None/None/1B.1/None	Marshes and swamps (margins), Valley and foothill grassland (vernally mesic), Vernal pools/annual herb/May–Nov/0–1575	Not expected to occur. No suitable habitat is present.
Chaenactis glabriuscula var. *orcuttiana*	Orcutt's pincushion	None/None/1B.1/None	Coastal bluff scrub (sandy), Coastal dunes/annual herb/Jan–Aug/0–330	Not expected to occur. No suitable habitat is present.
Chloropyron maritimum ssp. *maritimum*	salt marsh bird's-beak	FE/SE/1B.2/BLM-S	Coastal dunes, Marshes and swamps (coastal salt)/annual herb (hemiparasitic)/May–Oct(Nov)/0–100	Not expected to occur. The study area is outside of the species' known elevation range.

Scientific Name	Common Name	Status (Federal/State/Other)	Habitats/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur in BSA
Cistanthe maritima	seaside cistanthe	None/None/4.2/None	Coastal bluff scrub, Coastal scrub, Valley and foothill grassland; Sandy/annual herb/(Feb)Mar–June(Aug)/15–985	Not expected to occur. No suitable habitat is present.
Comarostaphylis diversifolia ssp. *diversifolia*	summer holly	None/None/1B.2/BLM-S	Chaparral, Cismontane woodland/perennial evergreen shrub/Apr–June/100–2590	Not expected to occur. The study area is outside of the species' known elevation range and there is no suitable habitat present.
Convolvulus simulans	small-flowered morning-glory	None/None/4.2/None	Chaparral (openings), Coastal scrub, Valley and foothill grassland; Clay, Seeps, Serpentine/annual herb/Mar–July/100–2430	Not expected to occur. The study area is outside of the species' known elevation range and there is no suitable habitat present.
Deinandra paniculata	paniculate tarplant	None/None/4.2/None	Coastal scrub, Valley and foothill grassland, Vernal pools; Sandy (sometimes), Vernally Mesic (usually)/annual herb/(Mar)Apr–Nov/80–3085	Not expected to occur. The study area is outside of the species' known elevation range and there is no suitable habitat present.
Dichondra occidentalis	western dichondra	None/None/4.2/None	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/perennial rhizomatous herb/(Jan)Mar–July/165–1640	Not expected to occur. The study area is outside of the species' known elevation range and there is no suitable habitat present.
Dudleya multicaulis	many-stemmed dudleya	None/None/1B.2/USFS-S	Chaparral, Coastal scrub, Valley and foothill grassland; Clay (often)/perennial herb/Apr–July/50–2590	Not expected to occur. The study area is outside of the species' known elevation range and there is no suitable habitat present.
Dudleya stolonifera	Laguna Beach dudleya	FT/ST/1B.1/None	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland; Rocky/perennial stoloniferous herb/May–July/35–855	Not expected to occur. The study area is outside of the species' known elevation range and there is no suitable habitat present.
Eleocharis parvula	small spikerush	None/None/4.3/None	Marshes and swamps/perennial herb/(Apr)June–Aug(Sep)/5–9910	Not expected to occur. No suitable habitat is present.

Scientific Name	Common Name	Status (Federal/State/Other)	Habitats/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur in BSA
Eriastrum densifolium ssp. *sanctorum*	Santa Ana River woollystar	FE/SE/1B.1/None	Chaparral, Coastal scrub (alluvial fans); Gravelly (sometimes), Sandy (sometimes)/perennial herb/Apr–Sep/300–2000	Not expected to occur. The study area is outside of the species' known elevation range and there is no suitable habitat present.
Eryngium aristulatum var. *parishii*	San Diego button-celery	FE/SE/1B.1/None	Coastal scrub, Valley and foothill grassland, Vernal pools; Mesic/annual/perennial herb/Apr–June/65–2035	Not expected to occur. The study area is outside of the species' known elevation range and there is no suitable habitat present.
Euphorbia misera	cliff spurge	None/None/2B.2/None	Coastal bluff scrub, Coastal scrub, Mojavean desert scrub; Rocky/perennial shrub/(Oct)Dec–Aug/35–1640	Not expected to occur. The study area is outside of the species' known elevation range and there is no suitable habitat present.
Harpagonella palmeri	Palmer's grapplinghook	None/None/4.2/None	Chaparral, Coastal scrub, Valley and foothill grassland; Clay, Openings/annual herb/Mar–May/65–3135	Not expected to occur. The study area is outside of the species' known elevation range and there is no suitable habitat present.
Helianthus nuttallii ssp. *parishii*	Los Angeles sunflower	None/None/1A/None	Marshes and swamps (freshwater, coastal salt)/perennial rhizomatous herb/Aug–Oct/35–5005	Not expected to occur. The study area is outside of the species' known elevation range and there is no suitable habitat present.
Horkelia cuneata var. *puberula*	mesa horkelia	None/None/1B.1/USFS-S	Chaparral (maritime), Cismontane woodland, Coastal scrub; Gravelly (sometimes), Sandy (sometimes)/perennial herb/Feb–July(Sep)/230–2660	Not expected to occur. The study area is outside of the species' known elevation range and there is no suitable habitat present.
Isocoma menziesii var. *decumbens*	decumbent goldenbush	None/None/1B.2/BLM-S	Chaparral, Coastal scrub (often disturbed areas, sandy)/perennial shrub/Apr–Nov/35–820	Not expected to occur. The study area is outside of the species' known elevation range and there is no suitable habitat present.

Scientific Name	Common Name	Status (Federal/State/Other)	Habitats/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur in BSA
Juglans californica	Southern California black walnut	None/None/4.2/None	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland/perennial deciduous tree/Mar–Aug/165–2955	Not expected to occur. The study area is outside of the species' known elevation range and there is no suitable habitat present.
Juncus acutus ssp. *leopoldii*	southwestern spiny rush	None/None/4.2/None	Coastal dunes (mesic), Coastal scrub, Marshes and swamps (coastal salt), Meadows and seeps (alkaline seeps)/perennial rhizomatous herb/(Mar)May–June/10–2955	Not expected to occur. No suitable habitat is present.
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	None/None/1B.1/BLM-S	Marshes and swamps (coastal salt), Playas, Vernal pools/annual herb/Feb–June/5–4005	Not expected to occur. No suitable habitat is present.
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	None/None/4.3/None	Chaparral, Coastal scrub/annual herb/Jan–July/5–2905	Not expected to occur. No suitable habitat is present.
Lycium californicum	California box-thorn	None/None/4.2/None	Coastal bluff scrub, Coastal scrub/perennial shrub/Mar–Aug(Dec)/15–490	Not expected to occur. No suitable habitat is present.
Malacothrix saxatilis var. *saxatilis*	cliff malacothrix	None/None/4.2/None	Coastal bluff scrub, Coastal scrub/perennial rhizomatous herb/Mar–Sep/10–655	Not expected to occur. No suitable habitat is present.
Microseris douglasii ssp. *platycarpha*	small-flowered microseris	None/None/4.2/None	Cismontane woodland, Coastal scrub, Valley and foothill grassland, Vernal pools; Clay/annual herb/Mar–May/50–3510	Not expected to occur. No suitable habitat is present.
Nama stenocarpa	mud nama	None/None/2B.2/None	Marshes and swamps (lake margins, riverbanks)/annual/perennial herb/Jan–July/15–1640	Not expected to occur. No suitable habitat is present.
Nasturtium gambelii	Gambel's water cress	FE/ST/1B.1/None	Marshes and swamps (brackish, freshwater)/perennial rhizomatous herb/Apr–Oct/15–1085	Not expected to occur. No suitable habitat is present.
Navarretia prostrata	prostrate vernal pool navarretia	None/None/1B.2/None	Coastal scrub, Meadows and seeps, Valley and foothill grassland (alkaline), Vernal pools; Mesic/annual herb/Apr–July/10–3970	Not expected to occur. No suitable habitat is present.
Nemacaulis denudata var. *denudata*	coast woolly-heads	None/None/1B.2/None	Coastal dunes/annual herb/Apr–Sep/0–330	Not expected to occur. No suitable habitat is present.

Scientific Name	Common Name	Status (Federal/State/Other)	Habitats/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur in BSA
Ophioglossum californicum	California adder's-tongue	None/None/4.2/None	Chaparral, Valley and foothill grassland, Vernal pools (margins); Mesic/perennial rhizomatous herb/Jan–June(Dec)/195–1725	Not expected to occur. The study area is outside of the species' known elevation range and there is no suitable habitat present.
Orcuttia californica	California Orcutt grass	FE/SE/1B.1/None	Vernal pools/annual herb/Apr–Aug/50–2165	Not expected to occur. No suitable habitat is present.
Pentachaeta aurea ssp. *allenii*	Allen's pentachaeta	None/None/1B.1/None	Coastal scrub (openings), Valley and foothill grassland/annual herb/Mar–June/245–1705	Not expected to occur. The study area is outside of the species' known elevation range and there is no suitable habitat present.
Phacelia stellaris	Brand's star phacelia	None/None/1B.1/None	Coastal dunes, Coastal scrub/annual herb/Mar–June/5–1310	Not expected to occur. No suitable habitat is present.
Quercus dumosa	Nuttall's scrub oak	None/None/1B.1/BLM-S, USFS-S	Chaparral, Closed-cone coniferous forest, Coastal scrub; Clay, Loam, Sandy/perennial evergreen shrub/Feb–Apr(May–Aug)/50–1310	Not expected to occur. No suitable habitat is present.
Sagittaria sanfordii	Sanford's arrowhead	None/None/1B.2/BLM-S	Marshes and swamps (shallow freshwater)/perennial rhizomatous herb (emergent)/May–Oct(Nov)/0–2135	Not expected to occur. No suitable habitat is present.
Selaginella cinerascens	ashy spike-moss	None/None/4.1/None	Chaparral, Coastal scrub/perennial rhizomatous herb/65–2100	Not expected to occur. The study area is outside of the species' known elevation range and there is no suitable habitat present.
Senecio aphanactis	chaparral ragwort	None/None/2B.2/None	Chaparral, Cismontane woodland, Coastal scrub; Alkaline (sometimes)/annual herb/Jan–Apr(May)/50–2625	Not expected to occur. No suitable habitat is present.
Sidalcea neomexicana	salt spring checkerbloom	None/None/2B.2/USFS-S	Chaparral, Coastal scrub, Lower montane coniferous forest, Mojavean desert scrub, Playas; Alkaline, Mesic/perennial herb/Mar–June/50–5020	Not expected to occur. No suitable habitat is present.
Suaeda esteroa	estuary seablite	None/None/1B.2/None	Marshes and swamps (coastal salt)/perennial herb/(Jan–May)July–Oct/0–15	Not expected to occur. No suitable habitat is present.

Scientific Name	Common Name	Status (Federal/State/Other)	Habitats/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur in BSA
Suaeda taxifolia	woolly seablite	None/None/4.2/None	Coastal bluff scrub, Coastal dunes, Marshes and swamps (coastal margins)/perennial evergreen shrub/Jan–Dec/0–165	Not expected to occur. No suitable habitat is present.
Symphyotrichum defoliatum	San Bernardino aster	None/None/1B.2/USFS-S	Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Marshes and swamps, Meadows and seeps, Valley and foothill grassland (vernally mesic); Streambanks/perennial rhizomatous herb/July–Nov/5–6695	Not expected to occur. No suitable habitat is present.
Verbesina dissita	big-leaved crownbeard	FT/ST/1B.1/None	Chaparral (maritime), Coastal scrub/perennial herb/(Mar)Apr–July/150–675	Not expected to occur. The study area is outside of the species' known elevation range and there is no suitable habitat present.

Status Legend:

Federal
FE: Federally listed as endangered
FT: Federally listed as threatened
FPE: Federally proposed for listing as endangered
FPT: Federally proposed for listing as threatened
FC: Federal candidate species (former Category 1 candidates)
None: No federal listing
FDL: Delisted

State
SE: State listed as endangered
ST: State listed as threatened
SR: State rare
SCE: State candidate for listing as endangered
SCT: State candidate for listing as threatened
None: No state listing
SDL: State delisting

California Rare Plant Rank (CRPR)
CRPR 1A: Plants presumed extirpated in California and either rare or extinct elsewhere
CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere
CRPR 2A: Plants presumed extirpated in California but common elsewhere
CRPR 2B: Plants rare, threatened, or endangered in California but more common elsewhere
CRPR 3: Review List: Plants about which more information is needed
CRPR 4: Watch List: Plants of limited distribution
.1 Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 Moderately threatened in California (20–80% occurrences threatened / moderate degree and immediacy of threat)
.3 Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

SPECIAL-STATUS ANIMAL SPECIES WITH POTENTIAL TO OCCUR IN STUDY AREA

Scientific Name	Common Name	Status (Federal/State/Other)	Habitats	Potential to Occur in BSA
Amphibians				
Spea hammondii	western spadefoot	FPT / None / BLM-S, CDFW-SSC	Cismontane woodland | Coastal scrub | Valley & foothill grassland | Vernal pool | Wetland; Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands.	Not expected to occur. No suitable habitat is present.
Birds				
Agelaius tricolor	tricolored blackbird	None / ST / BLM-S, CDFW-SSC	Freshwater marsh | Marsh & swamp | Swamp | Wetland; Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California.	Not expected to occur. No suitable habitat is present.
Ammodramus savannarum	grasshopper sparrow	None / None / CDFW-SSC	Valley & foothill grassland; Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes.	Not expected to occur. No suitable habitat is present.
Athene cunicularia	burrowing owl	None / SCE / BLM-S, CDFW-SSC	Coastal prairie | Coastal scrub | Great Basin grassland | Great Basin scrub | Mojavean desert scrub | Sonoran desert scrub | Valley & foothill grassland; Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation.	Moderate potential to occur. Multiple suitable burrows were observed on site. There is a recent extant occurrence within the industrial property roughly 0.25 miles south of the project site.
Buteo swainsoni	Swainson's hawk	None / ST / BLM-S	Great Basin grassland | Riparian forest | Riparian woodland | Valley & foothill grassland; Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees.	Not expected to occur. No suitable habitat is present.
Campylorhynchus brunneicapillus sandiegensis	coastal cactus wren	None / None / CDFW-SSC, USFS-S	Coastal scrub; Southern California coastal sage scrub.	Not expected to occur. No suitable habitat is present.
Charadrius alexandrinus nivosus	western snowy plover	FT / None / CDFW-SSC	Great Basin standing waters | Sand shore | Wetland; Sandy beaches, salt pond levees and shores of large alkali lakes.	Not expected to occur. No suitable habitat is present.
Coccyzus americanus occidentalis	western yellow-billed cuckoo	FT / SE / BLM-S, USFS-S	Riparian forest; Riparian forest nester, along the broad, lower flood-bottoms of larger river systems.	Not expected to occur. No suitable habitat is present.
Coturnicops noveboracensis	yellow rail	None / None / CDFW-SSC, USFS-S	Freshwater marsh | Meadow & seep; Summer resident in eastern Sierra Nevada in Mono County.	Not expected to occur. No suitable habitat is present.

Scientific Name	Common Name	Status (Federal/State/Other)	Habitats	Potential to Occur in BSA
Elanus leucurus	white-tailed kite	None / None / BLM-S, CDFW-FP	Cismontane woodland | Marsh & swamp | Riparian woodland | Valley & foothill grassland | Wetland; Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland.	Not expected to occur. No suitable habitat is present.
Icteria virens	yellow-breasted chat	None / None / CDFW-SSC	Riparian forest | Riparian scrub | Riparian woodland; Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses.	Not expected to occur. No suitable habitat is present.
Laterallus jamaicensis coturniculus	California black rail	None / ST / BLM-S, CDFW-FP	Brackish marsh | Freshwater marsh | Marsh & swamp | Salt marsh | Wetland; Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays.	Not expected to occur. No suitable habitat is present.
Passerculus sandwichensis beldingi	Belding's savannah sparrow	None / SE / None	Marsh & swamp | Wetland; Inhabits coastal salt marshes, from Santa Barbara south through San Diego County.	Not expected to occur. No suitable habitat is present.
Polioptila californica californica	coastal California gnatcatcher	FT / None / CDFW-SSC	Coastal bluff scrub | Coastal scrub; Obligate, permanent resident of coastal sage scrub below 2500 ft in Southern California.	Not expected to occur. No suitable habitat is present.
Rallus obsoletus levipes	light-footed Ridgway's rail	FE / SE / CDFW-FP	Marsh & swamp | Salt marsh | Wetland; Found in salt marshes traversed by tidal sloughs, where cordgrass and pickleweed are the dominant vegetation.	Not expected to occur. No suitable habitat is present.
Riparia riparia	bank swallow	None / ST / BLM-S	Riparian scrub | Riparian woodland; Colonial nester; nests primarily in riparian and other lowland habitats west of the desert.	Not expected to occur. No suitable habitat is present.
Rynchops niger	black skimmer	None / None / CDFW-SSC	Alkali playa | Sand shore; Nests on gravel bars, low islets, and sandy beaches, in unvegetated sites. Nesting colonies usually less than 200 pairs.	Not expected to occur. No suitable habitat is present.
Setophaga petechia	yellow warbler	None / None / CDFW-SSC	Riparian forest | Riparian scrub | Riparian woodland; Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada.	Not expected to occur. No suitable habitat is present.
Sternula antillarum browni	California least tern	FE / SE / CDFW-FP	Alkali playa | Wetland; Nests along the coast from San Francisco Bay south to northern Baja California.	Not expected to occur. No suitable habitat is present.
Vireo bellii pusillus	least Bell's vireo	FE / SE / None	Riparian forest | Riparian scrub | Riparian woodland; Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft.	Not expected to occur. No suitable habitat is present.

Scientific Name	Common Name	Status (Federal/State/Other)	Habitats	Potential to Occur in BSA
Fishes				
Catostomus santaanae	Santa Ana sucker	FT / None / CDFW-SSC	Aquatic | South coast flowing waters; Endemic to Los Angeles Basin south coastal streams.	Not expected to occur. No suitable habitat is present.
Eucyclogobius newberryi	tidewater goby	FE / None / CDFW-SSC	Aquatic | Klamath/North coast flowing waters | Sacramento/San Joaquin flowing waters | South coast flowing waters; Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River.	Not expected to occur. No suitable habitat is present.
Oncorhynchus mykiss irideus pop. 10	steelhead - southern California DPS	FE / SCE / None	Aquatic | South coast flowing waters; Federal listing refers to populations from Santa Maria River south to southern extent of range (San Mateo Creek in San Diego County).	Not expected to occur. No suitable habitat is present.
Invertebrates				
Bombus crotchii	Crotch's bumble bee	None / SCE / None	Open grassland and scrub communities supporting suitable floral resources. Coastal California east to the Sierra-Cascade crest and south into Mexico.	Not expected to occur. No suitable habitat is present. Habitat is fragmented from any recent occurrence records and no food plant genera occur on site.
Branchinecta sandiegonensis	San Diego fairy shrimp	FE / None / None	Chaparral | Coastal scrub | Vernal pool | Wetland; Endemic to San Diego and Orange County mesas.	Not expected to occur. No suitable habitat is present.
Danaus plexippus plexippus	monarch - California overwintering population	FPT / None / USFS-S	Closed-cone coniferous forest; Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico.	Moderate potential to occur. Monarch may be observed flying through the BSA or utilizing trees to roost temporarily but is not expected to breed on-site due to the lack of suitable host plants. Furthermore, monarch is not expected to overwinter within the BSA due to the lack of suitable habitat.
Euphydryas editha quino	quino checkerspot butterfly	FE / None / None	Chaparral | Coastal scrub; Sunny openings within chaparral and coastal sage shrublands in parts of Riverside and San Diego counties.	Not expected to occur. No suitable habitat is present.
Streptocephalus woottoni	Riverside fairy shrimp	FE / None / None	Coastal scrub | Valley & foothill grassland | Vernal pool | Wetland; Endemic to Western Riverside, Orange, and San Diego counties in areas of tectonic swales/earth slump basins in grassland and coastal sage scrub.	Not expected to occur. No suitable habitat is present.

Scientific Name	Common Name	Status (Federal/State/Other)	Habitats	Potential to Occur in BSA
Mammals				
Choeronycteris mexicana	Mexican long-tongued bat	None / None / CDFW-SSC	Pinon & juniper woodlands | Riparian scrub | Sonoran thorn woodland; Occasionally found in San Diego County, which is on the periphery of their range.	Not expected to occur. No recent extant occurrence records are present near the BSA. Marginal suitable habitat is present within the BSA.
Eumops perotis californicus	western mastiff bat	None / None / BLM-S, CDFW-SSC	Chaparral | Cismontane woodland | Coastal scrub | Valley & foothill grassland; Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc.	Not expected to occur. No recent extant occurrence records are present near the BSA. Marginal suitable habitat is present within the BSA.
Lasiurus xanthinus	western yellow bat	None / None / CDFW-SSC	Desert wash; Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats.	Not expected to occur. No recent extant occurrence records are present near the BSA. Marginal suitable habitat is present within the BSA.
Microtus californicus stephensi	south coast marsh vole	None / None / CDFW-SSC	Tidal marshes; Tidal marshes in Los Angeles, Orange and southern Ventura counties.	Not expected to occur. No suitable habitat is present.
Myotis yumanensis	Yuma myotis	None / None / BLM-S	Lower montane coniferous forest | Riparian forest | Riparian woodland | Upper montane coniferous forest; Optimal habitats are open forests and woodlands with sources of water over which to feed.	Not expected to occur. No recent extant occurrence records are present near the BSA. Marginal suitable habitat is present within the BSA.
Nyctinomops macrotis	big free-tailed bat	None / None / CDFW-SSC	Rocky areas; roosts in caves, holes in trees, buildings, and crevices on cliffs and rocky outcrops; forages over water ; Low-lying arid areas in Southern California.	Not expected to occur. No recent extant occurrence records are present near the BSA. Marginal suitable habitat is present within the BSA.
Perognathus longimembris pacificus	Pacific pocket mouse	FE / None / CDFW-SSC	Coastal scrub; Inhabits the narrow coastal plains from the Mexican border north to El Segundo, Los Angeles County.	Not expected to occur. No suitable habitat is present.
Sorex ornatus salicornicus	southern California saltmarsh shrew	None / None / CDFW-SSC	Salt marsh; Coastal marshes in Los Angeles, Orange and Ventura counties.	Not expected to occur. No suitable habitat is present.

Scientific Name	Common Name	Status (Federal/State/Other)	Habitats	Potential to Occur in BSA
Taxidea taxus	American badger	None / None / CDFW-SSC	Alkali marsh | Alkali playa | Alpine | Alpine dwarf scrub | Bog & fen | Brackish marsh | Broadleaved upland forest | Chaparral | Chenopod scrub | Cismontane woodland | Closed-cone coniferous forest | Coastal bluff scrub | Coastal dunes | Coastal prairie; Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils.	Not expected to occur. No suitable habitat is present.
Reptiles				
Actinemys pallida	southwestern pond turtle	FPT / None / BLM-S, CDFW-SSC, USFS-S	; Freshwater environments such as ponds, lakes, reservoirs, and slow-moving streams with abundant aquatic vegetation, typically in low to mid-elevation areas.	Not expected to occur. No suitable habitat is present.
Anniella stebbinsi	Southern California legless lizard	None / None / CDFW-SSC, USFS-S	Broadleaved upland forest | Chaparral | Coastal dunes | Coastal scrub; Generally south of the Transverse Range, extending to northwestern Baja California. Occurs in sandy or loose loamy soils under sparse vegetation. Disjunct populations in the Tehachapi and Piute Mountains in Kern County.	Not expected to occur. No suitable habitat is present.
Aspidoscelis hyperythra	orange-throated whiptail	None / None / USFS-S	Chaparral | Cismontane woodland | Coastal scrub; Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats.	Not expected to occur. No suitable habitat is present.
Chelonia mydas	green turtle	FT / None / None	Marine bay; Marine.	Not expected to occur. No suitable habitat is present.
Crotalus ruber	red-diamond rattlesnake	None / None / CDFW-SSC, USFS-S	Chaparral | Mojavean desert scrub | Sonoran desert scrub; Chaparral, woodland, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains.	Not expected to occur. No suitable habitat is present.
Phrynosoma blainvillii	coast horned lizard	None / None / BLM-S, CDFW-SSC	Chaparral | Cismontane woodland | Coastal bluff scrub | Coastal scrub | Desert wash | Pinon & juniper woodlands | Riparian scrub | Riparian woodland | Valley & foothill grassland; Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes.	Not expected to occur. No suitable habitat is present.

Status Legend:		
Federal	**State**	**Other**
FE: Federally listed as endangered	SE: State listed as endangered	BCC: U.S. Fish and Wildlife Service Bird of Conservation Concern
FT: Federally listed as threatened	ST: State listed as threatened	BLM-S: Bureau of Land Management Sensitive Species
FPE: Federally proposed for listing as endangered	SR: State rare	CDFW-FP: California Fully Protected Species
FPT: Federally proposed for listing as threatened	SCE: State candidate for listing as endangered	CDFW-SSC: California Species of Special Concern
FC: Federal candidate species (former Category 1 candidates)	SCT: State candidate for listing as threatened	USFS-S: U.S. Forest Service Sensitive Species
None: No federal listing	None: No state listing	
FDL: Delisted	SDL: State delisting	

Michael Baker
INTERNATIONAL

September 2, 2025

Ashley Wysocki
Director of Community & Library Services
City of Huntington Beach
2000 Main Street, 5th Floor
Huntington Beach, CA 92648
Email: ashley.wysocki@surfcity-hb.org

RE: CULTURAL RESOURCES ASSESSMENT FOR THE EDISON PARK RECONFIGURATION AND IMPROVEMENT PROJECT, CITY OF HUNTINGTON BEACH, ORANGE COUNTY, CALIFORNIA

Dear Ms. Wysocki:

The City of Huntington Beach (City) is proposing the Edison Park Reconfiguration and Improvements Project (Project). Edison Park is located between two major thoroughfares, Hamilton Avenue to the south and Magnolia Street to the east, in southeast Huntington Beach, Orange County, California. The Project aims to enhance the park through the construction of new structures and amenities such as a sport court plaza with seating and shade, basketball, tennis, and pickleball courts, practice hitting walls, retaining walls, fence posts for batting cages, entry monument sign, new shade shelters, an all-wheels skate plaza, pump track, and light poles.

In support of the Project, Michael Baker International completed a South Central Coastal Information Center (SCCIC) records search; a literature, aerial photograph, and historical map review; Native American Heritage Commission (NAHC) Sacred Lands File search and tribal outreach; built environment resource evaluation; and archaeological sensitivity assessment, to determine whether the Project could result in an adverse effect on a historic property as defined by 36 Code of Federal Regulations Part 800.5. Methods, results, and recommendations are summarized below.

PROJECT DESCRIPTION

The proposed Project consists of the reconfiguration of the park and the creation of new park amenities over non-landfill land at Edison Community Park, 21377 Magnolia Street. The various new and upgraded amenities, including new sports courts, wheel sports, playground, trees, walkways, parking lot, and access, would offer diversified recreation and allow for more park engagement. The resettling and sinking amenities would be cleared under the Project to allow for more open space. The Project is proposed to be constructed in three phases to allow portions of the park to remain open during construction. See Proposed Phasing Plan for more information about each phase **(Attachment 1)**.

The Project site is currently occupied by the 35.5-acre Edison Community Park, identified by Assessor Parcel Numbers (APN) (APNs 148-012-04, -06, -12, and 148-071-29). It is generally bound by Stilwell Drive to the north, Magnolia Street to the east, Hamilton Avenue to the south, and a portion of Seaforth Lane to the west.

Regional access to the site is provided via State Route 1 and State Route 39 (Beach Boulevard). Local access to the site is provided via Hamilton Avenue, Magnolia Street, and Stilwell Drive.

Edison Park was originally used by Southern California Edison as a sand and gravel pit in the 1950s. It was later used as the Cannery Street Refuse Disposal Station (also known as the Cannery Street Landfill) in the 1950s through 1960s. The former landfill was approximately 27.5 acres in size (63.3 percent of the park) and encompassed the west side of the current park site. Upon completion of waste placement activities, the former owner of Cannery Street Landfill) (County of Orange) dedicated the site to the City in 1974. To comply with the park restriction zoning, the City developed the area into the public park that is now the Edison Community Park in that same year (1974).

PROJECT SITE

The Project site is identified as the entire Edison Park, which is made up of an approximately 35.5-acre space that encompasses APN 148-012-12. The Project site is made up of the 35.5-acre site encompassing four parcels (listed above) and is generally bound by Stilwell Drive to the north, Magnolia Street to the east, Hamilton Avenue to the south, and a portion of Seaforth Lane to the west. The southern portion of the site (inclusive of parcels with APNs 148-012-06 and 148-071-29) is owned and operated by Southern California Edison. The approximately 4.5-acre lot with three ballfields to the northwest of the site is owned and operated by the Huntington Beach City School District and is not part of the Project site (**Attachment 1**). The maximum depth of disturbance for the Project has been estimated to be 8 feet.

CULTURAL RESOURCES IDENTIFICATION METHODS

The results of the SCCIC records search, archival research, literature, historical map and aerial photograph review, field survey, local interested party consultation, NAHC Sacred Lands File search, archaeological site sensitivity analysis, and resource description are presented below.

SOUTH CENTRAL COASTAL INFORMATION CENTER

On July 31, 2025, Michael Baker International Senior Archaeologist Marc Beherec, PhD, RPA, conducted a records search at the SCCIC. The records search included the Project site and a half-mile radius. The SCCIC, located at California State University, Fullerton, California, is part of the California Historical Resources Information System, an affiliate of the California Office of Historic Preservation (OHP). It is the official state repository of cultural resources records and reports for Orange County. As part of the records search, the following federal and California inventories were reviewed:

- National Register of Historic Places (National Park Service 2020).
- Archaeological Resources Directory (OHP 2025a). The directory includes the OHP determinations of eligibility for archaeological resources in Orange County.
- California Historical Resources (OHP 2025b).
- Built Environment Resources Directory for Orange County (OHP 2025c). The directory includes built resources reviewed for eligibility for the National Register and the California Historical Landmarks programs through federal and state environmental compliance laws, and built resources nominated under federal and state registration programs, including the National Register, California Register of Historical Resources, California Historical Landmarks, and California Points of Historical Interest.

Results

Previous Studies

Twelve cultural resources studies have previously been completed within 0.5 miles of the Project site. One of these studies (OR-03450) overlaps the Project site. Three additional general area studies (OR-0001, OR-02033, and OR-04313) encompass all of Huntington Beach.

Table 1: Previous Studies within 0.5 Miles of the Project site.

Author	Report No.	Date	Title/Description	Within Project site	Historic Properties Identified Within Footprint of Study?
Ahlering, Michael L.	OR-0001	1973	Report of a Scientific Resources Survey and Inventory: Conducted for the City of Huntington Beach, California	No	No
Mason, Roger D.	OR-02033	1987	Research Design for Evaluation of Coastal Archaeological Sites in Northern Orange County, California	No	No
Lapin, Philippe	OR-02134	2000	Cultural Resource Assessment for Pacific Bell Wireless Facility Cm 294-12, County of Orange, California	No	No
Duke, Curt	OR-02229	2000	Cultural Resource Assessment for the AT&T Wireless Services Facility Number C871.2, County of Orange, California	No	No
Hoover, Anna M.	OR-02456	2000	Cultural Resources Literature and Records Review for the Southeast Coastal Industrial Area Redevelopment Project, Huntington Beach, California	No	No
Bonner, Wayne H.	OR-03450	2007	Cultural Resource Records Search and Site Visit Results for Royal Street Communications, LLC Candidate La2739a (Magnolia & Hamilton), West of Magnolia Street on Hamilton Avenue, Huntington Beach, Orange County, California	Yes	Yes

Author	Report No.	Date	Title/Description	Within Project site	Historic Properties Identified Within Footprint of Study?
Losee, Carolyn	OR-03582	2009	Cultural Resources Investigation for T-Mobile LA33422A "Landmark Liquor" 8491 Atlanta Avenue, Huntington Beach, Orange County, California 92646	No	No
Mason, Roger D.	OR-03614	2003	Cultural Resources Records Search and Field Survey Report for a Verizon Telecommunications Facility: Magnolia in the City of Huntington Beach, Orange County, California	No	No
Brown, Joan and Maxon, Patrick	OR-03842	2010	Phase 1 Cultural Resources Assessment for the Poseidon Seawater Desalination Project, Huntington Beach, Orange County, California	No	No
Unknown	OR-04313	2013	Historic and Cultural Resources Element - Huntington Beach	No	No
Gilbert, Rebecca and Lauren DeOliveira	OR-04594	2017	Archaeological Survey Report for the Huntington Beachwave 66 Kv Relocation Project, Orange County, California	No	No
Belcourt, Tria M., Jennifer Kelly, and Sonia Sifuentes	OR-04595	2017	CULTURAL AND PALEONTOLOGICAL ASSESSMENT: MAGNOLIA TANK FARM PROJECT, CITY OF HUNTINGTON BEACH, ORANGE COUNTY, CALIFORNIA	No	No

Previously Documented Resources

No cultural resources were previously identified within or immediately adjacent to the Project site.

One archaeological resource (P-30-001531) was recorded within 0.5 miles of the Project site. The documented resource consists of a prehistoric shell scatter (Duke 1999).

One historic built environment resource (P-30-0176946) was identified within 0.5 miles of the Project site. This resource has not been evaluated for listing in the National Register.

A list of these resources is included in Attachment 2.

Literature, Historical Map, and Aerial Photograph Review

Michael Baker International reviewed literature, maps, and aerial photographs for historical and archaeological information about the Project site and the vicinity. Below is a list of resources reviewed, followed by a narrative description of the results for the Project site.

Natural Setting

California is divided into 11 geomorphic provinces, each defined by unique geologic and geomorphic characteristics. The Project site is in the Peninsular Ranges geomorphic province, which consists of a series of ranges separated by longitudinal valleys, trending northwest to southeast, subparallel to faults branching from the San Andreas Fault. The trend of topography is similar to the Coast Ranges, but the geology is more like the Sierra Nevada, with granitic rock intruding the older metamorphic rocks. The Peninsular Ranges extend into lower California and are bound on the east by the Colorado Desert. The Los Angeles Basin, and the island group (Santa Catalina, Santa Barbara, and the distinctly terraced San Clemente and San Nicolas Islands), together with the surrounding continental shelf (cut by deep submarine fault troughs) are included in this province (CGS 2002).

The soils in the Project site are mapped as 100 percent Bolsa silt loam, drained, fallow, 0 to 2 percent slopes. These soils form in nearly level floodplains and basins and originate in stratified alluvium derived from mixed sources (NRCS, n.d.).

The Project site is located within the Santa Ana River watershed, which is 1 of 11 watersheds in Orange County. The Santa Ana River watershed covers 2,650 square miles and is the largest watershed in Southern California. The Santa Ana River is the most expansive waterway and travels from the San Bernardino Mountains through the Santa Ana River watershed to intersect with the Pacific Ocean at Huntington State Beach. The piece of the watershed within Orange County spans 210 square miles and includes all or a portion of 12 cities: Yorba Linda, Brea, Placentia, Villa Park, Orange, Anaheim, Garden Grove, Santa Ana, Fountain Valley, Costa Mesa, Newport Beach, and Huntington Beach (H20C Stormwater Program, n.d.).

The Project site is within the Los Angeles Plain ecoregion, a part of the larger Southern California/Northern Baja Coast ecoregion. The Los Angeles Plain ecoregion consists of nearly level floodplains and terraces, where annual precipitation ranges from 10 to 17 inches. Typical vegetation historically included California sagebrush, California buckwheat, coast live oak, chamise chaparral, and annual grasslands (Griffith et al. 2016).

Prehistoric Context

The prehistoric occupation of Southern California is divided chronologically into four temporal phases or horizons (Moratto 1984). Horizon I, or the Early Man Horizon, began at the first appearance of people in the region (approximately 12,000 years ago) and continued until approximately 5000 BC. One of the

oldest archaeological finds in the region is Daisy Cave, on San Miguel Island, where cultural remains have been radiocarbon dated to between 11,100 and 10,950 BC (Moratto 1984). These early occupants of Southern California are believed to have been nomadic large-game hunters whose tool assemblage included percussion-flaked scrapers and knives; large, well-made stemmed, fluted, or leaf-shaped projectile points (e.g., Lake Mojave, Silver Lake); crescentics; heavy core/cobble tools; hammerstones; bifacial cores; and choppers and scraper-planes. Warren (1968) and Wallace (1955) suggest that the absence of milling tools commonly used for seed preparation indicates that an orientation toward hunting continued throughout this phase.

Horizon II, also known as the Millingstone Horizon or Encinitas Tradition, began around 5000 BC and continued until approximately 1500 BC. The Millingstone Horizon is characterized by the widespread use of milling stones (manos and metates) and core tools, with few projectile points or bone or shell artifacts. This horizon represents a diversification of subsistence activities and a more sedentary settlement pattern. Archaeological evidence suggests that hunting became less critical and that a reliance on collecting shellfish and vegetal resources increased (Moratto 1984: 159). The inland occupants collected primarily hard seeds and hunted small mammals; projectile points were more common in inland assemblages.

A greater emphasis on seed gathering marked the general settlement/subsistence patterns of the Middle Holocene [Horizon II]. Coastal and inland sites exhibit shallow midden accumulations, suggesting seasonal camping, and midden accumulation at desert locales dating to this period is generally rare. Based on the distribution of sites assigned to this period, aboriginal groups likely followed a modified, centrally based wandering pattern, with an inferred shift toward enhanced logistical settlement organization (Warren 1968). In this semisedentary pattern, larger groups occupied a base camp for a portion of the year, while smaller groups used satellite camps to exploit seasonally available floral resources such as grass seeds, berries, tubers, and nuts. King suggests that the coastal sites probably represent more permanent occupations than those found in the interior because coastal inhabitants were sustained by more reliable and abundant food resources (King 1967: 66-67).

Horizon III, the Intermediate Horizon or Campbell Tradition, began around 1500 BC and continued until approximately AD 600–800. Horizon III is defined by a shift from the use of milling stones to increased use of mortar and pestle, possibly indicating a greater reliance on acorns as a food source. Projectile points become more abundant and, together with faunal remains, indicate increased use of both land and sea mammals (Moratto 1984: 159).

Horizon IV, the Late Horizon, which began around AD 600–800 and terminated with the arrival of Europeans, is characterized by dense populations; diversified hunting and gathering subsistence strategies, including intensive fishing and hunting for sea mammals; extensive trade networks; use of the bow and arrow; and a general cultural elaboration (Moratto 1984: 159). All regional chronological sequences recognize the introduction of the bow and arrow at about AD 500 by the appearance of small arrow points and arrow-shaft straighteners. Diagnostic artifacts for the Late Horizon include small triangular projectile points, mortars and pestles, steatite ornaments and containers, perforated stones, circular shell fishhooks, numerous and varied bone tools, and bone and shell ornamentation. Elaborate mortuary customs, generous use of bitumen, and the development of extensive trade networks are also characteristic of this period. Pottery, ceramic pipes, cremation urns, rock paintings, and some European trade goods were added to the previous cultural assemblage during the latter half of the late prehistoric occupation of the Southern California coastal region (Meighan 1954).

Ethnographic Context

This undertaking is located in a region traditionally occupied by the Gabrielino. The term "Gabrielino" is a general term that refers to those Native Americans who were sent by the Spanish to the Mission San Gabriel Arcángel. Two indigenous terms are commonly used by tribal groups to refer to themselves and are preferred by descendant groups: Tongva and Kizh.

Sources of historical information on the Gabrielino include Hugo Reid ([1852] 1968), Alfred Kroeber (1925), John P. Harrington ([1934] 1978), Bernice E. Johnston (1962), and C. Hart Merriam (1955).

Prior to European colonization, the Gabrielino occupied a diverse area that included the watersheds of the Los Angeles, San Gabriel, and Santa Ana Rivers; the Los Angeles Basin; and the islands of San Clemente, San Nicolas, and Santa Catalina. Their neighbors included the Chumash and Tataviam to the north, the Juaneño to the south, and the Serrano and Cahuilla to the east. The Gabrielino are reported to have been second only to the Chumash in terms of population size and regional influence. The Gabrielino spoke a dialect of the Cupan group of the Takic branch of the Uto-Aztecan language family (Bean and Smith 1978: 538-549).

The Gabrielino Indians were hunter-gatherers and lived in permanent communities located near the presence of a stable food supply. Subsistence consisted of hunting, fishing, and gathering. Small terrestrial game was hunted with deadfalls and rabbit drives and by burning undergrowth, while larger game such as deer were hunted using bows and arrows. Fish were taken by hook and line, nets, traps, spears, and poison (Bean and Smith 1978). The primary plant resources were acorns, gathered in the fall and processed in mortars and pestles, and various seeds that were harvested in late spring and summer and ground with manos and metates. The seeds included chia and other sages, various grasses, and islay or holly-leafed cherry. Community populations generally ranged from 50 to 100 inhabitants, although larger settlements may have existed. The Gabrielino are estimated to have had a population numbering around 5,000 in the pre-contact period (Kroeber 1925).

What is usually called the Late Prehistoric period, spanning from approximately 1500 years before present (BP) to the mission era, is the period associated with the florescence of the Gabrielino (Wallace 1955). Coming ashore near Malibu Lagoon or Mugu Lagoon in October 1542, Juan Rodriguez Cabrillo was the first European to make contact with the Gabrielino Indians.

Gabrielino villages were most common along the coast and along the region's major rivers, where villages formed of domed structures the Spanish likened to half-oranges centered around a temple and the home of the village chief. The resource procurement area claimed by these villages spread around the village center, abutting against the territories of nearby villages. The exact locations of the centers of Gabrielino villages are generally poorly known. The few Spanish or Mexican period maps of the region generally do not show Gabrielino villages. Most of the Los Angeles region was included in land grants, and so never entered the Public Lands System; therefore, it was not surveyed when California was first acquired by the United States, and no early American surveyors mapped villages either. The rapid development of Los Angeles in the nineteenth and twentieth centuries led to the destruction of villages' archaeological remains. The irregular flow of the area's drainages led to washing away or burying of village sites, and the paving of the same drainages in the middle twentieth century entombed whatever sites were there beneath concrete and rubble. In general, archaeologists and ethnologists rely on American-period historical documents, the oral histories of the Gabrielino themselves, and rare archaeological finds to pinpoint village locations.

Maps and early histories show Gabrielino villages known or suspected to be located in the vicinity of Huntington Beach. The *Kirkman-Harriman Pictorial and Historical Map of Los Angeles County, A.D. 1860*, was prepared in 1937 but intended to represent the area as it existed nearly 80 years earlier. The source of the information in this map is unclear, but it has generally been found to be reliable. The map shows two villages within the vicinity of Huntington Beach. These maps do not show any sites within or adjacent to the Project site itself.

Other villages, the names of which are not recorded, no doubt existed throughout the Los Angeles Basin. Smaller settlements, possibly unnamed and lacking a chief's house and ceremonial structure and owing allegiance to a nearby village, likely also peppered the area. The resource procurement areas of these known and unknown villages would have included the immediate vicinity, and the Project vicinity would have been claimed by one or more of these villages depending on trade and political alliances. By the early 1800s, introduced diseases led to population decline, and Spanish use of the land for agriculture and grazing made the Gabrielinos' reliance on their traditional lifestyle increasingly untenable. The majority of California's coastal Native American populations had entered the mission system by the year 1804 (Jackson and Gardzina 1999).

Historic Context

Regional History

Following California's statehood in 1850, many Mexican-held land grants in Orange County were sold to Americans, such as Abel Stearns, James Irvine, and Llewellyn and Jotham Bixby. During the mid-nineteenth century, the Stearns Rancho Company owned the land that comprises the modern city of Huntington Beach. A series of droughts in the late 1860s forced the company to divide and sell its holdings to land speculators and farmers settling in the area. In 1903, a group of Los Angeles-based businessmen purchased 40 acres in what is now downtown Huntington Beach and formed the Huntington Beach Company with plans to develop the acreage into a waterfront town. With its sights on expansion, the company facilitated the construction of an electric railway from Los Angeles to Huntington Beach in 1904. As the beach community steadily grew, a commercial core materialized, and residential neighborhoods emerged. Huntington Beach was officially incorporated in 1909 (Orange County Historical Society, n.d.; Chattel Architecture and Planning & Preservation, Inc. 2006; Galvin Preservation Associates, Inc. 2014).

Tourism, industrial activities, and agriculture defined the regional economy during the early decades of the twentieth century. Technological innovation led to the discovery of oil in Huntington Beach in 1920, transforming the region into an urban oil town. Oil fields quickly overtook many agricultural fields, and between 1920 and 1921, the population grew from 1,600 to 7,000 residents. Oil remained the dominant local economic driver through the 1950s. After World War II, Huntington Beach, like many cities in California, experienced a period of unprecedented growth as a result of national defense industries, expansion of regional transportation networks, and abundance of local recreation amenities. City annexations that started in the 1940s continued through the 1960s, and the municipality grew from 3.5 square miles to over 25 square miles. By 1970, Huntington Beach had become one of the fastest growing cities in the United States, and developers constructed housing tracts and commercial complexes on former agricultural land and oil fields. Historical aerial photographs from the 1960s and 1970s document this rapid outward expansion (NETR 2025:1963, 1972). This pattern of growth has continued since the 1970s, and today Huntington Beach is home to approximately 200,000 residents (Galvin Preservation Associates, Inc. 2014).

Site Development History

The land, divided up by parcels, is first depicted in historical maps from 1932. Not until 1965 does a USGS map (revised 1968) show the first road leading into what is now Edison Park (USGS 1965, Rev. 1968). Aerial imagery from 1938 until 1952 shows the property as undeveloped with no built environment; however, entering the 1960s, the aerial imagery depicts the park site serving as a landfill location until 1969 (Figure 1) (UCSB 1938, 1952, 1960, 1968). From 1970 until 1971, aerial photographs document the transformation of the property from being used as a landfill to being prepared for park construction. Within these two years, the clearing of waste and the level of terrain is noticeable (UCSB 1970, 1971). In 1972, the construction of the community center and fire station identified along the east border and southeast corner of the park site; by 1973, the fire station was opened (Figure 1) (City of Huntington Beach 2025b; UCSB 1972). A 1974 aerial image shows Edison Park as complete (Figure 2), and the park was officially dedicated on April 8, 1974 (UCSB 1974; City of Huntington Beach 2025a).

*Figure 1. **Left**: 1968 aerial view of the park property showing its use as a previous landfill (UCSB 1968). **Right**: 1972 aerial of the park with a red arrow pointing to the location of the community center and firehouse buildings now in place (UCSB 1972).*

Right: 1972 aerial of the park with a red arrow pointing to the location of the community center and firehouse buildings now in place (UCSB 1972).

Figure 2. 1974 aerial view of the fully developed park property (UCSB 1974).

Edison Park History

In the 1950s, the subject property was used by Southern California Edison (SCE) as a sand and gravel pit. Later, between 1957 and 1969, it was used as the Cannery Street Refuse Disposal Station (landfill) (City of Huntington Beach 2025a; *The Register* 1957). Following the cessation of landfill activities and the site's ownership transfer from Orange County to the City of Huntington Beach, Edison Park was developed starting in 1972 and officially dedicated on April 8, 1974. The park was named after the adjacent school, Edison High School. The park itself was designed by architect Richard Bigler as an open space park featuring an activity building and courts for basketball, handball, and tennis, as well as a playground and open grass areas. The portion of the park that was over the former landfill is approximately 27.5 acres and is located on the west side. Edison Park today is 39.69 acres, with 63.3 percent of it located over the former landfill site (City of Huntington Beach, n.d.).

Architect – Richard Bigler and Associates

Richard Anderson Bigler (1930-2014) was an architect who specialized in park design and was the owner of Richard Bigler Associates (*Anaheim Bulletin* 1972). Bigler was born in Provo, Utah, in 1930. In 1947, at seventeen years old, he served in the US Navy and then again in 1953. After serving in the Navy and then serving as a missionary, he studied landscape architecture at the University of California, Berkeley (*Fresno Bee* 2014). In 1972 Richard Bigler established his company, Richard Bigler Associates, Inc., which focused on golf courses and public parks (CA Secretary of State 2025; Find a Grave 2025).

Richard Bigler was a prolific community park designer in Southern California. He was the landscape architect behind Eisenhower Park, which transformed a former city dump into Orange's first major municipal park (*Los Angeles Times* 1969). In Huntington Beach, he was responsible for the designs of several community parks, including Schroeder Park, Greer Park, Irby Park, Wardlow Park, Edison Park, and Murdy Park (City of Huntington Beach 1974:13, 2025c; *Register* 1967, *Los Angeles Times* 1967). He also designed five parks in Fountain Valley (Cordata, Monroe, Stonecress, and Harper Parks), designed

four water retention basins in Montclair, and served as the landscape architect for projects such as Freeway Park in Culver City, Polliwog Park in Manhattan Beach, Granada Hills Knollwood Park in Los Angeles, and Kit Carson Park in Escondido (*Los Angeles Times* 1971, 1973, 1974, 1979; *Progress Bulletin* 1971; *Daily Breeze* 1973; *Press-Telegram* 1970).

In addition to his recreational park work, he became locally known for his work on golf courses, including the DeBell Gold course in Burbank and the Anaheim Hills Golf Course (DeBell Golf Club, n.d.; *Anaheim Bulletin* 1973). Bigler also prepared the 20-year master plan for parks and recreation in Cerritos, covering the city's 8.5 square miles, which called for an 18-hole golf course, horse riding trails, and equestrian facilities (*Press Telegram* 1968). Richard Bigler died in 2014 at 84 years old, leaving behind his wife, Claudette Bigler, and their eight children.

Huntington Beach Fire Department History

The history of fire stations in Huntington Beach mirrors the city's own growth and transformation. Fire protection in Huntington Beach began in the early twentieth century, soon after the city's founding, when community volunteers formed the first firefighting brigade. With the city's expansion fueled by the oil boom and residential development, the need for a professional and well-equipped fire service became clear (City of Huntington Beach 2025d).

The first official fire station was established in downtown Huntington Beach in the 1920s, housing both equipment and firefighters. As neighborhoods spread further from the city center, additional stations were built to improve response times and public safety. Over the decades, these stations have been relocated, rebuilt, and modernized to keep pace with technological advances and population growth (City of Huntington Beach 2025d).

The years 1967 to 1990 marked a pivotal era in Huntington Beach fire service history, guided by the steady leadership of Fire Chief Raymond C. Picard. Appointed in September 1967, Chief Picard presided over dramatic changes as the city's population surged from 11,500 in 1960 to 181,500 by 1990. Meeting the demands of this explosive growth, the city embarked on a significant expansion of its fire services and emergency capabilities. Under Chief Picard, two new fire stations were constructed, including the Magnolia Fire Station, which was opened in 1973 to better serve the growing community (City of Huntington Beach 2025d).

Architectural Styles

Brutalism (1950s-1970s)

The term "Brutalism" directly references the French phrase béton brut, which translates to raw concrete. Brutalism first emerged during the late 1950s as an aesthetic preference for exposed concrete building materials and was formalized as a distinct architectural idiom by the likes of Le Corbusier and other European architects. By the mid-1960s, Brutalism gained popularity in Southern California and across the United States, particularly as a style used for civic and commercial buildings (City of San Diego 2007; McAlester 2013: 664). Character-defining features of the style include:

- monumental massing
- imposing angular or blockish forms
- exposed concrete building finishes
- repetitive structural elements and fenestration patterns

- recessed openings
- lack of traditional ornament

Late Modern (late 1960s-1970s)

Late Modern is a broad term that is used to describe a family of architectural styles that offered an alternative to orthodox Modernism in the late 1960s and 1970s without diverging from the core values of the Modern movement entirely.

By the 1960s, the Modern movement had dominated architecture in the United States for nearly two decades, and by this time orthodox Modernism was increasingly seen as generic, cheap, and effete (Jencks 1980: 6). Architects and designers began dabbling in new modes of architectural expression that offered alternatives to some of the most banal qualities of Modernism, which included taking the essential tenets of Modernism and reinterpreting them to respond to the context of the present day.

The term "Late Modern" was coined in 1977 by architectural historian and theorist Charles Jencks. Jencks remarked that "there are many ways to characterize Late Modern architecture, and most of them can be reduced to the single notion of exaggeration. Late Modernism takes Modern architecture to an extreme in order to overcome its monotony and the public's boredom with it" (Jencks 1980: 6-7).

Various derivatives of the Late Modern movement emerged beginning in the 1960s, each of which had a unique architectural vocabulary and set of characteristics. Common derivatives of Late Modern architecture in Southern California included Brutalism, which celebrated the aesthetic merits of raw concrete; High-Tech/Structural Expressionism, in which structural and operating systems were emphasized with bold, dematerialized imagery; and Glass Skin, in which the glass curtain wall method of construction was expanded to cover the entire exterior of a building (City of Los Angeles 2020: 8-34).

Some Late Modern buildings exuded a rustic aesthetic with features like shed roofs, untreated wood siding, and earth-toned materials. This aesthetic was influenced by the Sea Ranch, a beachfront community in Northern California that was developed in the 1960s by landscape architect Lawrence Halprin and architects Joseph Esherick, Charles Moore, Donald Lyndon, and William Turnbull. Buildings at the Sea Ranch were designed to blend into the landscape of rocks, hedgerows, and redwood and cypress trees, and were Modern in their honest expression of structure and materials (Simonson 2020).

Late Modernism is different than, but often conflated with, Postmodernism. According to Jencks, Late Modern architecture is "'singly coded,' tak[ing] the ideas and forms of the Modern movement to an extreme, exaggerating the structure and technological image of the building to provide amusement or aesthetic pleasure." Postmodernism is "doubly coded, one-half Modern and one half something else (usually traditional building), in its attempt to communicate both with the public and a concerned minority, usually architects" (Jencks 1980: 6-7). Late Modernism was popular until approximately 1980.

Character-defining features of Late Modern architecture include:

- monumental appearance: often elevated on a plinth or set in a landscaped plaza
- bold geometric volumes and sculptural building forms
- display of mechanical and structural elements
- flat or shed roof, sometimes with prominent eaves or sculptural projections
- flat wall surfaces rendered in a single material (concrete, metal, glass, and wood are common)

- doors and windows that are incorporated into exterior cladding and surface treatments
- minimal surface ornament

Interested Parties Consultation

Native American Consultation

The NAHC maintains a confidential Sacred Lands File, which contains sites of traditional, cultural, or religious value to the Native American community. The NAHC was contacted on August 3, 2025, to request a search of the Sacred Lands File for the Project site.

The NAHC responded to the request in a letter dated August 7, 2025, stating, "As requested, a search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed based on information submitted for the above referenced project. The results were negative. Be aware that tribes do not always record their sacred sites in the SLF, nor are they required to do so. As such, an SLF search is not a substitute for consultation with all tribes that are traditionally and culturally affiliated with a project's geographic area." The NAHC also provided a contact list of Native American tribes that are traditionally and culturally affiliated with the geographic area of the Project site who may also have knowledge of resources in the Project site.

Native American consultation is ongoing with the City of Huntington Beach.

Pedestrian Survey

On August 5, 2025, Michael Baker International cultural resource specialist, Marcel Young, BA, conducted an intensive built environment survey of the Project site, Edison Park, and recorded the resource in the field using appropriate descriptions, drawings, and photos. An archaeological survey was not completed as the parcel has been completely developed.

Results

During the pedestrian survey, photographs of Edison Park were taken to illustrate the current conditions. The original attributes associated with Edison Park were documented with photographs, including the community center and fire station (**Photograph 1** and **2**), tennis courts (**Photograph 3**), basketball courts (**Photograph 4**), handball courts (**Photograph 5**), children's play area (**Photograph 6**), and lighted concrete pathways (**Photograph 7**). Later amenities added include lighted baseball fields (**Photograph 8**), concrete stage area (**Photograph 9**), skate park (**Photograph 10**), and pickleball courts (**Photograph 11**) (**Figure 3**). A DPR 523 series primary record and building, structure, and object record were completed for Edison Park and are available in **Attachment 4**. No archaeological resources were identified as a result of the survey.

Figure 3. Current aerial view of Edison Park (Google Maps 2025).

Photograph 1: View of the main entrance to Edison Community Center. View southwest, August 5, 2025.

Photograph 2: View of Magnolia Fire Station #4. View west, August 5, 2025.

Photograph 3: View of the tennis courts area. View southeast, August 5, 2025.

Photograph 4: View of the basketball court area. View southeast, August 5, 2025.

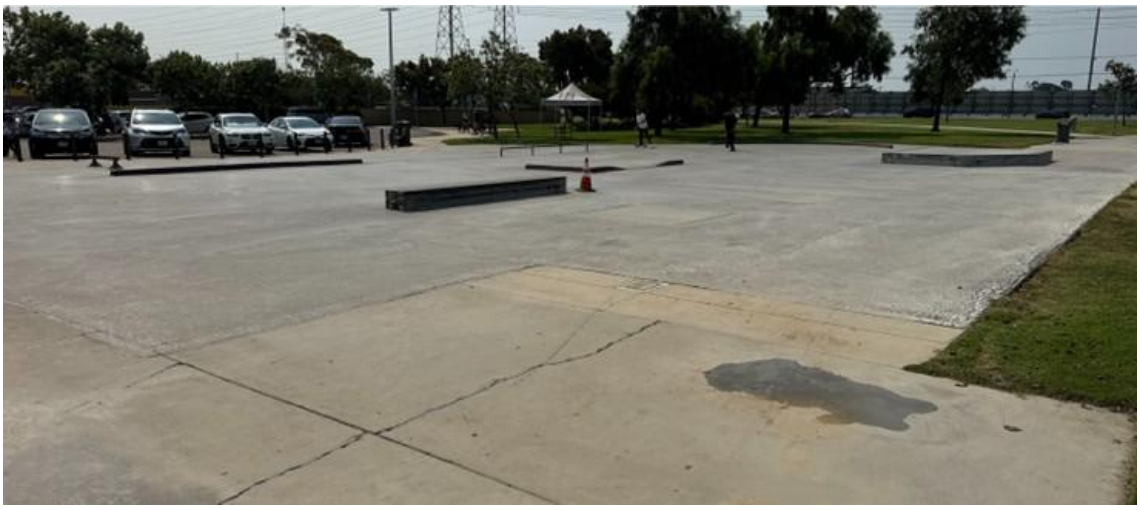
Photograph 5: View of the handball courts area. View north, August 5, 2025.

Photograph 6: View of the children's play area. View southwest, August 5, 2025.

Photograph 7: View of lighted concrete pathway area north of the community center. View south, August 5, 2025.

Photograph 8: View of lighted baseball field. View east, August 5, 2025.

Photograph 9: View of concrete stage area. View south, August 5, 2025.



Photograph 10: View of skateboard park. View southeast, August 5, 2025.

Photograph 11: View of pickleball court area. View northeast, August 5, 2025.

Buried Archaeological Site Sensitivity Analysis

The soils of the Project site have been heavily impacted by modern development upon the surface and in the near-surface sediments. Known disturbances within the Project site include activities related to the development of the existing park, sports amenities, and parking lot, including clearance, grading, and excavation for the existing community center building, landscaping, and associated utilities. These disturbances are significant and extend to unknown depths.

Results of the SCCIC records search and literature review indicated that one prehistoric archaeological site, a shell scatter, is present within the half-mile search radius. There is one historic built environment resource within the half-mile radius of the Project site; this resource has not been evaluated for listing in the National Register. No archaeological resources were identified within the Project site during the field survey. The NAHC results were likewise negative. Soil mapping indicates the entire Project site consists of Bolsa silt loam complex. These relatively young alluvial deposits have the potential to conceal buried archaeological deposits; however, the known disturbances within the Project site have heavily impacted any deposits that exist, and there is a low probability of finding archaeological resources due to the scarcity of previously recorded resources within the vicinity of the Project.

The archaeological sensitivity for prehistoric archaeological sites within the three-dimensional Project site is low given the developed and disturbed nature of the Project site, which would have impacted intact sediments. The sensitivity for potential undocumented historic-period archaeological sites is also low based on the known history of the Project site. However, the sensitivity for buried prehistoric resources increases with depth, as excavations exceed the depths of recent disturbance.

The majority of the proposed park reconfiguration and improvement activities will take place within existing previously disturbed soils. Therefore, based on soils and taking into account the Project site's previous disturbance, the Project site's buried site sensitivity is low at the surface and within the 8 feet within the maximum depth of disturbance of the Project. Sensitivity may increase below the maximum depth in areas greater than 10 feet deep, where previously undisturbed native soils may be encountered

(Geosyntec Consultants 2023), and the Project site's sensitivity should be reassessed if Project changes require deeper excavations.

Evaluation

The following includes an evaluation of Edison Park for its eligibility for the California Register. This property has not previously been evaluated.

California Register Criterion 1

Edison Park was developed between 1972 and 1974 to serve the southern areas of Huntington Beach. It was not developed as part of a master plan; was not one of the area's first parks; does not have development features that influence park or landscape design; and did not contribute to recreational development of the city, county, state, or nation in a singularly important way. Therefore, the park does not meet the significance threshold for listing in the California Register under Criterion 1.

The Magnolia Fire Station was constructed within the boundaries of Edison Park in 1972, and like the park, opened in 1973 to serve the southern part of the expanding city. It was one of several built during this period to serve the expanding population of Huntington Beach. It was not one of the first fire stations, nor did its construction significantly contribute to fire and rescue services development of the city, county, state, or nation. Therefore, the fire station does not meet the significance threshold for listing in the California Register under Criterion 1.

California Register Criterion 2

Research failed to identify information regarding significant individuals associated with the park. Richard Bigler, the landscape architect who designed the park, will be addressed under Criterion 3. Therefore, the property does not appear associated with persons significant in our past and does not meet the significance threshold for listing in the California Register under Criterion 2.

Research failed to identify information regarding significant individuals associated with Magnolia Fire Station. Fire Chief Raymond C. Picard presided over the department at the time of construction, but this individual fire station—constructed as one of many to serve the expanding City of Huntington Beach—is not significantly associated with the achievements of the fire chief. Therefore, the property does not appear associated with persons significant in our past and does not meet the significance threshold for listing in the California Register under Criterion 2.

California Register Criterion 3

The park was constructed in 1972, officially dedicated in 1973, and updated throughout the 2000s. The park follows the generic layout of the post-World War II-era community park with a modest community center building, restrooms, play areas, ball courts, baseball diamond, open grass area, and landscaped areas accessed via meandering pathways. While the park layout may follow the characteristics of a type, period, and method of construction, it is one of thousands of ubiquitous parks of this style throughout California and the nation. Further, research regarding the landscape architect Richard Bigler, although depicting a prolific community park designer, failed to suggest that he would be considered a master landscape architect. For these reasons, Edison Park does not embody the distinctive characteristics of a type, period, and method of construction, is not a work of a master, and does not display high artistic value. Therefore, Edison Park does not meet the significance threshold for listing in the California Register under Criterion 3

The Magnolia Fire Station building reflects a vernacular version of the ubiquitous Late Modern architectural style of the 1970s era commonly used for commercial and institutional buildings. This fire station building is a modest example of the style. Neither its design nor the materials used in its construction possess high artistic value. It does not constitute a rare or innovative building type. This building is not individually exceptional for its design or method of construction. Although neither the architect nor builder was identified during research, these buildings are unlikely to qualify as important works of any master. Therefore, Edison Park does not meet the significance threshold for listing in the California Register under Criterion 3.

California Register Criterion 4

The built environment of Edison Park is not likely to yield valuable information which will contribute to our understanding of human history because the property is not and never was the principal source of important information pertaining to subjects such as 1970s-era park development, nor fire station construction; therefore, neither the park nor the Magnolia Fire Station meet the significance threshold for listing in the California Register under Criterion 4.

Conclusion – Lacking significance, this property is recommended as ineligible for listing in the California Register. It is not a historical resources as defined by CEQA Section 15064.5(a).

SUMMARY OF FINDINGS AND RECOMMENDATIONS

The SCCIC records search, literature review, field survey, NAHC Sacred Lands File search and tribal outreach identified one cultural resource (Edison Community Park) within the Project area. The park was evaluated and recommended ineligible for inclusion in the California Register. Therefore, no historical resources as defined by CEQA Section 15064.5(a) were identified within the Project area. The archaeological sensitivity analysis identified low for prehistoric and historic-period archaeological resources within the 8-foot depth of disturbance. Therefore, no further management is recommended.

PREPARER QUALIFICATIONS

This memorandum was prepared by Michael Baker International Senior Archeologist Paige Kohler, MA, RPA, and Senior Architectural Historian Susan Wood, PhD; cultural resources staff member Marcel Young performed the survey. The memorandum was reviewed for quality control by Senior Archaeologist Marc Beherec, PhD, RPA.

Paige Kohler, MA, RPA, is a senior archaeologist with more than 10 years of experience in prehistoric and historical archaeology and cultural resources management. Her experience includes writing technical reports, including National Environmental Policy Act, National Historic Preservation Act, and California Environmental Quality Act compliance documents. She has supervised and managed all phases of archaeological fieldwork, including survey and archaeological construction monitoring at sites throughout Southern California. She meets the Secretary of the Interior's Professional Qualification Standards for prehistory and historical archaeology and is listed in the Register of Professional Archaeologists.

Susan Wood, PhD, is experienced in historic preservation and cultural resource management in California. She meets the Secretary of the Interior's Professional Qualification Standards for architectural history, history, and archaeology. Ms. Wood's professional activities include resource evaluations,

integrity assessments, effects analysis, mitigation documentation, design review, archival and historical research, architectural and archaeological field surveys, technical report preparation in accordance with Sections 106 and 110 of the National Historic Preservation Act and California Environmental Quality Act, peer review of cultural resource and cultural landscape reports, and project management. As a historic preservation planner consultant, Ms. Wood has experience in reviewing evaluations of local, state, and national historical significance; reviewing permit applications and design projects for adherence to the Secretary of the Interior's Standards for the Treatment of Historic Properties; reviewing Certificate of Appropriateness applications; and presenting at public hearings.

Sincerely,

Paige Kohler, MA, RPA
Senior Archaeologist

Susan Wood, PhD
Senior Architectural Historian

Attachments:

Attachment 1 – Proposed Phased Construction Plan
Attachment 2 – Figures
Attachment 3 – Record Search Results (Confidential)
Attachment 4 – DPR 523 Recording Forms

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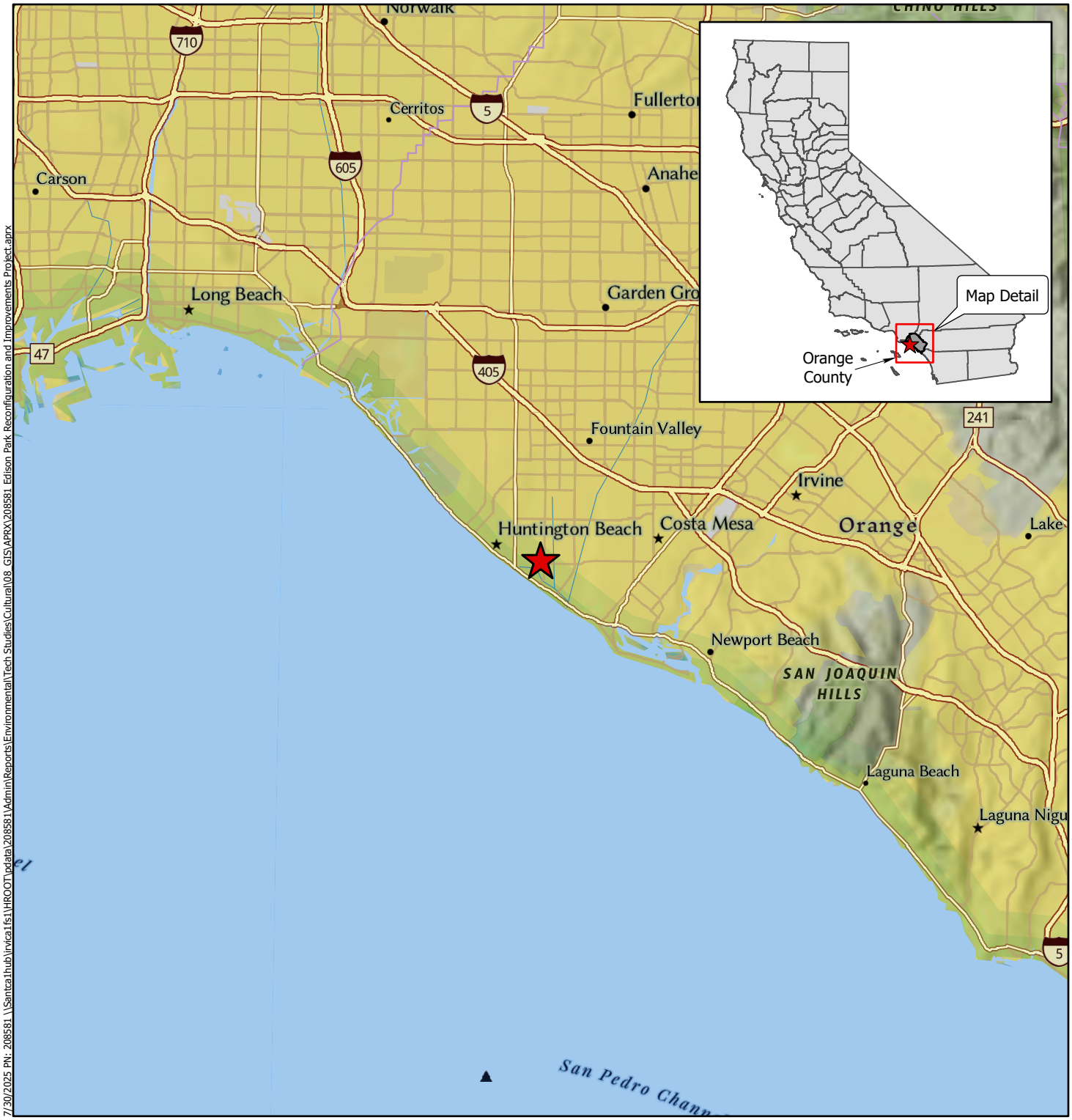
Attachment 1

Proposed Phased Construction Plan

EDISON PARK CONCEPTUAL PLAN LEGEND
1. Reconfigured parking lot with new entry at Edison H.S. intersection. (Total parking spaces ± 275)
2. New parking lot entry at Poston Lane.
3. New sport court plaza with seating and shade.
4. New full court basketball court (4).
5. New tennis courts (2).
6. New practice hitting wall at tennis court.
7. New dual use courts (2 tennis with 8 pickleball overlays).
8. Existing tennis courts (#3 and #4) converted to pickleball courts (8).
9. Existing trees.
10. New trees.
11. New shade shelter.
12. Existing softball fields.
13. New U14 (55 yds x 100 yds) soccer field with ball containment netting and street adjacent fencing.
14. New U10 (50 yrds x 70 yrds) soccer field overlay in SCE Corridor (pending SCE review and approval).
15. Enlarged all-wheel plaza.
16. New tot lot with rubber surfacing, equipment and shade.
17. Expanded exterior restrooms at Community Center.
18. Existing SCE Towers and overhead utility lines.
19. Existing walkways.
20. Landfill monitoring station.
21. Oil Well #1.
22. Oil Well #2.
23. New mounded lawn for spectator seating.
Existing Healthy Trees to Remain (Per 2022 Arborist Report) ~ 95
Existing Healthy Trees to be Removed Based on Plan Improvements ~ 50
New Trees ~ 200+
New Parking Stalls ~ 74
KROLL LN
POSTON LN
SHAW LN
LANDFILL
OWNDED AND OPERATED BY SCHOOL DISTRICT OPEN TO THE PUBLIC (5 ACRES)
STILWELL DR
CANYON LN
EDISON PARK PROPERTY ~ (28 ACRES)
EDISON H.S.
B
A
C
EDISON COMMUNITY CENTER
HB FIRE STATION #4
MAGNOLIA ST
EDISON HIGH SCHOOL
LANDFILL
OWNED BY SCE AND OPERATED AND MAINTAINED BY CITY OPEN TO PUBLIC (5+ ACRES)
U14 FIELD
HAMILTON AVE
ASCON LANDFILL

Attachment 2

Figures



7/30/2025 PN: 208581 \\Santca1fub\ivrica1fs1\HROOT\pdata\208581\Admin\Reports\Environmental\Tech Studies\Cultural\08_GIS\APRX\208581 Edison Park Reconfiguration and Improvements Project.aprx

Legend

Project Location

Michael Baker INTERNATIONAL

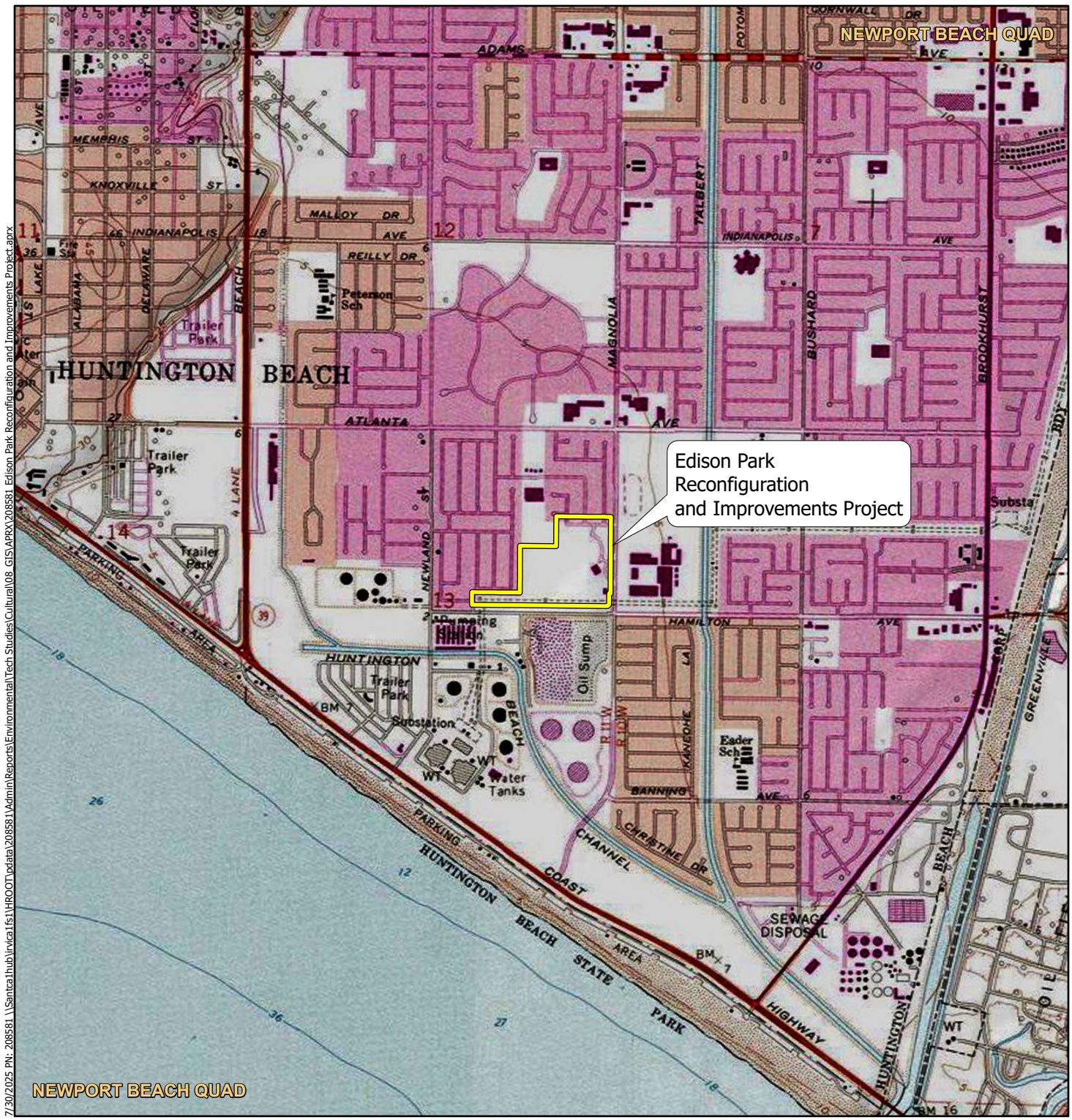
0 2.5 5 Miles

Source: Esri, ArcGIS Online, National Geographic World Map: *Huntington Beach, California*

EDISON PARK RECONFIGURATION AND IMPROVEMENTS PROJECT

Regional Vicinity

Figure 1



7/30/2025 PN: 208581 \\Santca1hub\irvica1\fs1\HROOT\pdata\208581\Admin\Reports\Environmental\Tech Studies\Cultural\08_GIS\APRX\208581 Edison Park Reconfiguration and Improvements Project.aprx

Legend

Project Area

Michael Baker INTERNATIONAL

0 500 1,000 2,000 US Feet

Source: Esri, ArcGIS Online, Newport Beach USGS 7.5-Minute topographic quadrangle maps: *Huntington Beach, California*

EDISON PARK RECONFIGURATION AND IMPROVEMENTS PROJECT

Project Vicinity

Figure 2

7/30/2025 PN: 208581 \\Santra1hub\irvica1\fs1\HROOT\pdata\208581\Admin\Reports\Environmental\Tech Studies\Cultural\08_GIS\APRX\208581 Edison Park Reconfiguration and Improvements Project.aprx

Legend

Project Area

Michael Baker INTERNATIONAL

0 275 550 US Feet

Source: Esri, ArcGIS Online, 2025 Nearmap Imagery: *Huntington Beach, California*

EDISON PARK RECONFIGURATION AND IMPROVEMENTS PROJECT

Project Area

Figure 3

Attachment 3

Record Search Results (Confidential)

ReportNum	Xrefs	Authors	CitYear	CitTitle	CitPublisher	CitPages	ReportType	Resources	ResourceCount	PLSS
OR-00001		Ahlering, Michael L.	1973	Report of a Scientific Resources Survey and Inventory: Conducted for the City of Huntington Beach, California	Archaeological Research, Inc.	73	Archaeological, Other research	30-000078, 30-000082, 30-000084, 30-000085, 30-000086, 30-000087, 30-000088, 30-000142, 30-000145, 30-000149, 30-000183, 30-000185, 30-000276, 30-000288, 30-000289, 30-000290, 30-000291, 30-000292, 30-000293, 30-000302, 30-000346, 30-000356, 30-000358, 30-000359, 30-000363, 30-000365	26	
OR-02033	See also OR-01626; See also OR-02179	Mason, Roger D.	1987	Research Design for Evaluation of Coastal Archaeological Sites in Northern Orange County, California	Scientific Resource Surveys, Inc.	89	Other research	30-000078, 30-000082, 30-000083, 30-000084, 30-000085, 30-000086, 30-000088, 30-000143, 30-000145, 30-000183, 30-000256, 30-000257, 30-000258, 30-000259, 30-000260, 30-000261, 30-000262, 30-000263, 30-000264, 30-000288, 30-000290, 30-000291, 30-000292, 30-000294, 30-000302, 30-000322, 30-000365, 30-000366, 30-000368, 30-000555	30	
OR-02134		Lapin, Philippe	2000	Cultural Resource Assessment for Pacific Bell Wireless Facility Cm 294-12, County of Orange, California	LSA Associates, Inc.	8	Archaeological, Excavation		0	
OR-02229		Duke, Curt	2000	Cultural Resource Assessment for the At&t Wireless Services Facility Number C871.2, County of Orange, California	LSA Associates, Inc.	13	Archaeological, Excavation, Field study	30-001531	1	
OR-02456		Hoover, Anna M.	2000	Cultural Resources Literature and Records Review for the Southeast Coastal Industrial Area Redevlopment Project, Huntington Beach, California	RMW Paleo Associates, Inc.	12	Literature search		0	
OR-03450		Bonner, Wayne H.	2007	Cultural Resource Records Search and Site Visit Results for Royal Street Communications, LLC Candidate La2739a (Magnolia & Hamilton), West of Magnolia Street on Hamilton Avenue, Huntington Beach, Orange County, California	Michael Brandman Associates	12	Archaeological, Field study		0	
OR-03582		Losee, Carolyn	2009	Cultural Resources Investigation for T-Mobile LA33422A "Landmark Liquor" 8491 Atlanta Avenue, Huntington Beach, Orange County, California 92646	Archaeological Resources Technology	5	Literature search		0	
OR-03614		Mason, Roger D.	2003	Cultural Resources Records Search and Field Survey Report for a Verizon Telecommunications Facility: Magnolia in the City of Huntington Beach, Orange County, California	Chambers Group, Inc.	20	Archaeological, Field study	30-001531	1	
OR-03842		Brown, Joan and Maxon, Patrick	2010	Phase 1 Cultural Resources Assessment for the Poseidon Seawater Desalination Project, Huntington Beach, Orange County, California	BonTerra Consulting	38	Archaeological, Field study, Other research	30-001531, 30-176946	2	
OR-04313		Unknown	2013	Historic and Cultural Resources Element - Huntington Beach	City of Huntington Beach	17	Architectural/Historical		0	
OR-04594		Gilbert, Rebecca and Lauren DeOliveira	2017	ARCHAEOLOGICAL SURVEY REPORT FOR THE HUNTINGTON BEACHWAVE 66 KV RELOCATION PROJECT, ORANGE COUNTY, CALIFORNIA	Environmental Intelligence	34	Archaeological, Field study		0	
OR-04595		Belcourt, Tria M., Jennifer Kelly, and Sonia Sifuentes	2017	CULTURAL AND PALEONTOLOGICAL ASSESSMENT: MAGNOLIA TANK FARM PROJECT, CITY OF HUNTINGTON BEACH, ORANGE COUNTY, CALIFORNIA	Material Culture Consulting	40	Archaeological, Field study		0	

Attachment 4

DPR 523 Recording Forms

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code Reviewer Date

 ***Resource Name or #:** Edison Park

P1. Other Identifier: Edison Community Park

*P2. **Location:** ☒ **Unrestricted**

***a. County** Orange **and**

***b. USGS 7.5' Quad** *Newport Beach, Calif.* **Date** 1965, rev. 1982 **T** 06 S; **R** 11W; S.B.B.M

c. Address 21377 Magnolia St City Huntington Beach Zip 92646

d. UTM: Zone N/A

e. Other Locational Data: APN 148-012-04, -06; -12, and 148-071-29

***P3a. Description:**

Edison Park is a 35.5-acre community park that today includes the Magnolia Fire Station, the Edison Community Center, tennis courts, basketball courts, handball courts, pickleball courts, baseball fields, batting cages, children's playground equipment, a skate park, paved walkways with overhead lighting, a small outdoor concrete stage area, open grass areas, landscaping, and paved parking lots (Photograph 1 through Photograph 19) (City of Huntington Beach 2025a; UCSB 1971, 1972, 1974). Additionally, there are three sets of Edison transmission towers evenly spaced along the Hamilton Avenue border of the park. The Edison Park site was developed as a park after the site's land transfer from Orange County to the City of Huntington Beach. It was officially dedicated on April 8, 1974, and named after the adjacent school, Edison High School (City of Huntington Beach 2009, 2025a, n.d.; Google Maps 2025). At the start of construction in 1972, the first features to be built were the community center building, the fire station, and preparation of open areas (UCSB 1972). By 1974, the tennis and handball courts, playground areas, and paved pathways were in place (UCSB 1974). The baseball field, skate park, and pickleball courts were added in later years. The park is landscaped with extensive lawns and a variety of mature trees along the north, south, and west boundaries of the park, while paved parking lots are located along the northeast and east boundaries of the park. The park was originally used as a sand and gravel pit in the 1950s and later used as the Cannery Street Refuse Disposal Station (landfill) between 1957 and 1969. (See Continuation Sheets)

***P3b. Resource Attributes:** HP31. Urban Open Space

***P4. Resources Present:** ☒ Building ☒ Structure

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

P5b. Description of Photo:
Photograph 1: View of the Edison Community Center entrance in Edison Park (view southwest, August 5, 2025).

P6. Date Constructed/Age and Source:
☒ Historic
1972 (UCSB 1971, 1972)

***P7. Owner and Address:**
City of Huntington Beach
Huntington Beach, CA 92646

***P8. Recorded by:**
Marcel Young
Michael Baker International
3760 Kilroy Airport Way, Suite 270
Long Beach, CA 90806

***P9. Date Recorded:**
August 5, 2025.

***P10. Survey Type:** Intensive

***P11. Report Citation:**

Kohler, Paige, Susan Wood, and Rachel Garcia. 2025. "Cultural Resources Assessment for the Edison Park Reconfiguration and Improvement Project, City of Huntington Beach, Orange County, California." Santa Ana, CA: Michael Baker International.

***Attachments:** ☒Sketch Map ☒Continuation Sheet ☒Building, Structure, and Object Record

***NRHP Status Code** 6Z
***Resource Name or #** Edison Park

B1. Historic Name: Edison Park
B2. Common Name: Edison Park, Edison Community Park
B3. Original Use: Landfill site
B4. Present Use: Park
***B5. Architectural Style:** Park, n/a; Edison Community Building: Brutalist; Magnolia Fire Station: Late Modern
***B6. Construction History:**
Edison Park was originally developed starting in 1972 and included a community center building, fire station, and open areas (City of Huntington Beach 2009, 2025b). Between 1972 and 1974, public recreational amenities were added, such as tennis, basketball, and handball courts, playground equipment, and paved walkways with lighting, as well as paved parking lots and landscaping (UCSB 1972, 1974; Google Earth 2025). Over time, other amenities were added, including baseball field, skate park, concrete stage area, and pickleball courts (NETR 2025: 1987, 1997, 2005, 2016, and 2022).

***B7. Moved?** ☒**No** **Date:** N/A **Original Location:** N/A
***B8. Related Features:** N/A

B9a. Architect: Park: Richard Bigler and Associates; Edison Community Center: unknown; Magnolia Fire Station: unknown b. Builder:: Unknown for park, community center, and fire station.

***B10. Significance:** **Theme** Community development; architecture **Area:** Huntington Beach
Period of Significance N/A **Property Type** Park **Applicable Criteria** N/A

Regional History: Following California's statehood in 1850, many Mexican-held land grants in Orange County were sold to Americans, such as Abel Stearns, James Irvine, and Llewellyn and Jotham Bixby. During the mid-nineteenth century, the Stearns Rancho Company owned the land that comprises the modern city of Huntington Beach. A series of droughts in the late 1860s forced the company to divide and sell its holdings to land speculators and farmers settling in the area. In 1903, a group of Los Angeles-based businessmen purchased 40 acres in what is now downtown Huntington Beach and formed the Huntington Beach Company with plans to develop the acreage into a waterfront town. With its sights on expansion, the company facilitated the construction of an electric railway from Los Angeles to Huntington Beach in 1904. As the beach community steadily grew, a commercial core materialized, and residential neighborhoods emerged. Huntington Beach was officially incorporated in 1909 (Orange County Historical Society, n.d.; Chattel Architecture and Planning & Preservation, Inc. 2006; Galvin Preservation Associates, Inc. 2014). (see Continuation Sheets).

B11. Additional Resource Attributes: N/A

***B12. References:** See continuation sheets.
B13. Remarks: N/A

***B14. Evaluator:**
Susan Wood, Senior Architectural Historian
Michael Baker International
801 S. Grand Avenue, Suite 250
Los Angeles, CA 90017

***Date of Evaluation:** August 2025

(This space reserved for official comments.)

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

SKETCH MAP

Primary #
HRI#
Trinomial

***Resource Name or #** Edison Park

The centerpiece of the park is the Edison Community Center, which is accessed off Magnolia Avenue. The building was constructed in 1972 and dedicated in October 1973. It is a vernacular Late Modern style building with modest Brutalist elements. Character-defining features include monumental appearance, angular and blockish forms, exposed concrete building finishes, minimal surface ornament, recessed opening, flat roof with prominent eaves, and doors and windows incorporated into exterior cladding/surface treatments (Photograph 1 through Photograph 6).

The Huntington Beach Magnolia Fire Station #4 was also built within the grounds of Edison Park. Like the community center, it appears the fire station building was constructed in 1972 and opened for use in 1973. It is a vernacular Late Modern style building. Character-defining features include geometric volumes, sculpted forms such as the rounded walls, flat roof, flat wall surface in one material (brick), and minimal surface ornament (Photograph 7 through Photograph 9).

Photograph 2. View of the entrance to the Edison Community Center (view southwest, August 5, 2025).

Photograph 3. View of the community center courtyard (off south elevation) (view north, August 5, 2025).

Photograph 4. View of the south elevation of the community center building (view northwest, August 5, 2025).

Photograph 5. View of the rear (west) and north elevations of the community center building (view southeast, August 5, 2025).

Photograph 6. View northwest of community center (view northwest, August 5, 2025).

Photograph 7. View of east elevation of Magnolia Fire Station #4 (view west, August 5, 2025).

Photograph 8. View of south and east elevations of Magnolia Fire Station #4 (view northwest, August 5, 2025).

Photograph 9. View south and rear (west) elevations of Magnolia Fire Station #4 (view northeast, August 5, 2025).

Photograph 10. View of Edison Park's tennis courts (view southeast, August 5, 2025).

Photograph 11. View of Edison Park's skateboard area (view southeast, August 5, 2025).

Photograph 12. View of Edison Park's concrete stage area (view south, August 5, 2025).

Photograph 13. View of Edison Park's pickleball courts (view northeast, August 5, 2025).

Photograph 14. View of Edison Park's handball courts (view north, August 5, 2025).

Photograph 15. View of Edison Park's basketball courts (view southeast, August 5, 2025).

Photograph 16. View of Edison Park's lighted baseball fields (view east, August 5, 2025).

Photograph 17. View of Edison Park's lighted concrete pathways and open landscaped grass areas (view south, August 5, 2025).

Photograph 18. View of children's playground area (view southwest, August 5, 2025).

Photograph 19. View of batting cages (view southeast, August 5, 2025).

***B10. Significance (continued):**

Tourism, industrial activities, and agriculture defined the regional economy during the early decades of the twentieth century. Technological innovation led to the discovery of oil in Huntington Beach in 1920, transforming the region into an urban oil town. Oil fields quickly overtook many agricultural fields, and between 1920 and 1921, the population grew from 1,600 to 7,000 residents. Oil remained the dominant local economic driver through the 1950s. After World War II, Huntington Beach, like many cities in California, experienced a period of unprecedented growth as a result of national defense industries, expansion of regional transportation networks, and abundance of local recreation amenities. City annexations that started in the 1940s continued through the 1960s, and the municipality grew from 3.5 square miles to over 25 square miles. By 1970, Huntington Beach had become one of the fastest growing cities in the United States, and developers constructed housing tracts and commercial complexes on former agricultural land and oil fields. Historical aerial photographs from the 1960s and 1970s document this rapid outward expansion (NETR 2025:1963, 1972). This pattern of growth has continued since the 1970s, and today Huntington Beach is home to approximately 200,000 residents (Galvin Preservation Associates, Inc. 2014).

Site Development History

The land, divided up by parcels, is first depicted in historical maps from 1932. Not until 1965 does a USGS map (revised 1968) show the first road leading into what is now Edison Park (USGS 1965, Rev. 1968). Aerial imagery from 1938 until 1952 shows the property as undeveloped with no built environment; however, entering the 1960s, the aerial imagery depicts the park site serving as a landfill location until 1969 (Figure 1) (UCSB 1938, 1952, 1960, 1968). From 1970 until 1971, aerial photographs document the transformation of the property from being used as a landfill to being prepared for park construction. Within these two years, the clearing of waste and the level of terrain is noticeable (UCSB 1970, 1971). In 1972, the construction of the community center and fire station identified along the east border and southeast corner of the park site; by 1973, the fire station was opened (Figure 1) (City of Huntington Beach 2025b; UCSB 1972). A 1974 aerial image shows Edison Park as complete (Figure 2), and the park was officially dedicated on April 8, 1974 (UCSB 1974; City of Huntington Beach 2025a).

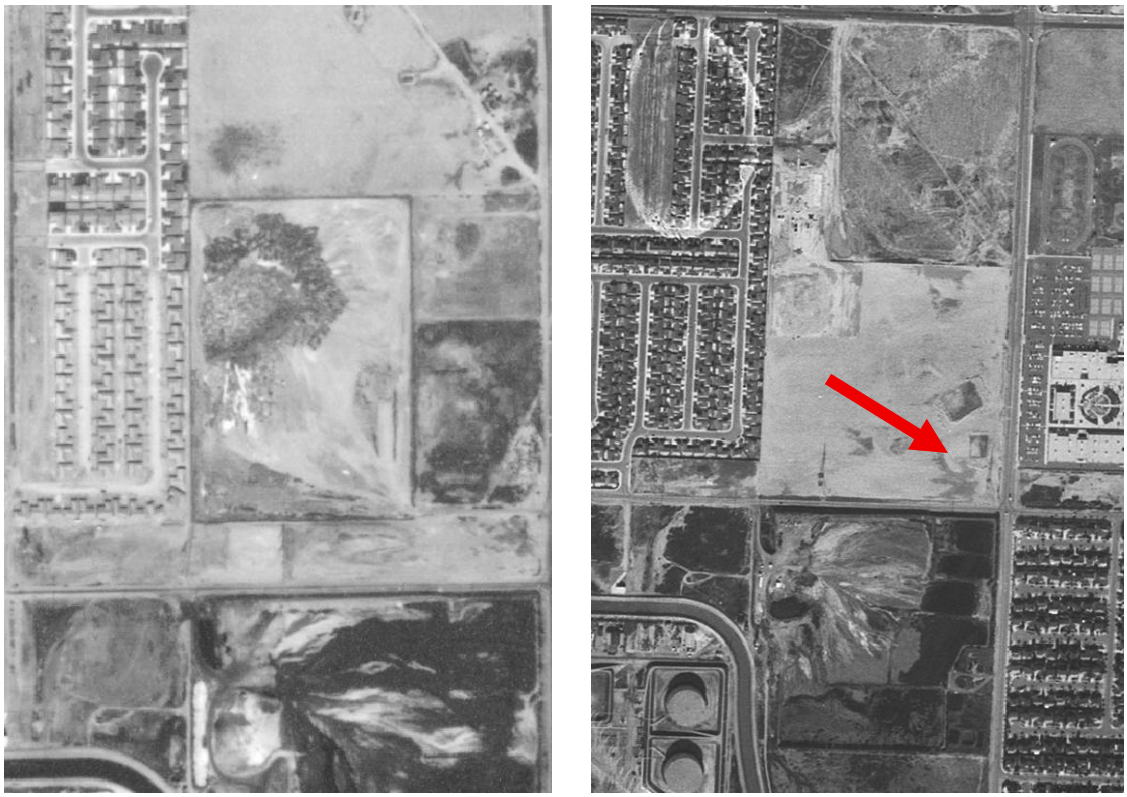


Figure 1. **Left**: 1968 aerial view of the park property showing its use as a previous landfill (UCSB 1968).
Right: 1972 aerial of the park with a red arrow pointing to the location of the community center and firehouse buildings now in

place (UCSB 1972).

Figure 2. 1974 aerial view of the fully developed park property (UCSB 1974).

Edison Park History

In the 1950s, the subject property was used by Southern California Edison (SCE) as a sand and gravel pit. Later, between 1957 and 1969, it was used as the Cannery Street Refuse Disposal Station (landfill) (City of Huntington Beach 2025a; *The Register* 1957). Following the cessation of landfill activities and the site's ownership transfer from Orange County to the City of Huntington Beach, Edison Park was developed starting in 1972 and officially dedicated on April 8, 1974. The park was named after the adjacent school, Edison High School. The park itself was designed by architect Richard Bigler as an open space park featuring an activity building and courts for basketball, handball, and tennis, as well as a playground and open grass areas. The portion of the park that was over the former landfill is approximately 27.5 acres and is located on the west side. Edison Park today is 39.69 acres, with 63.3 percent of it located over the former landfill site (City of Huntington Beach, n.d.).

Architect: Richard Bigler and Associates

Richard Anderson Bigler (1930-2014) was an architect who specialized in park design and was the owner of Richard Bigler Associates (*Anaheim Bulletin* 1972). Bigler was born in Provo, Utah, in 1930. In 1947, at seventeen years old, he served in the US Navy and then again in 1953. After serving in the Navy and then serving as a missionary, he studied landscape architecture at the University of California, Berkeley (*Fresno Bee* 2014). In 1972 Richard Bigler established his company, Richard Bigler Associates, Inc., which focused on golf courses and public parks (CA Secretary of State 2025; Find a Grave 2025).

Richard Bigler was a prolific community park designer in Southern California. He was the landscape architect behind Eisenhower Park, which transformed a former city dump into Orange's first major municipal park (*Los Angeles Times* 1969). In Huntington Beach, he was responsible for the designs of several community parks, including Schroeder Park, Greer Park, Irby Park, Wardlow Park, Edison Park, and Murdy Park (City of Huntington Beach 1974:13, 2025c; *Register* 1967, *Los Angeles Times* 1967). He also designed five parks in Fountain Valley (Cordata, Monroe, Stonecress, and Harper Parks), designed four water retention basins in Montclair, and served as the landscape architect for projects such as Freeway Park in Culver City, Polliwog Park in Manhattan Beach, Granada Hills Knollwood Park in Los Angeles, and Kit Carson Park in Escondido (*Los Angeles Times* 1971, 1973, 1974, 1979; *Progress Bulletin* 1971; *Daily Breeze* 1973; *Press-Telegram* 1970).

In addition to his recreational park work, he became locally known for his work on golf courses, including the DeBell Gold course in Burbank and the Anaheim Hills Golf Course (DeBell Golf Club, n.d.; *Anaheim Bulletin* 1973). Bigler also prepared the 20-year master

plan for parks and recreation in Cerritos, covering the city's 8.5 square miles, which called for an 18-hole golf course, horse riding trails, and equestrian facilities (*Press Telegram* 1968). Richard Bigler died in 2014 at 84 years old, leaving behind his wife, Claudette Bigler, and their eight children.

Huntington Beach Fire Department History

The history of fire stations in Huntington Beach mirrors the city's own growth and transformation. Fire protection in Huntington Beach began in the early twentieth century, soon after the city's founding, when community volunteers formed the first firefighting brigade. With the city's expansion fueled by the oil boom and residential development, the need for a professional and well-equipped fire service became clear (City of Huntington Beach 2025d).

The first official fire station was established in downtown Huntington Beach in the 1920s, housing both equipment and firefighters. As neighborhoods spread further from the city center, additional stations were built to improve response times and public safety. Over the decades, these stations have been relocated, rebuilt, and modernized to keep pace with technological advances and population growth (City of Huntington Beach 2025d).

The years 1967 to 1990 marked a pivotal era in Huntington Beach fire service history, guided by the steady leadership of Fire Chief Raymond C. Picard. Appointed in September 1967, Chief Picard presided over dramatic changes as the city's population surged from 11,500 in 1960 to 181,500 by 1990. Meeting the demands of this explosive growth, the city embarked on a significant expansion of its fire services and emergency capabilities. Under Chief Picard, two new fire stations were constructed, including the Magnolia Fire Station, which was opened in 1973 to better serve the growing community (City of Huntington Beach 2025d).

Architectural Style

***Brutalism (*1950s–1970s)**

The term "Brutalism" directly references the French phrase béton brut, which translates to raw concrete. Brutalism first emerged during the late 1950s as an aesthetic preference for exposed concrete building materials and was formalized as a distinct architectural idiom by the likes of Le Corbusier and other European architects. By the mid-1960s, Brutalism gained popularity in Southern California and across the United States, particularly as a style used for civic and commercial buildings (City of San Diego 2007; McAlester 2013: 664). Character-defining features of the style include:

- monumental massing
- imposing angular or blockish forms
- exposed concrete building finishes
- repetitive structural elements and fenestration patterns
- recessed openings
- lack of traditional ornament

Late Modern (late 1960s–1970s)

Late Modern is a broad term that is used to describe a family of architectural styles that offered an alternative to orthodox Modernism in the late 1960s and 1970s without diverging from the core values of the Modern movement entirely.

By the 1960s, the Modern movement had dominated architecture in the United States for nearly two decades, and by this time orthodox Modernism was increasingly seen as generic, cheap, and effete (Jencks 1980: 6). Architects and designers began dabbling in new modes of architectural expression that offered alternatives to some of the most banal qualities of Modernism, which included taking the essential tenets of Modernism and reinterpreting them to respond to the context of the present day.

The term "Late Modern" was coined in 1977 by architectural historian and theorist Charles Jencks. Jencks remarked that "there are many ways to characterize Late Modern architecture, and most of them can be reduced to the single notion of exaggeration. Late Modernism takes Modern architecture to an extreme in order to overcome its monotony and the public's boredom with it" (Jencks 1980: 6-7).

Various derivatives of the Late Modern movement emerged beginning in the 1960s, each of which had a unique architectural vocabulary and set of characteristics. Common derivatives of Late Modern architecture in Southern California included Brutalism, which celebrated the aesthetic merits of raw concrete; High-Tech/Structural Expressionism, in which structural and operating systems were emphasized with bold, dematerialized imagery; and Glass Skin, in which the glass curtain wall method of construction was expanded to cover the entire exterior of a building (City of Los Angeles 2020: 8-34).

Some Late Modern buildings exuded a rustic aesthetic with features like shed roofs, untreated wood siding, and earth-toned materials. This aesthetic was influenced by the Sea Ranch, a beachfront community in Northern California that was developed in the 1960s by

landscape architect Lawrence Halprin and architects Joseph Esherick, Charles Moore, Donald Lyndon, and William Turnbull. Buildings at the Sea Ranch were designed to blend into the landscape of rocks, hedgerows, and redwood and cypress trees, and were Modern in their honest expression of structure and materials (Simonson 2020).

Late Modernism is different than, but often conflated with, Postmodernism. According to Jencks, Late Modern architecture is "'singly-coded,' tak[ing] the ideas and forms of the Modern movement to an extreme, exaggerating the structure and technological image of the building to provide amusement or aesthetic pleasure." Postmodernism is "doubly-coded, one half Modern and one half something else (usually traditional building), in its attempt to communicate both with the public and a concerned minority, usually architects" (Jencks 1980: 6-7). Late Modernism was popular until approximately 1980.

Character-defining features of Late Modern architecture include:

- monumental appearance; often elevated on a plinth or set in a landscaped plaza
- bold geometric volumes and sculptural building forms
- display of mechanical and structural elements
- flat or shed roof, sometimes with prominent eaves or sculptural projections
- flat wall surfaces rendered in a single material (concrete, metal, glass, and wood are common)
- doors and windows that are incorporated into exterior cladding and surface treatments
- minimal surface ornament

Evaluation

The following evaluates Edison Park and Magnolia Fire Station (as the latter is within the boundaries of the park) for their eligibility for the California Register of Historical Resources. These properties have not previously been evaluated.

Criterion 1 – Edison Park was developed between 1972 and 1974 to serve the southern areas of Huntington Beach. It was not developed as part of a master plan; was not one of the area's first parks; does not have development features that influence park or landscape design; and did not contribute to recreational development of the city, county, state, or nation in a singularly important way. Therefore, the park does not meet the significance threshold for listing in the California Register under Criterion 1.

The Magnolia Fire Station was constructed within the boundaries of Edison Park in 1972, and like the park, opened in 1973 to serve the southern part of the expanding city. It was one of several built during this period to serve the expanding population of Huntington Beach. It was not one of the first fire stations, nor did its construction significantly contribute to fire and rescue services development of the city, county, state, or nation. Therefore, the fire station does not meet the significance threshold for listing in the California Register under Criterion 1.

Criterion 2 – Research failed to identify information regarding significant individuals associated with the park. Richard Bigler, the landscape architect who designed the park, will be addressed under Criterion 3. Therefore, the property does not appear associated with persons significant in our past and does not meet the significance threshold for listing in the California Register under Criterion 2.

Research failed to identify information regarding significant individuals associated with Magnolia Fire Station. Fire Chief Raymond C. Picard presided over the department at the time of construction, but this individual fire station—constructed as one of many to serve the expanding City of Huntington Beach—is not significantly associated with the achievements of the fire chief. Therefore, the property does not appear associated with persons significant in our past and does not meet the significance threshold for listing in the California Register under Criterion 2.

Criterion 3 – The park was constructed in 1972, officially dedicated in 1973, and updated throughout the 2000s. The park follows the generic layout of the post-World War II-era community park with a modest community center building, restrooms, play areas, ball courts, baseball diamond, open grass area, and landscaped areas accessed via meandering pathways. While the park layout may follow the characteristics of a type, period, and method of construction, it is one of thousands of ubiquitous parks of this style throughout California and the nation. Further, research regarding the landscape architect Richard Bigler, although depicting a prolific community park designer, failed to suggest that he would be considered a master landscape architect. For these reasons, Edison Park does not embody the distinctive characteristics of a type, period, and method of construction, is not a work of a master, and does not display high artistic value. Therefore, Edison Park does not meet the significance threshold for listing in the California Register under Criterion 3

The Magnolia Fire Station building reflects a vernacular version of the ubiquitous Late Modern architectural style of the 1970s era commonly used for commercial and institutional buildings. This fire station building is a modest example of the style. Neither its design nor the materials used in its construction possess high artistic value. It does not constitute a rare or innovative building type. This building is not individually exceptional for its design or method of construction. Although neither the architect nor builder was identified during research, these buildings are unlikely to qualify as important works of any master. Therefore, Edison Park does not meet the significance threshold for listing in the California Register under Criterion 3.

Criterion 4 – The built environment of Edison Park is not likely to yield valuable information which will contribute to our understanding of human history because the property is not and never was the principal source of important information pertaining to subjects such as 1970s-era park development, nor fire station construction; therefore, neither the park nor the Magnolia Fire Station meet the significance threshold for listing in the California Register under Criterion 4.

Conclusion – Lacking significance, Edison Park and Magnolia Fire Station are ineligible for listing in the California Register under any criteria. They are not historical resources as defined by CEQA Section 15064.5(a).

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Prepared for:

City of Huntington Beach
Public Works Department - Engineering
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GEOTECHNICAL REPORT

PROPOSED IMPROVEMENTS
EDISON PARK
HUNTINGTON BEACH, CALIFORNIA

Prepared by:

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Project Number: SC1369

November 30, 2023

GEOTECHNICAL REPORT

PROPOSED IMPROVEMENTS
EDISON PARK
HUNTINGTON BEACH, CALIFORNIA

This report was prepared by Geosyntec Consultants, Inc., under the supervision of the professionals whose signatures appear hereon. The findings or professional opinions were prepared in accordance with generally accepted professional engineering and geologic practice. No attempt to verify the accuracy of the data provided by others was made. No warranty is expressed or implied.

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1. INTRODUCTION

1.1 General

Geosyntec Consultants, Inc. (Geosyntec) is pleased to submit this Geotechnical Report to the City of Huntington Beach, Public Works Department (City). This report documents the review of the available geotechnical subsurface information from previous field investigations, geotechnical engineering assessment and provides preliminary geotechnical recommendations in support of the proposed park improvements at Edison Park (Project), located in Huntington Beach, California (Site). The site location is shown on Figure 1.

Geosyntec conducted the scope of services documented in this report in general accordance with the Professional Services Contract between the City and Geosyntec for As-Needed General Environmental Engineering Services, dated February 2021 and the scope of work described in our proposal dated April 7, 2023.

1.2 Project Understanding

Edison Park was constructed over the Cannery Street Former Refuse Disposal Station, also previously known as Cannery Street Landfill (CSL), in early 1970s. The types of waste disposed at the CSL generally included wood (stumps, logs, and large timber) and construction debris. Edison Park is approximately 39.7 acres, located at the northwest corner of the intersection of Magnolia Street and Hamilton Avenue in the City of Huntington Beach. The site's formal address is 21379 Magnolia Street, Huntington Beach, California 92647.

Several existing facilities/amenities at the Site are constructed on top of existing waste material deposited at the former CSL. Settlement, differential settlement, and potential sinkholes are typically expected to occur at facilities constructed on top of waste. The effect of settlement, differential settlement and/or a combination of both are observed at the existing tennis courts, sidewalks, open park areas and other hardscape/amenities at the Site.

Geosyntec understands that the City is currently evaluating conceptual designs for improvements at the Site. The proposed improvements include construction of new structures and amenities such as a sport court plaza with seating and shade, basketball, tennis, and pickleball courts, practice hitting walls, retaining walls, fence posts for batting cages, entry monument sign, new shade shelters, an all-wheels skate plaza, pump track, and light poles. Figure 2 includes the most recent draft conceptual plan prepared by RJM Design Group (RJM).

Given the historic Site use as a landfill and the presence of waste materials that are susceptible to settlement, the City retained Geosyntec to perform geotechnical evaluation to assess the feasibility and compatibility of the proposed improvements at the Site as well as provide preliminary geotechnical recommendations to support the design.

1.3 Site Background

The Site was used by Southern California Edison (SCE) as a sand and gravel pit from 1956 to 1957. In December of 1957, the County of Orange purchased the site from SCE. Between December 1957 and May 1969, the County of Orange owned and operated the Cannery Street waste disposal station, which has been referred to as the Cannery Street Landfill or Edison Pit. Based on information included in the Solid Waste Assessment Test (SWAT) prepared by The Earth Technology Corporation (TETC, 1990), approximately 90 percent of the pit is 36 ft deep, while the remaining 10 percent is approximately 46 ft deep. The sides of the excavation range from vertical to a 1 horizontal:1 vertical (1H:1V) slope. According to planning documents, filling the landfill was proposed in two stages.

The first stage consisted of filling the portion of the pit below the water table, which was found to be approximately 10 ft below ground surface (bgs), with logs, stumps, and large timber. After the first stage of filling was complete, the County planned a second stage of filling by placing approximately 1 ft of soil over the logs, stumps, and large timber and filling the remaining available space (approximately 500,000 yd^3) with municipal solid waste (MSW). However, the Closed Landfill Environmental Assessment and Response (CLEAR) report (TRC, 2001) states that no MSW was disposed of on the site; rather, that only construction debris was landfilled.

Records also state the waste disposed of at the site was placed directly into standing water in the pit. Liners were not placed, nor were leachate or gas collection systems installed, at the site. The waste was confined to the rectangular westerly 20.5 acres of the site. The edge of native soils around the waste varies from 20 ft in width to less than 12 ft at some points along the west and north boundaries.

The CLEAR report (TRC, 2001) states: “Boundaries of the refuse prism remained constant during its construction based on a review of aerial photographs dated 1953, 1959, and 1967 and Project documents. Thus, the refuse appears to have been placed within reasonably well-defined limits within the Site.”

The County built up the western edge of the site with fill to prevent overflow from the pit from washing into the nearby homes to the west. As of July 1965, dumping was restricted to materials that would not float. Household waste was not allowed at the site. To control the water level in the pit, an open ditch was excavated between July 1967 and June 1968 to connect the pit to a storm drain along Hamilton Avenue.

Upon completion of fill, soil stockpiled to one side of the site was spread over the entire area. The soil cover was graded to improve drainage from the northwest to the southeast. The depth of soil cover is estimated to range from 2 to 3 ft over the site.

Upon closure of the landfill, the site was deeded to the City of Huntington Beach in 1970. To comply with the park restriction zoning, the City developed the area into a public park named Edison Community Park. In 1971, approximately 5 acres of the site were deeded to the City's School District of Orange County to be used as the William E. Kettler Elementary School Playground. Since then, the City and the School District have operated the site for recreation and school purposes and have had control of and responsibility for site conditions.

A groundwater Solid Waste Assessment Test (SWAT) was conducted in 1989, and the results indicated the need for quarterly groundwater monitoring at the site. Six groundwater monitoring wells were installed in June 1990 and monitored from 1990 to 1994. The results of groundwater monitoring indicated that groundwater quality was naturally poor both upgradient and downgradient of the site due to saltwater intrusion. No organic compounds were detected in the wells at the site during monitoring. The California Regional Water Quality Control Board (CRWQCB) approved the termination of the groundwater monitoring program in 1994.

1.4 Objective and Scope of Services

The objectives of this study were to develop understanding of the Site subsurface conditions through review of existing documents and previous field investigations, develop relevant geotechnical design parameters and provide preliminary geotechnical recommendations as it relates to the proposed improvements.

The specific geotechnical scope of services provided by Geosyntec included:

- Reviewing available project documents including previous field investigation reports;
- Reviewing site geologic and seismic hazards;
- Performing geotechnical engineering analyses;
- Developing preliminary geotechnical recommendations; and
- Preparing this geotechnical report to present results and findings of the document review, results of the geotechnical engineering analyses, and preliminary recommendations.

1.5 Organization of the Report

The body of this Report is divided into four sections, which contain the following:

- Section 1 – Introduction;
- Section 2 – Relevant Document Review – provides a list of documents reviewed and a summary of previous field investigations;
- Section 3 – Site Conditions – describes our understanding of the surface and subsurface conditions based on the review of previous field investigation and interpretation of the available data;

- Section 4 – Geohazards – discusses Site Geohazards, including assessment of Design Ground Motions; and
- Section 5 – Geotechnical Recommendations – presents the results of geotechnical evaluations and provides preliminary geotechnical recommendations for design and construction of the proposed Site improvements.

2. RELEVANT DOCUMENT REVIEW

2.1 Site Documents Reviewed

Geosyntec performed a limited review of available relevant project documents and existing information pertinent to the proposed improvements. Geosyntec's review included the following documents:

- *Construction Quality Assurance Report, Landfill Gas Collection and Control System Construction, Cannery Street Former Refuse Disposal Station, Huntington Beach, California*, prepared by Geosyntec Consultants, Inc. dated March 2010.
- *Feasibility Study for Edison Park Settlement Related Damage Repair, Edison Park, Huntington Beach, California,* prepared by Geosyntec Consultants, Inc. dated October 2018.
- *Focused Area Waste Limit/Depth Evaluation, Edison Park, Huntington Beach, California,* prepared by Geosyntec Consultants, Inc. dated June 2021.
- *Edison Park Draft Conceptual Plan, City of Huntington Beach, California*, prepared by RJM Design Group dated 25 July 2023.
- *Letter Report – Geophysical Oil Well Locating Survey, Edison Park, Huntington Beach, California,* prepared by Geosyntec Consultants, Inc. dated July 2023.

2.2 Geosyntec (2018) Feasibility Study for Settlement Related Damage Repair

Geosyntec performed a feasibility study in 2018 to evaluate several alternatives for repairing or reconstructing settlement related damage to the existing park facilities/amenities at the Site (Geosyntec, 2018). The primary objective of this evaluation was to develop general recommendations for the repair/reconstruction and preliminary cost estimated of the evaluated repair/reconstruction alternative of the settlement related damages. As part of this assessment, Geosyntec performed a waste settlement evaluation to estimate the rate of waste settlement considering secondary (long term) settlement as the predominant on-going mechanism of waste settlement at the Site. In waste, secondary settlement is comprised of long-term compression due to self-weight, external loads, and biological degradation of the organic portion of the waste materials.

The results of the settlement evaluation indicated that the site is settling at approximately 1 inch every two years. Geosyntec (2018) also evaluated the impacts of additional load (soil layer) placed on top of the waste on the estimated settlement rate and/or magnitude. The results of the settlement analyses are summarized in Figure 3.

2.3 Geosyntec (2020, 2021) Field Investigations

Geosyntec performed limited field investigations to evaluate the approximate lateral limit(s) and depth(s) of existing waste along a selected portion of the approximate eastern limits of waste estimated by TRC (2001) at Edison Park in November 2020 and March 2021. The results and findings of these field investigations are documented in the letter report prepared by Geosyntec (2021) and included here as Appendix A. These field investigations included five (5) exploratory test pits (TP-1 through TP-5) and twelve (12) hollow-stem auger (HSA) borings (HSA-1 through HSA-5, and HSA-2A through HSA-8A), the locations of which are shown in Figure 4. The objective of the test pits was to evaluate the approximate lateral limit(s) of the existing waste in the study. The objective of the HSA borings was to confirm the presence of waste and/or estimate the depth of the waste where present. The limits of the delineated waste based on Geosyntec (2021) are shown in Figure 4.

A summary of the findings from these investigations is provided below:

- Lateral limit of waste was delineated at two test pit locations (TP-1 and TP-2). The approximate depths to the encountered waste layer at TP-1 and TP-2 were 3.5 ft bgs and 3 ft bgs, respectively.

- Waste was identified at three test pit locations (TP-3, TP-4, and TP-5); however, the lateral limit of waste was not identified. It is likely that the lateral limits of waste at these locations extended eastward past the obstruction such as the concrete slab at TP-3 and TP-4, and concrete sidewalk at TP-5. The approximate depths to waste from existing surface at TP-3, TP-4, and TP-5 ranged between 2 to 3 ft bgs.

- The depths of waste at HSA borings near the TRC (2001) estimated lateral limits of waste (HSA-1 through HSA-3) were found to range between 10.5 ft and 20.5 ft bgs. The depth of waste at HSA-5 near the northern edge of existing tennis court was observed to be approximately 40.5 ft bgs. The depth of waste at HSA-4 near the southern edge of the tennis court could not be identified due to refusal, however waste was still observed up to 34 ft bgs. At the borings under existing concrete slab (HSA-2A through HSA-8A), soil materials encountered in the borehole contained slight traces of waste materials based on visual and odor field observations at depths between 5 ft and 15 ft bgs. However, no clearly defined waste layer was encountered. Slight waste traces observed in these boreholes (HSA-2A through HSA-8A) may not be part of a continuous waste layer.

- The top soil layer overlying the waste material at the Site was visually classified as silty sand (SM) in general accordance with ASTM D2488. The thickness of the soil layer generally ranged between 2 to 3.5 ft bgs.

- The waste material encountered at the site generally composed of dark gray asphalt concrete debris and decayed wood pieces within the landscape areas and dark gray, medium to high plasticity clay soils, with trace debris and slight organic odor within the concrete slab areas. The waste materials did not have any unusual odor. The above characteristics of the waste material was consistent throughout the investigation locations.

- Groundwater was encountered at ten of the twelve HSA borings during the investigations. The depth to groundwater in the landscape borings generally ranged between 8 to 12 ft bgs. The depth to groundwater in the concrete slab borings generally ranged between 12.5 to 16.5 ft bgs except at HSA-2A and HSA-6A where groundwater was not encountered.

- Composite samples of drill cuttings from HSA drilling were collected and sent to laboratory for analytical testing prior to disposal. The analytical laboratory testing included the following:

    - Total Petroleum Hydrocarbons (TPH) by EPA 8015M;
    - Volatile Organic Compounds (VOCs) by EPA 8260B;
    - Title 22 Metals by EPA 6010B/7471A; and
    - Lead, STLC by EPA 6010B

    Results of the analytical testing are included here as Appendix B. The test results indicated that the waste was non-hazardous and thus the soil cuttings were disposed by American Integrated Services at Crosby & Overton, Inc., which is a licensed non-hazardous off-site waste disposal facility.

2.4 Geosyntec (2023) Oil Well Locating Geophysical Survey

Geosyntec retained the services of **GEO***Vision* Geophysical Services (**GEO***Vision*), a geophysical specialty subcontractor to perform a non-intrusive geophysical survey in July 2023 to locate two known existing historical oil wells located at the northeast corner of the Site (Geosyntec, 2023). The approximate interpreted locations of the Oil Wells based on the geophysical interpretation are shown in Figure 4. A copy of the Geophysical Oil Well Locating Survey Report is included as Appendix C.

2.5 RJM (2023) Edison Park Draft Conceptual Plan

Geosyntec performed a review of the Draft Conceptual Plan prepared by RJM dated 25 July 2023 (Figure 2) to assess the compatibility and feasibility of the proposed park improvements. Geosyntec's review findings and preliminary recommendations related to RJM's draft conceptual plan are presented in Table 1.

3. SITE SURFACE AND SUBSURFACE CONDITIONS

3.1 Surface Conditions

The Site is currently developed as a public park. Existing features/amenities at the park include tennis courts, racquetball court, basketball courts, softball field, Children's play area, picnic area with tables and shades, skate spot, Edison Community Center Building, Fire Station, asphalt concrete paved parking areas, and landscapes.

The Site is bordered by Stilwell drive to the north, Magnolia Street to the east, Hamilton Avenue to the south, and residential areas to the west. The Site elevation ranges from approximately 3 ft to 10 ft North American Vertical Datum of 1988 (NAVD88).

3.2 Subsurface Conditions

Based on the review of the previous Site documents and field investigation reports as discussed in Section 2, the subsurface conditions within the limits of waste consists of a top soil layer overlying the waste materials. Based on the field investigation performed by Geosyntec in 2020 and 2021 (Geosyntec, 2021), the thickness of the top soil layer is estimated to range between 2 to 3.5 ft bgs. The thickness of waste materials is estimated to range from 35 to 46 ft, with approximately 90 percent of the thickness being 35 ft (TETC, 1990). The thickness of waste encountered during focused field investigation as documented in Geosyntec (2021) ranged between 2.5 ft to 38 ft with smaller thicknesses near the limits of the waste.

Based on the review of available limited soil sampling and laboratory testing as documented in Geosyntec (2010), the shallow site soils generally consist of poorly graded sand with silt, silty and clayey sands. Review of the Quaternary Geologic Map of the Newport Beach 7.5-minute quadrangle (CGS, 2006) indicates that the Site is underlain by young alluvium (Qya) deposits.

3.3 Groundwater Conditions

Groundwater was encountered at depths ranging between approximately 8 to 16.5 ft bgs during Geosyntec (2021) field investigation. However, due to proximity to the ocean, water level is anticipated to exhibit muted fluctuation with the tides.

Based on the review of the Seismic Hazard Zone Report for the Anaheim and Newport Beach 7.5-Minute Quadrangles, Orange County, California [California Geological Survey (CGS), 2006], the historically highest groundwater level at the vicinity of the Site is approximately 3 ft bgs.

4. GEOHAZARDS

This section contains a description and evaluation of potential geologic and seismic hazards such as fault rupture, strong ground shaking, liquefaction, etc. based the understanding of site conditions described in Section 3 and a review of relevant publicly available information.

4.1 Strong Ground Shaking and Design Ground Motions

The Site is situated within a seismically active Southern California region and will likely experience moderate to severe ground shaking in response to a large magnitude earthquake occurring on a local or more distant active fault during the lifespan of the proposed facility. As a result, seismically induced ground shaking in response to an earthquake occurring on a nearby active fault, such as the Newport Inglewood fault zone located to the northeast of the Site, is considered to be the major geologic hazard affecting the project. Other active faults in the vicinity and their respective distances from the Site and the representative maximum Moment Magnitudes, as obtained from the 2013 Caltrans Fault database are summarized in Table 2 below.

Table 2 – Nearby Active Faults

Fault Name	Distance and Direction from Site	Maximum Moment Magnitude
Newport Inglewood fault zone (S. Los Angeles Basin section)	About 1.2 miles to northeast	7.2
Thums-Huntington Beach (northern)	About 1.3 miles to west	6.6
San Joaquin Hills	About 3.8 miles to northeast	7.0
Compton	About 5.5 miles to northwest	6.9
Anaheim	About 8.8 miles to northwest	6.4

The seismic design parameters for the project were established in accordance with ASCE 7-16, Chapter 11, for Site Class D (Default). Mapped ground motion parameters S_S and S_1 were obtained using the ASCE 7 Hazard Tool (https://asce7hazardtool.online/). The output from the web tool is included in Appendix D. The seismic design parameters are summarized in Table 3.

Note that ASCE 7-16, Section 11.4.8, requires that sites classified as Site Class D with an S_1 greater than or equal to 0.2 perform a site-specific ground motion hazard analysis. Although the Site meets the criteria for this requirement, a site-specific ground motion hazard analysis was not performed, which is permitted per Exception #2 in ASCE 7-16 Section 11.4.8. This exception states that a ground motion hazard analysis is not required provided that the value of the seismic response coefficient Cs is determined by Eq. (12.8-2) for values of $T \leq 1.5T_s$ and taken as equal to 1.5 times the value computed in accordance with either Eq. (12.8-3) for $T_L \geq T > 1.5T_s$ or Eq. (12.8-4) for T

> T_L. This approach to computation of the seismic response coefficient Cs, should be implemented by the structural engineer.

Table 3 – Design Ground Motion Parameters

Parameter	Value
Approximate Site Latitude	33.652693 degrees
Approximate Site Longitude	-117.9721 degrees
Site Class	D - Default
Mapped Short Period Spectral Response Acceleration, S_s	1.391 g
Mapped 1-second Spectral Response Acceleration, S_1	0.502 g
Short Period Site coefficient (at 0.2-s period), F_a	1.2
Long Period Site coefficient (at 1.0-s period), F_v	1.8 [(a)]
Site-modified Short Period Spectral Response Acceleration, S_{MS}	1.67 g
Site-modified 1-second Spectral Response Acceleration, S_{M1}	0.904 g [(a)]
Design Short Period Spectral Response Acceleration, S_{DS}	1.113 g
Design 1-second Spectral Response Acceleration, S_{D1}	0.602 g [(a)]
Long Period Transition	8 s
Mapped MCE_G Peak Ground Acceleration, PGA	0.606 g
Site Coefficient, F_{PGA}	1.2
Site Class Adjusted MCE_G Peak Ground Acceleration, PGA_M	0.728 g
Design Moment Magnitude	6.8
Notes: a. See the commentary in ASCE/SEI 7-16, Section 11.4.8 “Exception note” 2.	

4.2 Liquefaction

Seismically induced soil liquefaction can be described as a significant loss of strength and stiffness due to cyclic pore water pressure generation from seismic shaking or other large cyclic loading. The material types considered most susceptible to liquefaction are saturated, loose- to medium-dense granular soils and low-plasticity, fine-grained soils. Manifestations of soil liquefaction can include the loss of bearing capacity below foundations, surface settlements and tilting in level ground, and instabilities in areas of sloping ground. Soil liquefaction can also result in increased lateral and uplift pressures on buried structures. Lightweight or unrestrained buried structures may float upward to the ground surface during a liquefaction event.

Based on the review of the Seismic Hazard Zones Official Map for Newport Beach Quadrangle (CGS, 1997), the Site is located within the areas identified as potential liquefaction zone. However, given the site use and proposed improvement types, no liquefaction mitigation improvements are recommended.

4.3 Lateral Spreading

When liquefaction occurs, sloping ground or level ground near a steep slope or vertical face can potentially move as a mass downslope or towards the steep slope/vertical face, applying lateral forces to structures and their foundations, and potentially imposing large deformations.

Given the absence of a steel slope or vertical face, lateral spreading is not believed to pose a significant hazard to the proposed improvements.

4.4 Fault Surface Rupture

Fault surface rupture refers to the offset that occurs in the ground during an earthquake as a result of the relative movement of the ground on both sides of a fault. When that offset reaches the ground surface, either because the fault extends to the surface or because the offset propagates from the fault at depth through overlying soil to the surface, it is referred to as surface fault rupture. A review of published geologic data and the locations of fault-rupture hazard zones in Southern California did not indicate the presence of any active or potentially active faults crossing on or projecting towards the proposed improvements. The nearest identified fault zone is located approximately 1.2 miles to the northeast from the Site. Based on the above discussion, fault rupture is not believed to pose a hazard to the proposed improvements.

4.5 Other Geologic Hazards

Other geologic hazards, including land sliding, tsunami, and volcanic activity, are not considered to be significant hazards, given the geologic and topographic setting of the Site, and are not likely to pose an impact to the proposed improvements.

5. GEOTECHNICAL ENGINEERING ASSESSMENTS AND RECOMMENDATIONS

5.1 General

The preliminary recommendation provided herein assume that the proposed structures will generally be placed outside the identified limits of the waste, as shown on the draft conceptual plans prepared by RJM (Figure 2). Based on our understanding of site conditions, it is our opinion that the proposed improvements as shown in the draft conceptual plan are feasible from the geotechnical perspective provided that the recommendations outlined in this report are implemented in the design and construction.

5.2 Earthwork and Grading

Earthwork should be performed in accordance with the geotechnical recommendations of this report, the project specifications, applicable sections of the California Building Code (2022), applicable Orange County grading regulations, the current version of the Standard Specifications for Public Works Construction "Greenbook," as well as California Occupational Safety and Health Administration (Cal OSHA) safety requirements.

Earthwork at the Site is expected to include minor grading to achieve the planned vertical grades, subgrade preparation, limited excavations for foundations, and potential retaining wall backfill. Since the proposed park structures are generally expected to be outside the delineated limits of the waste, it is expected that the earthwork and grading activities will generally not include waste excavation. However, limited partial waste excavation may be needed, if encountered during construction, particularly near the identified limits of the waste. Geosyntec recommends that earthwork be performed under the observation and testing of an experienced geotechnical landfill engineer to help further identify the limits of potential waste materials and limit the volume of potential waste excavation.

In addition, proposed grading work should avoid as much as possible disturbance to the existing oil wells at the Site. Grading work that might require adjustment to oil well height/depth can be considered "Re-entry into the well" which may trigger the need for potentially costly re-abandonment of the affected wells to current California Geologic Energy Management Division (CalGEM) Standards. Geosyntec recommends that limited excavation be performed at the geophysical survey inferred locations of the oil wells to physically confirm the well locations during detailed design phase of the project.

5.2.1 Subgrade Preparation and Overexcavation

The grading areas should be cleared of debris, and organic or deleterious materials. Such materials should be removed and properly disposed off-site. Abandoned underground utilities (if

encountered) should either be excavated and the trench properly backfilled or the pipe filled with two-sack sand-cement slurry.

Existing subgrade material should be overexcavated to a minimum depth of 12 inches below the bottom of proposed concrete slab or below the bottom of footings and replaced with engineered fill. The horizontal limits of removal excavation should extend at least 2 ft beyond the outer edge of concrete slabs.

The bottoms of excavations/footings should be scarified to a depth of 8 inches, moisture conditioned between 1 and 3 percent above optimum moisture content, and compacted to at least 90 percent of the maximum dry density as determined by ASTM D1557.

Excavation beyond the above requirements may be needed if waste or other unsuitable materials are encountered and replaced with engineered fill, as directed by the geotechnical engineer.

5.2.2 Fill and Backfill

Fill soils should possess:

1. At least 40% material less than ¼-inch in size;
2. A maximum size in the largest dimension of 3 inches;
3. Less than 50% of fines content passing sieve No. 200;
4. A plasticity index of less than 15 and a liquid limit of less than 40;
5. An expansion index (ASTM D4829) of less than 20 for materials placed within 5 feet of retaining walls, and an expansion index of less than 50 for other fill areas; and
6. No perishable, organic, deleterious, or otherwise unsuitable material.

The project geotechnical engineer should review and evaluate the proposed fill materials before their use.

Fill and backfill material should be placed in loose lifts no thicker than 8 inches, moisture conditioned, and processed as necessary to achieve uniform moisture content at 0 to 3 percent above the optimum moisture content. Each lift should be compacted to not less than 90 percent relative compaction. Relative compaction is defined as the ratio of the in-place dry density to the theoretical laboratory maximum dry density, using ASTM D1557 as the compaction standard. The in-place dry density and moisture content should be determined in accordance with ASTM D6938 or ASTM D1556 at a frequency as determined by the qualified geotechnical representative responsible for quality assurance during construction.

5.2.3 Surface Drainage

Surface drainage should be planned to prevent ponding and promote the drainage of surface water away from the concrete slabs/flatworks and towards suitable collection and discharge facilities.

Paved areas should be sloped to drain water away from structures and flatwork at a minimum gradient of 1 percent, and unpaved areas should be finish graded with a minimum slope of 2 percent away from the concrete slabs.

Additionally, for proposed landscaped areas and park facilities developed above the known waste limit, the amount of irrigation should be limited/minimized as much possible since moisture infiltration can accelerate the rate and increase the overall magnitude of settlement in waste. This may be achieved through the use of smart irrigation systems that limit the amount of water or use of vegetation types that can sustain with little water to minimize the infiltration of water into the waste material. Furthermore, proper positive drainage should be implemented and maintained to reduce potential ponding.

5.3 Shallow Foundation Recommendations

Shallow foundations, such as spread and continuous footings are suitable to support the proposed structures at the Site as shown in the draft conceptual plans prepared by RJM dated 25 July 2023 (Figure 2).

Allowable bearing pressure of 2,000 psf can be used for the foundations with a minimum width of 2 ft and minimum embedment of 2 ft. The allowable bearing capacity can be increased by one-third for short term wind or earthquake loading conditions.

Resistance to lateral loads may be provided by passive resistance along the outside face of the foundation and frictional resistance along the bottom of concrete. For allowable passive resistance, an equivalent fluid weight of 150 pounds per cubic foot (pcf) can be used for design of foundations. Passive resistance of the top 1 ft of soil should be neglected unless the grade next to the foundation is paved. If friction is used to resist lateral loads, a coefficient of 0.25 between soil and foundation concrete can be used.

Total and differential settlements of foundations are expected to be in tolerable ranges if recommendations provided in this report are implemented. Total settlement is not expected to exceed one inch, while differential settlements between footings are expected not to exceed approximately one-half inch.

A unit modulus of subgrade reaction for compacted subgrade can be assumed as 150 pci. The recommended value is valid for a unit area of one square foot. For larger loading areas, the modulus of subgrade reaction can be estimated by the following equation:

$$k_B = k_1 [(B + 1) / (2 B)]^2$$

where B is the width of effective soil reaction area in ft, and k_1 is the unit modulus of subgrade reaction.

5.4 Slabs-On-Grade

Conventional concrete slabs-on-grade may be used for the hardscape at the Site. Subgrade soils supporting the slab should be prepared as recommended in Section 5.2.1. At the time of concrete pour, the subgrade soils should be firm and relatively unyielding. Significant local loads are not expected in these slabs, as they are not expected to serve as structural slabs.

The concrete slabs-on-grade thickness and steel reinforcement should be properly designed by the project structural engineer for the anticipated floor loads and other structural considerations. Crack control or expansion/contraction joints should be provided at spacing appropriate for the slab thickness.

Concrete slabs should be underlain by a minimum of 4 inches of compacted clean, coarse sand or aggregate. Special care should be taken by the contractor so that a uniform thickness of sand is maintained to achieve uniformity in the concrete thickness for the slab. Geosyntec recommends that the subgrade soils be wetted prior to placement of the sand or aggregate beneath the slab.

5.5 Lateral Earth Pressures for Retaining Walls

In general, retaining walls should be designed to resist earth pressures, surcharge loads, and anticipated hydrostatic pressure.

The lateral earth pressure used in design of the cantilever retaining wall should include a triangular distribution with an equivalent fluid weight of 40 pcf.

Surcharge pressures (dead or live) should be added to the above lateral earth pressures where surcharge loads may be located above or adjacent to the wall. Surcharge pressures should be applied as a uniform rectangular pressure distribution by using a lateral earth pressure coefficient of 0.33 for cantilever walls. Surcharges that are set back behind the wall a horizontal distance greater than the wall height need not be included in the design pressure. A uniform vertical surcharge pressure of 300 psf may be used to simulate traffic loads.

The lateral earth pressures recommended above are based upon the assumption that the grade behind the walls is level and the wall backfill is well-drained to prevent the buildup of hydrostatic pressure behind the wall. Lateral earth pressures on walls for specific wall heights, unique surcharge conditions, or other conditions not described herein can be developed once details and construction procedures are available.

5.6 Construction Observation and Considerations

We recommended that a representative from Geosyntec as the Geotechnical Engineer of Record with experience in landfill engineering review the subsurface conditions as they are exposed during construction, observe, and assess the site preparation and earthwork construction, observe the

materials exposed in excavations, and assess whether subsurface conditions encountered throughout the site deviate significantly from those used as a basis for development of the recommendations contained herein. The Geotechnical Engineer of Record shall alert all parties of any unsuitable conditions related to the aspects discussed in this report.

Based on the field observations, additional recommendations may be provided regarding the suitability of soil and other materials for compaction, import soil, etc.

It is recommended that the Geotechnical Engineer of Record maintain a full-time on-site presence for construction quality assurance (CQA) during earthwork operations such as footing excavations and fill placement.

6. LIMITATIONS

This report was prepared exclusively for use by City of Huntington Beach, in support of the proposed improvements at Edison Park. The report is not intended to be suitable for reuse on extensions or modifications of the project or for use on any project other than the currently proposed development, as it may not contain sufficient or appropriate information for such uses. If this report or portions of this report are provided to contractors or included in specifications, it should be understood that they are provided for information only.

Subsurface deposits may vary in type, strength, and many other important properties between points of exploration due to non-uniformity of the geologic formations or to man-made cut and fill operations. While we cannot evaluate the consistency of the properties of materials in areas not explored, the conclusions drawn in this report are based on the assumption that the data obtained in the field are reasonably representative of field conditions and are conducive to interpolation and extrapolation.

Our investigation and evaluations were performed using generally accepted engineering approaches and principles available at this time and the degree of care and skill ordinarily exercised under similar circumstances by reputable Geotechnical Engineers practicing in this area. No other representation, either expressed or implied, is included or intended in our report.

7. REFERENCES

American Society for Testing and Materials, 2020. Annual Book of ASTM Standards. Section 4 Construction, Volume 04.08 Soil and Rock.

CGS (1997). *Seismic Hazard Zones Official Map for Newport Beach Quadrangle*.

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The Earth Technology Corporation (TETC) (1990). *Report, Solid Waste Assessment Test, Cannery Street Disposal Station, Huntington Beach, California*.

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TABLE

Table 1. Summary of Findings and Preliminary Recommendation from Geosyntec's Review of Edison Park Draft Conceptual Plan Prepared by RJM dated 25 July 2023

Item No.	Proposed Improvement/ Existing Features	Within waste limit? (Yes/No)	Description	Notes/Comments	Preliminary Recommendations
1	Reconfigured parking lot with new entry at Edison H.S. intersection. (Total Parking Spaces +/- 250)	No (However, in close proximity to inferred locations of Oil Wells #1 and #2)	Conceptual plans show notch around the oil well #1 for the proposed parking areas.	Placing a parking lot over the oil wells is generally not expected to impede access to the oil wells. However, care must be taken to not disturb the oil wells by grading activities.	Please note: proposed grading work should avoid as much as possible disturbance to the existing "plugged" oil wells. Grading work that might require adjustment to well height/depth can be considered "Re-entry into the well" which may trigger the need for costly re-abandonment of the affected wells to current CalGEM Standards. In addition to cost implications, this can also result in significant delay. Recommends the following: 1) Perform limited excavation at the locations marked by geophysical survey for confirmation and survey of actual well locations during detail design phase of the project. 2) Adjust, as/if needed, the extent of the proposed parking reconfiguration to be compatible with the actual oil well location(s).
2	New parking lot entry at Poston Lane.	No		Similar comments as Item No. 1	Similar recommendations as Item No. 1
3	New sport court plaza with seating and shade.	No	n/a	n/a	n/a
4	New full court basketball court (4).	No	n/a	n/a	n/a
5	New half-court basketball court (4).	No	n/a	n/a	n/a
6	New tennis courts (2).	No	Concrete slabs with potential penetrations for tennis nets and ball containment chain link fencing	While the tennis court is outside the shown limits of waste, the western edge of the tennis courts is in close proximity to the edge of the waste which may result in localized surface cracking/distress.	Limited partial waste excavation maybe required. Potential impact is anticipated to be not significant, and limit/volume of waste excavation can be adjusted in the field during construction, if encountered.
7	New practice hitting wall (4).	No	n/a	n/a	n/a
8	New picnic tables.	No	n/a	n/a	n/a
9	Dual use courts (2 tennis with 8 pickleball).	No	n/a	n/a	n/a
10	Existing tennis courts (#3 and #4) converted to pickleball courts (8).	Yes	Concrete slabs with potential penetrations for pickleball nets and ball containment chain link fencing. Southern half of the existing tennis courts to be removed and may salvage the northern half.	Entirely within the waste limits and on top of thick portion of waste which may result in significant total and differential settlements. Northern half of the tennis courts may be salvageable but suggest taking a closer look to assess its current condition.	Suggest one of the following: 1) Partial waste removal and off-site disposal of waste and placement of engineered fill prior to construction of the proposed pickleball court. [This option is possible but could add cost to the project] 2) Place the proposed courts on deep foundation system capable to transferring the load to competent soil layer below the existing waste. [This option is possible but

Item No.	Proposed Improvement/ Existing Features	Within waste limit? (Yes/No)	Description	Notes/Comments	Preliminary Recommendations
					potentially costly and with added complexity] Alternatively, if the above two options are not feasible, the proposed pickleball courts can be constructed with the understanding that the performance of the concrete slab will be affected by differential settlement and extensive repair/maintenance and/or replacement of the proposed courts will be required.
11	Reconfigured walkways.	No	n/a	n/a	n/a
12	Existing trees.	Yes	n/a	n/a	n/a
13	New trees.	No	n/a	n/a	n/a
14	New shade shelter	No	n/a	n/a	n/a
15	Existing softball fields.	Yes		Periodic corrective regrading work might be required.	This type of park amenities can tolerate settlement and considered compatible for sites with waste layer.
16	Existing SCE Towers and overhead utility lines.	No	n/a	n/a	n/a
17	Expanded exterior restrooms at Community Center.	No	n/a	n/a	n/a
18	Existing walkways.	Yes	Concrete surface		If the existing walkways are being replaced, recommend using surfaces that are more tolerant to differential settlement such as flexible pavers. Concrete surfaces are prone to cracking from potential settlement and can result in uneven walking surfaces.
19	New U10 (50yds x 70yds) soccer field overlay in SCE Corridor (pending SCE review and approval).	No	n/a	n/a	n/a
20	New U14 (60yds x 70yds) soccer field overlay in SCE Corridor (pending SCE review and approval).	No	n/a	n/a	n/a
21	Enlarged plaza all-wheels	Partially Yes	Concrete features proposed to be constructed on existing concrete slab with no intrusion/penetration below the existing slab within the limits of waste, some potential for penetration outside the waste limits	Proposed all-wheels plaza straddles between the waste and native soils; however, this feature is generally considered to be compatible with the site characteristics.	Suggest one of the following: 1) Perform selected repair of the existing concrete slab if needed, especially in the older sections of concrete that has shown signs of distress/cracks. 2) Remove the existing concrete slab and replace with new slab with potential for limited waste removal.
22	New Play Area with rubber surfacing, equipment, and shade.	No	n/a	n/a	n/a
23	New pump track.	No	n/a	n/a	n/a
24	Landfill monitoring station	No	Existing landfill gas management/blower system	Need to be protected in place	Suggest vegetation screen for enhanced aesthetics of the area
25	Oil Well #1	No	n/a	n/a	n/a
26	Oil Well #2	No	n/a	n/a	n/a

n/a: not applicable

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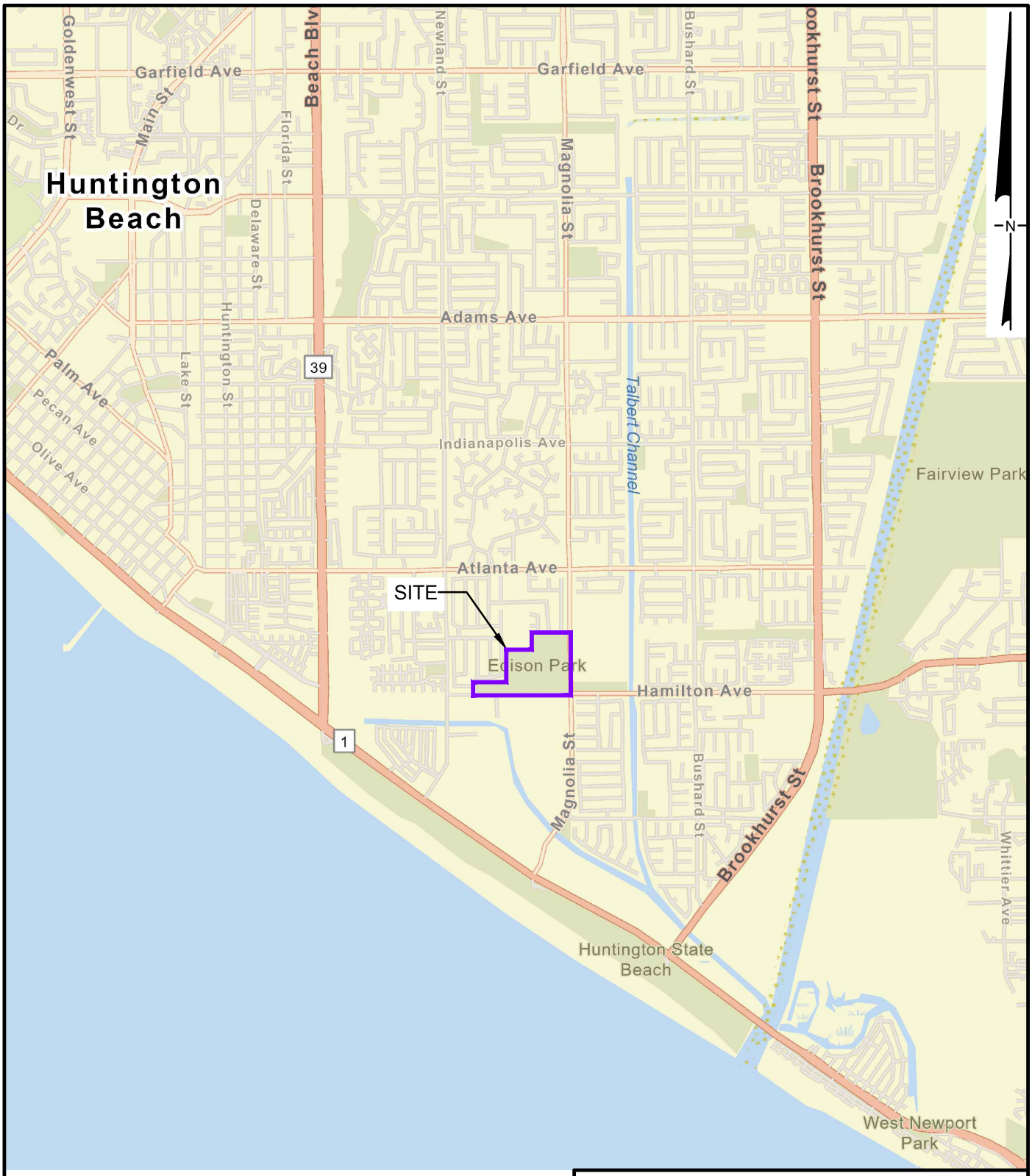
FIGURES



BASEMAP SOURCE: CITY OF HUNTINGTON BEACH, COUNTY OF LOS ANGELES, CALIFORNIA STATE PARKS, ESRI, HERE, GARMIN, SAFEGRAPH, GEOTECHNOLOGIES, INC., METI/NASA, USGS, BUREAU OF LAND MANAGEMENT, EPA, NPS, USDA.

SITE LOCATION MAP
EDISON PARK - PROPOSED IMPROVEMENTS
HUNTINGTON BEACH, CALIFORNIA

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FIGURE 1

PROJECT NO: SC1369 | NOVEMBER 2023

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DRAFT

EDISON PARK CONCEPTUAL PLAN LEGEND

1. Reconfigured parking lot with new entry at Edison H.S. intersection. (Total Parking Spaces ± 250)
2. New parking lot entry at Poston Lane.
3. New sport court plaza with seating and shade.
4. New full court basketball court (4).
5. New half court basketball court (4).
6. New tennis courts (2).
7. New practice hitting wall at tennis court
8. New picnic tables.
9. Dual use courts (2 tennis with 8 pickleball).
10. Existing tennis courts (#3 and #4)converted to pickleball courts (8).
11. Reconfigured walkways.
12. Existing trees.
13. New trees.
14. New shade shelter.
15. Existing softball fields.
16. Existing SCE Towers and overhead utility lines.
17. Expanded exterior restrooms at Community Center.
18. Existing walkways.
19. New U10 (50 yds x 70 yds) soccer field overlay in SCE Corridor (pending SCE review & approval).
20. New U14 {(60 yds x 70 yds) soccer field overlay in SCE corridor (pending SCE review & approval).
21. Enlarged plaza all-wheels.
22. New Play Area with rubber surfacing, equipment and shade.
23. New Pump Track
24. Landfill monitoring station.
25. Oil Well #1
26. Oil Well #2

RJM DESIGN GROUP

07/25/2023

0 40' 80' 160'

DRAFT CONCEPTUAL PLAN BY RJM
EDISON PARK - PROPOSED IMPROVEMENTS
HUNTINGTON BEACH, CALIFORNIA

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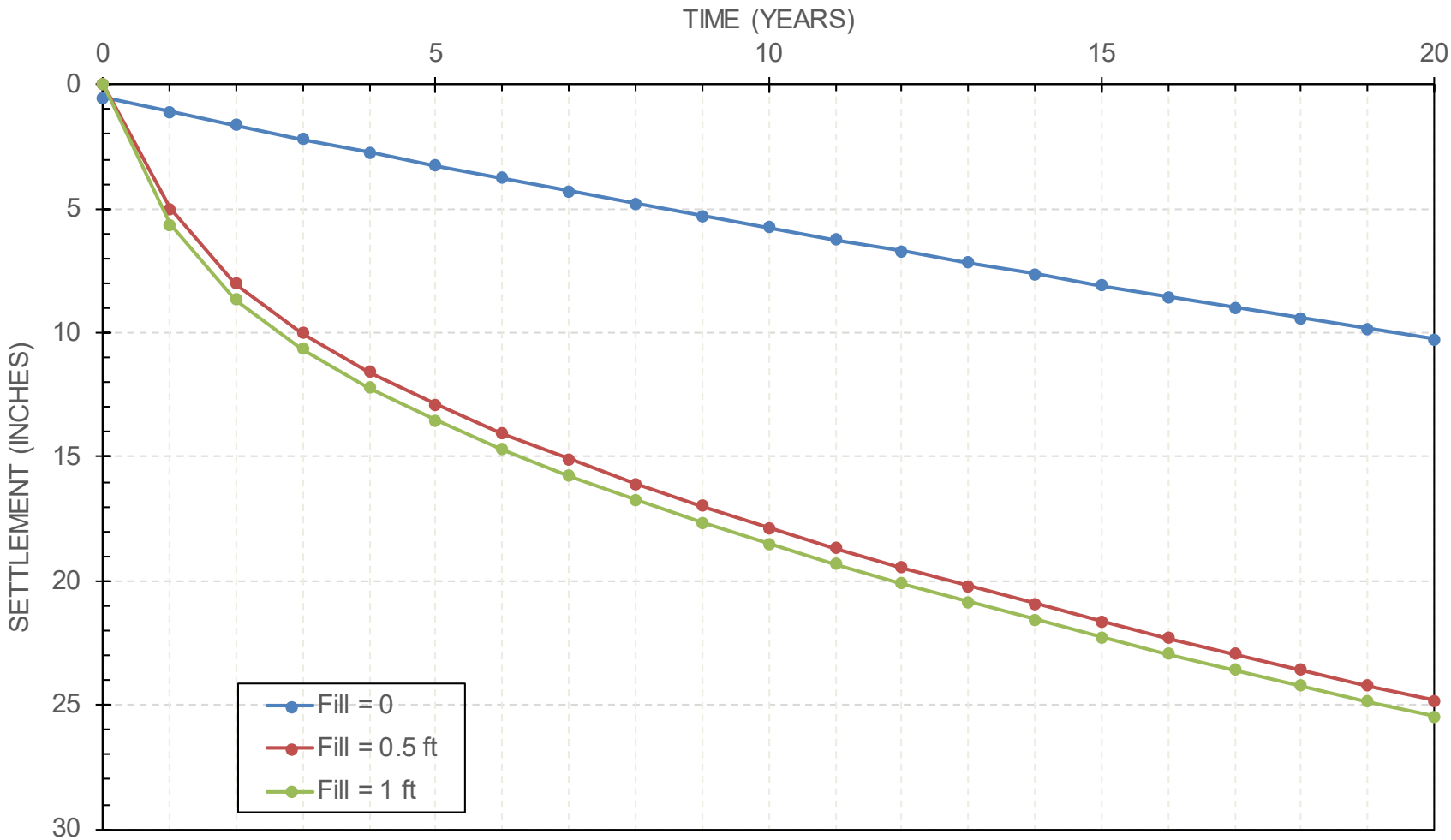
PROJECT NO: SC1369 | NOVEMBER 2023

FIGURE 2

\\orangecounty-01\DATA\PRJ4\CAWP\SC1369 - Edison Park Geotech Support\08 Geotechnical Report\Figure
rtFigures\Figure 2 - Conceptual Plan by RJM.pptx



Note:
Waste settlement estimates from Geosyntec (2018) Feasibility Study for Edison Park Settlement Related Damage Repair

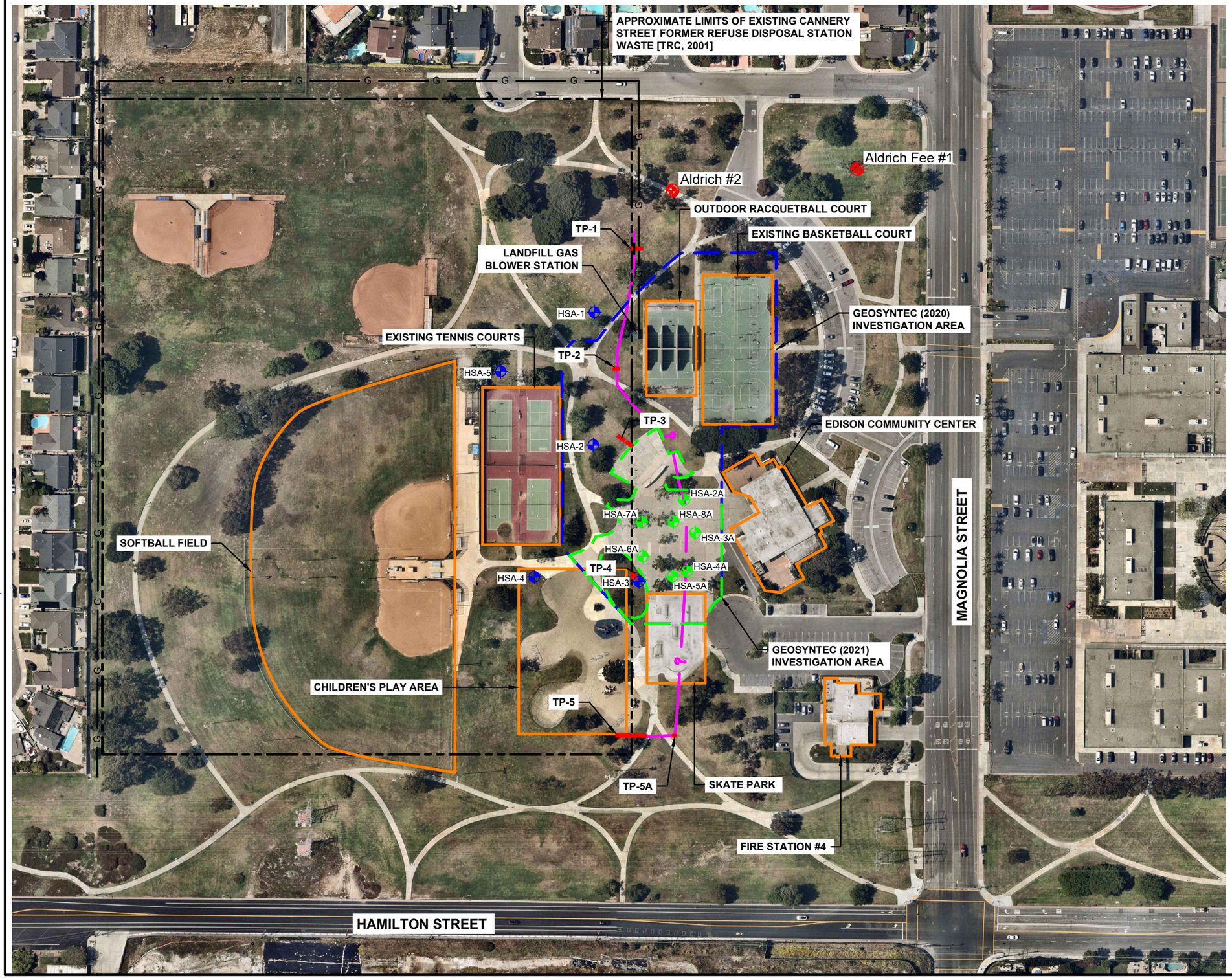
WASTE SETTLEMENT ESTIMATES
EDISON PARK – PROPOSED IMPROVEMENTS
HUNTINGTON BEACH, CALIFORNIA

Geosyntec consultants

PROJECT NO: SC1369 | NOVEMBER 2023

FIGURE
3

\\orangecounty-01\DATA\PRJ4\CAWP\SC1369 - Edison Park Geotech Support\08 Geotechnical Report\Figures\Figure 3 - Waste Settlement Estimates.pptx



LEGEND

- BORINGS PERFORMED TO DETERMINE DEPTH OF WASTE (GEOSYNTEC, 2020)
- EXPLORATORY TEST PITS PERFORMED (GEOSYNTEC, 2020)
- BORINGS PERFORMED TO DETERMINE DEPTH OF WASTE (GEOSYNTEC, 2021)
- INTERPRETED LOCATION OF OIL WELL FROM GEOPHYSICAL OIL WELL LOCATING SURVEY (GEOSYNTEC, 2023)
- GEOSYNTEC (2020) INVESTIGATION AREA
- GEOSYNTEC (2021) INVESTIGATION AREA
- G — EXISTING BURIED LFG HEADER PIPE
- LATERAL LIMITS OF WASTE MATERIAL DELINATED DURING GEOSYNTEC 2020 AND 2021 EXPLORATIONS

AERIAL BACKGROUND IMAGERY: © 2023 NEARMAP.

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SCALE IN FEET

EXISTING CONDITIONS AND FIELD INVESTIGATION LOCATIONS
EDISON PARK PROPOSED IMPROVEMNTS
HUNTINGTON BEACH, CALIFORNIA

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FIGURE 4

PROJECT NO: SC1369 | NOVEMBER 2023

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APPENDIX A

GEOSYNTEC (2021) WASTE DELINEATION REPORT

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June 7, 2021

Farhad Bolourchi, MSCE
Project Coordinator - Development Division
Community Service Department - City of Huntington Beach
2000 Main Street
Huntington Beach, California 92648

Subject: Focused Area Waste Limit/Depth Evaluation
Edison Park, Huntington Beach, California

INTRODUCTION

At the request of City of Huntington Beach, Community Services Department (City), Geosyntec Consultants Inc. (Geosyntec) has prepared this letter report documenting the results of limited subsurface investigations to evaluate the approximate lateral limit(s) and depth(s) of existing waste along a selected portion of the eastern edge of the former Canary Street Refuse Disposal Station (Landfill) at Edison Park (hereafter Site). The requested area for waste delineation at the Site is shown on **Figure 1** as it was provided to Geosyntec by the City in January 2019. The objective of the scope of work performed by Geosyntec was to collect field data to support the City in its evaluation of potential locations/types of proposed facilities/amenities at the Site.

BACKGROUND

Edison Park was constructed over the Cannery Street Former Refuse Disposal Station, also previously known as Cannery Street Landfill (CSL) in early 1970s. The CSL is approximately 27.5 acres, located in the City of Huntington Beach at the northwest corner of the intersection of Magnolia Street and Hamilton Avenue. The site's formal address is 21379 Magnolia Street, Huntington Beach, California 92647.

Some of the existing facilities/amenities at the Site are constructed on top of waste material deposited at the former CSL. Settlement, differential settlement, and potential sinkholes are typically expected to occur at facilities constructed on top of waste. The effect of settlement, differential settlement and/or a combination of both are observed at the existing tennis courts, sidewalks, open park areas and other hardscape/amenities at the Site. However, the surface expression of settlement/differential settlement is more pronounced in the vicinity of the Tennis courts potentially limiting the functionality and aesthetics of the Tennis courts.

In 2018, the City retained Geosyntec to prepare a feasibility study to evaluate several alternatives for repairing or reconstructing settlement related damage to the existing park and recreational areas at the Site [Geosyntec, 2018].

Geosyntec performed two site investigations for this project – the first investigation was performed between in November 2020 in the landscaped areas within the requested focus area and the second investigation was conducted on March 2021 in the areas of the park within the focus area currently under concrete slab.

PRE-FIELD INVESTIGATION ACTIVITIES

Geosyntec prepared a Site-specific Task Hazard Analysis (THA) that identified Site conditions, potential hazards, hazard control, monitoring procedures, personal protective equipment, and emergency procedures. Prior to field investigations, Geosyntec notified Underground Service Alert (USA) of southern California to mark and clear utilities in, and near to, the investigation focus area to reduce the potential for accidentally encountering buried utility lines. In addition, Geosyntec utilized the services of GEOVision, Inc. to perform a limited geophysical survey of the investigation focus area (and other potential boring/test pit locations) to evaluate potential buried underground utilities/features prior to performing field investigations. Geosyntec also obtained permits to advance soil borings from the Orange County Health Care Agency, Environmental Health Division, required under Orange County Well Ordinance (County Ordinance No. 2607) [Permit No. 20-08-22 and Permit No. 21-03-07]. The DigAlert ticket confirmations, field sketches provided by GEOVision and the soil boring permits are included here in **Appendix A**.

Geosyntec had, under a previous authorization from the City, prepared and submitted to the South Coast Air Quality Management District (SCAQMD) the required permit application package in general compliance with Rule 1150 which included an Excavation Management Plan. The permit application, was submitted on April 30, 2019 and deemed complete on May 03, 2019 [Application Number: 612262]. The SCAQMD issued the permit on September 11, 2020. An SCAQMD permit was not required for the second investigation. The permit issued by the SCAQMD for the first investigation and a copy of the Excavation Management Plan is included here in **Appendix B**.

FIELD INVESTIGATION

Test Pits

Five (5) exploratory test pits were logged between November 24 and November 25, 2020 by a Geosyntec engineer under the direction of a Professional Engineer licensed in the State of California to evaluate the approximate lateral limit(s) of the existing waste in the approximate areas shown on **Figure 2A**. The logs were prepared based on visual field observations of the exploratory test pits' exposed side-wall and retrieved soil cuttings. The logs include a general description of the encountered soils in accordance with the Unified Soil Classification System (USCS) and Standard Practice for Description and Identification of Soils (ASTM D2488) as well as a field sketch of the exploratory test pit wall showing interfaces of encountered materials. Geosyntec subcontracted with American Integrated Services, Inc. (AIS) to excavate and backfill the exploratory test pits using a standard backhoe.

The proposed exploratory test pits commenced at the approximate waste limit estimated by TRC [2001] as shown on **Figure 1**. The exploratory test pits were advanced to an approximate depth of 5 feet vertically and horizontally until existing waste limits are visually observed. Once waste was encountered in the exploratory test pit, efforts were made to reduce the excavation of additional material. Waste materials were not, to the extent practical, removed from the excavation. The exploratory test pits were generally advanced until waste material was encountered or until an obstruction such as surface concrete or other infrastructure was reached. Plastic tarps were placed with plywood sheeting to temporarily stage the test pit spoils during the excavation. Additionally, approximately 10 ft by 20 ft fence panels with windscreen attached were used to serve as a work exclusion area and visual barrier on three sides. Existing grass and topsoil were segregated from the exploratory test pits and replaced after backfilling the test pits directly with the materials excavated from the test pits. Backfill material was compacted in place to help provide unyielding condition using a roller attached to the end of the backhoe, however, density or moisture testing was not performed and/or required. Test pit logs are provided here in **Appendix C**.

Test pits were first advanced vertically until the waste material was encountered, and then advanced horizontally in an eastward direction to determine the lateral limit of the waste. The thickness of the soil overlying the waste were generally observed to range between 2 ft to 3.5 ft below the ground surface (bgs). Waste material was encountered at the five exploratory test pits (TP-1 through TP-5). Lateral limit of waste was delineated at test pits TP-1 and TP-2; however, the lateral limit of waste could not be identified at test pits

TP-3, TP-4, and TP-5. The approximate lateral limits of the waste as observed by the exploratory test pits are indicated in **Figures 2A and 2B**. A summary of test pit dimensions, thickness of the soil layer/depth to the top of waste is presented in **Table 1**.

Table 1: Summary of Test Pits

Test Pit ID	Width (ft)	Length (ft)	Soil layer thickness/ Depth to Top of Waste (ft bgs)	Total Depth (ft bgs)
TP-1	3.5	19.5	3.0	4.5
TP-2	3.5	8.0	2.0	2.5
TP-3	3.5	21.5	3.0	3.5
TP-4	3.5 - 7.5	15.0	3.0	4.0
TP-5	3.5	45.0	2.0	2.5 - 4
TP-5A	3.5	6.0	2.0	3.5

Hollow-Stem Auger Borings

ABC Livion Drilling, Inc, working as a drilling subcontractor to Geosyntec advanced five (5) hollow-stem auger (HSA) borings on October 28, 2020 in the landscape areas and seven (7) HSA borings on March 12, 2021 in the concrete covered areas. The purpose of the HSA borings was to estimate the thickness of the existing waste layer at the approximate locations shown on **Figures 2A and 2B**. The HSA borings advanced near the estimated lateral limits of waste (i.e., HSA-1 through HSA-3) started approximately 5 to 10 feet to the west of waste limit as observed by the exploratory test pits. The purpose of these HSA borings (i.e., HSA-1 through HSA-3) was to evaluate the depth of waste at or near the lateral limits of waste as observed by field measurements from the exploratory test pits. The objective of the HSA borings advanced near the Tennis Court (i.e., HSA-4 and HSA-5) was to estimate the depth of existing waste in the vicinity of the Tennis Court area. The objective of HSA-2A through HSA-8A was to confirm if waste is present under the existing concrete slab and determine its depth, if present. Borehole logs for the HSA borings are provided in **Appendix D**.

Each boring was logged by Geosyntec field engineer and includes a description of the encountered soils performed in general accordance with the USCS and Standard Practice for Description and Identification of Soils (ASTM D2488). Soil samples were collected from the HSA borings for logging and visual identification purposes, but no samples were retained for laboratory testing. Split-spoon samples were performed generally on the soil

material encountered at the bottom of the boreholes to estimate the depth of waste. Each boring was advanced to a minimum of 1 foot below the bottom of the waste material, or until refusal, to visually assess that bottom of waste was reached. The HSA borings were backfilled with hydrated bentonite chips and the upper six inches with topsoil. The cuttings were containerized in 55-gallon drums, stored on-Site pending waste profiling, and disposed off-Site by AIS under waste manifest. Groundwater levels encountered in the HSA borings were recorded using a water level indicator. The depths to encountered groundwater at each of the HSA are listed in **Table 2**.

The thickness of the soil overlying the waste material, as observed from the HSA borings were found to range between 2 ft to 3.5 ft bgs. Borings HSA-4 and HSA-5 were advanced to depths of 34 ft and 41.5 ft bgs, respectively. Borings HSA-1, HSA-2, and HSA-3 were advanced to depths of 11.5 ft, 16.5 ft, and 21.5 ft bgs, respectively. HSA-2A through HSA-8A were advanced to depths that ranged from about 16.5 to 18 feet. The depths of groundwater encountered in the landscape HSA borings (HSA-1 through HSA-5 performed) were observed to range between 8 and 12 ft bgs. The depths of groundwater encountered in borings (HSA-3A through HSA-5A, HSA-7A and HSA-8A) were observed to range between 12.5 and 16.5 ft bgs. Groundwater was not encountered at borings HSA-2A and HSA-6A. The depth of waste was identified in the HSA borings where waste was encountered except HSA-4, which hit refusal at a depth of 34 ft bgs before reaching the bottom of the waste. A summary of the HSA borings including the depth/thickness of the soil layer and waste, and the depth to groundwater is presented in **Table 2**.

Table 2: Summary of HSA Borings

Boring ID	Soil layer thickness/ Depth to Top of Waste (ft bgs)	Depth to bottom of Waste (ft)	Waste Thickness (ft)	Total Depth (ft bgs)	Depth to Groundwater (ft bgs)
HSA-1	3.5	10.5	7.0	11.5	10.5
HSA-2	2.5	15.5	13.0	16.5	12.5
HSA-3	2.5	20.5	18.0	21.5	11.0
HSA-4	2.0	–	>32.0	34.0	8.0
HSA-5	2.5	40.5	38.0	41.5	12.0
HSA-2A*	3.0*	10*	7.0*	16.5	Not observed
HSA-3A*	2.5*	10*	7.5*	16.5	15

Boring ID	Soil layer thickness/ Depth to Top of Waste (ft bgs)	Depth to bottom of Waste (ft)	Waste Thickness (ft)	Total Depth (ft bgs)	Depth to Groundwater (ft bgs)
HSA-4A*	2.5*	5*	2.5*	16.5	14.0
HSA-5A*	2.5*	15*	12.5*	17	16.5
HSA-6A*	2.5*	15*	12.5*	16.5	Not observed
HSA-7A*	3*	10*	7*	18	13.5
HSA-8A*	2.5*	11*	8.5*	16.5	12.5

*Soil materials encountered in this borehole contained slight traces of waste materials based on visual and odor field observations. No clearly defined waste layer was encountered in this borehole. Slight waste traces observed in this borehole may not be part of a continuous waste layer.

The approximate locations of the exploratory test pits and HSA borings were recorded using a hand-held global positioning system (GPS) unit.

Daily field reports with photo logs for the field investigation activities are included in **Appendix E**.

Air Monitoring

Geosyntec provided air monitoring services during the first field investigation phase of the project. The air monitoring was performed by Geosyntec in general accordance with the requirements of the SCAQMD Rule 1150. The general prevailing wind direction at the site was typically onshore from the west-southwest to east-northeast. The upwind and downwind monitoring locations are shown on **Figure 1**.

In accordance with the requirements of the SCAQMD Rule 1150, the following air quality parameters were monitored:

- Particulate matter (dust) as PM_{10} – PM10 monitoring will be performed using a DustTRAK DRX Handheld Aerosol monitor. Dust monitoring was conducted approximately every 60 minutes throughout the workday at the upwind and downwind monitoring locations. Action levels for dust at the monitoring locations was set in accordance with the SCAQMD Rule 1150 requirements at 0.05 mg/m^3 above background. The recorded PM_{10} levels were below the action level of 0.05 mg/m^3 above background.
- Total Organic Compounds (TOCs) as methane – Continuous monitoring of TOC was conducted using an QRAE III monitoring equipment at the working face of

the excavation and at the downwind property monitoring location. The maximum sustained readings (greater than 15 seconds) were recorded at approximately every 15 minutes. Action levels for TOC readings at the excavation face and downwind property monitoring location was set at 500 ppmv and 200 ppmv, respectively, in accordance with the SCAQMD Rule 1150 requirements. The recorded TOC level were below the action levels at the monitoring locations.

- Odor – Unusual odor or increase in odor was not detected by Geosyntec personnel during the test pit excavation or HSA drilling.
- Local Weather – Local weather parameters were monitored at approximately every 15 minutes throughout the workday. Ambient Temperature (°F), and Wind Direction were monitored digitally from the KCAHUNT143 weather station located in close proximity to the Site. Wind Speed (miles/hour) was measured using a handheld Kestrel 4000 monitoring device.

Daily air monitoring logs are provided in **Appendix E**.

FINDINGS

Waste Delineated

Lateral limits of waste was delineated at two test pit locations (TP-1 and TP-2). Figure 2 shows an approximate limit of waste as identified from the test pits. The approximate depths to the encountered waste layer at TP-1 and TP-2 were 3.5 ft bgs and 3 ft bgs, respectively.

Waste Not-Delineated

Waste was identified at three test pit locations (TP-3, TP-4, and TP-5); however, the lateral limit of waste was not identified. It is likely that the lateral limits of waste at these locations may extend eastward past the obstruction such as the concrete slab at TP-3 and TP-4, and concrete sidewalk at TP-5. The approximate depths to waste from existing surface at TP-3, TP-4, and TP-5 ranged between 2 to 3 ft bgs.

Waste Depth

The depths of waste at HSA borings near the estimated lateral limits of waste (HSA-1 through HSA-3) were found to range between 10.5 ft and 20.5 ft bgs. The depth of waste at HSA-5 near the northern edge of tennis court was observed to be approximately 40.5 ft bgs. The depth of waste at HSA-4 near the southern edge of the tennis court could not be identified due to refusal, however waste was still observed up to 34 ft bgs. The

depths of waste at the borings under concrete slab (HSA-2A through HSA-8A) were found to range between 5 ft and 15 ft bgs.

Waste and Soil Layer Characteristics

The soil layer at the Site was visually classified as silty sand (SM) in general accordance with ASTM D2488. The thickness of the soil layer generally ranged between 2 to 3.5 ft bgs. The waste material encountered at the site generally composed of dark gray asphalt concrete debris and decayed wood pieces within the landscape areas and dark gray, medium to high plasticity clay soils, with trace debris and slight organic odor within the concrete slab areas. The waste materials did not have any unusual odor. The above characteristics of the waste material was consistent throughout the investigation locations.

Groundwater

Groundwater was encountered at all five HSA boring locations in the landscape areas and all but two HSA borings in the concrete slab areas. The depth to groundwater in the landscape borings generally ranged between 8 to 12 ft bgs. The depth to groundwater in the concrete slab borings generally ranged between 12.5 to 16.5 ft bgs except at HSA-2A and HSA-6A where groundwater was not encountered.

SUMMARY AND RECOMMENDATIONS

In general, existing waste limit was delineated along the Eastern limit of the CSL as identified by Test Pits (TP-1 and TP-2). However, the existing waste limit along the Southern Section of the Eastern limit of CSL was not delineated due the existing structures and/or concrete lined areas. Test Pits (TP-3, TP-4 and TP-5) were advanced until the test pit encountered a structure and/or lined areas. Based on borings HSA-2A through HSA-8A, traces of waste material impeded within soil layer is present under the concrete slab within the focus area as shown in **Figure 2B**. However, the exact waste amount that maybe impeded in the soil layer located in areas under the concrete slab of the site is not known. Geosyntec recommends that field observations and monitoring services are performed by an experienced landfill engineer during the construction and/or excavation phase of the project to help further identify the limit of potential waste materials. Geosyntec also recommends that excavation and/construction activities in the areas described in this letter report are performed by a licensed Contractor with extensive experience in working in landfill environments. Proposed design features, amenities and structures should take into consideration the potential presence of waste materials in the areas described in this letter report. Furthermore, Geosyntec recommends that the design team for proposed structures and park amenities work closely with an experience landfill

engineer that can provide design input recommendation including but not limited to potential settlement, methane, drainage, irrigation and other design considerations.

LIMITATIONS

The conclusions and professional opinions presented in this letter report were prepared for the City of Huntington Beach in accordance with generally accepted geotechnical and landfill engineering principles and practices.

The subsurface conditions presented in this letter report are based on information obtained from a limited number of exploratory test pits and HSA borings advanced to evaluate lateral limits and depths of the existing waste.

The data, conclusions, and recommendation contained herein should be considered only for this specific project and locations discussed in this letter report. Geosyntec is not responsible for any conclusions or recommendations that may be made by others, unless we have been given an opportunity to review such conclusions and/or recommendations and concur with them in writing. If any changes are made in the project as outlined in this letter report, the conclusions and/or recommendations contained in this letter report shall not be valid unless the changes are reviewed and the conclusions and/or recommendations of this letter report are modified or approved in writing by Geosyntec.

CLOSURE

We appreciate the opportunity of assisting you on this important project. If you have any questions about this letter report, or require additional information, please do not hesitate to call the undersigned at (714) 969-0800.

Sincerely,

Karthik Viswanathan, E.I.T.
Engineer

Sneha Upadhyaya, Ph.D.
Senior Staff Engineer

Yonas B. Zemuy, P.E.
Principal Engineer

Attachments:

Figure 1 – Site Plan
Figure 2a – Field Investigation Locations (North)
Figure 2b – Field Investigation Locations (South)
Appendix A – Soil Boring Permit, DigAlert Ticket Confirmations and Geophysical Utility Clearance Field Notes
Appendix B – SCAQMD Permit for Rule 1150
Appendix C – Test Pit Logs
Appendix D – Boring Logs with Key
Appendix E – Daily Field Reports
Appendix F – Air Monitoring Logs

REFERENCES

Geosyntec [2018], "Feasibility Study for Edison Park Settlement Related Damage Repair," Geosyntec Consultants, Inc., October 3, 2018.

TRC [2001], "Environmental Site Assessment Report, Former Cannery Street Refuse Disposal Station," prepared for the County of Orange Integrated Waste Management Department. January.

Figures

APPROXIMATE LIMITS OF EXISTING CANNERY STREET FORMER REFUSE DISPOSAL STATION WASTE [TRC, 2001]

OUTDOOR RACQUETBALL COURT

EXISTING BASKETBALL COURT

EDISON HIGH SCHOOL

EXISTING TENNIS COURTS

EDISON COMMUNITY CENTER

SOFTBALL FIELD

CHILDREN'S PLAY AREA

CURRENT INVESTIGATION AREA

PICNIC AREA

FIRE STATION #4

MAGNOLIA STREET

HAMILTON STREET

TP-1
TP-2
TP-3
TP-4
TP-5
TP-5A

HSA-1
HSA-2
HSA-3
HSA-4
HSA-5

HSA-2A
HSA-3A
HSA-4A
HSA-5A
HSA-6A
HSA-7A
HSA-8A

G G G G G G G

LEGEND

- BORINGS PERFORMED TO DETERMINE DEPTH OF WASTE (GEOSYNTEC, 2020)
- EXPLORATORY TEST PITS PERFORMED (GEOSYNTEC, 2020)
- BORINGS PERFORMED TO DETERMINE DEPTH OF WASTE (GEOSYNTEC, 2021)
- PREVIOUS INVESTIGATION AREA
- CURRENT REQUESTED INVESTIGATION AREA
- G — EXISTING BURIED LFG HEADER PIPE

N

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SCALE IN FEET

SITE MAP - ADDITIONAL BORING LOCATIONS
EDISON PARK - ADDITIONAL WASTE DELINEATION
HUNTINGTON BEACH, CALIFORNIA

Geosyntec consultants

PROJECT NO: HL1685B | JUNE 2021

FIGURE 1

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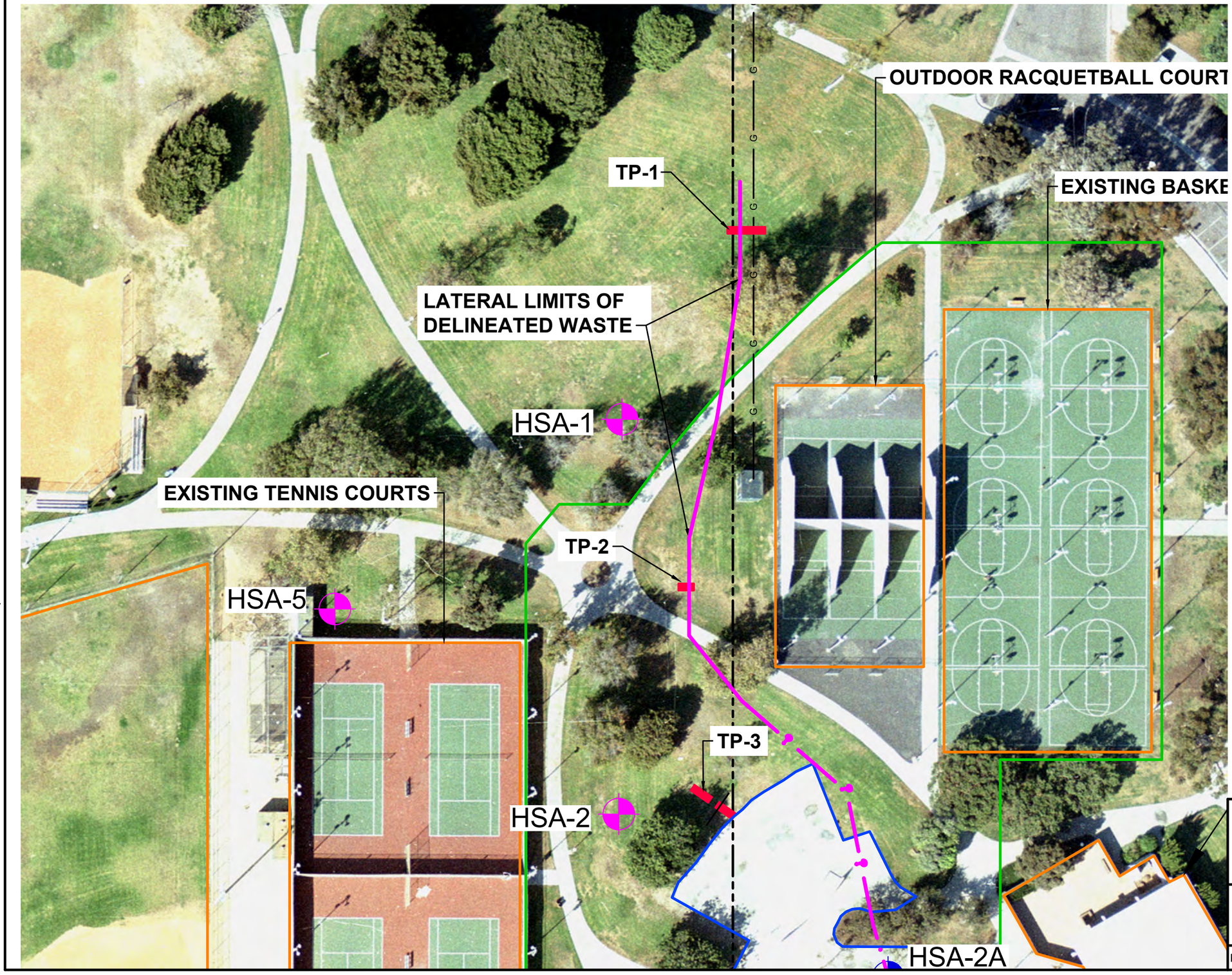

LEGEND

- APPROXIMATE LIMITS OF EXISTING CANNERY STREET FORMER REFUSE DISPOSAL STATION WASTE [TRC, 2001]
- BORINGS PERFORMED TO DETERMINE DEPTH OF WASTE (GEOSYNTEC, 2020)
- EXPLORATORY TEST PITS PERFORMED (GEOSYNTEC, 2020)
- REQUESTED INVESTIGATION AREA (2020)
- REQUESTED INVESTIGATION AREA (2021)
- EXISTING BURIED LFG HEADER PIPE
- APPROXIMATE LATERAL LIMITS OF DELINEATED WASTE
- AREAS WITH TRACES OF WASTE MATERIAL (QUERIED WHERE UNCERTAIN)

N

0 50

SCALE IN FEET

FIELD INVESTIGATION LOCATIONS (NORTH)
EDISON PARK - WASTE DELINEATION
HUNTINGTON BEACH, CALIFORNIA

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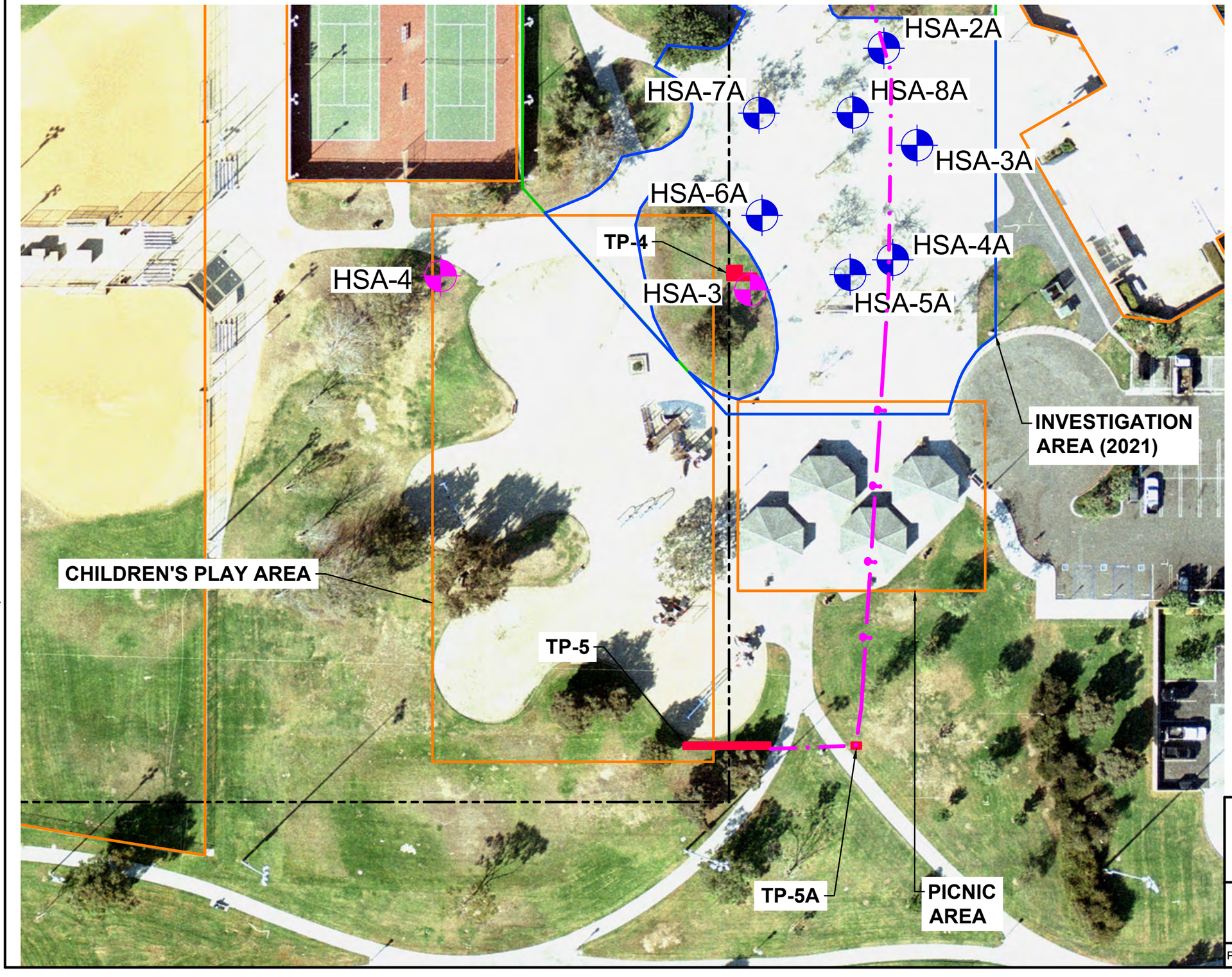
PROJECT NO: HL1685B | JUNE 2021

FIGURE 2A

N:\CAD\DE\EDISON PARK\EDISON PARK-HL1685\FIGURES\1685F014 - Last Saved by: KViswanathan on 5/6/21



LEGEND

- APPROXIMATE LIMITS OF EXISTING CANNERY STREET FORMER REFUSE DISPOSAL STATION WASTE [TRC, 2001]
- BORINGS PERFORMED TO DETERMINE DEPTH OF WASTE (GEOSYNTEC, 2020)
- EXPLORATORY TEST PITS PERFORMED (GEOSYNTEC, 2020)
- BORINGS PERFORMED TO DETERMINE DEPTH OF WASTE (GEOSYNTEC, 2021)
- REQUESTED INVESTIGATION AREA (2020)
- REQUESTED INVESTIGATION AREA (2021)
- G — EXISTING BURIED LFG HEADER PIPE
- AREAS WITH TRACES OF WASTE MATERIAL (QUERIED WHERE UNCERTAIN)

N

0 50

SCALE IN FEET

FIELD INVESTIGATION LOCATIONS (SOUTH)
EDISON PARK - WASTE DELINEATION
HUNTINGTON BEACH, CALIFORNIA

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PROJECT NO: HL1685B | JUNE 2021

FIGURE 2B

N:\CAC\ADD\E\EDISON PARK\EDISON PARK-HL1685\FIGURES\1685F014 - Last Saved by: KViswanathan on 5/6/21

Appendix A

Soil Boring Permit, DigAlert Ticket Confirmations and Geophysical Utility Clearance Field Notes

Karthik Viswanathan

From: noreply@digalert.org
Sent: Friday, September 18, 2020 6:25 PM
To: Karthik Viswanathan
Subject: DigAlert Confirmation for Ticket A202620900-00A

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```
EMLCFM 03993A USAS 09/18/20 18:25:10 A202620900-00A NEW NORM POLY LREQ

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Ticket: A202620900 Rev: 00A Created: 09/18/20 18:24 User: BRJ Chan: 100

Work Start: 09/24/20 07:00 Legal Start: 09/24/20 07:00 Expires: 10/16/20 23:59
Response required: Y Priority: 2

Excavator Information
Company: AMERICAN INTERGRATED SERVICES
Co Addr: 1502 E OPP ST
City   : WILMINGTON                    State: CA Zip: 90744
Created By: KARTHIK VISWANATHAN-GEOSYNTEC  Language: ENGLISH
Office Phone: 714-969-0800        SMS/Cell: 510-993-8823
Office Email: KVISWANATHAN@GEOSYNTEC.COM

Site Contact: SNEHA UPADHYAYA
Site Phone: 714-461-9911          Site SMS/Cell: 714-461-9911
Site Email: KVISWANATHAN@GEOSYNTEC.COM

Excavation Area
State: CA County: ORANGE          Place: HUNTINGTON BEACH
Zip: 92646
Location: Address/Street: STILWELL DR
        : X/ST1: POSTON LN
        :
        : APPROX 65FT W/OF POSTON LN AT APPROX 250FT, 400FT, 520FT, 760FT,
        : 1015FT S/OF STILWELL DR  **ALL LOCATIONS WITHIN PARK**   **PROPERTY OF
        : EDISON COMMUNITY PARK**  **MARK 25FT RADIUS ALL LOCATIONS**

Delineated Method: WHITEPAINT
Work Type: (5) TEST PITS  (8FT DEPTH)
Work For : GEOSYNTEC CONSULTANTS
Permit:                           Job/Work order:
1 Year: N Boring: N Street/Sidewalk: N Vacuum: N Explosives: N
```

Lat/Long
Center Generated (NAD83): 33.653755/-117.973122 33.653752/-117.972114
: 33.650862/-117.973129 33.650859/-117.972121
Excavator Provided: 33.653346/-117.972630 33.652895/-117.972609
: 33.652569/-117.972623 33.651933/-117.972633 33.651273/-117.972623

Map link:
https://newtin.digalert.org/newtinweb/map_tkt.nap?TRG=E4TbQYTXQXOSNVW-C

Members:

CSD91	ORANGE CO SANITATION	CONTROL CENTER	714-593-7025
HUN01	C/OF HUNTINGTON BCH-WTR	DAVID RICO	714-861-0134
MCISOCAL	MCI (VERIZON BUSINESS) FIBE	FIBER SECURITY DEPT	800-624-9675
SCG2XN	SC GAS - GARDEN GROVE	LEAD DISPATCHER - CHUCK	800-603-7060
UCHTRW_C5	UTIL/SPECTRUM GG - CATV	SPECTRUM DAMAGE ONLY	844-780-6054
UOCW01	UTILIQUEST 4 OR CNTY WTR DIST	SCOTT DAVIDSON / JUSTIN	714-766-9375xCELL
USCEOR	UTILIQUEST FOR SCE- ORANGE RE	SC EDISON PERSONNEL	800-611-1911
UTFTRCA01	UTILIQUEST/FRONTIER - TEL/	UTILIQUEST DISPATCH	800-366-7801

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Karthik Viswanathan

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Ticket: A202620902 Rev: 00A Created: 09/18/20 18:34 User: BRJ Chan: 100

Work Start: 09/24/20 07:00 Legal Start: 09/24/20 07:00 Expires: 10/16/20 23:59
Response required: Y Priority: 2

Excavator Information
Company: ABC LIOVIN DRILLING
Co Addr: 1180 E BURNETT ST
City   : SIGNAL HILL                    State: CA Zip: 90755
Created By: KARTHIK VISWANATHAN-GEOSYNTEC  Language: ENGLISH
Office Phone: 714-969-0800        SMS/Cell: 510-993-8823
Office Email: KVISWANATHAN@GEOSYNTEC.COM

Site Contact: SNEHA UPADHYAYA
Site Phone: 714-461-9911          Site SMS/Cell: 714-461-9911
Site Email: KVISWANATHAN@GEOSYNTEC.COM

Excavation Area
State: CA County: ORANGE          Place: HUNTINGTON BEACH
Zip: 92646
Location: Address/Street: STILWELL DR
        : X/ST1: POSTON LN
        :
        : APPROX 50FT W/OF POSTON LN AT APPROX 320FT, 570FT, 745FT S/OF STILWELL
        : DR; APPROX 240FT W/OF POSTON LN AT APPROX 720FT & 450FT S/OF STILWELL
        : DR   **ALL LOCATIONS WITHIN PARK**   **PROPERTY OF EDISON COMMUNITY
        : PARK**  **MARK 25FT RADIUS ALL LOCATIONS**

Delineated Method: WHITEPAINT
Work Type: (5) SOIL BORINGS
Work For : GEOSYNTEC CONSULTANTS
Permit:                                Job/Work order:
```

1 Year: N Boring: N Street/Sidewalk: N Vacuum: N Explosives: N

Lat/Long
Center Generated (NAD83): 33.653556/-117.973708 33.653537/-117.972127
: 33.651572/-117.973731 33.651553/-117.972151
Excavator Provided: 33.653131/-117.972625 33.652477/-117.972639
: 33.651969/-117.972632 33.652032/-117.973225 33.652770/-117.973224

Map link:
https://newtin.digalert.org/newtinweb/map_tkt.nap?TRG=64Co9pCk9sztws3-k

Members:

HUN01 C/OF HUNTINGTON BCH-WTR	DAVID RICO	714-861-0134
SCG2XN SC GAS - GARDEN GROVE	LEAD DISPATCHER - CHUCK	800-603-7060
UCHTRW_C5 UTIL/SPECTRUM GG - CATV	SPECTRUM DAMAGE ONLY	844-780-6054
UOCW01 UTILIQUEST 4 OR CNTY WTR DIST	SCOTT DAVIDSON / JUSTIN	714-766-9375xCELL
USCEOR UTILIQUEST FOR SCE- ORANGE RE	SC EDISON PERSONNEL	800-611-1911
UTFTRCA01 UTILIQUEST/FRONTIER - TEL/	UTILIQUEST DISPATCH	800-366-7801

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Karthik Viswanathan

From: noreply@digalert.org
Sent: Monday, March 8, 2021 3:11 PM
To: Sneha Upadhyaya
Subject: DigAlert Confirmation for Ticket A210670984-00A

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe. If you have any suspicion, please confirm with the sender verbally that this email is authentic.

```
EMLCFM 04567A USAS 03/08/21 15:11:07 A210670984-00A NEW NORM POLY LREQ

Thank you for contacting Underground Service Alert of Southern California.
This is an automatically generated confirmation of your DigAlert.

For your safety please excavate carefully around the marked utility lines.

For more information regarding DigAlert's web portals, mobile apps and text
messaging, please visit www.digalert.org or text Services to DIGALT (344258).

This email comes from an automated program that is NOT MONITORED.
DO NOT REPLY TO THIS EMAIL.

This is not a certified copy of the ticket.

Ticket: A210670984 Rev: 00A Created: 03/08/21 15:10 User: NAN Chan: 100

Work Start: 03/12/21 07:00 Legal Start: 03/12/21 07:00 Expires: 04/05/21 23:59
Response required: Y Priority: 2

Excavator Information
Company: ABC LIOVIN DRILLING
Co Addr: 1180 E BURNETT ST
City   : SIGNAL HILL                    State: CA Zip: 90755
Created By: KARTHIK VISWANATHAN (GEOSYNTEC Language: ENGLISH
Office Phone: 714-969-0800        SMS/Cell: 510-993-8823
Office Email: KVISWANATHAN@GEOSYNTEC.COM

Site Contact: SNEHA UPADHYAYA
Site Phone: 714-461-9911          Site SMS/Cell: 714-461-9911
Site Email: supadhyaya@geosyntec.com

Excavation Area
State: CA County: ORANGE          Place: HUNTINGTON BEACH
Zip: 92646
Location: Address/Street: MAGNOLIA ST
        : X/ST1: HAMILTON AVE
        :
        : APPROX 685FT N/OF HAMILTON AVE AT APPROX 430FT W/OF S/BOUND MAGNOLIA
        : ST;  APPROX 630FT N/OF HAMILTON AVE AT APPROX 370FT W/OF S/BOUND
        : MAGNOLIA ST;  APPROX 585FT N/OF HAMILTON AVE AT APPROX 345FT W/OF
        : S/BOUND MAGNOLIA ST;  APPROX 525FT N/OF HAMILTON AVE AT APPROX 335FT
        : W/OF S/BOUND MAGNOLIA ST;  APPROX 530FT N/OF HAMILTON AVE AT APPROX
        : 375FT W/OF S/BOUND MAGNOLIA ST;  APPROX 545FT N/OF HAMILTON AVE AT
        : APPROX 420FT W/OF S/BOUND MAGNOLIA ST;  APPROX 608FT N/OF HAMILTON AVE
        : AT APPROX 375FT W/OF S/BOUND MAGNOLIA ST;  **MARK 25FT RADIUS AROUND
        : EACH LOCATION**  **DELINEATED EACH LOCATION #1-8 IN WHITE PAINT**
```

Delineated Method: WHITEPAINT
Work Type: 8 SOIL BORINGS
Work For : GEOSYNTEC
Permit: Job/Work order:
1 Year: N Boring: N Street/Sidewalk: N Vacuum: N Explosives: N

Lat/Long
Center Generated (NAD83): 33.652888/-117.972945 33.652751/-117.971663
: 33.651623/-117.973080 33.651486/-117.971798
Excavator Provided: 33.652427/-117.972528 33.652276/-117.972352
: 33.652137/-117.972245 33.651984/-117.972236 33.651974/-117.972353
: 33.652017/-117.972514 33.652159/-117.972535 33.652187/-117.972344

Map link:
https://newtin.digalert.org/newtinweb/map_tkt.nap?TRG=F5RZPXUXMfKaEaN-Q

Members:

HUN01	C/OF HUNTINGTON BCH-WTR	DAVID RICO	714-861-0134
SCG2XN	SOCALGAS DISTRIBUTION GARDEN	LEAD DISPATCHER - CHUCK	800-603-7060
UOCW01	UTILIQUEST 4 OR CNTY WTR DIST	SCOTT DAVIDSON / JUSTIN	714-766-9375xCELL
USCEOR	UTILIQUEST FOR SCE- ORANGE RE	SC EDISON PERSONNEL	800-611-1911
UTFTRCA01	UTILIQUEST/FRONTIER - TEL/	UTILIQUEST DISPATCH	800-366-7801

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DAILY FIELD SUMMARY

GEOVision geophysical services

Date: 09-23-20

Job No. 20310

Sheet:

Client: GEOSYNTEC

Location: 21377 MAGNOLIA ST HUNTINGTON BEACH, CA

Description		Hours
	Reviewed Health & Safety	
	Temperature Check (Covid 19)	
	Cleared to proposed locations of all Detectable utilities & other interests	
	NO Sewer or SD Clearance	
	Hand Auger 5'	
	Total:	

GV Personnel: Martin G
Chris C

GV Field Supervisor: [signature] Date: 09-23-20

Client Approval: [signature] Date: 09-23-20

1124 Olympic Drive, Corona, California 92881. Telephone: (951) 549-1234
19205 Parthenia Street, Unit D. Northridge, California 91324. Telephone: (818) 734-6609
www.geovision.com

supadhyaya@geosyntec.com
(714) 461-9911

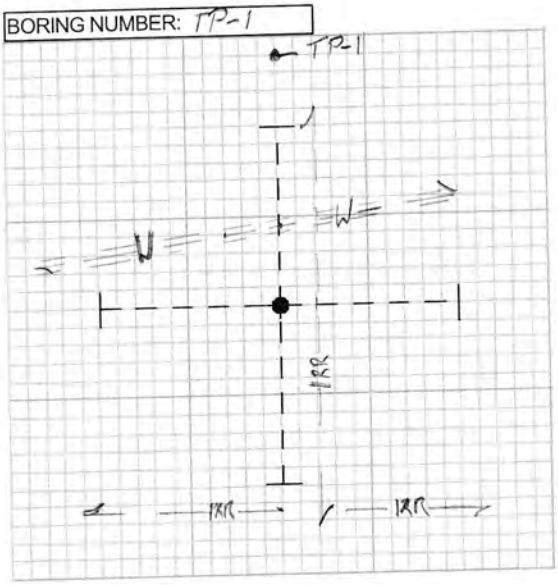
GEOVision
geophysical services

Job Number: 20310 Date: 09-23-20

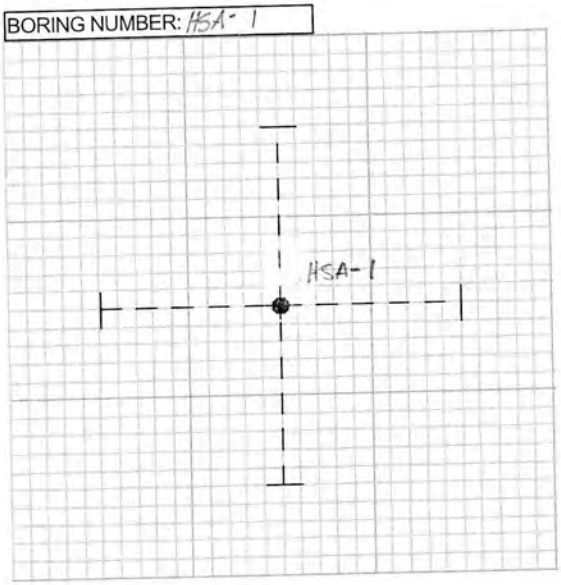
Client: GEOSYNTEC Page No. 1

Site Address: 21377 MAGNOLIA ST
HUNTINGTON BEACH, CA

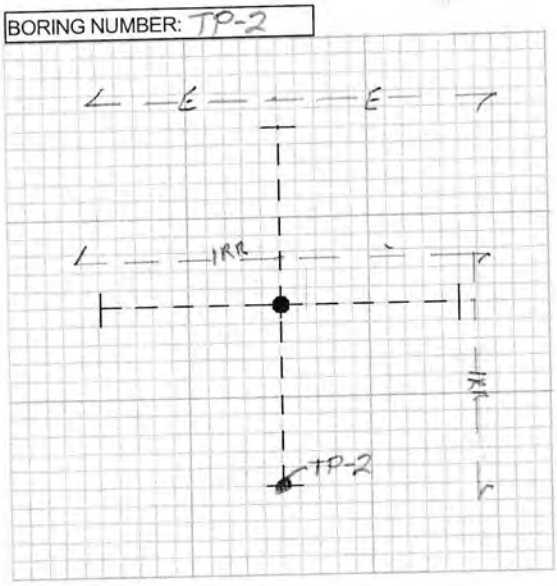
BORING NUMBER: TP-1



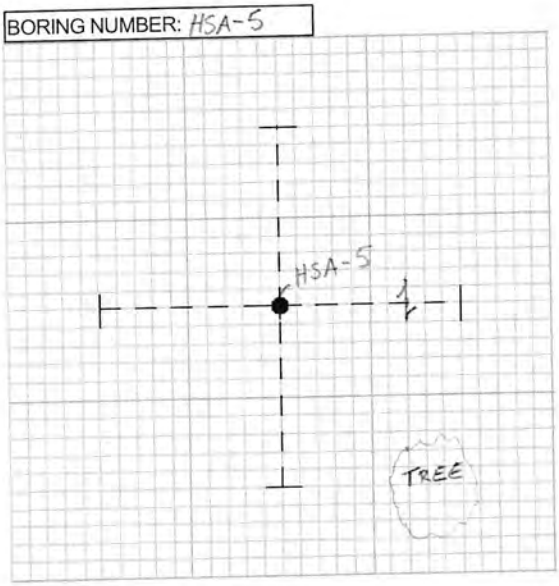
BORING NUMBER: HSA-1



BORING NUMBER: TP-2



BORING NUMBER: HSA-5



LEGEND

- Proposed Boring Location
- 1328 — GPR Traverse with File Number
- NG — Utility: E= Electrical, T= Telepone, NG = Natural Gas, SS = Sanitary Sewer, SD = Storm Drain, W = Water, C = Unknown Line

0 (Feet) 10

N

NOTE: All Geophysical methods have limitations dependant on: instruementation used, soil conditions, and local cultural noise and other interference. The geophysical conditions interpreation presented above comprises a declaration of the geophysicist's professional judgement using methods and a degree of care and skill ordinarily exercised, under similar circumstances, by reputable members of their profession practicing in the same or similar locality. It does not constitute a warranty or guarantee, expressed or implied, nor does it relieve any other party of its responsibility to abide by contractact documents, applicable codes, standards, regulations or ordinances. If you require further information about the limitations of the instruements and/or methods used on this project please contact GEOVision Geophysical Services.

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19205 Parthenia Street, Unit D. Northridge, California 91324. Telephone: (818) 734-6609
www.geovision.com

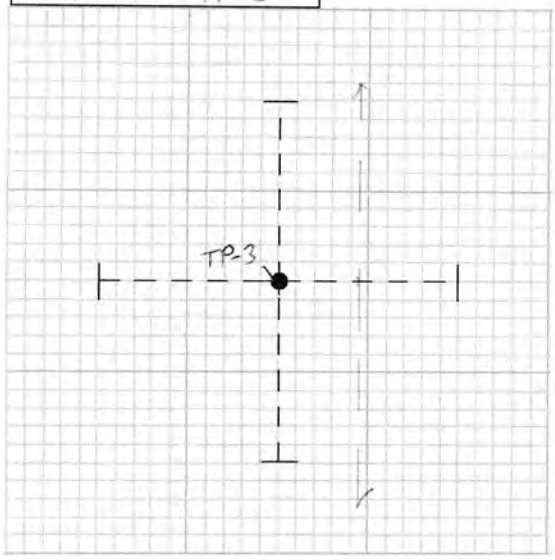
GEOVision geophysical services

Job Number: 28310 Date: 09-23-20

Client: GEOSYNTEC Page No. 2

Site Address: _____

BORING NUMBER: TP-3



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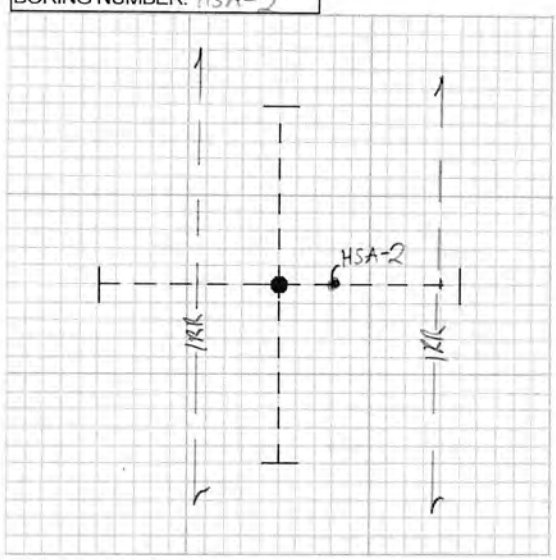
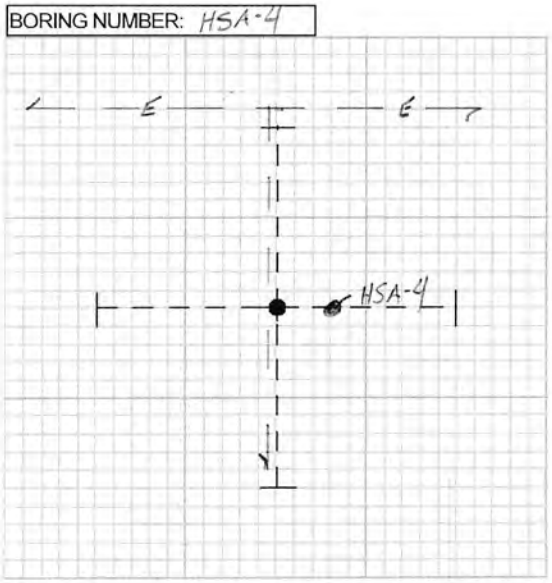


BORING NUMBER: HSA-4



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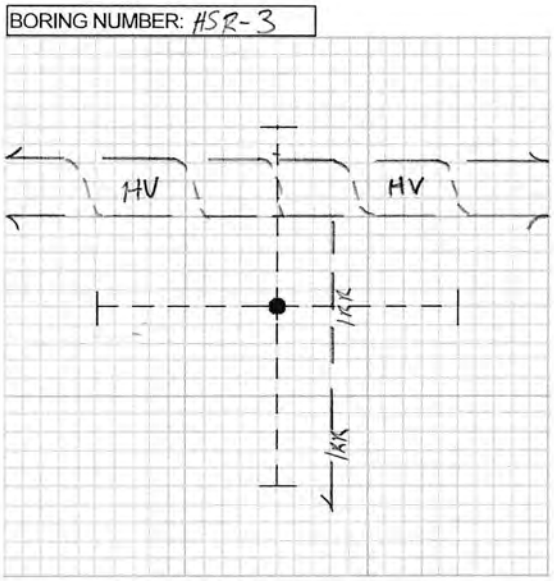

LEGEND

- Proposed Boring Location
- 1328 — GPR Traverse with File Number
- NG — Utility: E= Electrical, T= Telepone, NG = Natural Gas, SS = Sanitary Sewer SD = Storm Drain, W = Water, C = Unknown Line

0 (Feet) 10

N

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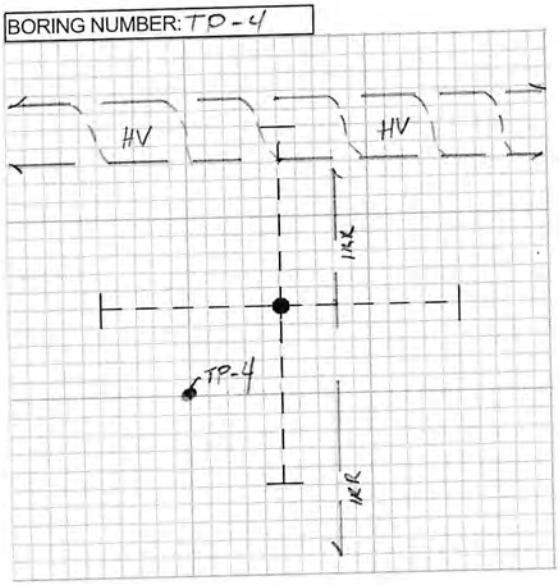
GEOVision geophysical services

Job Number: 2031O Date: 9-23-20

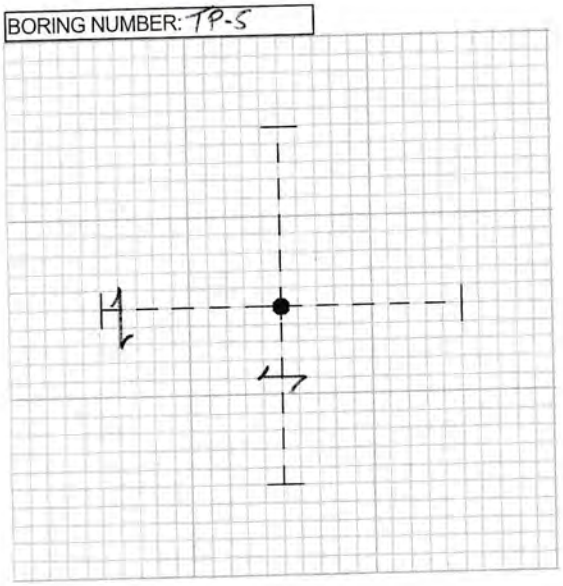
Client: GEOSYNTEC Page No.

Site Address: 21377 MAGNOLIA ST
HUNTINGTON BEACH. CA

BORING NUMBER: TP-4



BORING NUMBER: TP-5



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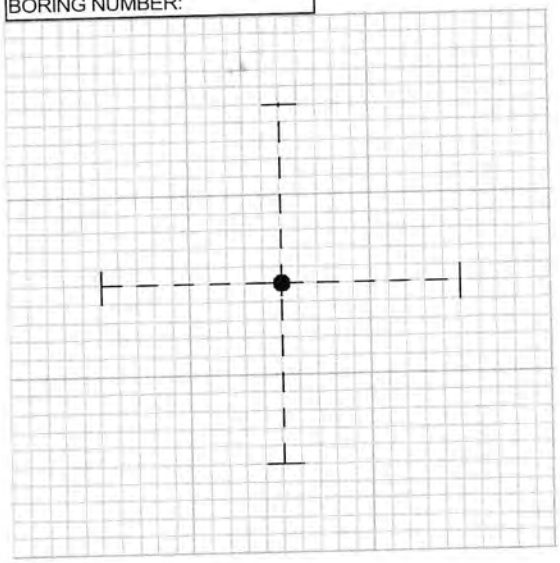

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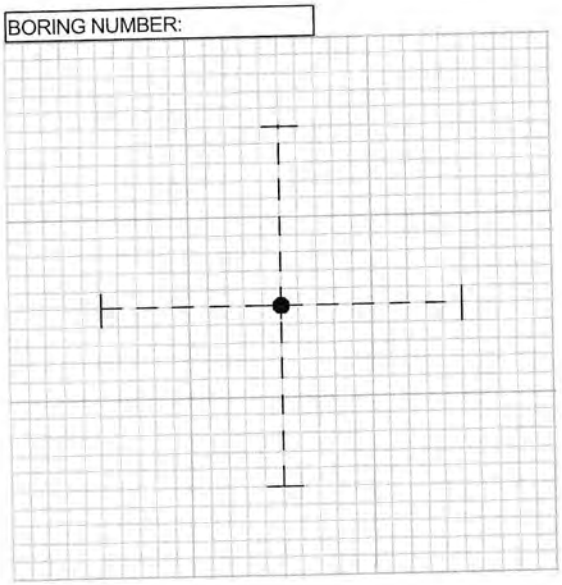

LEGEND

- Proposed Boring Location
- 1328 — GPR Traverse with File Number
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0 (Feet) 10

N

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GEOVision
geophysical services

Date: 3-11-21

Job No. 21070

DAILY FIELD SUMMARY

Sheet: 1 of 3

Client: Geosyntec

Location: 21377 magnolia ST
Huntington Beach, CA

Description		Hours
	Arrived @ 700	
	Safety tailgate meeting	
	Cleared eight Boring Locations B1, B2, B3, B4 B5, B6, B7, and B8 for all detectable Utilities.	
	Using the RD 8000, Fisher TW-6, GO HD2 sir 3000 GPR and walk in tandem.	
	Hand Auger 5'	

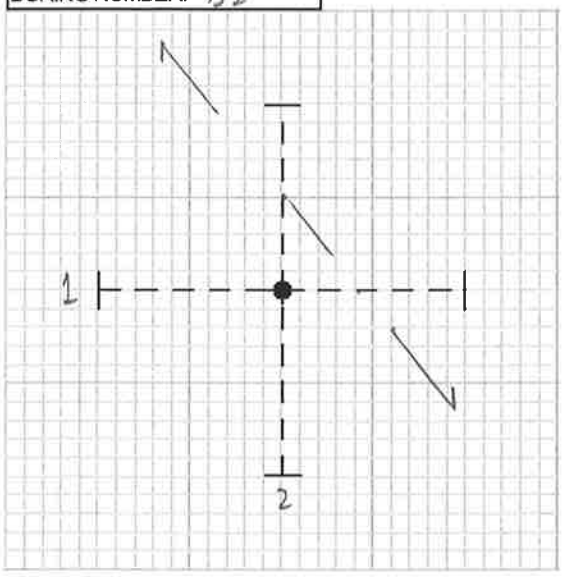
GEOVision
geophysical services

Job Number: 21070 Date: 3-11-21

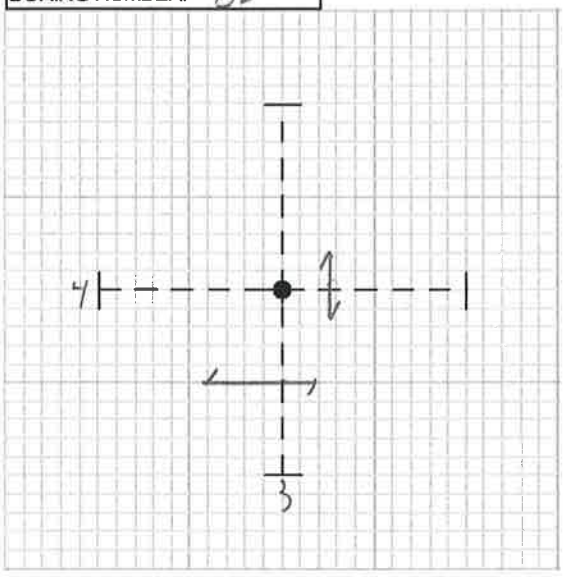
Client: Geosyntec Page No. 2

Site Address: 21377 magnolia ST
Huntington Beach, CA

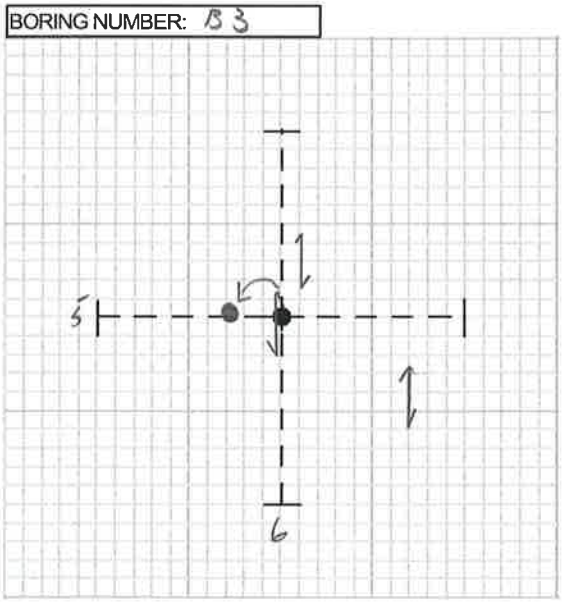
BORING NUMBER: B1



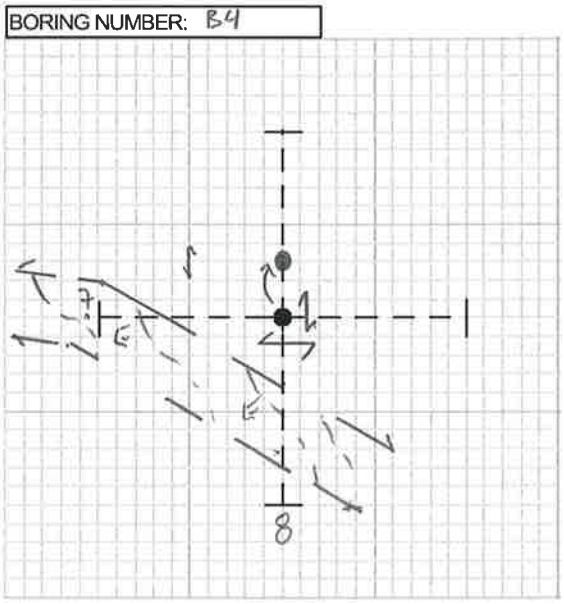
BORING NUMBER: B2



BORING NUMBER: B3



BORING NUMBER: B4



LEGEND

- Proposed Boring Location
- 1328 — GPR Traverse with File Number
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0 (Feet) 10

N

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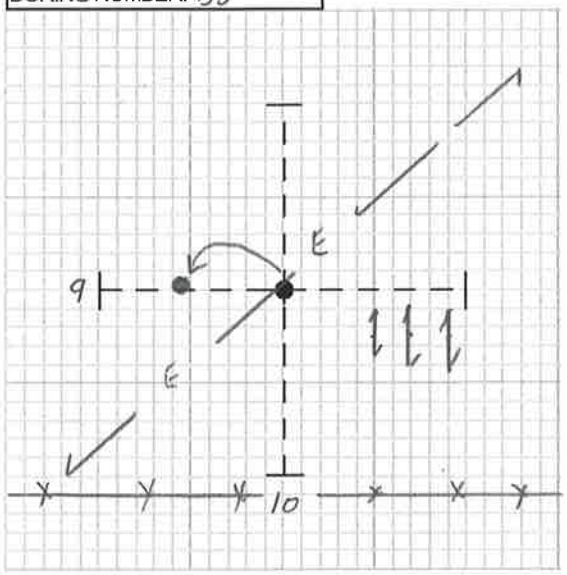
GEOVision
geophysical services

Job Number: 21070 Date: 3-11-21

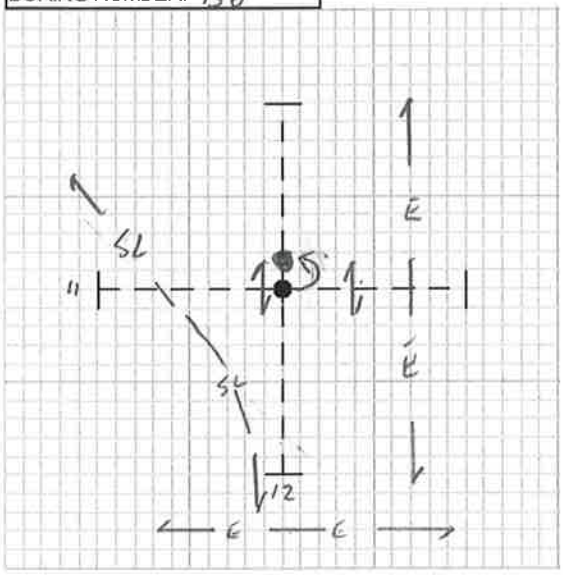
Client: Geosyntec Page No. 3

Site Address: 21377 Magnolia ST
Huntington Beach, CA

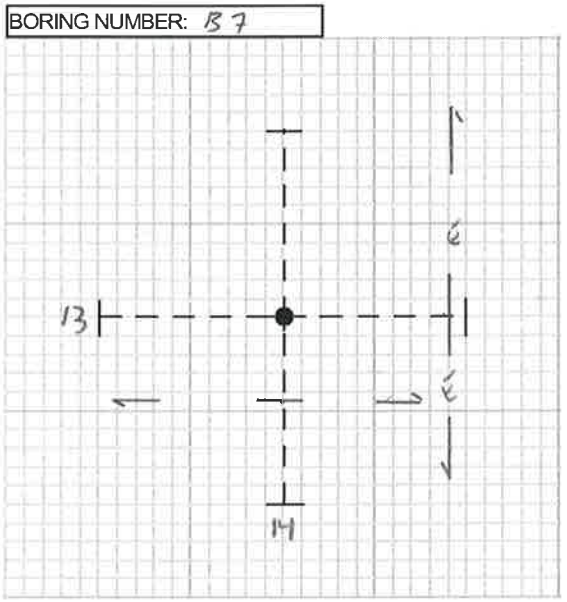
BORING NUMBER: B5



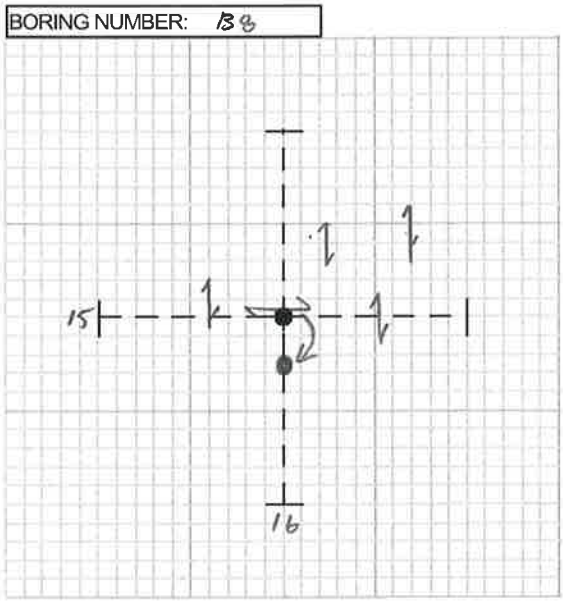
BORING NUMBER: B6



BORING NUMBER: B7



BORING NUMBER: B8



LEGEND

- Proposed Boring Location
- 1328 — GPR Traverse with File Number
- NG — Utility: E= Electrical, T= Telepone, NG = Natural Gas, SS = Sanitary Sewer SD = Storm Drain, W = Water, C = Unknown Line

0 (Feet) 10

N

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APPLICATION FOR WELL CONSTRUCTION PERMIT

ORANGE COUNTY HEALTH CARE AGENCY
ENVIRONMENTAL HEALTH DIVISION
1241 E. DYER ROAD, SUITE 120
SANTA ANA, CA 92705-5611
(714) 433-6000
FAX: (714) 433-6481

WELL PERMIT NUMBER 20-08-22. Permit expires on 08.26.2021.

CITY: HUNTINGTON BEACH
DATE: 08/24/2020

WELL LOCATION (ADDRESS IF AVAILABLE): Edison Park - 21377 Magnolia St, Huntington Beach, CA 92646

NAME OF WELL OWNER: City of Huntington Beach - Community Services Dept.
ADDRESS: 2000 Main Street
CITY: Huntington Beach ZIP: 92648 TELEPHONE: 714-536-5486

NAME OF CONSULTING FIRM: Geosyntec Consultants, Inc.
BUSINESS ADDRESS: 2100 Main Street, Suite 150
CITY: Huntington Beach ZIP: 92648 TELEPHONE: 714-969-0800

NAME OF DRILLING CO.: Martini Drilling Corp. C-57 LICENSE NO.: 831982
CITY: Garden Grove ZIP: 92843 TELEPHONE: 714-715-2715

TYPE OF WELL (CHECK)

PRIVATE DOMESTIC	☐	PROBE SURVEY	☐
PUBLIC DOMESTIC	☐	MONITORING	☐
IRRIGATION	☐	SOIL BORING	☒
CATHODIC	☐	OTHER	☐

TOTAL NUMBER: 5

A. WELLS – SUBMIT A WELL CONSTRUCTION DIAGRAM (INCLUDE DIMENSIONS)

B. SOIL BORINGS AND PROBES –
TOTAL DEPTH: 30 feet ✓
SEALING MATERIAL: Hydrated Bentonite Chips

C. PROPOSED START DATE: 9/1/2020

DIAGRAM OF WELL SITE (Use additional sheets and/or attachments)

☒ SITE PLAN ATTACHED

I hereby agree to comply in every respect with all requirements of the Health Care Agency and with all ordinances and laws of the County of Orange and of the State of California pertaining to well construction, reconstruction and destruction, including the requirements to maintain the integrity of all significant confining zones.

Karthik Viswanathan — 08/24/2020
APPLICANT'S SIGNATURE — DATE

Karthik Viswanathan
PRINT NAME

714-465-1250 — 714-969-0820
PHONE NUMBER — FAX NUMBER

FOR ACCOUNTING USE ONLY:

HSO NO. 406892 CHECK NO. 5803 dated 08/25/20
DATE 08/27/20 AMOUNT $1,009.00
INTL. gm.

APPROVAL BY OTHER AGENCIES:

JURISDICTION
REMARKS

AUTHORIZED SIGNATURE — DATE

DISPOSITION OF PERMIT (DO NOT FILL IN):

☒ **APPROVED** SUBJECT TO THE FOLLOWING CONDITIONS:

A. NOTIFY THIS AGENCY AT LEAST **48 HOURS**
☒ PRIOR TO START. Notify of any changes.
☐ PRIOR TO SEALING THE ANNULAR SPACE OR FILLING OF THE CONDUCTOR CASING.

B. ☒ SUBMIT TO THE AGENCY WITHIN 30 DAYS AFTER COMPLETION OF WORK, A WELL COMPLETION REPORT AND/OR DRILLING LOGS. PLEASE REFERENCE PERMIT NO.

C. ☐ SECURE ALL MONITORING WELLS TO PREVENT TAMPERING.

D. ☒ OTHER Notify when all work is complete and include the depth to 1st water.

☐ **DENIED**

Juan Arzola — 08.25.2020
PERMIT ISSUED BY — DATE

Juan Arzola — 7144336287
PRINT NAME — PHONE NUMBER

WHEN SIGNED BY ORANGE COUNTY HEALTH CARE AGENCY REPRESENTATIVE, THIS APPLICATION IS A PERMIT.

@.F272-09.0803 (R11/01)

APPLICATION FOR WELL CONSTRUCTION PERMIT

RECEIVED HCA/ACCOUNTING

ORANGE COUNTY HEALTH CARE AGENCY
ENVIRONMENTAL HEALTH DIVISION
1241 E. DYER ROAD, SUITE 120
SANTA ANA, CA 92705-5611
(714) 433-6000
FAX: (714) 433-6481

CITY: Huntington Beach

DATE: 03/02/2021 MAR 03 2021

WELL LOCATION (ADDRESS IF AVAILABLE): Edison Park - 21377 Magnolia St., Huntington Beach, CA 92646

ENVIRONMENTAL HEALTH

WELL PERMIT NUMBER 21-03-07 permit expires on 3/3/2022

NAME OF WELL OWNER: City of Huntington Beach - Community Services Dept.

ADDRESS: 2000 Main Street

CITY: Huntington Beach | ZIP: 92648 | TELEPHONE: 714-536-5486

NAME OF CONSULTING FIRM: Geosyntec Consultants, Inc.

BUSINESS ADDRESS: 2100 Main Street, Suite 150

CITY: Huntington Beach | ZIP: 92648 | TELEPHONE: 714-969-0800

NAME OF DRILLING CO.: ABC Liovin Drilling Inc. ✓ | C-57 LICENSE NO.: 422904 ✓

CITY: Signal Hill | ZIP: 90755 | TELEPHONE: 562-981-8575

TYPE OF WELL (CHECK)

PRIVATE DOMESTIC	☐	PROBE SURVEY	☐
PUBLIC DOMESTIC	☐	MONITORING	☐
IRRIGATION	☐	SOIL BORING	☑
CATHODIC	☐	OTHER	☐
		TOTAL NUMBER	5 ✓

A. WELLS – SUBMIT A WELL CONSTRUCTION DIAGRAM (INCLUDE DIMENSIONS)

B. SOIL BORINGS AND PROBES –
TOTAL DEPTH: 15 feet
SEALING MATERIAL: Hydrated Bentonite Chips ✓

C. PROPOSED START DATE: 3/12/2021

DIAGRAM OF WELL SITE (Use additional sheets and/or attachments)

☑ SITE PLAN ATTACHED

I hereby agree to comply in every respect with all requirements of the Health Care Agency and with all ordinances and laws of the County of Orange and of the State of California pertaining to well construction, reconstruction and destruction, including the requirements to maintain the integrity of all significant confining zones.

Karthik V. — 3/2/2021
APPLICANT'S SIGNATURE — DATE

Karthik Viswanathan
PRINT NAME

714-465-1250 — 714-333-4275
PHONE NUMBER — FAX NUMBER

FOR ACCOUNTING USE ONLY:

HSO NO. 410427 — CHECK NO. 5826
DATE 3/3/21 — AMOUNT 1009 –
INTL. KV — CK: 3/2/21

APPROVAL BY OTHER AGENCIES:

JURISDICTION _____

REMARKS _____

AUTHORIZED SIGNATURE — DATE

DISPOSITION OF PERMIT (DO NOT FILL IN):

☒ **APPROVED** SUBJECT TO THE FOLLOWING CONDITIONS:

A. NOTIFY THIS AGENCY AT LEAST **48 HOURS**
☒ PRIOR TO START. notify of any changes
☐ PRIOR TO SEALING THE ANNULAR SPACE OR FILLING OF THE CONDUCTOR CASING.

B. ☒ SUBMIT TO THE AGENCY WITHIN 30 DAYS AFTER COMPLETION OF WORK, A WELL COMPLETION REPORT AND/OR DRILLING LOGS. PLEASE REFERENCE PERMIT NO.

C. ☐ SECURE ALL MONITORING WELLS TO PREVENT TAMPERING.

D. ☒ OTHER notify when work is completed and include the depth to first water

☐ **DENIED** _____

Jane — 3/2/2021
PERMIT ISSUED BY — DATE
JANE NGUYEN — 714-433-6285
PRINT NAME — PHONE NUMBER

WHEN SIGNED BY ORANGE COUNTY HEALTH CARE AGENCY REPRESENTATIVE, THIS APPLICATION IS A PERMIT.

@.F272-09.0803 (R11/01)

Appendix B
SCAQMD Permit for Rule 1150

South Coast Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178

COMPLIANCE PLAN

Plan No.
612262

Certain compliance plan pursuant to Rule 306 (h) are subject to annual renewal fees unless the equipment is moved or changes operator.

Plan Issue Date: 9/11/2020 **ID** 189921

Company: CITY OF HUNTINGTON BEACH
2100 MAIN ST, STE 150
HUNTINGTON BEACH, CA 92648

Site Location: 21377 MAGNOLIA ST, HUNTINGTON BEACH, CA 92646

Plan Description:
Excavation is required to perform subsurface investigation to evaluate the approximate lateral limits of existing waste along portion of the eastern edge of the Cannery Street Refuse Disposal Station at Edison Park.

Conditions :

1. This excavation shall be conducted in compliance with all plans and specifications submitted with the application under which this Rule 1150 Excavation Management Plan is issued unless otherwise noted below.
2. The excavation plan shall expire on October 31, 2021.
3. The South Coast AQMD shall be notified at least two (2) days prior to the excavation commencement and within five (5) days after its completion. The notification shall be made by emailing Rule1150Notification@aqmd.gov. The subject line of the email shall contain "Rule 1150 Notification." The body of the email shall contain the following information:
   A. Company Name and Company ID.
   B. Plan Number.
   C. Site Address.
   D. Notification Type (2 days prior or 5 days after).
   E. Estimated Excavation Start Date and Completion Date.
   F. Caller Name and Contact Information.
4. This excavation management plan is valid for the re-disposal of less than 50 cubic yards of refuse and contaminated material.
5. Excavation shall not be conducted whenever any excavation at the Ascon Landfill is underway.
6. Excavation shall not be conducted between the hours of 6:00 p.m. and 6:00 a.m. or on weekends and legal holidays unless otherwise approved in writing by the South Coast AQMD.

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7. Excavation shall not be conducted on days when South Coast AQMD forecasts first, second, or third stage episodes for area number 18 or when the South Coast AQMD requires companies in area number 18 to implement their first, second or third stage episode plans. Episode forecasts for the following day can be obtained by calling (800) 288-7664.

8. Upwind and downwind PM monitoring shall be conducted every 60 minutes throughout the workday when soil handling or excavation is in progress at locations identified in "[Attachment A: Site Plan and Excavation Areas Edison Park - Waste Delineation Huntington Beach, California]" (sent via email on 8/19/2020 from Geosyntec). If dust levels exceed 0.05 mg/m3 above background all excavation work shall cease until mitigation measures are implemented and the levels are below 0.05 mg/m3.

9. During excavation, continuous monitoring and recording of the wind speed and directions shall be conducted using a South Coast AQMD approved handheld monitoring device.

10. Excavation shall not be conducted when the wind speed is greater than 15 mph (averaged over 15 minutes) or the wind speed instantaneously exceeds 25 mph.

11. During excavation, all working excavation areas, excavated material and unpaved roadways shall be watered down until the surface is moist and then maintained in a moist condition to minimize dust and emissions without creating a safety hazard condition.

12. If a distinct odor (level III or greater) resulting from the excavation is detected at or beyond the property line, the excavation shall cease and the approved mitigation measures implemented immediately. Excavation shall not resume until the levels return to the background level.

Odor Scale	Description of Odor Intensity
0	No odor detected.
1	Very light odor detected.
2	Light odor detected, distinguishable.
3	Moderate odor, very distinguishable.
4	Strong odor, very distinguishable, irritable.
5	Very strong odor, very distinguishable, overpowering and intolerable.

Approved mitigation measures:

A. Excavation shall be limited to one location at a time.

B. Limiting excavation workface area.

C. Minimizing soil disturbance/transfer.

D. Limiting working hours.

E. Using long duration foams, plastic sheeting, or 6 inches of clean dirt cover.

F. Using water and/or odor neutralizing products containing no VOC.

G. Cleaning and covering of haul trucks.

H. Good housekeeping.

13. VOC contaminated soil (as defined by Rule 1166) shall not be spread onsite or offsite if it results in uncontrolled evaporation of VOC to the atmosphere. VOC contaminated soil shall not be used for landfill cover.

14. During excavation, monitoring for Total Organic Compounds as methane using an Organic Vapor Analyzer (OVA) or other monitor approved by the South Coast AQMD shall be conducted continuously at the working face of the excavation and at the downwind property line or other approved locations. The maximum sustained readings (greater than 15 seconds) shall be recorded every 15 minutes. The OVA or other approved monitor shall be calibrated each day in accordance with manufacturers' specifications.

15. If the OVA or other approved organic monitor shows a sustained reading (greater than 15 seconds) of 500 ppmv or greater at the working face, the excavation shall cease and the area generating the emissions shall immediately be completely covered with a minimum of 6 inches of clean dirt, plastic sheeting, foam, or an approved cover. Excavation shall not resume until the readings return to the background level.

16. If the OVA or other approved organic monitor shows a sustained reading (greater than 15 seconds) or 200 ppmv or greater downwind from the site at the property line (or other approved locations), the excavation shall cease and the area generating the emissions shall immediately be completely covered with a minimum of 6 inches of clean dirt, plastic sheeting, foam, or an approved cover. Excavation shall not resume until the readings return to the background level.

17. The excavation workface, which exposes refuse or other emission generating material to the atmosphere, shall not exceed 300 square feet, without prior written approval from the South Coast AQMD.

18. The topsoil material that is excavated for each test pit shall be placed directly back in the test pit following the completion of the excavation of each test pit.

19. Stockpiles shall not exceed a height greater than 8 feet and shall be maintained so as to avoid steep sides.

20. Daily inspections shall be conducted of all covered stockpiles to ensure the integrity of the plastic cover. An inspection log shall be maintained.

21. All refuse/emission generating materials that are excavated/exposed to the atmosphere shall either be:

A. Immediately covered (with either a minimum of 6" of clean soil, approved foam, or heavy duty plastic sheeting) whenever the excavation is not actively in progress, and at the end of each working day. Foam by itself shall not be used as a night cover if it is raining or rain is predicted by the National Weather Service prior to the next scheduled day of excavation.

B. Immediately containerized in 55 gallon drums for offsite trasnport and disposal.

22. The exterior of haul trucks or trailers including the tires shall be cleaned off prior to leaving the excavation site.

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23. All materials that are listed as hazardous by a federal or state agency shall be considered "hazardous materials" for the purpose of this plan.

24. All excavated hazardous material shall be transported in such a manner as to prevent any emissions of hazardous materials.

25. All hazardous materials shall be transported in containers clearly marked as to the type of material contained and what procedures should be followed in case of accidental spills.

26. Excavated liquid hazardous materials with the potential to cause air emission shall be encapsulated or enclosed in containers with sealed lids before loading into the transport vehicles.

27. Excavation, handling, and stockpiling activities shall comply with the applicable requirements of Rule 403.

28. All records of excavation working hours monitoring results, daily amounts of materials excavated and relocated or hauled offsite, and other records required by this compliance plan shall be kept on file for at least two years and made available to the South Coast AQMD upon request.

29. Mitigation measures, other than those indicated in these conditions, which are deemed appropriate by South Coast AQMD personnel as necessary to protect the comfort, repose, health, and safety of the public, shall be implemented upon request.

30. This compliance plan or a copy of this compliance plan shall be present at the excavation site.

NOTICE

This plan does not authorize the emission of air contaminants in excess of those allowed by Division 26 of the Health and Safety Code of the State of California or the applicable Rules and Regulations of the South Coast Air Quality Management District (SCAQMD). This plan cannot be considered as permission to violate existing laws, ordinances, regulations or statutes of other government agencies.

A copy of this plan shall be displayed in the vicinity of the equipment subject to this plan.

Executive Officer

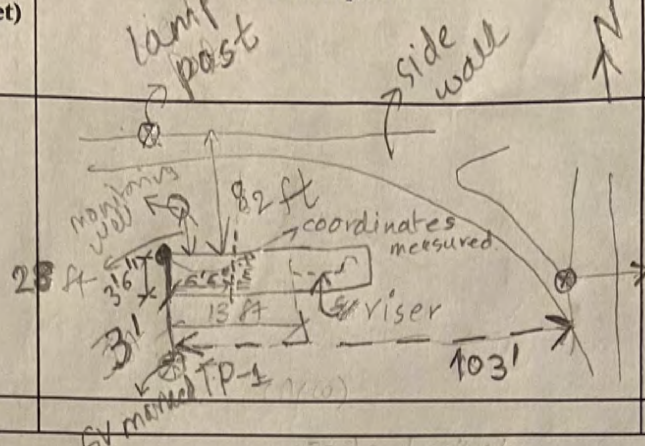
Amir Dejbakhsh

By AMIR DEJBAKHSH
9/11/2020

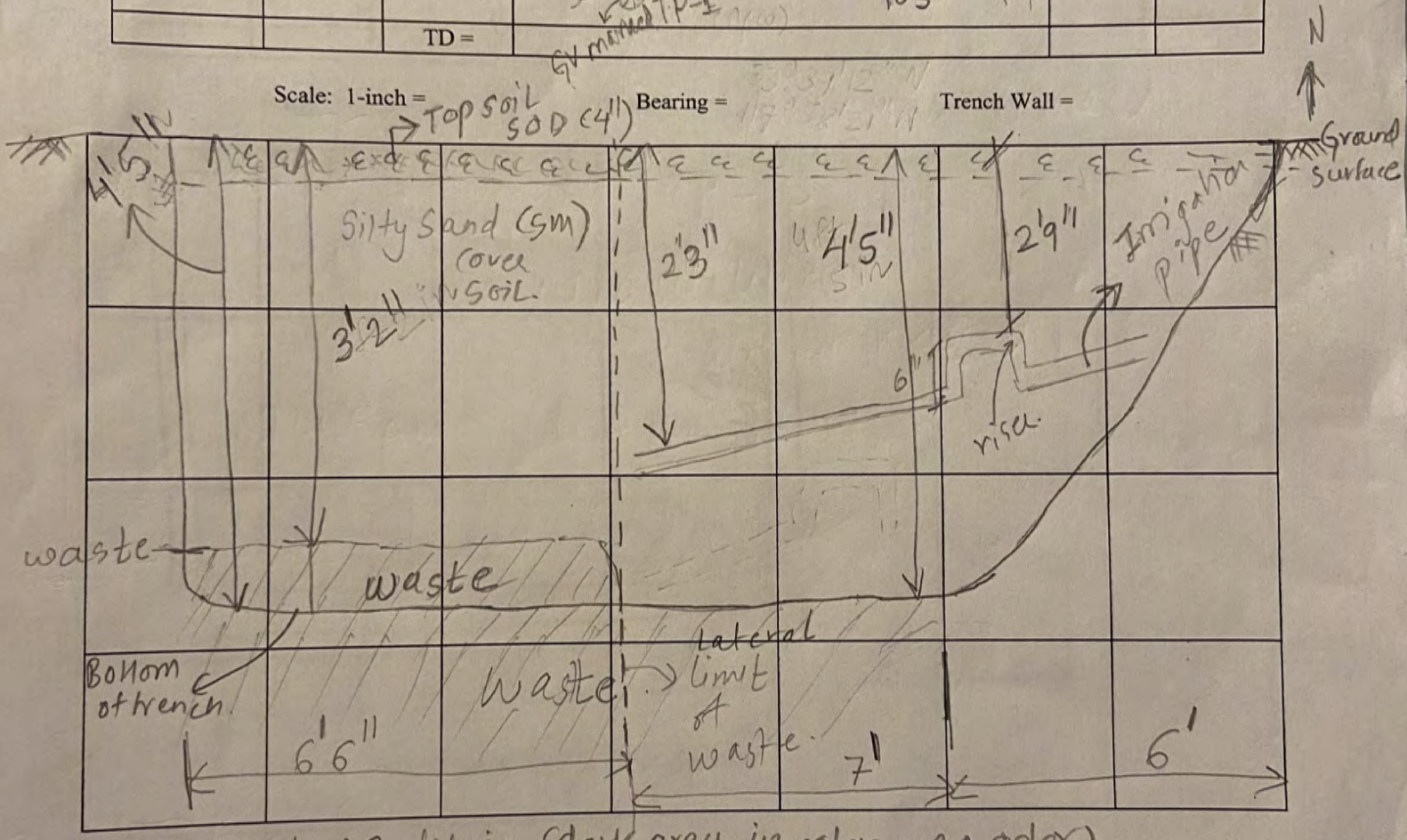
ORIGINAL

Appendix C
Test Pit Logs

TEST PIT LOG

Formation	Bedding Attitude	Depth BGS (feet)	Description	Opt. Moist. Content (%)	Max. Dry Density (pcf)
					
		TD =			

Scale: 1-inch = Bearing = Trench Wall =



Waste: mostly AC debris (dark grey in color, no odor)

Test Pit Number: TP-1

Date: 9/24/2020

Location: Edison Park

Equipment: CASE 580 Super N

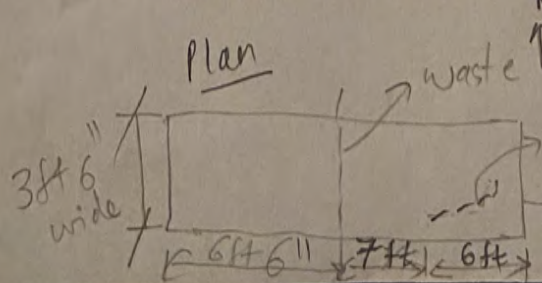
Logged By: Sneha Upadhyaya

Northing, Easting:
33° 39' 12" N
117° 58' 21" W

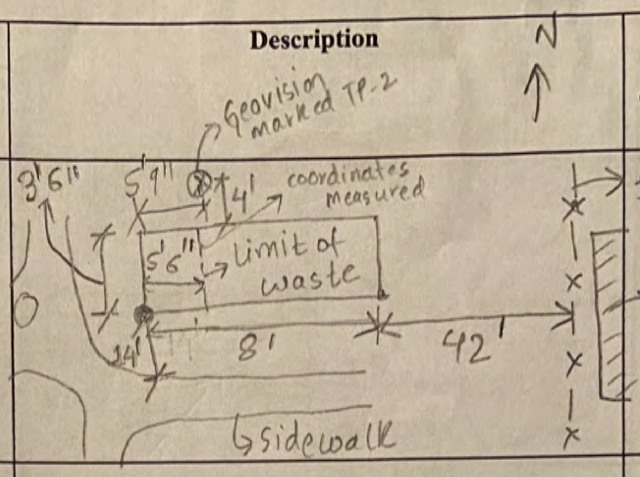
Geosyntec consultants

Project: Edison Park Waste Delineation
Project No.: HL1685A

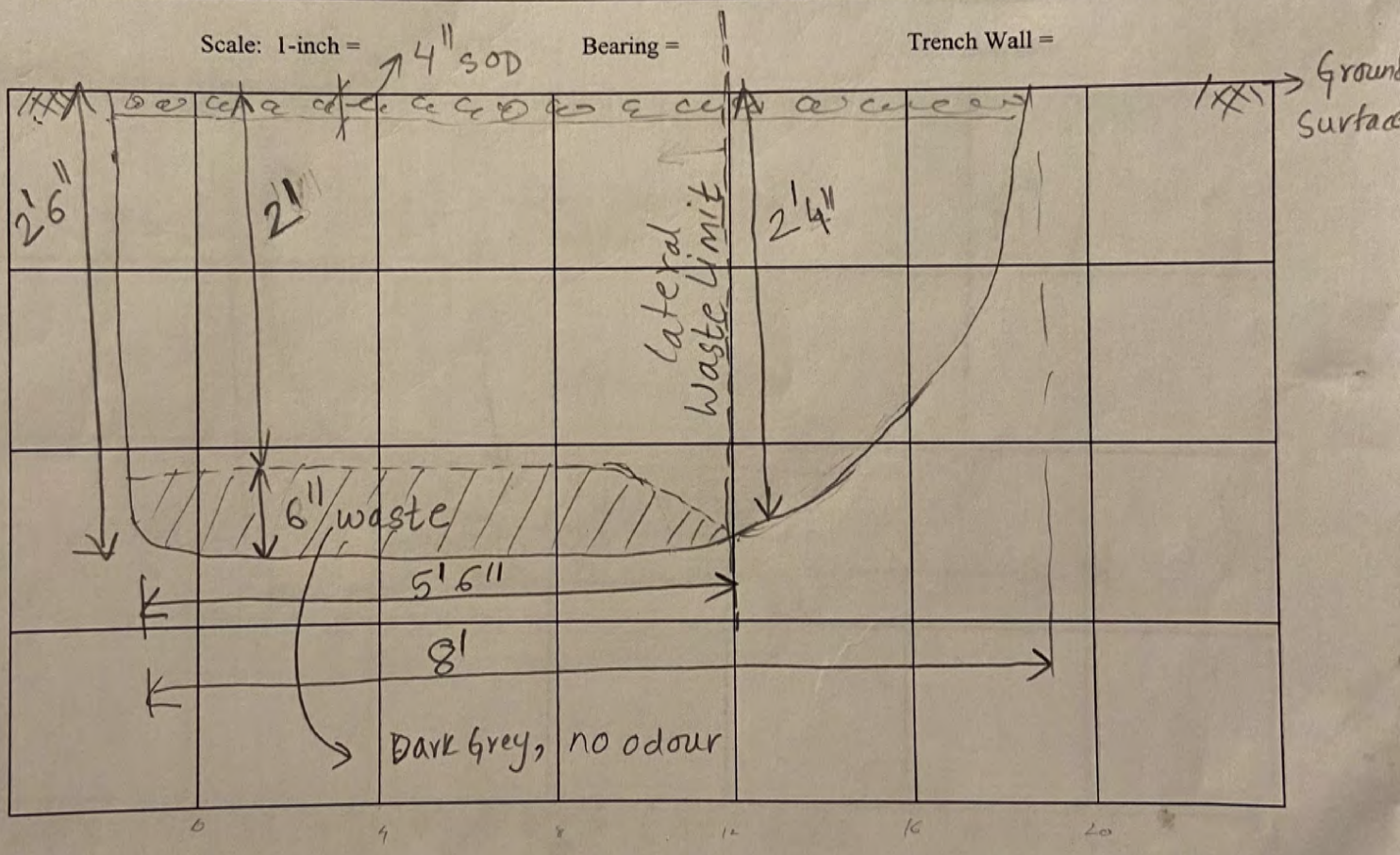
Plan



TEST PIT LOG

Formation	Bedding Attitude	Depth BGS (feet)	Description	Opt. Moist. Content (%)	Max. Dry Density (pcf)
					
		TD =			

Scale: 1-inch =



Test Pit Number: TP-2

Date: 9/24/2020

Location: Edison Park

Equipment: CASE 580. Super N

Logged By: Sneha Upadhyaya

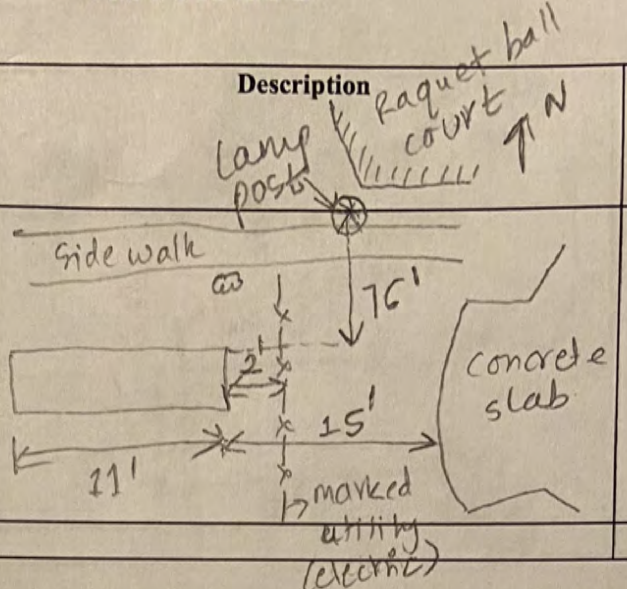
Northing, Easting:

Iphone GPS: 33°39'10"N
117°58'22"W
(at the horz waste limit)

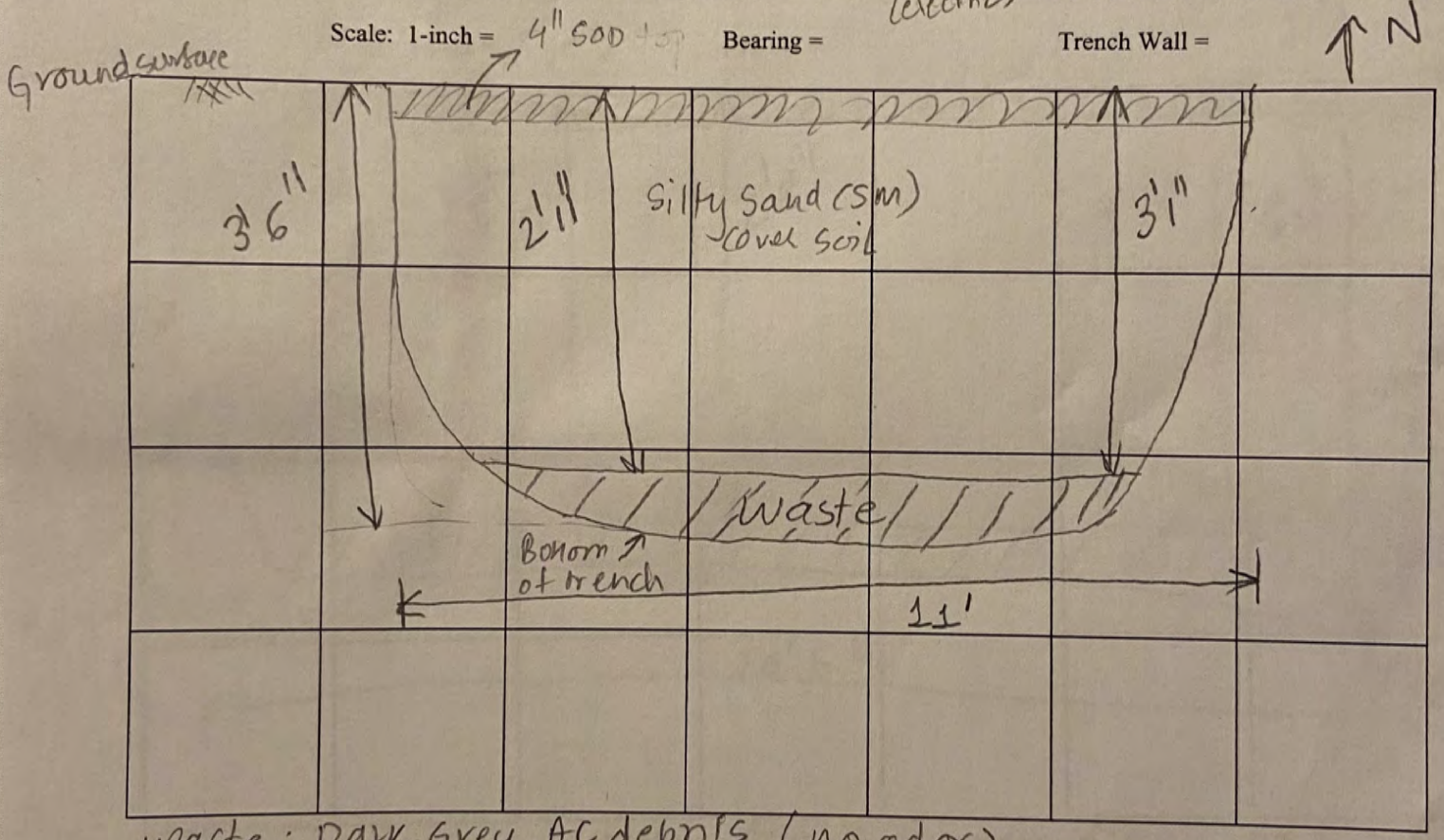
Geosyntec consultants

Project: Edison Park Waste Delineation
Project No.: HL1685A

TEST PIT LOG

Formation	Bedding Attitude	Depth BGS (feet)	Description	Opt. Moist. Content (%)	Max. Dry Density (pcf)
					
		TD =			

Scale: 1-inch = 4" SOD top Bearing = Trench Wall =



Waste: Dark Grey, AC debris (no odor)

Test Pit Number: TP-3 Date: ~~10~~ 9/24/2020

Location: Edison Park Equipment:

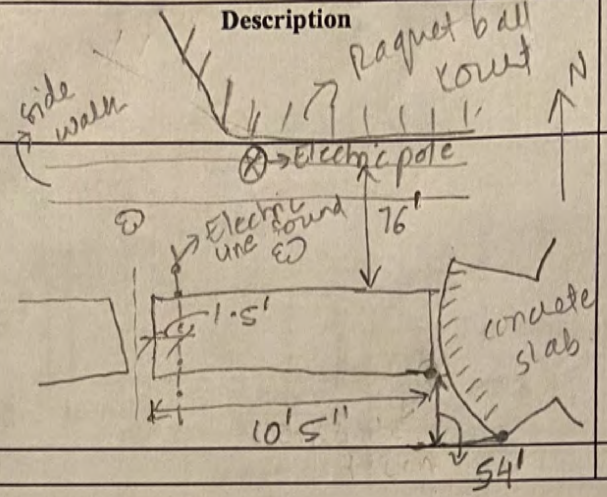
Northing, Easting: Logged By: Sneha Upadhyaya

Geosyntec consultants

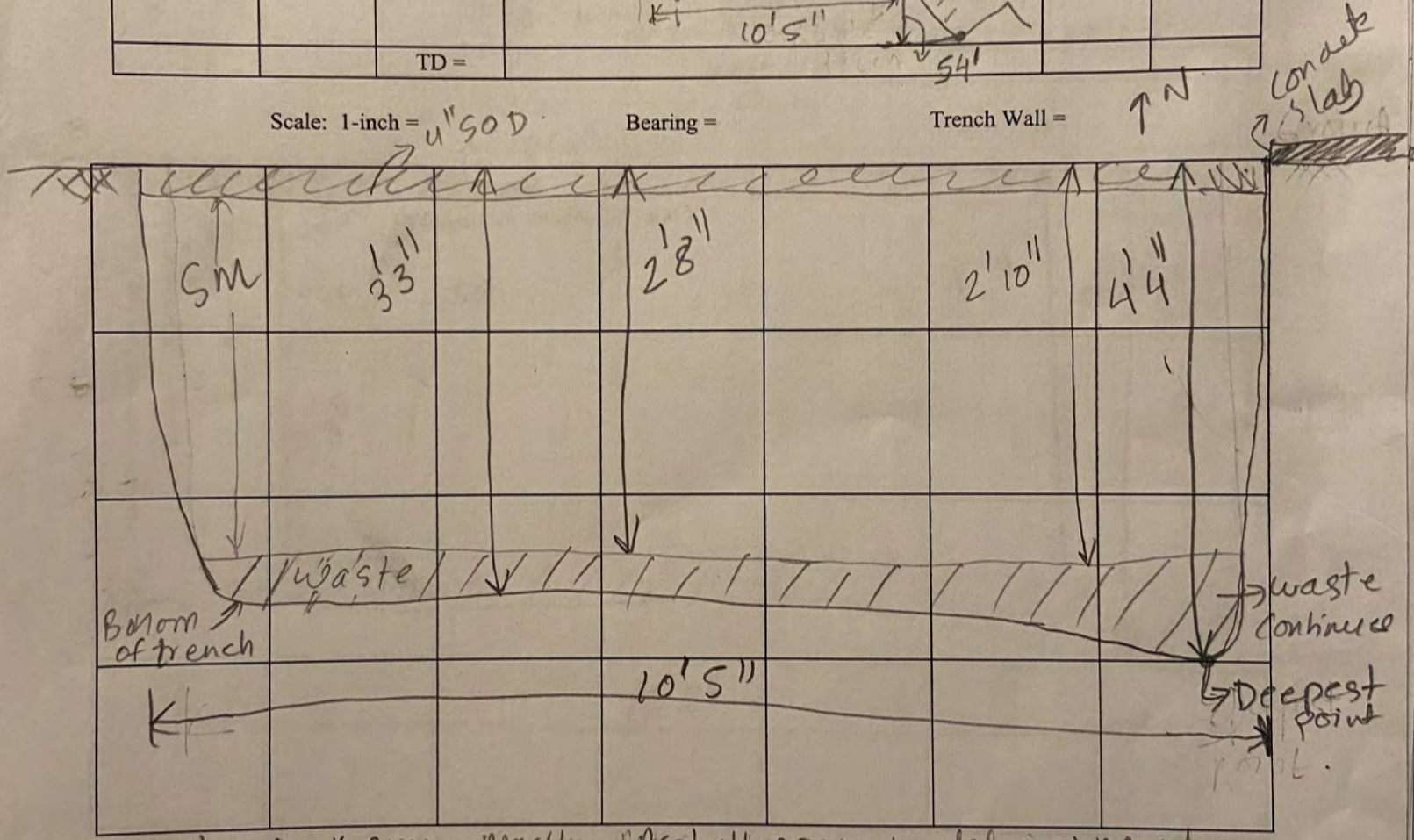
Project: Edison Park Waste Delineation
Project No.: HL1685A

Note: Excavation ~~stopped~~ due to proximity to ~~electric~~ marked utility line (2' away from the eastern edge of trench). To continue tomorrow 2 ft away from the marked utility line.

TEST PIT LOG

Formation	Bedding Attitude	Depth BGS (feet)	Description	Opt. Moist. Content (%)	Max. Dry Density (pcf)
					
		TD =			

Scale: 1-inch = 4"SOD Bearing = Trench Wall =



waste: Dark grey, Mostly Asphalt concrete debris, no odor.

Test Pit Number: TP-3 (cont.) Date: 9/25/2020

Location: Edison Park Equipment:

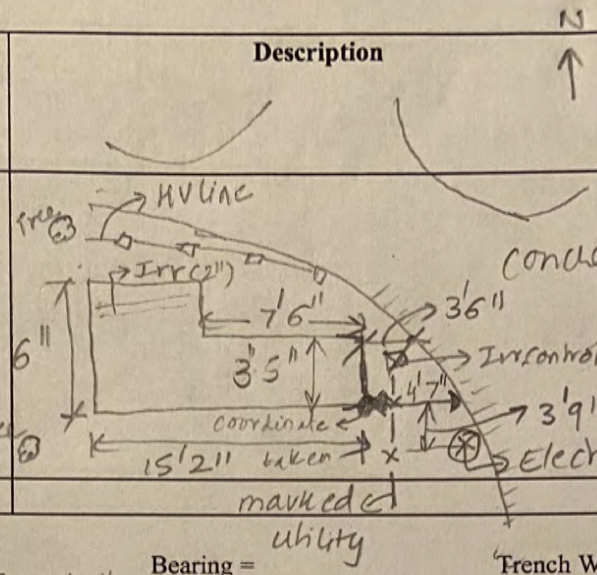
Northing, Easting: Logged By: Sneha Upadhyaya

Geosyntec consultants

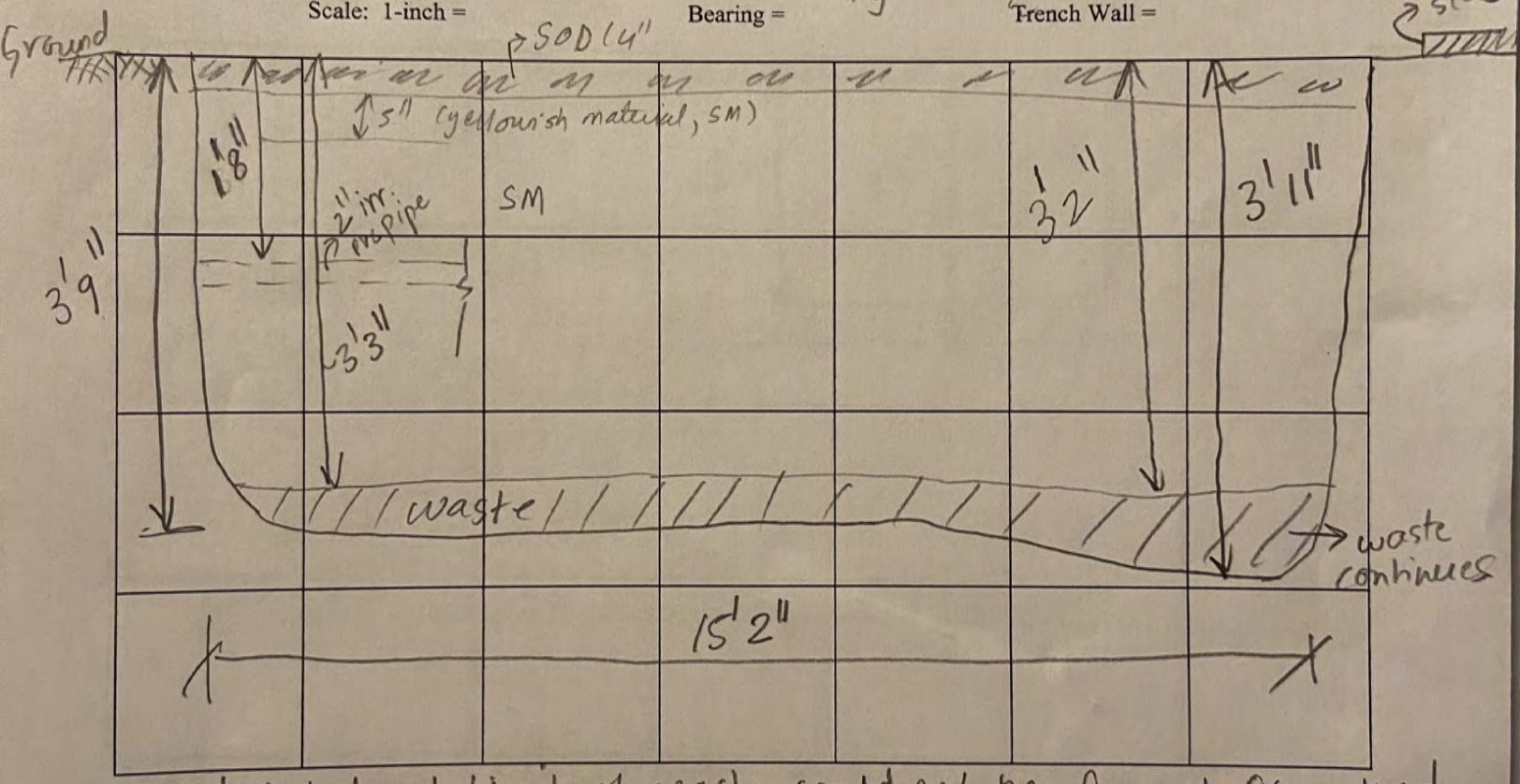
Project: Edison Park Waste Delineation
Project No.: HL1685A

Note: Couldn't determine the lateral extent of waste. (reached the concrete slab on the east side)

TEST PIT LOG

Formation	Bedding Attitude	Depth BGS (feet)	Description	Opt. Moist. Content (%)	Max. Dry Density (pcf)
					
		TD =			

Scale: 1-inch = Bearing = Trench Wall =



Note: lateral limit of waste could not be found (reached close to concrete slab and utility lines)

Test Pit Number: TP-4

Date: 9/25/2020

Geosyntec consultants

Location: Edison Park

Equipment: 580 CASE Super N

Project: Edison Park Waste Delineation
Project No.: HL1685A

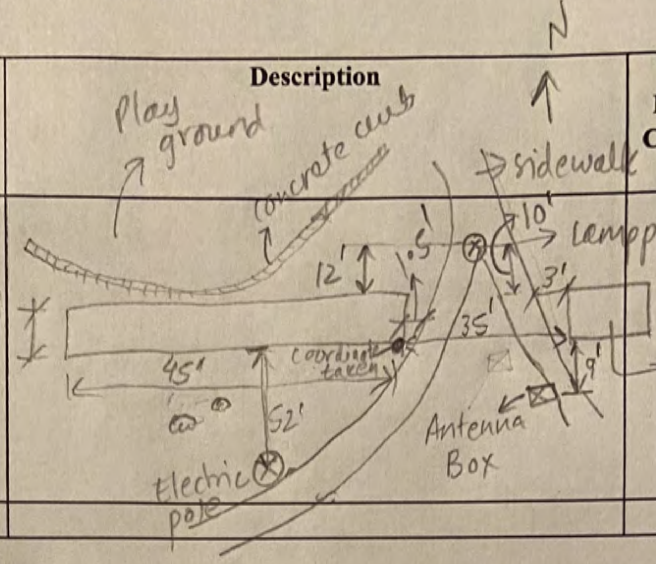
Northing, Easting:
33°39'7"N
117°58'21"W

Logged By: Sneha Upadhyaya

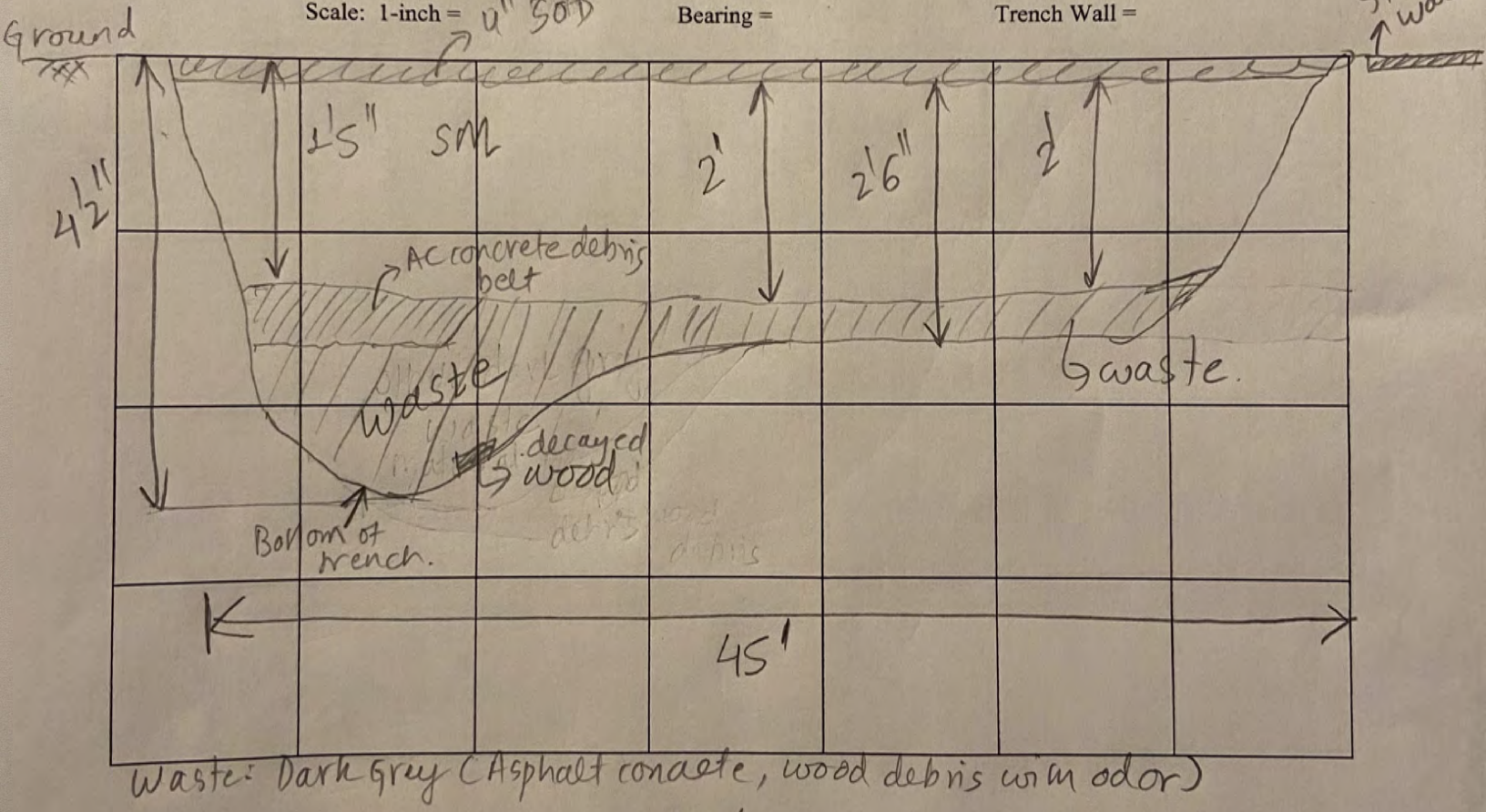
Waste: Dark grey, AC debris (chunks of AC observed)

Top soil: Silty Sand (SM); some areas w/ loose clean sand (SP)

TEST PIT LOG

Formation	Bedding Attitude	Depth BGS (feet)	Description	Opt. Moist. Content (%)	Max. Dry Density (pcf)
					
		TD =			

Scale: 1-inch = 4" SOD Bearing = Trench Wall =



Waste: Dark Grey (Asphalt concrete, wood debris with odor)

Test Pit Number: TP-5

Date: 9/25/2020

Location: Edison Park

Equipment: CASE 580 Super N

Logged By: Sneha Upadhyaya

Northing, Easting:
33° 39' 5" N
117° 58' 21" W

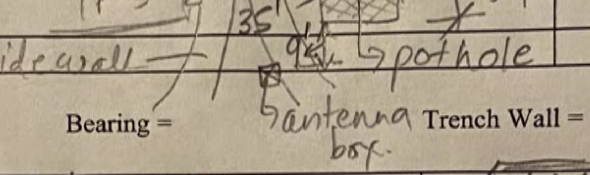
Geosyntec consultants

Project: Edison Park Waste Delineation
Project No.: HL1685A

TEST PIT LOG

(TP-5, pothole)

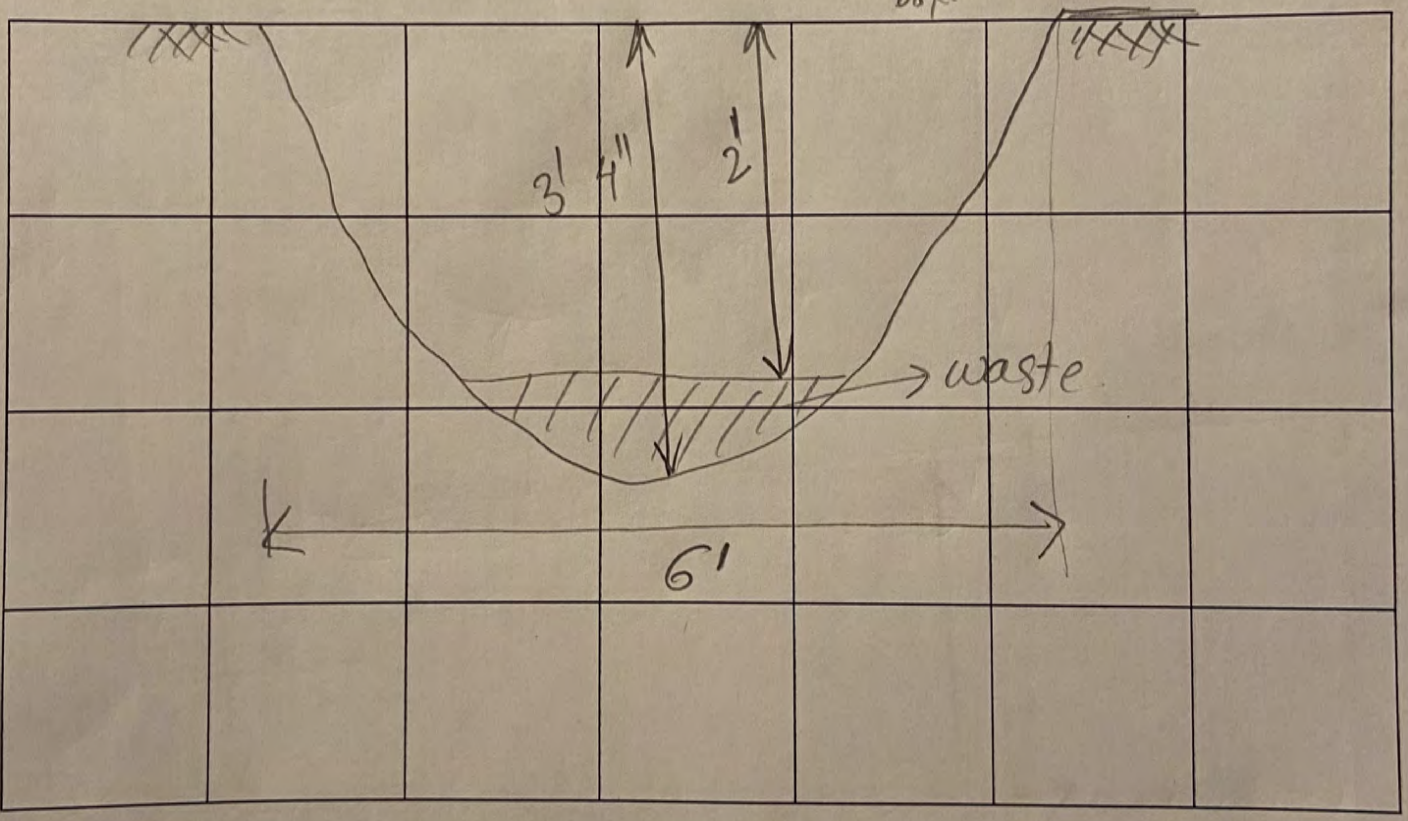
Formation	Bedding Attitude	Depth BGS (feet)	Description	Opt. Moist. Content (%)	Max. Dry Density (pcf)
			Pothole 35' from the edge of TP-5 towards the east (past the sidewalk)		
		TD =			



Scale: 1-inch =

Bearing =

Trench Wall =



Test Pit Number: TP-5 pothole

Date: 9/25/2020

Location: Edison Park

Equipment:

Northing, Easting:

Logged By: Sneha Upadhyaya

Geosyntec consultants

Project: Edison Park Waste Delineation

Project No.: HL1685A

Appendix D
Borings Logs with Key

Geosyntec consultants
2100 Main St
Suite 150
Huntington Beach, CA 92648
Tel: (714) 969-0800
Fax: (714) 333-4275

PROJECT Edison Park Waste Delineation
PROJECT LOCATION Huntington Beach, CA
PROJECT NUMBER HL1685A

KEY SHEET - CLASSIFICATIONS AND SYMBOLS

GS FORM: KEY/SYMBOLS 01/04

EMPIRICAL CORRELATIONS WITH STANDARD PENETRATION RESISTANCE N60 VALUES *

	N60 VALUE * (BLOWS/FT)	CONSISTENCY	UNCONFINED COMPRESSIVE STRENGTH (TONS/SQ FT)
FINE GRAINED SOILS	0 - 2	VERY SOFT	<0.25
	3 - 4	SOFT	0.25 - 0.50
	5 - 8	FIRM	0.50 - 1.00
	9 - 15	STIFF	1.00 - 2.00
	16 - 30	VERY STIFF	2.00 - 4.00
	31 - 50	HARD	>4.00
	>50	VERY HARD	

	N60 VALUE * (BLOWS/FT)	RELATIVE DENSITY
COARSE GRAINED SOILS	0 - 4	VERY LOOSE
	5 - 10	LOOSE
	11 - 30	MEDIUM DENSE
	31 - 50	DENSE
	>50	VERY DENSE

* ASTM D 1586; NUMBER OF BLOWS OF 140 POUND HAMMER FALLING 30 INCHES TO DRIVE A 2 IN. O.D., 1.4 IN. I.D. SAMPLER ONE FOOT, CORRECTED FOR HAMMER EFFICIENCY.

UNIFIED SOIL CLASSIFICATION AND SYMBOL CHART

MAJOR DIVISIONS			SYMBOLS	DESCRIPTIONS
COARSE GRAINED SOILS — MORE THAN 50% OF MATERIAL COARSER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS — MORE THAN 50% OF COARSE FRACTION RETAINED ON NO.4 SIEVE	CLEAN GRAVELS — LITTLE OR NO FINES	GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
			GP	POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES — APPRECIABLE AMOUNT OF FINES	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
			GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
	SAND AND SANDY SOILS — MORE THAN 50% OF COARSE FRACTION PASSING NO.4 SIEVE	CLEAN SANDS — LITTLE OR NO FINES	SW	WELL GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			SP	POORLY GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES — APPRECIABLE AMOUNT OF FINES	SM	SILTY SANDS, SAND-SILT MIXTURES
			SC	CLAYEY SANDS, SAND-CLAY MIXTURES
FINE GRAINED SOILS — MORE THAN 50% OF MATERIAL FINER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50	ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
			OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50	MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILT
			CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS			PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENT

NOTE: DUAL SYMBOLS USED FOR BORDERLINE CLASSIFICATIONS

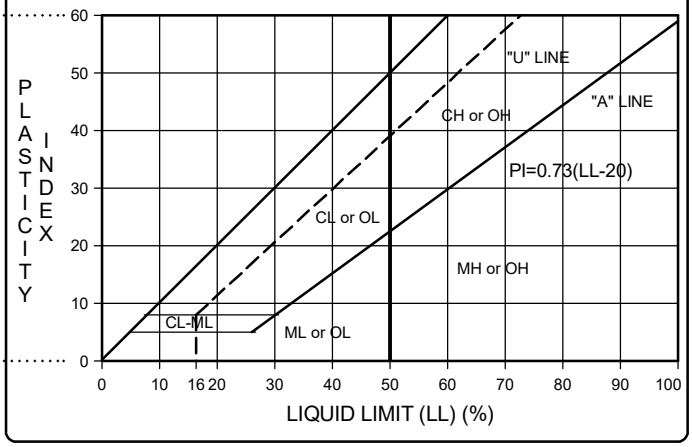
PARTICLE SIZE IDENTIFICATION

USCS (SOILS ONLY) *		SEDIMENTARY (ROCK ONLY)	
BOULDER	>300 mm	BOULDER	>256 mm
COBBLE	75 - 300 mm	COBBLE	64 - 256 mm
GRAVEL: COARSE	20 - 75 mm	PEBBLE	4 - 64 mm
GRAVEL: FINE	4.75 - 20 mm	GRANULE	2 - 4 mm
		SAND: V. COARSE	1 - 2 mm
SAND: COARSE	2 - 4.75 mm	SAND: COARSE	0.5 - 1 mm
SAND: MEDIUM	0.42 - 2 mm	SAND: MEDIUM	0.25 - 0.5 mm
SAND: FINE	0.074 - 0.42 mm	SAND: FINE	0.125 - 0.25 mm
		SAND: V. FINE	0.063 - 0.125 mm
SILT/CLAY	<0.074 mm	SILT	0.004 - 0.063 mm
		CLAY	<0.004 mm

* WELL GRADED - HAVING WIDE RANGE OF GRAIN SIZES AND APPRECIABLE AMOUNTS OF ALL INTERMEDIATE PARTICLE SIZES
* POORLY GRADED - PREDOMINANTLY ONE GRAIN SIZE, OR HAVING A RANGE OF SIZES WITH SOME INTERMEDIATE SIZES MISSING

PERCENTAGE OF PARTICLE TYPE IN DECREASING ORDER OF PARTICLE SIZE (GRAVEL,SAND,FINES), BASED ON VISUAL OBSERVATION

PLASTICITY CHART



OTHER MATERIAL SYMBOLS

- Conglomerate
- Sandstone
- Silty Sandstone
- Clayey Sandstone
- Sandy Siltstone
- Siltstone
- Claystone
- Clayey Siltstone/ Silty Claystone
- Sandy Claystone
- Granitic/Intrusive
- Volcanic/Extrusive
- Metamorphic
- Limestone
- Dolomite
- Glacial Till
- Landslide Debris
- Marker Bed
- Artificial Fill
- Refuse
- Concrete/Asphalt

WELL SYMBOLS

- CONCRETE
- GROUT
- BENTONITE SEAL
- TRANSITION SAND
- SAND PACK
- GRAVEL PACK
- NATIVE/SLUFF
- CENTRALIZER

SAMPLE TYPE AND OTHER SYMBOLS

- BULK SAMPLE
- STANDARD PENETRATION TEST
- MODIFIED CALIFORNIA SAMPLE
- CORE SAMPLE
- SHELBY TUBE
- DRIVE SAMPLE

- Water Level at Time Drilling, or as Shown
- Static Water Level
- Pump Inlet
- Loss of Drilling Fluid

MSL: Mean Sea Level

AGS: Above Ground Surface

BGS: Below Ground Surface

BTOC: Below Top of Casing

HSA: Hollow Stem Auger

01-KEY/SYMBOLS HL1685A.GPJ GEOSNTEC.GDT 10/25/20

Geosyntec consultants
2100 Main St
Suite 150
Huntington Beach, CA 92648
Tel: (714) 969-0800
Fax: (714) 333-4275

GS FORM: GEOTECH1 01/04

BOREHOLE LOG

BORING HSA-1 **SHEET** 1 OF 1
START DRILL DATE Sep 28, 20 **ELEVATION DATA:**
FINISH DRILL DATE Sep 28, 20 **GROUND SURF.** 11
LOCATION Huntington Beach, CA **TOP OF CASING**
PROJECT Edison Park Waste Delineation **DATUM** ft +MSL
NUMBER HL1685A

DEPTH (ft-bgs)	DESCRIPTION (1) Soil Name (USCS Sym.) 2) Color 3) Moisture 4) Grain Size 5) Percentage 6) Plasticity 7) Density/Consistency 8) Other (Mineral Content, Discoloration, Odor, etc.)	GRAPHIC LOG	ELEV. (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	N VALUE	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring 3) Pocket Pen 4) Tor Vane
0	Silty SAND (SM): brown; dry; fine sand; [0,80,20]; non-plastic.		10							16:20	Hand augered to 5 ft bgs.
5	LANDFILL MAERIAL: dark grey; moist; no odor; wood pieces, asphalt concrete debris.		5							16:30	
10	Silty SAND (SM): grey; wet; fine sand; [0,80,20]; low plastic.		0							16:45	First depth to groundwater.
	Terminate boring at 11.5-ft below ground surface (bgs).									16:55	
15			-5								
20			-10								
25			-15								
30											

CONTRACTOR ABC Liovin
EQUIPMENT CME 85
DRILL MTHD Hollow Stem Auger
DIAMETER 8-inch
LOGGER S. Upadhyaya

NORTHING 33.65306
EASTING -117.97278
COORDINATE SYSTEM:

REVIEWER Y. Zemuy, P. E.

NOTES: Borehole backfilled with hydrated bentonite chips. Logging of soils completed in general accordance with ASTM D2488 and ASTM D1586.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

02-GEOTECH1 HL1685A.GPJ GEOSNTEC.GDT 10/25/20

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GS FORM: GEOTECH1 01/04

BOREHOLE LOG

BORING HSA-2 **SHEET** 1 OF 1
START DRILL DATE Sep 28, 20 **ELEVATION DATA:**
FINISH DRILL DATE Sep 28, 20 **GROUND SURF.** 7
LOCATION Huntington Beach, CA **TOP OF CASING**
PROJECT Edison Park Waste Delineation **DATUM** ft +MSL
NUMBER HL1685A

DEPTH (ft-bgs)	DESCRIPTION (1) Soil Name (USCS Sym.) 2) Color 3) Moisture 4) Grain Size 5) Percentage; 6) Plasticity 7) Density/Consistency 8) Other (Mineral Content, Discoloration, Odor, etc.)	GRAPHIC LOG	ELEV. (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	N VALUE	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring 3) Pocket Pen 4) Tor Vane
0	Silty SAND (SM): brown; dry; fine sand; [5,75,20]; non-plastic; 1/4-in. to 1/2-in. gravel.		5							15:30	Hand augered to 5 ft bgs.
5	LANDFILL MAERIAL: dark grey; moist; no odor; wood pieces, asphalt concrete debris.		0							15:35	
10			-5								First depth to groundwater.
15	Silty SAND (SM): grey; wet; fine sand; [0,80,20]; non-plastic.		-10							15:45	
	Terminate boring at 16.5-ft below ground surface (bgs).									15:50	
20			-15								
25			-20								
30											

CONTRACTOR ABC Liovin
EQUIPMENT CME 85
DRILL MTHD Hollow Stem Auger
DIAMETER 8-inch
LOGGER S. Upadhyaya
REVIEWER Y. Zemuy, P. E.

NORTHING 33.65250
EASTING -117.97250
COORDINATE SYSTEM:

NOTES: Borehole backfilled with hydrated bentonite chips. Logging of soils completed in general accordance with ASTM D2488 and ASTM D1586.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

02-GEOTECH1 HL1685A.GPJ GEOSNTEC.GDT 10/25/20

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Huntington Beach, CA 92648
Tel: (714) 969-0800
Fax: (714) 333-4275

GS FORM: GEOTECH1 01/04

BOREHOLE LOG

BORING HSA-3 **SHEET** 1 OF 1
START DRILL DATE Sep 28, 20 **ELEVATION DATA:**
FINISH DRILL DATE Sep 28, 20 **GROUND SURF.** 7
LOCATION Huntington Beach, CA **TOP OF CASING**
PROJECT Edison Park Waste Delineation **DATUM** ft +MSL
NUMBER HL1685A

DEPTH (ft-bgs)	DESCRIPTION (1) Soil Name (USCS Sym.) 2) Color 3) Moisture 4) Grain Size 5) Percentage; 6) Plasticity 7) Density/Consistency 8) Other (Mineral Content, Discoloration, Odor, etc.)	GRAPHIC LOG	ELEV. (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	N VALUE	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring 3) Pocket Pen 4) Tor Vane
0	Silty SAND (SM): brown; dry; fine sand; [5,75,20]; non-plastic; 1/4-in. to 1/2-in. gravel.		5							13:55	Hand augered to 5 ft bgs.
	LANDFILL MAERIAL: dark grey; moist; no odor; wood pieces, asphalt concrete debris.									14:05	
5			0								
10			-5							14:20	First depth to groundwater.
15			-10							14:30	
20	Poorly-graded SAND with Silt (SP-SM): grey; wet; predominantly fine sand; [0,90,10]; non-plastic.		-15							14:40	
	Terminate boring at 21.5-ft below ground surface (bgs).									14:45	
25			-20								
30											

CONTRACTOR ABC Liovin
EQUIPMENT CME 85
DRILL MTHD Hollow Stem Auger
DIAMETER 8-inch
LOGGER S. Upadhyaya
REVIEWER Y. Zemuy, P. E.

NORTHING 33.65194
EASTING -117.97250
COORDINATE SYSTEM:

NOTES: Borehole backfilled with hydrated bentonite chips. Logging of soils completed in general accordance with ASTM D2488 and ASTM D1586.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

02-GEOTECH1 HL1685A.GPJ GEOSNTEC.GDT 10/25/20

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Fax: (714) 333-4275

GS FORM: GEOTECH1 01/04

BOREHOLE LOG

BORING HSA-4 **SHEET** 1 OF 2
START DRILL DATE Sep 28, 20 **ELEVATION DATA:**
FINISH DRILL DATE Sep 28, 20 **GROUND SURF.** 5
LOCATION Huntington Beach, CA **TOP OF CASING**
PROJECT Edison Park Waste Delineation **DATUM** ft +MSL
NUMBER HL1685A

DEPTH (ft-bgs)	DESCRIPTION (1) Soil Name (USCS Sym.) 2) Color 3) Moisture 4) Grain Size 5) Percentage; 6) Plasticity 7) Density/Consistency 8) Other (Mineral Content, Discoloration, Odor, etc.)	GRAPHIC LOG	ELEV. (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	N VALUE	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring 3) Pocket Pen 4) Tor Vane
0	Silty SAND (SM): brown; dry; fine sand; [5,75,20]; non-plastic; 1/4-in. to 1/2-in. gravel.									10:50	Hand augered to 5 ft bgs.
	LANDFILL MAERIAL: dark grey; moist; no odor; wood pieces, asphalt concrete debris.									10:55	
5			0								
										11:10	First depth to groundwater.
10			-5								
15			-10							11:15	Hard drilling observed.
20			-15							11:20	
25			-20							11:30	Hard drilling observed.
30			-25								

CONTRACTOR ABC Liovin
EQUIPMENT CME 85
DRILL MTHD Hollow Stem Auger
DIAMETER 8-inch
LOGGER S. Upadhyaya

NORTHING 33.65194
EASTING -117.97306
COORDINATE SYSTEM:

REVIEWER Y. Zemuy, P. E.

NOTES: Borehole backfilled with hydrated bentonite chips. Logging of soils completed in general accordance with ASTM D2488 and ASTM D1586.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

02-GEOTECH1 HL1685A.GPJ GEOSNTEC.GDT 10/25/20

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Fax: (714) 333-4275

GS FORM: GEOTECH1 01/04

BOREHOLE LOG

BORING HSA-4 **SHEET** 2 OF 2
START DRILL DATE Sep 28, 20 **ELEVATION DATA:**
FINISH DRILL DATE Sep 28, 20 **GROUND SURF.** 5
LOCATION Huntington Beach, CA **TOP OF CASING**
PROJECT Edison Park Waste Delineation **DATUM** ft +MSL
NUMBER HL1685A

DEPTH (ft-bgs)	DESCRIPTION (1) Soil Name (USCS Sym.) (2) Color (3) Moisture (4) Grain Size (5) Percentage (6) Plasticity (7) Density/Consistency (8) Other (Mineral Content, Discoloration, Odor, etc.)	GRAPHIC LOG	ELEV. (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	N VALUE	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior (2) Air Monitoring (3) Pocket Pen (4) Tor Vane
										12:00	Very hard drilling, little to no spoils.
35	Terminate boring at 34-ft below ground surface (bgs) due to refusal.		-30							12:40	Refusal; auger plugged with wood. Wood chunks observed in the spoils as the auger was retracted.
40			-35								
45			-40								
50			-45								
55			-50								
60			-55								

CONTRACTOR ABC Liovin
EQUIPMENT CME 85
DRILL MTHD Hollow Stem Auger
DIAMETER 8-inch
LOGGER S. Upadhyaya
REVIEWER Y. Zemuy, P. E.

NORTHING 33.65194
EASTING -117.97306
COORDINATE SYSTEM:

NOTES: Borehole backfilled with hydrated bentonite chips. Logging of soils completed in general accordance with ASTM D2488 and ASTM D1586.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

02-GEOTECH1 HL1685A.GPJ GEOSNTEC.GDT 10/25/20

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GS FORM: GEOTECH1 01/04

BOREHOLE LOG

BORING HSA-5 **SHEET** 1 OF 2
START DRILL DATE Sep 28, 20 **ELEVATION DATA:**
FINISH DRILL DATE Sep 28, 20 **GROUND SURF.** 9
LOCATION Huntington Beach, CA **TOP OF CASING**
PROJECT Edison Park Waste Delineation **DATUM** ft +MSL
NUMBER HL1685A

DEPTH (ft-bgs)	DESCRIPTION (1) Soil Name (USCS Sym.) 2) Color 3) Moisture 4) Grain Size 5) Percentage; 6) Plasticity 7) Density/Consistency 8) Other (Mineral Content, Discoloration, Odor, etc.)	GRAPHIC LOG	ELEV. (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	N VALUE	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring 3) Pocket Pen 4) Tor Vane
	Silty SAND (SM): brown; dry; fine sand; [5,75,20]; non-plastic; 1/4-in. to 1/2-in. gravel.									07:45	Hand augered to 5 ft bgs.
	LANDFILL MAERIAL: dark grey; moist; no odor; wood pieces, asphalt concrete debris.									08:00	
5			5								
	organic odor.		0							08:20	
10											
		▽								08:25	First depth to groundwater.
			-5								
15											
	becomes wet.									08:30	
			-10								
20											
			-15								
25											
			-20								
30											

CONTRACTOR ABC Liovin
EQUIPMENT CME 85
DRILL MTHD Hollow Stem Auger
DIAMETER 8-inch
LOGGER S. Upadhyaya

NORTHING 33.65278
EASTING -117.97333
COORDINATE SYSTEM:
REVIEWER Y. Zemuy, P. E.

NOTES: Borehole backfilled with hydrated bentonite chips. Logging of soils completed in general accordance with ASTM D2488 and ASTM D1586.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

02-GEOTECH1 HL1685A.GPJ GEOSNTEC.GDT 10/25/20

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GS FORM: GEOTECH1 01/04

BOREHOLE LOG

BORING HSA-5 **SHEET** 2 OF 2
START DRILL DATE Sep 28, 20 **ELEVATION DATA:**
FINISH DRILL DATE Sep 28, 20 **GROUND SURF.** 9
LOCATION Huntington Beach, CA **TOP OF CASING**
PROJECT Edison Park Waste Delineation **DATUM** ft +MSL
NUMBER HL1685A

DEPTH (ft-bgs)	DESCRIPTION (1) Soil Name (USCS Sym.) (2) Color (3) Moisture (4) Grain Size (5) Percentage (6) Plasticity (7) Density/Consistency (8) Other (Mineral Content, Discoloration, Odor, etc.)	GRAPHIC LOG	ELEV. (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	N VALUE	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior (2) Air Monitoring (3) Pocket Pen (4) Tor Vane
										09:00	Hard drilling (rattling of auger) observed.
35			-25							09:30	No recovery. Hard drilling observed.
										09:32	No recovery.
40	Silty SAND (SM): grey; wet; fine sand; [0,80,20]; non-plastic.		-30							09:35	
	Terminate boring at 41.5-ft below ground surface (bgs).									09:45	
45			-35								
50			-40								
55			-45								
60			-50								

CONTRACTOR ABC Liovin
EQUIPMENT CME 85
DRILL MTHD Hollow Stem Auger
DIAMETER 8-inch
LOGGER S. Upadhyaya

NORTHING 33.65278
EASTING -117.97333
COORDINATE SYSTEM:
REVIEWER Y. Zemuy, P. E.

NOTES: Borehole backfilled with hydrated bentonite chips. Logging of soils completed in general accordance with ASTM D2488 and ASTM D1586.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

02-GEOTECH1 HL1685A.GPJ GEOSNTEC.GDT 10/25/20

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PROJECT Edison Park Waste Delineation
PROJECT LOCATION Huntington Beach, CA
PROJECT NUMBER HL1685B

KEY SHEET - CLASSIFICATIONS AND SYMBOLS

GS FORM: KEY/SYMBOLS 01/04

EMPIRICAL CORRELATIONS WITH STANDARD PENETRATION RESISTANCE N60 VALUES *

	N60 VALUE * (BLOWS/FT)	CONSISTENCY	UNCONFINED COMPRESSIVE STRENGTH (TONS/SQ FT)
FINE GRAINED SOILS	0 - 2	VERY SOFT	<0.25
	3 - 4	SOFT	0.25 - 0.50
	5 - 8	FIRM	0.50 - 1.00
	9 - 15	STIFF	1.00 - 2.00
	16 - 30	VERY STIFF	2.00 - 4.00
	31 - 50	HARD	>4.00
	>50	VERY HARD	

	N60 VALUE * (BLOWS/FT)	RELATIVE DENSITY
COARSE GRAINED SOILS	0 - 4	VERY LOOSE
	5 - 10	LOOSE
	11 - 30	MEDIUM DENSE
	31 - 50	DENSE
	>50	VERY DENSE

* ASTM D 1586; NUMBER OF BLOWS OF 140 POUND HAMMER FALLING 30 INCHES TO DRIVE A 2 IN. O.D., 1.4 IN. I.D. SAMPLER ONE FOOT, CORRECTED FOR HAMMER EFFICIENCY.

UNIFIED SOIL CLASSIFICATION AND SYMBOL CHART

MAJOR DIVISIONS			SYMBOLS	DESCRIPTIONS
COARSE GRAINED SOILS — MORE THAN 50% OF MATERIAL COARSER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS — MORE THAN 50% OF COARSE FRACTION RETAINED ON NO.4 SIEVE	CLEAN GRAVELS — LITTLE OR NO FINES	GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
			GP	POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES — APPRECIABLE AMOUNT OF FINES	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
			GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
	SAND AND SANDY SOILS — MORE THAN 50% OF COARSE FRACTION PASSING NO.4 SIEVE	CLEAN SANDS — LITTLE OR NO FINES	SW	WELL GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			SP	POORLY GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES — APPRECIABLE AMOUNT OF FINES	SM	SILTY SANDS, SAND-SILT MIXTURES
			SC	CLAYEY SANDS, SAND-CLAY MIXTURES
FINE GRAINED SOILS — MORE THAN 50% OF MATERIAL FINER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50	ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
			OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50	MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILT
			CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS			PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENT

NOTE: DUAL SYMBOLS USED FOR BORDERLINE CLASSIFICATIONS

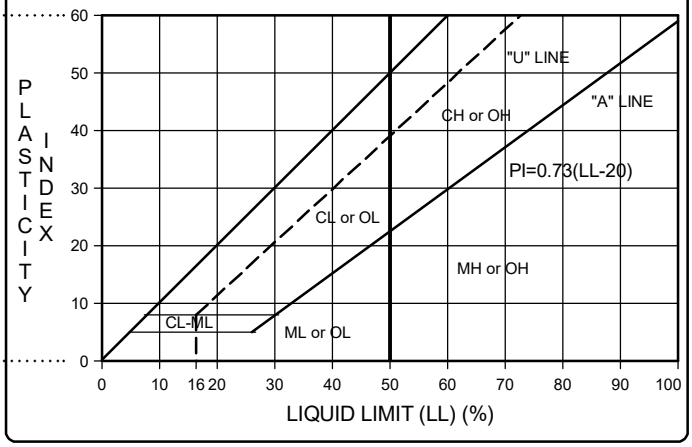
PARTICLE SIZE IDENTIFICATION

USCS (SOILS ONLY) *		SEDIMENTARY (ROCK ONLY)	
BOULDER	>300 mm	BOULDER	>256 mm
COBBLE	75 - 300 mm	COBBLE	64 - 256 mm
GRAVEL: COARSE	20 - 75 mm	PEBBLE	4 - 64 mm
GRAVEL: FINE	4.75 - 20 mm	GRANULE	2 - 4 mm
		SAND: V. COARSE	1 - 2 mm
SAND: COARSE	2 - 4.75 mm	SAND: COARSE	0.5 - 1 mm
SAND: MEDIUM	0.42 - 2 mm	SAND: MEDIUM	0.25 - 0.5 mm
SAND: FINE	0.074 - 0.42 mm	SAND: FINE	0.125 - 0.25 mm
		SAND: V. FINE	0.063 - 0.125 mm
SILT/CLAY	<0.074 mm	SILT	0.004 - 0.063 mm
		CLAY	<0.004 mm

* WELL GRADED - HAVING WIDE RANGE OF GRAIN SIZES AND APPRECIABLE AMOUNTS OF ALL INTERMEDIATE PARTICLE SIZES
* POORLY GRADED - PREDOMINANTLY ONE GRAIN SIZE, OR HAVING A RANGE OF SIZES WITH SOME INTERMEDIATE SIZES MISSING

PERCENTAGE OF PARTICLE TYPE IN DECREASING ORDER OF PARTICLE SIZE (GRAVEL,SAND,FINES), BASED ON VISUAL OBSERVATION

PLASTICITY CHART



OTHER MATERIAL SYMBOLS

- Conglomerate
- Sandstone
- Silty Sandstone
- Clayey Sandstone
- Sandy Siltstone
- Siltstone
- Claystone
- Clayey Siltstone/ Silty Claystone
- Sandy Claystone
- Granitic/Intrusive
- Volcanic/Extrusive
- Metamorphic
- Limestone
- Dolomite
- Glacial Till
- Landslide Debris
- Marker Bed
- Artificial Fill
- Refuse
- Concrete/Asphalt

WELL SYMBOLS

- CONCRETE
- GROUT
- BENTONITE SEAL
- TRANSITION SAND
- SAND PACK
- GRAVEL PACK
- NATIVE/SLUFF
- CENTRALIZER

SAMPLE TYPE AND OTHER SYMBOLS

- BULK SAMPLE
- STANDARD PENETRATION TEST
- MODIFIED CALIFORNIA SAMPLE
- CORE SAMPLE
- SHELBY TUBE
- DRIVE SAMPLE

- Water Level at Time Drilling, or as Shown
- Static Water Level
- Pump Inlet
- Loss of Drilling Fluid

MSL: Mean Sea Level

AGS: Above Ground Surface

BGS: Below Ground Surface

BTOC: Below Top of Casing

HSA: Hollow Stem Auger

01-KEY/SYMBOLS HL1685B.GPJ GEOSNTEC.GDT 3/26/21

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Fax: (714) 333-4275

GS FORM: GEOTECH1 01/04

BOREHOLE LOG

BORING HSA-2A
START DRILL DATE Mar 12, 21
FINISH DRILL DATE Mar 12, 21
LOCATION Huntington Beach, CA
PROJECT Edison Park Waste Delineation
NUMBER HL1685B

ELEVATION DATA:
GROUND SURF. 9
TOP OF CASING
DATUM ft +MSL

DEPTH (ft-bgs)	DESCRIPTION (1) Soil Name (USCS Sym.) 2) Color 3) Moisture 4) Grain Size 5) Percentage; 6) Plasticity 7) Density/Consistency 8) Other (Mineral Content, Discoloration, Odor, etc.)	GRAPHIC LOG	ELEV. (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	N VALUE	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring 3) Pocket Pen 4) Tor Vane
0	CONCRETE		8							13:05	
	Silty SAND (SM): brown; moist; fine sand; [5,80,15]; non-plastic; trace 1/4-in. to 1/2-in. gravel.		7							13:15	Hand augered to 5 ft bgs.
	Fat CLAY (CH): dark grey; moist; trace fine sand; [5,5,90]; medium to high plasticity; slight organic odor; trace brick debris pieces.		6 5 4 3 2 1 0							13:25	
10	Fat CLAY with Sand (CH): dark grey; moist; fine sand; [0;20;80]; medium to high plasticity.		-1 -2 -3 -4 -5 -6					100		13:40	
15	Sandy SILT (ML): dark grey; wet; fine sand; [0,40,60]; none to low plasticity.		-7					100		13:45	
	Terminate boring at 16.5-ft below ground surface (bgs).		-8							13:50	
20			-9 -10 -11 -12 -13 -14 -15 -16								
25			-17 -18 -19 -20 -21								
30											

CONTRACTOR ABC Liovin
EQUIPMENT CME 85
DRILL MTHD Hollow Stem Auger
DIAMETER 8-inch
LOGGER S. Upadhyaya

NORTHING 33.652273
EASTING -117.972310
COORDINATE SYSTEM:

REVIEWER Y. Zemuy, P. E.

NOTES: Groundwater was not encountered. Borehole backfilled with hydrated bentonite chips. Logging of soils completed in general accordance with ASTM D2488 and ASTM D1586.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

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Suite 150
Huntington Beach, CA 92648
Tel: (714) 969-0800
Fax: (714) 333-4275

GS FORM: GEOTECH1 01/04

BOREHOLE LOG

BORING HSA-3A
START DRILL DATE Mar 12, 21
FINISH DRILL DATE Mar 12, 21
LOCATION Huntington Beach, CA
PROJECT Edison Park Waste Delineation
NUMBER HL1685B

ELEVATION DATA:
GROUND SURF. 8
TOP OF CASING
DATUM ft +MSL

DEPTH (ft-bgs)	DESCRIPTION (1) Soil Name (USCS Sym.) 2) Color 3) Moisture 4) Grain Size 5) Percentage; 6) Plasticity 7) Density/Consistency 8) Other (Mineral Content, Discoloration, Odor, etc.)	GRAPHIC LOG	ELEV. (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	N VALUE	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring 3) Pocket Pen 4) Tor Vane
0	CONCRETE		7							11:20	
	Silty SAND (SM): brown; moist; fine sand; [5,80,15]; non-plastic; trace 1/4-in. to 1/2-in. gravel.		6							11:35	Hand augered to 5 ft bgs.
	Fat CLAY (CH): dark grey; moist; trace fine sand; [0,5,95]; medium to high plasticity; slight organic odor; trace asphalt debris pieces.		5								
5			4								
			3							11:45	
			2								
			1								
			0								
10			-1								
	Fat CLAY with Sand (CH): dark grey; moist; fine sand; [0;25;75]; medium to high plasticity.		-2					100		12:00	
			-3								
			-4								
			-5								
			-6								
15		▽	-7								
	Silty SAND (SM): grey; wet; fine sand; [0,60,40]; none to low plasticity.		-8					100		12:10	First depth to groundwater.
	Terminate boring at 16.5-ft below ground surface (bgs).		-9							12:20	
			-10								
			-11								
20			-12								
			-13								
			-14								
			-15								
			-16								
25			-17								
			-18								
			-19								
			-20								
			-21								
30			-22								

CONTRACTOR ABC Liovin
EQUIPMENT CME 85
DRILL MTHD Hollow Stem Auger
DIAMETER 8-inch
LOGGER S. Upadhyaya

NORTHING 33.652136
EASTING -117.972250
COORDINATE SYSTEM:

REVIEWER Y. Zemuy, P. E.

NOTES: Borehole backfilled with hydrated bentonite chips. Logging of soils completed in general accordance with ASTM D2488 and ASTM D1586.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Geosyntec consultants
2100 Main St
Suite 150
Huntington Beach, CA 92648
Tel: (714) 969-0800
Fax: (714) 333-4275

GS FORM: GEOTECH1 01/04

BOREHOLE LOG

BORING HSA-4A
START DRILL DATE Mar 12, 21
FINISH DRILL DATE Mar 12, 21
LOCATION Huntington Beach, CA
PROJECT Edison Park Waste Delineation
NUMBER HL1685B

ELEVATION DATA:
GROUND SURF. 9
TOP OF CASING
DATUM ft +MSL

DEPTH (ft-bgs)	DESCRIPTION (1) Soil Name (USCS Sym.) 2) Color 3) Moisture 4) Grain Size 5) Percentage; 6) Plasticity 7) Density/Consistency 8) Other (Mineral Content, Discoloration, Odor, etc.)	GRAPHIC LOG	ELEV. (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	N VALUE	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring 3) Pocket Pen 4) Tor Vane
0	CONCRETE		8							14:30	
	Silty SAND (SM): brown; moist; fine sand; [5,75,20]; non-plastic; trace 1/4-in. to 1/2-in. gravel.		7							14:40	Hand augered to 5 ft bgs.
	Fat CLAY (CH): dark grey; moist; trace fine sand; [5,5,90]; medium to high plasticity; slight organic odor; wood debris; trace brick debris pieces.		6								
	few brick debris pieces.		5								
5	Fat CLAY (CH): dark grey; moist; few fine sand; [0;10;90]; medium to high plasticity; trace sea shells.		4							14:50	
			3								
			2								
			1								
			0								
10	becomes wet; [0;5;95].		-1					100		15:15	
	Sandy SILT (ML): grey; wet; fine sand; (0;40;60); low to medium plasticity.		-2								
			-3								
			-4								
			-5								First depth to groundwater.
15	Fat CLAY (CH): grey; wet; few fine sand; [0,10,90]; medium to high plasticity.		-6					100		15:25	
			-7								
	Terminate boring at 16.5-ft below ground surface (bgs).		-8							15:30	
			-9								
			-10								
20			-11								
			-12								
			-13								
			-14								
			-15								
25			-16								
			-17								
			-18								
			-19								
			-20								
30			-21								

CONTRACTOR ABC Liovin
EQUIPMENT CME 85
DRILL MTHD Hollow Stem Auger
DIAMETER 8-inch
LOGGER S. Upadhyaya

NORTHING 33.651973
EASTING -117.972290
COORDINATE SYSTEM:

REVIEWER Y. Zemuy, P. E.

NOTES: Borehole backfilled with hydrated bentonite chips. Logging of soils completed in general accordance with ASTM D2488 and ASTM D1586.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Geosyntec consultants
2100 Main St
Suite 150
Huntington Beach, CA 92648
Tel: (714) 969-0800
Fax: (714) 333-4275

GS FORM: GEOTECH1 01/04

BOREHOLE LOG

BORING HSA-5A
START DRILL DATE Mar 12, 21
FINISH DRILL DATE Mar 12, 21
LOCATION Huntington Beach, CA
PROJECT Edison Park Waste Delineation
NUMBER HL1685B

ELEVATION DATA:
GROUND SURF. 9
TOP OF CASING
DATUM ft +MSL

DEPTH (ft-bgs)	DESCRIPTION (1) Soil Name (USCS Sym.) 2) Color 3) Moisture 4) Grain Size 5) Percentage; 6) Plasticity 7) Density/Consistency 8) Other (Mineral Content, Discoloration, Odor, etc.)	GRAPHIC LOG	ELEV. (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	N VALUE	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring 3) Pocket Pen 4) Tor Vane
0	CONCRETE		8							16:00	
	Silty SAND (SM): brown; moist; fine sand; [5,75,20]; none to low plasticity; trace 1/4-in. to 1/2-in. gravel.		7							16:15	Hand augered to 5 ft bgs.
	Fat CLAY (CH): dark grey; moist; trace fine sand; [0,5,95]; medium to high plasticity; slight organic odor.		6 5 4 3 2 1 0								
5										16:25	
			-1					100		16:45	
10			-2 -3 -4 -5								
15	Sandy SILT (ML): dark grey; wet; fine sand; (0;30;70); low to medium plasticity.		-6 -7					100		16:50	
	Terminate boring at 17.0-ft below ground surface (bgs).		-8							17:00	First depth to groundwater.
20			-9 -10 -11 -12 -13 -14 -15 -16								
25			-17 -18 -19 -20 -21								
30											

CONTRACTOR ABC Liovin
EQUIPMENT CME 85
DRILL MTHD Hollow Stem Auger
DIAMETER 8-inch
LOGGER S. Upadhyaya

NORTHING 33.651951
EASTING -117.972360
COORDINATE SYSTEM:

REVIEWER Y. Zemuy, P. E.

NOTES: Borehole backfilled with hydrated bentonite chips. Logging of soils completed in general accordance with ASTM D2488 and ASTM D1586.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Geosyntec consultants
2100 Main St
Suite 150
Huntington Beach, CA 92648
Tel: (714) 969-0800
Fax: (714) 333-4275

GS FORM: GEOTECH1 01/04

BOREHOLE LOG

BORING HSA-6A
START DRILL DATE Mar 12, 21
FINISH DRILL DATE Mar 12, 21
LOCATION Huntington Beach, CA
PROJECT Edison Park Waste Delineation
NUMBER HL1685B

ELEVATION DATA:
GROUND SURF. 7
TOP OF CASING
DATUM ft +MSL

DEPTH (ft-bgs)	DESCRIPTION (1) Soil Name (USCS Sym.) 2) Color 3) Moisture 4) Grain Size 5) Percentage; 6) Plasticity 7) Density/Consistency 8) Other (Mineral Content, Discoloration, Odor, etc.)	GRAPHIC LOG	ELEV. (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	N VALUE	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring 3) Pocket Pen 4) Tor Vane
0	CONCRETE		6							17:10	
	Silty SAND (SM): brown; moist; fine sand; [5,80,15]; non-plastic; trace 1/4-in. to 1/2-in. gravel.		5							17:15	Hand augered to 5 ft bgs.
	Fat CLAY (CH): dark grey; moist; trace fine sand; [0,5,95]; medium to high plasticity; slight organic odor.		4								
5			3								
			2							17:30	
			1								
			0								
			-1								
			-2								
10	[0;10;90]; no odor.		-3					100		17:35	
			-4								
			-5								
			-6								
			-7								
15	Sandy SILT (ML): dark grey; wet; fine sand; [0,30,70]; none to low plasticity.		-8					100		17:45	
			-9								
	Terminate boring at 16.5-ft below ground surface (bgs).		-10							17:50	
			-11								
			-12								
20			-13								
			-14								
			-15								
			-16								
			-17								
25			-18								
			-19								
			-20								
			-21								
			-22								
30			-23								

CONTRACTOR ABC Liovin
EQUIPMENT CME 85
DRILL MTHD Hollow Stem Auger
DIAMETER 8-inch
LOGGER K. Viswanathan

NORTHING 33.652033
EASTING -117.972510
COORDINATE SYSTEM:

REVIEWER Y. Zemuy, P. E.

NOTES: Groundwater was not encountered. Borehole backfilled with hydrated bentonite chips. Logging of soils completed in general accordance with ASTM D2488 and ASTM D1586.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Geosyntec consultants
2100 Main St
Suite 150
Huntington Beach, CA 92648
Tel: (714) 969-0800
Fax: (714) 333-4275

GS FORM: GEOTECH1 01/04

BOREHOLE LOG

BORING HSA-7A
START DRILL DATE Mar 12, 21
FINISH DRILL DATE Mar 12, 21
LOCATION Huntington Beach, CA
PROJECT Edison Park Waste Delineation
NUMBER HL1685B

ELEVATION DATA:
GROUND SURF. 10
TOP OF CASING
DATUM ft +MSL

DEPTH (ft-bgs)	DESCRIPTION (1) Soil Name (USCS Sym.) 2) Color 3) Moisture 4) Grain Size 5) Percentage; 6) Plasticity 7) Density/Consistency 8) Other (Mineral Content, Discoloration, Odor, etc.)	GRAPHIC LOG	ELEV. (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	N VALUE	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring 3) Pocket Pen 4) Tor Vane
0	CONCRETE		9							07:50	
	Silty SAND (SM): brown; moist; fine sand; [5,80,15]; none to low plasticity; trace 1/4-in. to 1/2-in. gravel.		8							08:00	Hand augered to 5 ft bgs.
	Fat CLAY (CH): dark grey; moist; trace fine sand; [0,5,95]; medium to high plasticity; slight organic odor.		7 6 5								
5			4 3 2 1							08:10	
10	Sandy SILT (ML): dark brown; wet; fine sand; (0;40;60); low to medium plasticity.		0					100		08:25	
	Fat CLAY (CH): grey; wet; few fine sand; [0,10,90]; medium to high plasticity.		-1 -2 -3 -4								First depth to groundwater.
15			-5 -6 -7 -8								
	Terminate boring at 18.0-ft below ground surface (bgs).		-9							08:35	
20			-10 -11 -12 -13 -14								
25			-15 -16 -17 -18 -19								
30			-20								

CONTRACTOR ABC Liovin
EQUIPMENT CME 85
DRILL MTHD Hollow Stem Auger
DIAMETER 8-inch
LOGGER S. Upadhyaya

NORTHING 33.652178
EASTING -117.972520
COORDINATE SYSTEM:

REVIEWER Y. Zemuy, P. E.

NOTES: Borehole backfilled with hydrated bentonite chips. Logging of soils completed in general accordance with ASTM D2488 and ASTM D1586.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Geosyntec consultants
2100 Main St
Suite 150
Huntington Beach, CA 92648
Tel: (714) 969-0800
Fax: (714) 333-4275

GS FORM: GEOTECH1 01/04

BOREHOLE LOG

BORING HSA-8A
START DRILL DATE Mar 12, 21
FINISH DRILL DATE Mar 12, 21
LOCATION Huntington Beach, CA
PROJECT Edison Park Waste Delineation
NUMBER HL1685B

ELEVATION DATA:
GROUND SURF. 10
TOP OF CASING
DATUM ft +MSL

DEPTH (ft-bgs)	DESCRIPTION (1) Soil Name (USCS Sym.) (2) Color (3) Moisture (4) Grain Size (5) Percentage (6) Plasticity (7) Density/Consistency (8) Other (Mineral Content, Discoloration, Odor, etc.)	GRAPHIC LOG	ELEV. (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	N VALUE	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior (2) Air Monitoring (3) Pocket Pen (4) Tor Vane
0	CONCRETE		9							09:50	
	Silty SAND (SM): brown; moist; fine sand; [0,85,15]; non-plastic.		8							10:10	
	Fat CLAY (CH): dark grey; moist; trace fine sand; [0,5,95]; medium to high plasticity; slight organic odor.		7								
5			6								
			5							10:15	
			4								
			3								
			2								
			1								
10			0					100		10:20	
	Sandy SILT (ML): dark gray; wet; fine sand; (0;40;60); low to medium plasticity.		-1								
			-2								
			-3								
			-4								
15			-5					100		10:30	
	Silty SAND (SM): grey; wet; fine to medium sand; [0;80;20]; none to low plasticity.		-6								
	Terminate boring at 16.5-ft below ground surface (bgs).		-7							10:35	
			-8								
			-9								
20			-10								
			-11								
			-12								
			-13								
			-14								
25			-15								
			-16								
			-17								
			-18								
			-19								
30			-20								

CONTRACTOR ABC Liovin
EQUIPMENT CME 85
DRILL MTHD Hollow Stem Auger
DIAMETER 8-inch
LOGGER S. Upadhyaya

NORTHING 33.652181
EASTING -117.972360
COORDINATE SYSTEM:

REVIEWER Y. Zemuy, P. E.

NOTES: Borehole backfilled with hydrated bentonite chips. Logging of soils completed in general accordance with ASTM D2488 and ASTM D1586.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Appendix E
Daily Field Reports

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:001

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 01
DESCRIPTION: Geophysical Survey for Locating Utilities	CONTRACTOR: GEOVision, Inc.,	
DAY OF WEEK: Wednesday	DATE: September 23, 2020	
WEATHER: Sunny, High 72° Low 64°		

Time	Field Work Activities
0700	Arrived on site and met with GEOVision field crew Martin Garcia and Christopher Collins.
0705	Held a brief tailgate safety meeting. GEOVision crew acknowledged the THA.
0710	Performed a site walk with GEOVision crew to observe the proposed investigation locations (HSA-1 through HSA-5; TP-1 through TP-5).
0730	GEOVision started utility clearance survey at location of TP-1 test pit. Some utilities (likely irrigation and main water line) were encountered within 5 ft of TP-1. GEOVision marked a new location 14 ft north of the existing TP-1 location.
0800	GEOVision performed utility clearance survey at location of HSA-1 boring. No conflicts were found at HSA-1 location.
0810	GEOVision performed utility clearance survey at location of TP-2. Electrical and irrigation utility lines were located within 3 ft of TP-2 location. GEOVision marked a new TP-2 location 10 ft south of the existing location.
0820	GEOVision performed utility clearance survey at location of HSA-5 boring. No conflicts were found at HSA-5 location.
0835	GEOVision performed utility clearance survey at locations of TP-3 and HSA-2. Some utilities (likely irrigation lines) were encountered within 5 ft of HSA-2 and TP-3 location. GEOVision marked a new HAS-2 location 3 ft east of the existing location.
0850	GEOVision performed utility clearance survey at location of HSA-4. Some utilities were encountered within 2 ft of the HSA-4 location. GEOVision marked a new location 3 ft east of the existing location.
0900	GEOVision performed utility clearance survey at locations of TP-4 and HSA-3. Electrical and irrigation utility lines were encountered within 5-10 ft of TP-4 and HSA-3 locations. No conflict at HSA-3. GEOVision marked a new location 15 ft southwest of the existing TP-4 location.
0920	GEOVision performed utility clearance survey at TP-5 location. No conflicts were found at TP-5.
0945	Geosyntec and GEOVision departed the site for the day.

Printed Name: Sneha Upadhyaya

Signature

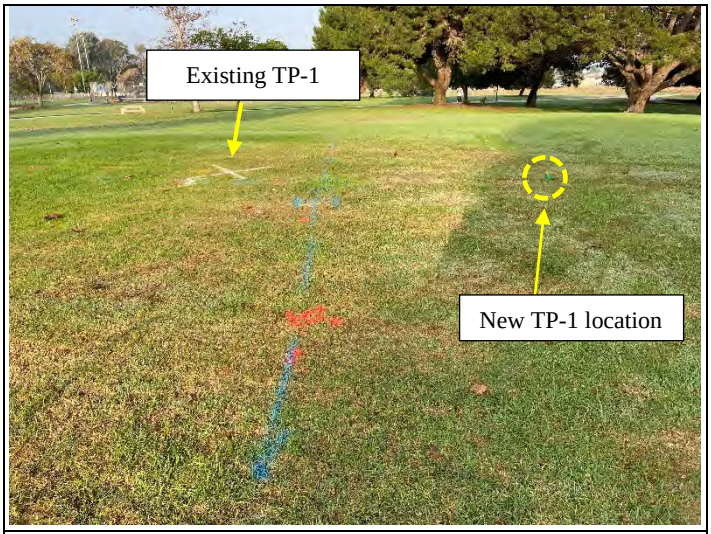
Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:001

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 01
DESCRIPTION: Geophysical Survey for Locating Utilities	CONTRACTOR: GEOVision, Inc.,	
DAY OF WEEK: Wednesday	DATE: September 23, 2020	
WEATHER: Sunny, High 72° Low 64°		

GEOVision crew performing utility clearance survey at location TP-1 (looking west)



Utility markings at TP-1 and the new TP-1 location (looking west)

Location HSA-1 cleared of utilities (looking north)

GEOVision crew performing utility clearance survey at location TP-2 (looking north)

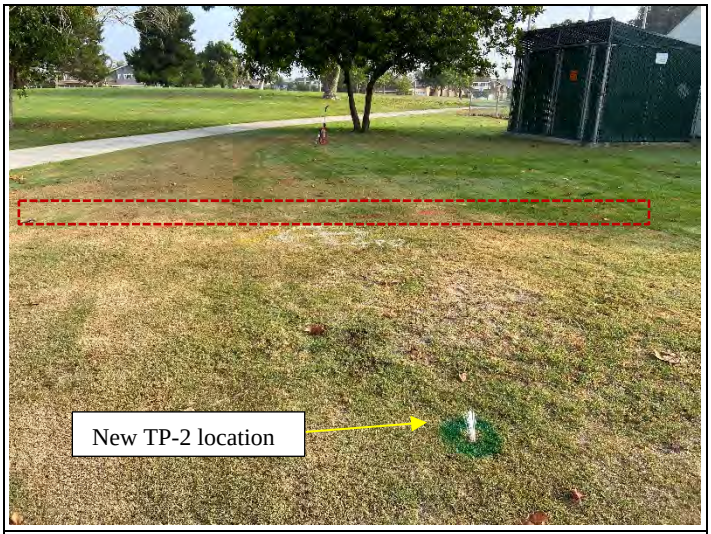
Printed Name: Sneha Upadhyaya

Signature

Geosyntec consultants

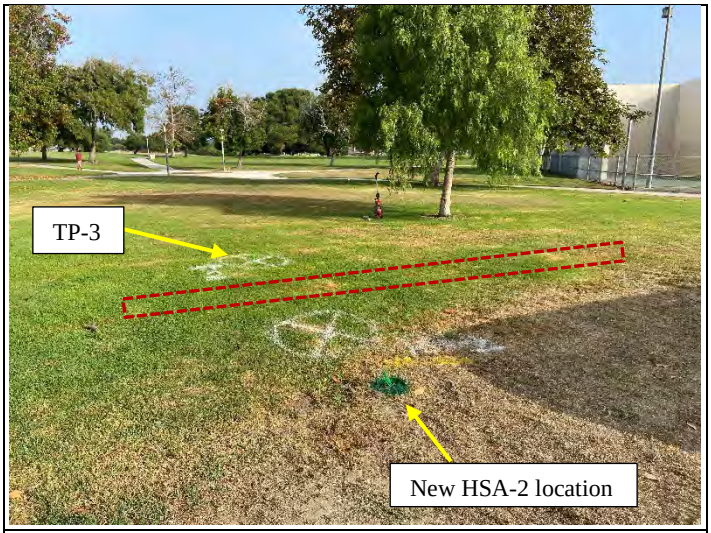
DAILY FIELD REPORT **Report Sequence No.:001**

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 01
DESCRIPTION: Geophysical Survey for Locating Utilities	CONTRACTOR: GEOVision, Inc.,	
DAY OF WEEK: Wednesday	DATE: September 23, 2020	
WEATHER: Sunny, High 72° Low 64°		



Electrical utility markings at existing TP-2 and the new TP-2 location (looking north)

Location HSA-5 cleared of utilities (looking south)



Utility markings at existing TP-3 and HSA-2 locations and the new HSA-2 location (looking northwest)

Utility markings at existing HSA-4 location and the new HSA-4 location (looking northwest)

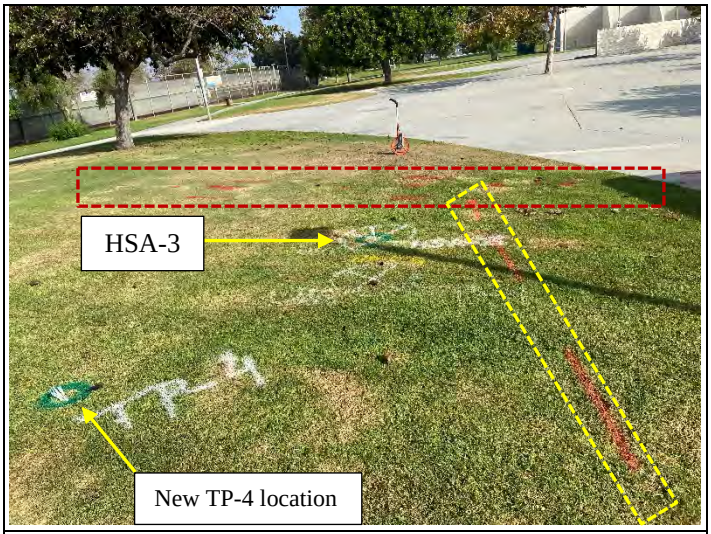
Printed Name: Sneha Upadhyaya Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:001

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 01
DESCRIPTION: Geophysical Survey for Locating Utilities	CONTRACTOR: GEOVision, Inc.,	
DAY OF WEEK: Wednesday	DATE: September 23, 2020	
WEATHER: Sunny, High 72° Low 64°		



Utility markings (electrical and irrigation lines) at TP-4 and HSA-3 locations and the new TP-4 location (looking north)

Location TP-5 cleared of utilities (looking northwest). The anomalies located are likely roots.

Printed Name: Sneha Upadhyaya

Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:002

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 02
DESCRIPTION: Trenching and Backfilling	CONTRACTOR: American Integrated Services, Inc.	
DAY OF WEEK: Thursday	DATE: September 24, 2020	
WEATHER: Sunny, High 76° Low 64°		

Time	Field Work Activities
0645	Geosyntec air monitoring staff Eric Garcia arrived on site.
0650	Geosyntec field staff Sneha Upadhyaya arrived on site.
0700	Met with American Integrated Services (AIS) field crew (Geoff Harris, Antonio Sanchez, Jose Avila, and Brandon Duncan) and Geosyntec Air Monitoring field staff (Eric Garcia). Discussed the plan for the day with AIS field crew.
0710	AIS unloaded the drums at the parking lot.
0720	AIS mobilized the field equipment to proposed TP-1 exploratory test pit location. Plywood panels were placed on the ground to prevent potential rutting of the vegetation from the backhoe tires.
0730	Conducted a brief tailgate safety meeting.
0740	Fence panels with wind screens were placed around the excavation area. Plastic tarps were placed for temporarily staging the excavated soil.
0745	Started excavation activities at TP-1 location using a backhoe (CASE 580 Super N) with 36 inches wide bucket. About 4 inches of sod and topsoil was removed carefully.
0750	Continued excavating through the cover soil [visual classification in general accordance with ASTM D2488: Silty SAND (SM)]
0810	Encountered a 1 ft long metallic object at 2 ft below the ground surface (bgs).
0820	Encountered waste at approximately 3.5 ft bgs. Continued excavation to delineate the lateral limit of the waste.
0825	Geosyntec engineer Karthik Viswanathan arrived on-site.
0830	Encountered an underground irrigation pipe at approximately 3.0 ft bgs(1.5-inch PVC pipe). Minor damage caused during excavation was observed on the pipe.
0900	A section of the irrigation pipe was cut for repair. Excavation was continued towards the east to delineate the lateral limit of waste.
0930	Observed the lateral limit of the waste. Geosyntec took field measurements, prepared a log of the test-pit to include the field sketch of the exploratory test-pit wall.
0950	AIS repaired the damaged section of the irrigation pipe.
1010	AIS went to fill up the water trailer.
1050	Started backfilling the test pit (TP-1) with the excavated materials. The excavated material was backfilled into the test-pit and compacted to a firm condition.
1130	City of Huntington Beach personnel (Farhad Bolourchi) arrived on-site. Geosyntec provided an update to Mr. Bolourchi on TP-1 excavation activities.
1140	Geosyntec Senior Engineer (Yonas Zemuy) arrived on-site. Mr. Zemuy and Mr. Bolourchi performed a site walk.
1200	Backfilling activities were completed at TP-1.
1210	AIS field crew stopped for lunch break.

Printed Name: Sneha Upadhyaya

Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:002

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 02
DESCRIPTION: Trenching and Backfilling	CONTRACTOR: American Integrated Services, Inc.	
DAY OF WEEK: Thursday	DATE: September 24, 2020	
WEATHER: Sunny, High 76° Low 64°		

1250	Mobilized to TP-2 location.
1300	Excavation activities started at TP-2 location. The sod and topsoil were carefully removed. Excavation continued through the cover soil [visual classification in general accordance with ASTM D2488: Silty SAND (SM)].
1315	Encountered waste at approximately 2 ft bgs at TP-2. Continued excavation towards the east to delineate the lateral limit of the waste.
1320	Observed the lateral limit of the waste at TP-2. Geosyntec took field measurements, prepared a log of the test-pit to include the field sketch of the exploratory test-pit wall.
1330	Started backfilling the test pit (TP-2) with the excavated materials. The excavated material was backfilled into the test-pit and compacted to a firm condition.
1350	Backfilling activities were completed at TP-2.
1355	Mobilized to TP-3 location.
1410	Excavation activities started at TP-3 location. The sod and topsoil were carefully removed. Excavation continued through the cover soil [visual classification in general accordance with ASTM D2488: Silty SAND (SM)].
1420	Encountered waste at approximately 3 ft bgs at TP-3. Continued excavation towards the east to delineate the lateral limit of the waste.
1430	Could not reach the lateral limit of the waste due to proximity to electric utility lines toward the east. Geosyntec field staff contacted Karthik Viswanathan (Geosyntec) and discussed about backfilling the excavated test-pit at TP-3 and starting a new test-pit the following day at 2 ft away from the marked electric lines (towards the east).
1440	Started backfilling the test pit (TP-3) with the excavated materials. The excavated material was returned into the test-pit and compacted to a firm condition.
1510	Backfilling activities were completed at TP-3. AIS to excavate a new test-pit at TP-3 tomorrow.
1515	AIS started moving the field equipment to the parking lot. Drums, plywood panels, and other equipment were secured within the fence panels at the parking lot.
1520	Geosyntec air monitoring staff Eric Garcia departed the site.
1545	Geosyntec field staff Sneha U. departed the site.

Printed Name: Sneha Upadhyaya

Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:002

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 02
DESCRIPTION: Trenching and Backfilling	CONTRACTOR: American Integrated Services, Inc.	
DAY OF WEEK: Thursday	DATE: September 24, 2020	
WEATHER: Sunny, High 76° Low 64°		

Start of excavation at TP-1 location (looking south).

Waste encountered at TP-1. Also indicated is the exposed underground irrigation pipeline (looking southeast).

Lateral limit of waste at TP-1 (looking south)

Backfilling at TP-1(looking northeast)

Printed Name: Sneha Upadhyaya

Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:002

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 02
DESCRIPTION: Trenching and Backfilling	CONTRACTOR: American Integrated Services, Inc.	
DAY OF WEEK: Thursday	DATE: September 24, 2020	
WEATHER: Sunny, High 76° Low 64°		

Start of excavation at TP-2 location (looking north).

Waste encountered at TP-2 and the lateral limit of waste (looking northeast).

Backfilling at TP-2; placing the vegetation back (looking northeast).

Start of excavation at TP-3 location (looking southeast).

Printed Name: Sneha Upadhyaya

Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:002

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 02
DESCRIPTION: Trenching and Backfilling	CONTRACTOR: American Integrated Services, Inc.	
DAY OF WEEK: Thursday	DATE: September 24, 2020	
WEATHER: Sunny, High 76° Low 64°		

Waste encountered at TP-3 (looking east).

Backfilling at TP-3 (looking southeast).

Printed Name: Sneha Upadhyaya

Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:003

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 02
DESCRIPTION: Trenching and Backfilling	CONTRACTOR: American Integrated Services, Inc.	
DAY OF WEEK: Friday	DATE: September 25, 2020	
WEATHER: Sunny, High 78° Low 64°		

Time	Field Work Activities
0650	Geosyntec field staff Sneha Upadhyaya and Eric Garcia arrived on site.
0700	Met with American Integrated Services (AIS) field crew and mobilized the equipment to TP-3 location to resume trenching activities at TP-3. Note that the trenching activities were discontinued at TP-3 on September 24 due to proximity to marked electric utility line.
0710	Plywood panels were placed on the ground to prevent potential rutting of the vegetation from the backhoe tires. Fence panels with wind screens were placed around the excavation area. Plastic tarps were placed for temporarily staging the excavated soil.
0715	Started excavation activities at TP-3 location 2 ft east of the marked electric utility line. Approximately 4 inches of sod and topsoil was removed carefully.
0720	Encountered the electric line at approximately 3.5 ft east of the marked utility line (1.5 ft from the western edge of the trench). Continued trenching from 1.5 ft away from the actual electric line (towards east).
0730	Encountered waste at about 3 ft bgs (dark grey Asphalt concrete debris, no odor). Continued excavation to delineate the lateral limit of the waste.
0810	Trench extended up to the edge of the concrete slab. Waste was observed to extent underneath the concrete slab. Unable to delineate the lateral extent of the waste. Geosyntec took field measurements, prepared a log of the test-pit to include the field sketch of the exploratory test-pit wall.
0815	Started backfilling the test pit (TP-3) with the excavated materials. The excavated material was backfilled into the test-pit and compacted to a firm condition.
0830	Backfilling activities completed at TP-3.
0840	Mobilized to proposed TP-4 location.
0850	Excavation activities started at TP-4 location. The sod and topsoil were carefully removed. Excavation continued through the cover soil [visual classification in general accordance with ASTM D2488: Silty SAND (SM)].
0855	Traces of Asphalt concrete observed at approximately 1.5 ft bgs. Some poorly graded fine sand (SP) was also observed at about 2 ft bgs (likely pipe bedding material).
0900	Encountered irrigation line (2-in. PVC pipe) at approximately 1 ft 8 in bgs. The irrigation pipe was damaged during excavation activities.
0915	Started another test pit 1 ft south of the existing test-pit at TP-4.
0930	Encountered waste at about 3 ft 3 inches bgs at TP-4 (dark grey Asphalt concrete debris, no odor). Continued excavation towards the east to delineate the lateral limit of the waste.
1025	Excavation was discontinued at approximately 3.5 ft away from the concrete slab due to close proximity to the marked utilities lines along the edge of the concrete slab. Unable to delineate the lateral extent of the waste. Geosyntec took field measurements, prepared a log of the test-pit to include the field sketch of the exploratory test-pit wall.
1030	AIS fixed the damaged irrigation pipe.

Printed Name: Sneha Upadhyaya

Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:003

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 02
DESCRIPTION: Trenching and Backfilling	CONTRACTOR: American Integrated Services, Inc.	
DAY OF WEEK: Friday	DATE: September 25, 2020	
WEATHER: Sunny, High 78° Low 64°		

1055	Started backfilling at TP-4 with the excavated materials. The excavated material was backfilled into the test-pit and compacted to a firm condition.
1140	Backfilling activities were completed at TP-2. AIS stopped for lunch.
1215	AIS returned from lunch.
1220	City of Huntington Beach Park Development Division officials arrived at the site (Chris Slama et al.).
1230	Mobilized to proposed TP-5 location.
1250	Excavation activities started at TP-5 location. The sod and topsoil were carefully removed. Excavation continued through the cover soil [visual classification in general accordance with ASTM D2488: Silty SAND (SM)].
1300	Encountered waste (Asphalt concrete debris) at 1 ft 8 in bgs.
1310	Decayed wood pieces encountered at 4 ft 2 in bgs (mild organic odor).
1330	Excavation activities were continued towards the east. Waste was observed consistently at about 2 ft below the ground surface along the length of the trench.
1400	Excavation activities were continued until the edge of concrete sidewalk was reached (45 ft from the western edge of the trench). Excavation activities were discontinued. Unable to determine the lateral extent of the waste.
1410	Started backfilling the test pit (TP-5) with the excavated materials. The excavated material was backfilled into the test-pit and compacted to a firm condition.
1500	Backfilling activities were completed at the excavated trench at TP-5.
1530	A pothole was excavated at about 35 ft away from the eastern edge of the TP-5 trench (past the sidewalks). Waste was observed at 2 ft bgs.
1540	Backfilled the pothole.
1545	AIS started demobilization activities.
1600	AIS and Geosyntec departed the site.

Printed Name: Sneha Upadhyaya

Signature

Geosyntec consultants

DAILY FIELD REPORT **Report Sequence No.:003**

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 02
DESCRIPTION: Trenching and Backfilling	CONTRACTOR: American Integrated Services, Inc.	
DAY OF WEEK: Friday	DATE: September 25, 2020	
WEATHER: Sunny, High 78° Low 64°		

Resumption of excavation at TP-3 location (looking south).

Electric utility pipe encountered at TP-3 (looking south).

Waste encountered at TP-3, waste continues underneath the concrete slab (looking east)

Backfilling at TP-3 (looking east)

Printed Name: Sneha Upadhyaya Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:003

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 02
DESCRIPTION: Trenching and Backfilling	CONTRACTOR: American Integrated Services, Inc.	
DAY OF WEEK: Friday	DATE: September 25, 2020	
WEATHER: Sunny, High 78° Low 64°		

Start of excavation at TP-4 location (looking northeast).

Damaged irrigation pipe at TP-4 (looking northeast).

Printed Name: Sneha Upadhyaya

Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:003

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 02
DESCRIPTION: Trenching and Backfilling	CONTRACTOR: American Integrated Services, Inc.	
DAY OF WEEK: Friday	DATE: September 25, 2020	
WEATHER: Sunny, High 78° Low 64°		

Excavation of second trench adjacent to the first trench at TP-4 (looking southeast).

Waste encountered at TP-4 (looking east).

Printed Name: Sneha Upadhyaya

Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:003

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 02
DESCRIPTION: Trenching and Backfilling	CONTRACTOR: American Integrated Services, Inc.	
DAY OF WEEK: Friday	DATE: September 25, 2020	
WEATHER: Sunny, High 78° Low 64°		

Waste observed to continue underneath the concrete slab at TP-4 (looking south).

AIS repairing the damaged irrigation pipe at TP-4 (looking northwest).

Start of excavation at TP-5 (looking southeast).

Waste encountered at TP-5 (looking south).

Printed Name: Sneha Upadhyaya

Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:003

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 02
DESCRIPTION: Trenching and Backfilling	CONTRACTOR: American Integrated Services, Inc.	
DAY OF WEEK: Friday	DATE: September 25, 2020	
WEATHER: Sunny, High 78° Low 64°		

Waste materials at TP-5 (looking south).

Trench wall face at TP-5 (looking south).

Printed Name: Sneha Upadhyaya

Signature

Geosyntec consultants

DAILY FIELD REPORT **Report Sequence No.:003**

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 02
DESCRIPTION: Trenching and Backfilling	CONTRACTOR: American Integrated Services, Inc.	
DAY OF WEEK: Friday	DATE: September 25, 2020	
WEATHER: Sunny, High 78° Low 64°		

Waste material encountered at TP-5 (looking south).

Pothole 35 ft east of excavated trench at TP-5 and observation of waste (looking west).

Printed Name: Sneha Upadhyaya Signature

Geosyntec consultants

DAILY FIELD REPORT **Report Sequence No.:003**

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 02
DESCRIPTION: Trenching and Backfilling	CONTRACTOR: American Integrated Services, Inc.	
DAY OF WEEK: Friday	DATE: September 25, 2020	
WEATHER: Sunny, High 78° Low 64°		

Backfilling the pothole at TP-5 (looking northwest).

Printed Name: Sneha Upadhyaya Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:004

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 02
DESCRIPTION: Hollow-Stem Auger (HSA) drilling	CONTRACTOR: ABC Liovin Drilling	
DAY OF WEEK: Monday	DATE: September 28, 2020	
WEATHER: Sunny, High 82° Low 64°		

Time	Field Work Activities
0650	Geosyntec field staff Sneha Upadhyaya arrived on site.
0655	Geosyntec air monitoring staff Eric Garcia arrived on site.
0705	ABC Liovin Drilling (ABC) arrived on site. Met with ABC crew Julio Gutierrez and Jimmy Candelaria.
0710	Discussed the plan for the day and walked to the first hollow stem auger location (HSA-5) to check the equipment access route.
0715	Conducted a brief safety meeting with ABC. ABC acknowledged the THA.
0730	Mobilized to proposed HSA-5 location.
0750	ABC carefully removed the top soil and vegetation. Hand augered the top 5 ft of soil.
0800	Encountered waste at approximately 2.5 ft bgs (dark gray Asphalt concrete debris, no odor). Continued hand augering. The soil cuttings were placed in 55-gallon drums.
0820	Started HSA drilling with CME85 drill rig. Mild organic odor at 8 ft bgs.
0825	Hard drilling observed at approximately 12 ft bgs. Some brick debris observed in the spoil.
0830	Observed wet spoil at approximately 18 ft indicative of reaching the ground water table (GWT). Measured the depth to the GWT to approximately 12 ft bgs.
0845	ABC project manager Bill Borgo on site.
0900	First split spoon sample collected at 30 – 31.5 ft bgs. Sample indicative of the presence of waste (dark gray, wet, with pieces of decayed wood, mild organic odor).
0905	Observed hard drilling (rattling of auger) at approximately 32 ft bgs. Advanced through the hard material at approximately 34 ft bgs.
0920	City of Huntington Beach Park Development Division official Farhad Bolourchi arrived at the site.
0930	Unsuccessful attempt to collect a split spoon sample at 35 to 36.5 ft bgs (no recovery, sample too soft). Second attempt was made to collect sample at 38-39.5 ft bgs, still unsuccessful.
0935	Third attempt was made to collect the sample at 40 to 41.5 ft bgs. The sample indicated the end of waste and beginning of native soil at approximately 40.5 ft bgs. Native soil was visually classified as Silty SAND (SM) in general accordance with ASTM D2488.
0940	HSA drilling terminated at 41.5 ft bgs.
0945	Geosyntec Senior Engineer Yonas Zemuy arrived at the site.
0950	Started backfilling the borehole at HSA-5 with hydrated bentonite chips.
1015	Mr. Bolourchi departed the site.
1025	Mr. Zemuy departed the site.
1030	Completed backfilling the borehole at HSA-5. The upper 6 inches were covered with top soil and vegetation. Mr. Borgo departed the site.

Printed Name: Sneha Upadhyaya

Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:004

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 02
DESCRIPTION: Hollow-Stem Auger (HSA) drilling	CONTRACTOR: ABC Liovin Drilling	
DAY OF WEEK: Monday	DATE: September 28, 2020	
WEATHER: Sunny, High 82° Low 64°		

1035	Mobilized to proposed HSA-4 location.
1050	ABC carefully removed the top soil and vegetation. Hand augered the top 5 ft of soil at HSA-4.
1055	Encountered waste at approximately 2 ft bgs (dark gray asphalt concrete debris, no odor). Continued hand augering. The soil cuttings were placed in 55-gallon drums.
1105	Started HSA drilling with CME85 drill rig.
1110	Encountered GWT; the depth to GWT was measured to be approximately 8 ft bgs.
1115	Hard drilling (rattling and rumbling of auger) observed starting at approximately 16 ft bgs.
1130	Hard drilling continues at approximately 25 ft bgs. Auger tilting observed. Little to no spoil observed starting at this depth.
1140	Damage to the wire connecting the sampling barrel assembly to the lead auger.
1150	ABC repaired the wire damage and continued drilling.
1200	Hard drilling continues at 30 ft bgs, little to no spoil observed at the ground surface.
1215	Continued attempt to drill past 30 ft bgs. Very slow advancement of the auger.
1235	At 34 ft bgs, auger tilting observed. Unable to drill past 34 ft.
1240	Terminated boring at 34 ft bgs.
1245	Retrieved the auger. The lead auger was plugged with wood. The wood had mild organic odor.
1300	Started backfilling the borehole at HSA-4 with hydrated bentonite chips.
1335	Completed backfilling the borehole at HSA-4. The upper 6 inches were covered with top soil and vegetation.
1345	Mobilized to HSA-3.
1355	ABC carefully removed the top soil and vegetation. Hand augered the top 5 ft of soil at HSA-3.
1405	Encountered waste at approximately 2.5 ft bgs (dark gray Asphalt concrete debris, no odor). Continued hand augering. The soil cuttings were placed in 55-gallon drums.
1415	Started HSA drilling with CME85 drill rig.
1420	Encountered GWT; the depth to GWT was measured to be approximately 11 ft bgs.
1430	First split spoon sample collected at 15 – 16.5 ft bgs. Observed material with a different texture than the overlying waste material (Visual classification: Sandy CLAY, dark gray, wet, medium to high plasticity, no odor), likely an interim soil cover layer.
1440	Second split spoon sample collected at 20 to 21.5 ft bgs. The sample indicated the end of waste and beginning of native soil at approximately 20.5 ft bgs. Native soil was visually classified as Poorly graded SAND with silt (SP-SM) in general accordance with ASTM D2488.
1445	Terminated boring HSA-3 at 21.5 ft bgs.
1450	Started backfilling the borehole at HSA-3 with hydrated bentonite chips.
1510	Completed backfilling the borehole at HSA-3. The upper 6 inches were covered with top soil and vegetation.

Printed Name: Sneha Upadhyaya

Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:004

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 02
DESCRIPTION: Hollow-Stem Auger (HSA) drilling	CONTRACTOR: ABC Liovin Drilling	
DAY OF WEEK: Monday	DATE: September 28, 2020	
WEATHER: Sunny, High 82° Low 64°		

1515	Mobilized to proposed HSA-2 location.
1530	ABC carefully removed the top soil and vegetation. Hand augered the top 5 ft of soil at HSA-2.
1535	Encountered waste at approximately 2.7 ft bgs (dark gray Asphalt concrete debris, no odor). Continued hand augering. The soil cuttings were placed in 55-gallon drums.
1540	Started HSA drilling at HSA-2 with CME85 drill rig.
1545	Split spoon sample collected at 15 – 16.5 ft bgs. The sample indicated the end of waste and beginning of native soil at approximately 15.5 ft bgs. Native soil was visually classified as Silty SAND (SM) in general accordance with ASTM D2488.
1550	Terminated boring HSA-2 at 16.5 ft bgs. Started backfilling at HSA-2.
1600	Completed backfilling HSA-2.
1615	Mobilized to HSA-1.
1620	ABC carefully removed the top soil and vegetation. Hand augered the top 5 ft of soil at HSA-1.
1630	Encountered waste at approximately 3.5 ft bgs (dark gray Asphalt concrete debris, no odor). Continued hand augering. The soil cuttings were placed in 55-gallon drums.
1640	Started HSA drilling at HSA-1 with CME85 drill rig.
1645	Split spoon sample collected at 10 – 11.5 ft bgs. The sample indicated the end of waste and beginning of native soil at approximately 10.3 ft bgs. Native soil was visually classified as Silty SAND (SM) in general accordance with ASTM D2488.
1650	Depth to GWT measured to be at approximately 10.5 ft bgs.
1655	Terminated boring HSA-1 at 11.5 ft bgs.
1700	Started backfilling at HSA-1.
1710	Completed backfilling at HSA-1.
1715	Geosyntec air monitoring staff Eric G. departed the site.
1720	ABC crew Julio G. departed the site.
1730	ABC crew Jimmy C. helped store the drums at the backyard of Edison Park Community Center, pending analysis and disposal.
1740	ABC crew Jimmy departed the site.
1745	Geosyntec field staff Sneha Upadhyaya departed the site

Printed Name: Sneha Upadhyaya

Signature

Geosyntec consultants

DAILY FIELD REPORT **Report Sequence No.:004**

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 02
DESCRIPTION: Hollow-Stem Auger (HSA) drilling	CONTRACTOR: ABC Liovin Drilling	
DAY OF WEEK: Monday	DATE: September 28, 2020	
WEATHER: Sunny, High 82° Low 64°		

Removal of top soil and vegetation at HSA-5 (looking northeast).

Waste encountered at HSA-5 (looking northwest).

First split spoon sample collected at 30 – 31.5 ft bgs at HSA-5. Sample indicates of the presence of waste.

Split spoon sample collected at 40 – 41.5 ft bgs at HSA-5. The interface between the waste and native soil is indicated.

Printed Name: Sneha Upadhyaya Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:004

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 02
DESCRIPTION: Hollow-Stem Auger (HSA) drilling	CONTRACTOR: ABC Liovin Drilling	
DAY OF WEEK: Monday	DATE: September 28, 2020	
WEATHER: Sunny, High 82° Low 64°		

Backfilling the borehole at HSA-5 (looking northeast).

Waste encountered at HSA-4 (looking northwest).

Printed Name: Sneha Upadhyaya

Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:004

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 02
DESCRIPTION: Hollow-Stem Auger (HSA) drilling	CONTRACTOR: ABC Liovin Drilling	
DAY OF WEEK: Monday	DATE: September 28, 2020	
WEATHER: Sunny, High 82° Low 64°		

Damage to the wire connecting the sampling barrel assembly to the lead auger at HSA-4; ABC fixing the wire (looking west).

Tilting of auger at HSA-4 (looking west).

Printed Name: Sneha Upadhyaya

Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:004

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 02
DESCRIPTION: Hollow-Stem Auger (HSA) drilling	CONTRACTOR: ABC Liovin Drilling	
DAY OF WEEK: Monday	DATE: September 28, 2020	
WEATHER: Sunny, High 82° Low 64°		

Spoil (wood debris) retrieved from the auger at HSA-4.

Wood plugged in the lead auger at HSA-4.

Printed Name: Sneha Upadhyaya

Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:004

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 02
DESCRIPTION: Hollow-Stem Auger (HSA) drilling	CONTRACTOR: ABC Liovin Drilling	
DAY OF WEEK: Monday	DATE: September 28, 2020	
WEATHER: Sunny, High 82° Low 64°		

Waste observed in the soil cuttings at HSA-3 (looking northeast).

Split spoon sample collected at 20 to 21.5 ft bgs at HSA-3. The interface between the waste and native soil is indicated.

Printed Name: Sneha Upadhyaya

Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:004

PROJECT: Edison Park Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685A	TASK NO.: 02
DESCRIPTION: Hollow-Stem Auger (HSA) drilling	CONTRACTOR: ABC Liovin Drilling	
DAY OF WEEK: Monday	DATE: September 28, 2020	
WEATHER: Sunny, High 82° Low 64°		

Waste material observed in the spoil at HSA-2 (looking northeast).

Split spoon sample collected at 15 – 16.5 ft bgs at HSA-2. The interface between the waste and native soil is indicated.

Waste material observed at HSA-1 (looking northwest).

Split spoon sample collected at 10 – 11.5 ft bgs at HSA-1. The interface between the waste and native soil is indicated.

Printed Name: Sneha Upadhyaya

Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:001

PROJECT: Edison Park Additional Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685B	TASK NO.: 01
DESCRIPTION: Geophysical Survey for Locating Utilities	CONTRACTOR: GEOVision, Inc.,	
DAY OF WEEK: Thursday	DATE: March 11, 2021	
WEATHER: Sunny, High 64° Low 55°		

Time	Field Work Activities
0700	Arrived on site and met with GEOVision field crew J. Weiss and J. Foster.
0705	Held a brief tailgate safety meeting. GEOVision crew acknowledged the THA.
0710	Performed a site walk with GEOVision crew to observe the proposed investigation locations (HSA-1A through HSA-8A).
0720	GEOVision started utility clearance survey at proposed location of HSA-1A using the RD 8000 electromagnetic utility locater, Fisher TW-6 deep search pipe locator/metal detector, 60 HDZ, SIR3000 Ground Penetrating Radar, and walk in tandem. No conflicts were found at HSA-1A.
0730	GEOVision performed utility clearance survey at proposed location of HSA-2A boring. No conflicts were found at HSA-2A location.
0745	GEOVision performed utility clearance survey at location of HSA-3A. Unknown anomalies were detected at the location of HSA-3A. GEOVision marked a new HSA-3A location 3 ft west of the existing location.
0800	GEOVision performed utility clearance survey at proposed location of HSA-4A boring. High voltage electrical lines and other unknown anomalies were detected within 5 ft of HSA-4A location. GEOVision marked a new HSA-4A location 3 ft north of the existing location.
0815	GEOVision performed utility clearance survey at proposed location of HSA-5A. Electrical lines were detected conflicting with the proposed HSA-5A location. GEOVision marked a new HSA-5A location 5.5 ft west of the existing location.
0825	GEOVision performed utility clearance survey at proposed location of HSA-6A. Some anomalies were detected within 5 ft of the HSA-6A location. GEOVision marked a new location 1.5 ft north of the existing location.
0840	GEOVision performed utility clearance survey at proposed location of HSA-7A. No conflicts were found at HSA-7A location.
0850	GEOVision performed utility clearance survey at HSA-8A location. Unknown utilities were detected conflicting with the HSA-8A location. GEOVision marked a new location 2.5 ft south of the existing location
0915	Geosyntec and GEOVision departed the site for the day.

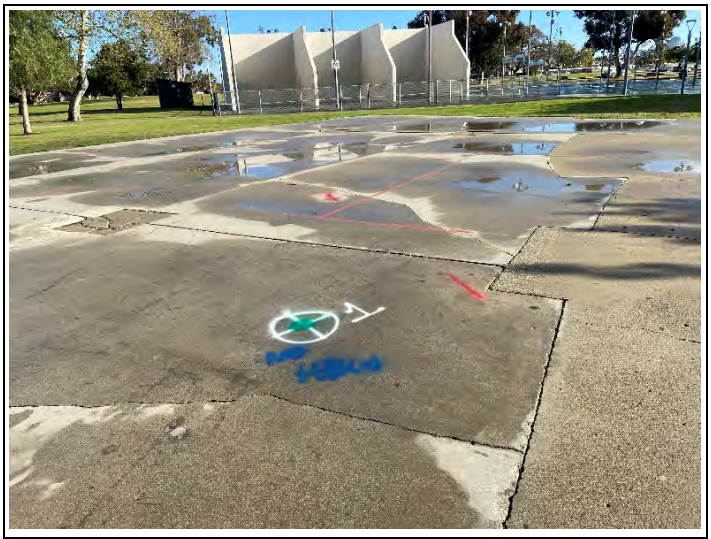
Printed Name: Sneha Upadhyaya

Signature

Geosyntec consultants

DAILY FIELD REPORT **Report Sequence No.:001**

PROJECT: Edison Park Additional Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685B	TASK NO.: 01
DESCRIPTION: Geophysical Survey for Locating Utilities	CONTRACTOR: GEOVision, Inc.,	
DAY OF WEEK: Thursday	DATE: March 11, 2021	
WEATHER: Sunny, High 64° Low 55°		



Location HSA-1A cleared of utilities (looking north)

Location HSA-2A cleared of utilities (looking north)

Marked anomalies at HSA-3A and the new HSA-3A location (looking north)

Marked utilities at HSA-4A and the new HSA-4A location (looking north)

Printed Name: Sneha Upadhyaya

Signature

Geosyntec consultants

DAILY FIELD REPORT **Report Sequence No.:001**

PROJECT: Edison Park Additional Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685B	TASK NO.: 01
DESCRIPTION: Geophysical Survey for Locating Utilities	CONTRACTOR: GEOVision, Inc.,	
DAY OF WEEK: Thursday	DATE: March 11, 2021	
WEATHER: Sunny, High 64° Low 55°		

Electrical utility markings at existing HSA-5A and the new HSA-5A location (looking north)

Marked anomalies at HSA-6A and the new HSA-6A location (looking north)

Location HSA-7A cleared of utilities (looking north)

Marked anomalies at HSA-8 and the new HSA-8A location (looking north)

Printed Name: Sneha Upadhyaya Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:002

PROJECT: Edison Park Additional Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685B	TASK NO.: 01
DESCRIPTION: Hollow-Stem Auger (HSA) drilling	CONTRACTOR: ABC Liovin Drilling	
DAY OF WEEK: Friday	DATE: March 12, 2021	
WEATHER: Sunny, High 68° Low 52°		

Time	Field Work Activities
0650	Geosyntec field staff Sneha Upadhyaya arrived on site.
0705	ABC Liovin Drilling (ABC) arrived on site. Met with ABC crew N. De La Torres and C. Villicana.
0715	Conducted a brief safety meeting with ABC. ABC acknowledged the THA. Discussed the scope of work and plan for the day.
0720	Mobilized to proposed HSA-7A location.
0750	ABC started drilling through the concrete at HSA-7A. Hand augered the top 5 ft of soil. The soil cuttings were placed in 55-gallon drums.
0810	Started HSA drilling with CME85 drill rig.
0825	Split spoon sample collected at 10 – 11.5 ft bgs.
0830	Encountered GWT; the depth to GWT was measured to be approximately 13.5 ft bgs.
0835	Terminated boring HSA-7A at approximately 18 ft bgs.
0850	Backfilled the borehole at HSA-7A with hydrated bentonite chips and patched the surface with rapid setting concrete.
0900	Bill Borgo from ABC arrived at the site.
0915	Mobilized to proposed HSA-8A location.
0920	Bill Borgo departed the site.
0925	ABC started drilling through the concrete and noticed 2 distinct layers of concrete. ABC informed that this could be indicative of potential utilities underneath the concrete slab and this decided to move the drilling location approximately 5 ft south of the originally proposed HSA-8A location.
0950	ABC started drilling through the concrete at the new HSA-8A location. Hand augered the top 5 ft of soil. The soil cuttings were placed in 55-gallon drums.
1015	Started HSA drilling at HSA-8A with CME85 drill rig.
1020	First split spoon sample collected at 10 – 11.5 ft bgs.
1025	Encountered GWT; the depth to GWT was measured to be approximately 12.5 ft bgs.
1030	A second split spoon sample was collected at 15 – 16.5 ft bgs.
1035	Terminated boring HSA-8A at 16.5 ft bgs.
1100	Backfilled the borehole at HSA-8A with hydrated bentonite chips and patched the surface with rapid setting concrete.
1115	Mobilized to HSA-3A.
1120	ABC started drilling through the concrete at the HSA-3A location. Hand augered the top 5 ft of soil. The soil cuttings were placed in 55-gallon drums.
1145	Started HSA drilling at HSA-3A with CME85 drill rig.
1200	First split spoon sample collected at 10 – 11.5 ft bgs.

Printed Name: Sneha Upadhyaya and Karthik Viswanathan

Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:002

PROJECT: Edison Park Additional Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685B	TASK NO.: 01
DESCRIPTION: Hollow-Stem Auger (HSA) drilling	CONTRACTOR: ABC Liovin Drilling	
DAY OF WEEK: Friday	DATE: March 12, 2021	
WEATHER: Sunny, High 68° Low 52°		

1210	A second split spoon sample was collected at 15 – 16.5 ft bgs.
1215	Encountered GWT; the depth to GWT was measured to be approximately 15 ft bgs.
1220	Terminated boring HSA-3A at 16.5 ft bgs.
1240	Backfilled the borehole at HSA-3A with hydrated bentonite chips and patched the surface with rapid setting concrete.
1250	Mobilized to HSA-2A.
1305	ABC started drilling through the concrete at the HSA-2A location. Hand augered the top 5 ft of soil. The soil cuttings were placed in 55-gallon drums.
1325	Started HSA drilling at HSA-2A with CME85 drill rig.
1340	First split spoon sample collected at 10 – 11.5 ft bgs.
1345	A second split spoon sample was collected at 15 – 16.5 ft bgs.
1350	Terminated boring HSA-2A at 16.5 ft bgs. No groundwater was encountered at this location.
1410	Backfilled the borehole at HSA-2A with hydrated bentonite chips and patched the surface with rapid setting concrete.
1420	Mobilized to HSA-4A.
1430	ABC started drilling through the concrete at the HSA-4A location. Hand augered the top 5 ft of soil. The soil cuttings were placed in 55-gallon drums.
1450	Started HSA drilling at HSA-4A with CME85 drill rig.
15:15	First split spoon sample collected at 10 – 11.5 ft bgs.
15:20	Encountered GWT; the depth to GWT was measured to be approximately 14.1 ft bgs.
15:25	A second split spoon sample was collected at 15 – 16.5 ft bgs.
1530	Terminated boring HSA-4A at 16.5 ft bgs.
1545	Backfilled the borehole at HSA-4A with hydrated bentonite chips and patched the surface with rapid setting concrete.
1555	Mobilized to HSA-5A.
1600	ABC started drilling through the concrete at the HSA-5A location. Hand augered the top 5 ft of soil. The soil cuttings were placed in 55-gallon drums.
1625	Started HSA drilling at HSA-4A with CME85 drill rig.
1630	K. Viswanathan (Geosyntec) arrived on-site.
1645	First split spoon sample collected at 10 – 11.5 ft bgs.
1650	A second split spoon sample was collected at 15 – 16.5 ft bgs.
1655	Encountered GWT; the depth to GWT was measured to be approximately 16.6 ft bgs.
1700	Terminated boring HSA-5A at 17 ft bgs.
1710	Mobilized to HSA-6A.

Printed Name: Sneha Upadhyaya and Karthik Viswanathan

Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:002

PROJECT: Edison Park Additional Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685B	TASK NO.: 01
DESCRIPTION: Hollow-Stem Auger (HSA) drilling	CONTRACTOR: ABC Liovin Drilling	
DAY OF WEEK: Friday	DATE: March 12, 2021	
WEATHER: Sunny, High 68° Low 52°		

1715	Backfilled the borehole at HSA-5A with hydrated bentonite chips and patched the surface with rapid setting concrete. ABC started drilling through the concrete at the HSA-6A location. Hand augered the top 5 ft of soil. The soil cuttings were placed in 55-gallon drums.
1720	S. Upadhyaya (Geosyntec) departed the site.
1730	Started HSA drilling at HSA-3A with CME85 drill rig.
1735	First split spoon sample collected at 10 – 11.5 ft bgs.
1745	A second split spoon sample was collected at 15 – 16.5 ft bgs.
1800	Terminated boring HSA-6A at 16.5 ft bgs. No groundwater was encountered at this location.
1805	Backfilled the borehole at HSA-5A with hydrated bentonite chips and patched the surface with rapid setting concrete.
1830	ABC moved the 55-gallon drums (7 drums) within the fenced construction area south of the investigation area.
1845	Geosyntec and ABC personnel departed the site.

Drilling through concrete slab at HSA-7A (looking southeast)

Hand augering at HSA-7A (looking east)

Printed Name: Sneha Upadhyaya and Karthik Viswanathan

Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:002

PROJECT: Edison Park Additional Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685B	TASK NO.: 01
DESCRIPTION: Hollow-Stem Auger (HSA) drilling	CONTRACTOR: ABC Liovin Drilling	
DAY OF WEEK: Friday	DATE: March 12, 2021	
WEATHER: Sunny, High 68° Low 52°		

Change in material observed in the drill cuttings at HSA-7A (looking east)

Split spoon sample collected at 10 – 11.5 ft bgs at HSA-7A.

Backfilling the borehole at HSA-7A with hydrated bentonite chips (looking southeast)

Surface patching with rapid set concrete at HSA-7A (looking southwest)

Printed Name: Sneha Upadhyaya and Karthik Viswanathan

Signature

Geosyntec consultants

DAILY FIELD REPORT **Report Sequence No.:002**

PROJECT: Edison Park Additional Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685B	TASK NO.: 01
DESCRIPTION: Hollow-Stem Auger (HSA) drilling	CONTRACTOR: ABC Liovin Drilling	
DAY OF WEEK: Friday	DATE: March 12, 2021	
WEATHER: Sunny, High 68° Low 52°		

Change in material observed in the drill cuttings at HSA-8A at approximately 2.5 ft bgs

Split spoon sample collected at 10 – 11.5 ft bgs at HSA-8A.

Split spoon sample collected at 10 – 11.5 ft bgs at HSA-3A.

Split spoon sample collected at 15 – 16.5 ft bgs at HSA-3A.

Printed Name: Sneha Upadhyaya and Karthik Viswanathan Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:002

PROJECT: Edison Park Additional Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685B	TASK NO.: 01
DESCRIPTION: Hollow-Stem Auger (HSA) drilling	CONTRACTOR: ABC Liovin Drilling	
DAY OF WEEK: Friday	DATE: March 12, 2021	
WEATHER: Sunny, High 68° Low 52°		

Split spoon sample collected at 10 – 11.5 ft bgs at HSA-2A.

Split spoon sample collected at 15 – 16.5 ft bgs at HSA-2A.

Wood debris observed in the drill cuttings at HSA-4A

Brick pieces observed in the drill cuttings at HSA-4A

Printed Name: Sneha Upadhyaya and Karthik Viswanathan

Signature

Geosyntec consultants

DAILY FIELD REPORT **Report Sequence No.:002**

PROJECT: Edison Park Additional Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685B	TASK NO.: 01
DESCRIPTION: Hollow-Stem Auger (HSA) drilling	CONTRACTOR: ABC Liovin Drilling	
DAY OF WEEK: Friday	DATE: March 12, 2021	
WEATHER: Sunny, High 68° Low 52°		

Split spoon sample collected at 10 – 11.5 ft bgs at HSA-4A.

Split spoon sample collected at 15 – 16.5 ft bgs at HSA-4A.

Split spoon sample collected at 10 – 11.5 ft bgs at HSA-5A.

Split spoon sample collected at 15 – 16.5 ft bgs at HSA-5A.

Printed Name: Sneha Upadhyaya and Karthik Viswanathan Signature

Geosyntec consultants

DAILY FIELD REPORT

Report Sequence No.:002

PROJECT: Edison Park Additional Waste Delineation		
LOCATION: Huntington Beach, California	PROJECT NO.: HL1685B	TASK NO.: 01
DESCRIPTION: Hollow-Stem Auger (HSA) drilling	CONTRACTOR: ABC Liovin Drilling	
DAY OF WEEK: Friday	DATE: March 12, 2021	
WEATHER: Sunny, High 68° Low 52°		

Split spoon sample collected at 10 – 11.5 ft bgs at HSA-6A.

Split spoon sample collected at 15 – 16.5 ft bgs at HSA-6A.

Printed Name: Sneha Upadhyaya and Karthik Viswanathan

Signature

Appendix F
Air Monitoring Logs

engineers | scientists | innovators

Geosyntec consultants

Edison Park Waste Delineation Project
Edison Park
21379 Magnolia Street, Huntington Beach, CA 92647

Daily Local Weather Monitoring Log - 09/24/2020

Time[1,4]	Ambient Temp[2,4]	Wind Speed[2,4]	Wind Direction[3,4]	Time[1,4]	Ambient Temp[2,4]	Wind Speed[2,4]	Wind Direction[3,4]
8:00	65	3.5	W	14:00	77	2.4	NW
8:20	65	5.1	W	14:15	77	2.7	NW
8:35	66	3.6	W	14:30	77	5.8	NW
8:50	66	1.8	W	14:45	77	5.4	NW
9:00	66	1.7	NW	15:00	77	4	NW
9:15	66	1.9	NW				
9:30	67	0.8	E				
9:45	67	1.3	E				
10:00	69	1.6	E				
10:15	70	2.4	NW				
10:30	70	2.4	W				
10:45	71	3.1	W				
11:00	72	3.9	NW				
11:15	72	4.1	NW				
11:30	74	3.5	NW				
11:45	74	5.3	NW				
12:00	74	3.1	NW				
12:15	74	3.4	W				
12:30	73	3	W				
12:45	73	2.8	W				
13:00	74	4.4	NW				
13:15	76	2.8	NW				
13:30	77	1.9	NW				
13:45	78	1.5	NW				

1 - Pacific Daylight Time (PDT)
2 - Ambient Temperature (°F), and Wind Speed (miles/hour) - measured using Kestrel 4000 and from KCAHUNT143 weather static
3 - Wind Direction from KCAHUNT143 weather station
4 - Collect Readings Every 15 Minutes

Geosyntec consultants

Edison Park Waste Delineation Project
Edison Park
21379 Magnolia Street, Huntington Beach, CA 92647

Daily Local Weather Monitoring Log - 09/25/2020

Time[1,4]	Ambient Temp[2,4]	Wind Speed[2,4]	Wind Direction[3,4]	Time[1,4]	Ambient Temp[2,4]	Wind Speed[2,4]	Wind Direction[3,4]
7:15	65	2	NW	13:15	77	6.4	N
7:30	65	0.9	NW	13:30	76	5.4	N
7:45	66	2.1	W	13:45	76	5.1	NW
8:00	67	2.7	SW	14:00	75	4.8	NW
8:15	67	0.9	NW	14:15	75	6.7	NE
8:30	67	1.4	NW	14:30	74	6.1	NE
8:45	67	2.3	NW	14:45	74	5.4	NE
9:00	68	3.1	NW	15:00	74	4.5	NE
9:15	68	1.5	SW	15:15	74	4.8	NE
9:30	69	2.6	NW	15:30	74	5.1	N
9:45	69	2.1	NW				
10:00	70	3.5	NW				
10:15	72	3.6	NW				
10:30	72	2.6	NW				
10:45	72	3.4	NW				
11:00	72	2.7	SW				
11:15	72	2.1	W				
11:30	74	2.5	NW				
11:45	75	3.9	NW				
12:00	75	3	NW				
12:15	75	3.8	NW				
12:30	76	3.5	NW				
12:45	76	6	NW				
13:00	76	5.2	N				

1 - Pacific Daylight Time (PDT)
2 - Ambient Temperature (°F), and Wind Speed (miles/hour) - measured using Kestrel 4000 and from KCAHUNT143 weather static
3 - Wind Direction from KCAHUNT143 weather station
4 - Collect Readings Every 15 Minutes

Geosyntec consultants

Edison Park Waste Delineation Project
Edison Park
21379 Magnolia Street, Huntington Beach, CA 92647

Daily Local Weather Monitoring Log - 09/28/2020

Time[1,4]	Ambient Temp[2,4]	Wind Speed[2,4]	Wind Direction[3,4]	Time[1,4]	Ambient Temp[2,4]	Wind Speed[2,4]	Wind Direction[3,4]
7:45	66	1	E	13:45	81	5.7	NE
8:00	66	1.2	E	14:00	81	5.1	NE
8:15	66	1.3	E	14:15	81	9	NE
8:30	68	1.7	NE	14:30	80	7.7	NE
8:45	70	1.9	NW	14:45	79	7.5	NE
9:00	70	2.2	NW	15:00	79	8.9	NE
9:15	70	2.5	W	15:15	78	3.3	NE
9:30	72	1.4	W	15:30	77	4.4	NE
9:45	72	2.5	SW	15:45	77	9.2	NE
10:00	72	1.2	SW	16:00	76	5.4	NE
10:15	73	1.8	SW	16:15	76	8	NE
10:30	73	2.1	SW	16:30	76	7.9	NE
10:45	73	2.5	NE	16:45	76	7.4	NE
11:00	74	4.2	NE	17:00	75	5.4	NE
11:15	75	3.8	NE				
11:30	75	3.4	NE				
11:45	75	3	NE				
12:00	78	5.5	NE				
12:15	78	4.8	NE				
12:30	81	6.5	NE				
12:45	81	5.4	NE				
13:00	81	5.2	NE				
13:15	81	4.4	NE				
13:30	81	5.2	NE				

1 - Pacific Daylight Time (PDT)
2 - Ambient Temperature (°F), and Wind Speed (miles/hour) - measured using Kestrel 4000 and from KCAHUNT143 weather static
3 - Wind Direction from KCAHUNT143 weather station
4 - Collect Readings Every 15 Minutes

Geosyntec consultants

Edison Park Waste Delineation Project
Edison Park
21379 Magnolia Street, Huntington Beach, CA 92647

Daily Particulate Matter (PM) Monitoring Log

Date	Time[1]	Location[2]	Equipment ID[3]	Equipment Operator	Reading (mg/m^3)[4]	Comments
24-Sep-20	8:00	TP-1	FA02926	EG	0.113	Background
24-Sep-20	8:05	UW	FA02926	EG	0.089	
24-Sep-20	8:12	DW	FA02926	EG	0.093	
24-Sep-20	9:00	UW	FA02926	EG	0.055	
24-Sep-20	9:10	DW	FA02926	EG	0.075	
24-Sep-20	10:00	UW	FA02926	EG	0.061	
24-Sep-20	10:10	DW	FA02926	EG	0.059	
24-Sep-20	11:00	UW	FA02926	EG	0.023	
24-Sep-20	11:05	DW	FA02926	EG	0.062	
24-Sep-20	11:15					Stop excavating
24-Sep-20	13:10	DW	FA02926	EG	0.036	
24-Sep-20	13:20	UW	FA02926	EG	0.037	Stop excavating mob to TP-3
24-Sep-20	14:20	DW	FA02926	EG	0.027	
24-Sep-20	14:25	UW	FA02926	EG	0.022	Stop excavating
25-Sep-20	7:15	TP-3	FA02926	EG	0.059	Background
25-Sep-20	7:21	UW	FA02926	EG	0.039	
25-Sep-20	7:26	DW	FA02926	EG	0.041	
25-Sep-20	8:15					Stop excavation at TP-2
25-Sep-20	8:53					Start excavation at TP-4
25-Sep-20	8:58	DW	FA02926	EG	0.043	
25-Sep-20	9:03	UW	FA02926	EG	0.041	
25-Sep-20	9:58	DW	FA02926	EG	0.053	
25-Sep-20	10:05	UW	FA02926	EG	0.047	
25-Sep-20	11:08	DW	FA02926	EG	0.048	
25-Sep-20	11:18	UW	FA02926	EG	0.035	Start backfilling at TP-4
25-Sep-20	12:50					Start excavating TP-5
25-Sep-20	12:55	DW	FA02926	EG	0.039	
25-Sep-20	13:00	UW	FA02926	EG	0.045	
25-Sep-20	14:05	DW	FA02926	EG	0.037	
25-Sep-20	14:15	UW	FA02926	EG	0.058	
25-Sep-20	15:10	DW	FA02926	EG	0.041	
25-Sep-20	15:20	UW	FA02926	EG	0.049	
28-Sep-20	7:45	DW	FA02926	EG	0.081	Background
28-Sep-20	7:50	UW	FA02926	EG	0.088	
28-Sep-20	8:00	DW	FA02926	EG	0.095	
28-Sep-20	8:08	UW	FA02926	EG	0.097	
28-Sep-20	9:05	DW	FA02926	EG	0.076	
28-Sep-20	9:10	UW	FA02926	EG	0.09	

Geosyntec consultants

Edison Park Waste Delineation Project
Edison Park
21379 Magnolia Street, Huntington Beach, CA 92647

Daily Particulate Matter (PM) Monitoring Log

Date	Time[1]	Location[2]	Equipment ID[3]	Equipment Operator	Reading (mg/m^3)[4]	Comments
28-Sep-20	9:35					Stop boring at HSA5
28-Sep-20	10:55					Start boring at HSA4
28-Sep-20	11:00	DW	FA02926	EG	0.099	
28-Sep-20	11:05	UW	FA02926	EG	0.097	
28-Sep-20	12:00	DW	FA02926	EG	0.088	
28-Sep-20	12:08	UW	FA02926	EG	0.092	
28-Sep-20	13:05					Stop boring at HSA4
28-Sep-20	14:15	DW	FA02926	EG	0.059	
28-Sep-20	14:25	UW	FA02926	EG	0.078	
28-Sep-20	15:20	UW	FA02926	EG	0.058	
28-Sep-20	15:30	DW	FA02926	EG	0.065	
28-Sep-20	15:45					Stop boring at HSA2
28-Sep-20	16:45	DW	FA02926	EG	0.078	
28-Sep-20	16:50	UW	FA02926	EG	0.052	

Notes:

1 - Pacific Daylight Time (PDT)

2 - Upwind or Downwind (perimeter)

3 - DustTRAK DRX Handheld Aerosol

4 - Recorded every 60 minutes, when soil handling or excavation is in progress

Geosyntec consultants

Edison Park Waste Delineation Project
Edison Park
21379 Magnolia Street, Huntington Beach, CA 92647

Daily Total Organic Compounds (TOC) Monitoring Log

Date	Time[1]	Location[2]	Equipment ID[3]	Equipment Operator	Reading (ppm)[4]	Comments
24-Sep-20	8:00	TP-1	FA02533	EG	0	
24-Sep-20	8:12	DW	FA02533	EG	0	
24-Sep-20	8:20	TP-1	FA02533	EG	0	
24-Sep-20	8:28	DW	FA02533	EG	0	
24-Sep-20	8:35	TP-1	FA02533	EG	0	
24-Sep-20	8:40	DW	FA02533	EG	0	
24-Sep-20	8:47	TP-1	FA02533	EG	0	
24-Sep-20	8:55	DW	FA02533	EG	0	
24-Sep-20	9:00	TP-1	FA02533	EG	0	
24-Sep-20	9:10	DW			0	
24-Sep-20	9:15	TP-1	FA02533	EG	0	
24-Sep-20	9:20	DW	FA02533	EG	0	
24-Sep-20	9:30	TP-1	FA02533	EG	0	
24-Sep-20	9:35	DW	FA02533	EG	0	
24-Sep-20	9:45	TP-1	FA02533	EG	0	
24-Sep-20	9:55	DW	FA02533	EG	0.2	
24-Sep-20	10:00	TP-1	FA02533	EG	0.1	
24-Sep-20	10:10	DW	FA02533	EG	0	
24-Sep-20	10:15	TP-1	FA02533	EG	0.1	
24-Sep-20	10:30	DW	FA02533	EG	0.1	
24-Sep-20	10:35	TP-1	FA02533	EG	0.1	
24-Sep-20	10:45	DW	FA02533	EG	0.1	
24-Sep-20	10:50	TP-1	FA02533	EG	0.1	
24-Sep-20	11:05	DW	FA02533	EG	0.1	
24-Sep-20	11:15	TP-1	FA02533	EG	0.1	
24-Sep-20	11:25	DW	FA02533	EG	0.1	
24-Sep-20	11:30	TP-1	FA02533	EG	0.1	
24-Sep-20	11:40	DW	FA02533	EG	0.1	
24-Sep-20	11:45	TP-1	FA02533	EG	0.1	
24-Sep-20	11:50					Stop excavation
24-Sep-20	13:05	TP-2	FA02533	EG	0	
24-Sep-20	13:10	DW	FA02533	EG	0	
24-Sep-20	13:20	TP-2	FA02533	EG	0	
24-Sep-20	13:30	DW	FA02533	EG	0	
24-Sep-20	13:35	TP-2	FA02533	EG	0	
24-Sep-20	13:45	DW	FA02533	EG	0.1	

Geosyntec consultants

Edison Park Waste Delineation Project
Edison Park
21379 Magnolia Street, Huntington Beach, CA 92647

Daily Total Organic Compounds (TOC) Monitoring Log

Date	Time[1]	Location[2]	Equipment ID[3]	Equipment Operator	Reading (ppm)[4]	Comments
24-Sep-20	13:50	TP-2	FA02533	EG	0.1	Stop excavation mob to TP-3
24-Sep-20	14:15	TP-3	FA02533	EG	0.1	
24-Sep-20	14:20	DW	FA02533	EG	0.1	
24-Sep-20	14:30	TP-3	FA02533	EG	0.1	
24-Sep-20	14:40	DW	FA02533	EG	0.1	
24-Sep-20	14:45	TP-3	FA02533	EG	0.1	
24-Sep-20	14:55	DW	FA02533	EG	0	
24-Sep-20	15:00	TP-3	FA02533	EG	0.1	Stop excavation at TP-3
25-Sep-20	7:15	TP-3	FA02533	EG	0.1	Start excavation at TP-3
25-Sep-20	7:26	DW	FA02533	EG	0.1	
25-Sep-20	7:30	TP-3	FA02533	EG	0.2	
25-Sep-20	7:35	DW	FA02533	EG	0.3	
25-Sep-20	7:45	TP-3	FA02533	EG	0.1	
25-Sep-20	7:50	DW	FA02533	EG	0.2	
25-Sep-20	8:00	TP-3	FA02533	EG	0.1	
25-Sep-20	8:10	DW	FA02533	EG	0.1	
25-Sep-20	8:15	TP-3	FA02533	EG	0.1	Stop excavation at TP-3. Mob to TP-4
25-Sep-20	8:53	TP-4	FA02533	EG	0.2	
25-Sep-20	8:58	DW	FA02533	EG	0.2	
25-Sep-20	9:10	TP-4	FA02533	EG	0.2	
25-Sep-20	9:15	DW	FA02533	EG	0.1	
25-Sep-20	9:25	TP-4	FA02533	EG	0.2	
25-Sep-20	9:30	DW	FA02533	EG	0.1	
25-Sep-20	9:40	TP-4	FA02533	EG	0.2	
25-Sep-20	9:45	DW	FA02533	EG	0.2	
25-Sep-20	9:55	TP-4	FA02533	EG	0.2	
25-Sep-20	10:00	DW	FA02533	EG	0.1	
25-Sep-20	10:15	TP-4	FA02533	EG	0.1	
25-Sep-20	10:20	DW	FA02533	EG	0.1	
25-Sep-20	10:30	TP-4	FA02533	EG	0.1	Stop excavation at TP-4 and begin backfilling
25-Sep-20	10:55	TP-4	FA02533	EG	0.1	
25-Sep-20	11:00	DW	FA02533	EG	0.1	
25-Sep-20	11:05	TP-4	FA02533	EG	0.1	
25-Sep-20	11:15	DW	FA02533	EG	0.1	
25-Sep-20	12:50	TP-4	FA02533	EG	0.1	
25-Sep-20	12:55	DW	FA02533	EG	0.1	Finished backfilling TP-4

Geosyntec consultants

Edison Park Waste Delineation Project
Edison Park
21379 Magnolia Street, Huntington Beach, CA 92647

Daily Total Organic Compounds (TOC) Monitoring Log

Date	Time[1]	Location[2]	Equipment ID[3]	Equipment Operator	Reading (ppm)[4]	Comments
25-Sep-20	13:05	TP-5	FA02533	EG	0.1	Start excavation at TP-5
25-Sep-20	13:10	DW	FA02533	EG	0.1	
25-Sep-20	13:20	TP-5	FA02533	EG	0.2	
25-Sep-20	13:30	DW	FA02533	EG	0.1	
25-Sep-20	13:35	TP-5	FA02533	EG	0.2	
25-Sep-20	13:50	DW	FA02533	EG	0.1	
25-Sep-20	13:55	TP-5	FA02533	EG	0.2	
25-Sep-20	14:05	DW	FA02533	EG	0.1	
25-Sep-20	14:10	TP-5	FA02533	EG	0.2	Begin backfilling at TP-5
25-Sep-20	14:25	DW	FA02533	EG	0.1	
25-Sep-20	14:40	TP-5	FA02533	EG	0.1	
25-Sep-20	15:15	TP-5	FA02533	EG	0.1	Excavate small trench
25-Sep-20	15:25	DW	FA02533	EG	0.1	
25-Sep-20	15:30	TP-5	FA02533	EG	0.1	Backfill done
28-Sep-20	7:45	DW	FA02533	EG	0.1	
28-Sep-20	7:55	HSA5	FA02533	EG	0.1	
28-Sep-20	8:00	DW	FA02533	EG	0.2	
28-Sep-20	8:10	HSA5	FA02533	EG	0.2	
28-Sep-20	8:15	DW	FA02533	EG	0.2	
28-Sep-20	8:25	HSA5	FA02533	EG	0.4	
28-Sep-20	8:30	DW	FA02533	EG	0.2	
28-Sep-20	8:40	HSA5	FA02533	EG	0.4	
28-Sep-20	8:50	DW	FA02533	EG	0.2	
28-Sep-20	8:55	HSA5	FA02533	EG	0.3	
28-Sep-20	9:05	DW	FA02533	EG	0.2	
28-Sep-20	9:15	HSA5	FA02533	EG	0.3	
28-Sep-20	9:20	DW	FA02533	EG	0.1	Stop boring HSA5
28-Sep-20	9:30	HSA5	FA02533	EG	0.3	Start boring HSA4
28-Sep-20	9:35	DW	FA02533	EG	0.1	
28-Sep-20	10:55	HSA4	FA02533	EG	0.1	
28-Sep-20	11:00	DW	FA02533	EG	0.2	
28-Sep-20	11:10	HSA4	FA02533	EG	0.2	
28-Sep-20	11:15	DW	FA02533	EG	0.2	
28-Sep-20	11:20	HSA4	FA02533	EG	0.3	
28-Sep-20	11:35	DW	FA02533	EG	0.2	
28-Sep-20	11:45	HSA4	FA02533	EG	0.3	

Geosyntec consultants

Edison Park Waste Delineation Project
Edison Park
21379 Magnolia Street, Huntington Beach, CA 92647

Daily Total Organic Compounds (TOC) Monitoring Log

Date	Time[1]	Location[2]	Equipment ID[3]	Equipment Operator	Reading (ppm)[4]	Comments
28-Sep-20	11:50	DW	FA02533	EG	0.5	
28-Sep-20	12:00	HSA4	FA02533	EG	0.3	
28-Sep-20	12:05	DW	FA02533	EG	0.2	
28-Sep-20	12:15	HSA4	FA02533	EG	0.3	
28-Sep-20	12:20	DW	FA02533	EG	0.2	
28-Sep-20	12:30	HSA4	FA02533	EG	0.3	
28-Sep-20	12:35	DW	FA02533	EG	0.2	
28-Sep-20	12:45	HSA4	FA02533	EG	0.3	
28-Sep-20	12:50	DW	FA02533	EG	0.2	
28-Sep-20	13:00	HSA4	FA02533	EG	0.3	
28-Sep-20	14:20	HSA3	FA02533	EG	0.1	
28-Sep-20	14:25	DW	FA02533	EG	0.1	
28-Sep-20	14:35	HSA3	FA02533	EG	0.3	
28-Sep-20	14:40	DW	FA02533	EG	0.1	
28-Sep-20	14:50	HSA3	FA02533	EG	0.3	
28-Sep-20	14:55	DW	FA02533	EG	0.1	
28-Sep-20	14:58					Begin backfilling at HSA3
28-Sep-20	15:20					Begin boring at HSA2
28-Sep-20	15:25	HSA2	FA02533	EG	0.3	
28-Sep-20	15:35	DW	FA02533	EG	0.1	
28-Sep-20	15:40	HSA2	FA02533	EG	0.3	
28-Sep-20	15:45					Stop boring at HSA2 and backfill
28-Sep-20	16:30					Begin boring at HSA1
28-Sep-20	16:35	HSA1	FA02533	EG	0.4	
28-Sep-20	16:45	DW	FA02533	EG	0.1	Stop boring at HSA1

Notes:

1 - Pacific Daylight Time (PDT)

2 - Excavation Face or Perimeter (downwind)

3 - PID Monitor QRae III

4 - 15 seconds sustained readings, recorded every 15 minutes

Geosyntec
consultants

APPENDIX B

LABORATORY ANALYTICAL TEST RESULTS

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714)895-5494

Laboratory Job ID: 570-53807-1
Client Project/Site: Edison Park Waste Delineation / HL1685B

For:
Geosyntec Consultants, Inc.
2100 Main Street
Suite 150
Huntington Beach, California 92648

Attn: Karthik Viswanathan

Authorized for release by:
3/19/2021 4:37:23 PM

Stephen Nowak, Project Manager I
(714)895-5494
Stephen.Nowak@eurofinset.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at:
www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Geosyntec Consultants, Inc. Job ID: 570-53807-1
Project/Site: Edison Park Waste Delineation / HL1685B

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Geosyntec Consultants, Inc. Job ID: 570-53807-1
Project/Site: Edison Park Waste Delineation / HL1685B

Job ID: 570-53807-1

Laboratory: Eurofins Calscience LLC

Narrative

Job Narrative
570-53807-1

Comments
No additional comments.

Receipt
The sample was received on 3/15/2021 10:15 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.8º C.

GC/MS VOA
Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 570-136182 and analytical batch 570-136236 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 570-136938 and analytical batch 570-137251 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Geosyntec Consultants, Inc.
Job ID: 570-53807-1
Project/Site: Edison Park Waste Delineation / HL1685B

Client Sample ID: EP-IDW-01
Lab Sample ID: 570-53807-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Acetone	27		20		ug/Kg	1		8260B	Total/NA
C6-C44	9.5		5.0		mg/Kg	1		8015B	Total/NA
Arsenic	6.38		2.48		mg/Kg	1		6010B	Total/NA
Barium	91.1		0.495		mg/Kg	1		6010B	Total/NA
Beryllium	1.06		0.248		mg/Kg	1		6010B	Total/NA
Cadmium	1.13		0.495		mg/Kg	1		6010B	Total/NA
Chromium	21.3		0.990		mg/Kg	1		6010B	Total/NA
Cobalt	10.2		0.990		mg/Kg	1		6010B	Total/NA
Copper	20.3		0.990		mg/Kg	1		6010B	Total/NA
Nickel	15.5		0.495		mg/Kg	1		6010B	Total/NA
Vanadium	42.1		0.990		mg/Kg	1		6010B	Total/NA
Zinc	57.6		9.90		mg/Kg	1		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Geosyntec Consultants, Inc.
Job ID: 570-53807-1
Project/Site: Edison Park Waste Delineation / HL1685B

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: EP-IDW-01
Date Collected: 03/12/21 18:20
Date Received: 03/15/21 10:15

Lab Sample ID: 570-53807-1
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
1,1,1-Trichloroethane	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		9.9		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
1,1,2-Trichloroethane	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
1,1-Dichloroethane	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
1,1-Dichloroethene	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
1,1-Dichloropropene	ND		2.0		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
1,2,3-Trichlorobenzene	ND	F1	2.0		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
1,2,3-Trichloropropane	ND		2.0		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
1,2,4-Trichlorobenzene	ND	F1	2.0		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
1,2,4-Trimethylbenzene	ND		2.0		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
1,2-Dibromo-3-Chloropropane	ND		9.9		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
1,2-Dibromoethane	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
1,2-Dichlorobenzene	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
1,2-Dichloroethane	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
1,2-Dichloropropane	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
1,3,5-Trimethylbenzene	ND		2.0		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
1,3-Dichlorobenzene	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
1,3-Dichloropropane	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
1,4-Dichlorobenzene	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
2,2-Dichloropropane	ND		5.0		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
2-Butanone	ND		20		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
2-Chlorotoluene	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
2-Hexanone	ND		20		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
4-Chlorotoluene	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
4-Methyl-2-pentanone	ND		20		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Acetone	**27**		20		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Benzene	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Bromobenzene	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Bromochloromethane	ND		2.0		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Bromodichloromethane	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Bromoform	ND		5.0		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Bromomethane	ND		20		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
cis-1,2-Dichloroethene	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
cis-1,3-Dichloropropene	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Carbon disulfide	ND		9.9		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Carbon tetrachloride	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Chlorobenzene	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Chloroethane	ND		2.0		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Chloroform	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Chloromethane	ND	F1	20		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Dibromochloromethane	ND		2.0		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Dibromomethane	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Dichlorodifluoromethane	ND		2.0		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Ethylbenzene	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Isopropylbenzene	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Methylene Chloride	ND		9.9		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Methyl-t-Butyl Ether (MTBE)	ND		2.0		ug/Kg		03/16/21 11:27	03/16/21 11:57	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: EP-IDW-01 **Lab Sample ID: 570-53807-1**
Date Collected: 03/12/21 18:20 **Matrix: Solid**
Date Received: 03/15/21 10:15

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	F1	9.9		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
n-Butylbenzene	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
N-Propylbenzene	ND		2.0		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
o-Xylene	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
m,p-Xylene	ND		2.0		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
p-Isopropyltoluene	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
sec-Butylbenzene	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Styrene	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
trans-1,2-Dichloroethene	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
trans-1,3-Dichloropropene	ND		2.0		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
tert-Butylbenzene	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Tetrachloroethene	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Toluene	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Trichloroethene	ND		2.0		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Trichlorofluoromethane	ND		9.9		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Vinyl acetate	ND		9.9		ug/Kg		03/16/21 11:27	03/16/21 11:57	1
Vinyl chloride	ND		0.99		ug/Kg		03/16/21 11:27	03/16/21 11:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*71 - 155*	*03/16/21 11:27*	*03/16/21 11:57*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*	*03/16/21 11:27*	*03/16/21 11:57*	*1*
Dibromofluoromethane (Surr)	*96*		*79 - 133*	*03/16/21 11:27*	*03/16/21 11:57*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*	*03/16/21 11:27*	*03/16/21 11:57*	*1*

Client: Geosyntec Consultants, Inc.
Project/Site: Edison Park Waste Delineation / HL1685B

Job ID: 570-53807-1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: EP-IDW-01
Date Collected: 03/12/21 18:20
Date Received: 03/15/21 10:15

Lab Sample ID: 570-53807-1
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		5.0		mg/Kg		03/16/21 14:07	03/17/21 03:11	1
C7 as C7	ND		5.0		mg/Kg		03/16/21 14:07	03/17/21 03:11	1
C8 as C8	ND		5.0		mg/Kg		03/16/21 14:07	03/17/21 03:11	1
C9-C10	ND		5.0		mg/Kg		03/16/21 14:07	03/17/21 03:11	1
C11-C12	ND		5.0		mg/Kg		03/16/21 14:07	03/17/21 03:11	1
C13-C14	ND		5.0		mg/Kg		03/16/21 14:07	03/17/21 03:11	1
C15-C16	ND		5.0		mg/Kg		03/16/21 14:07	03/17/21 03:11	1
C17-C18	ND		5.0		mg/Kg		03/16/21 14:07	03/17/21 03:11	1
C19-C20	ND		5.0		mg/Kg		03/16/21 14:07	03/17/21 03:11	1
C21-C22	ND		5.0		mg/Kg		03/16/21 14:07	03/17/21 03:11	1
C23-C24	ND		5.0		mg/Kg		03/16/21 14:07	03/17/21 03:11	1
C25-C28	ND		5.0		mg/Kg		03/16/21 14:07	03/17/21 03:11	1
C29-C32	ND		5.0		mg/Kg		03/16/21 14:07	03/17/21 03:11	1
C33-C36	ND		5.0		mg/Kg		03/16/21 14:07	03/17/21 03:11	1
C37-C40	ND		5.0		mg/Kg		03/16/21 14:07	03/17/21 03:11	1
C41-C44	ND		5.0		mg/Kg		03/16/21 14:07	03/17/21 03:11	1
C6-C44	**9.5**		5.0		mg/Kg		03/16/21 14:07	03/17/21 03:11	1
Diesel Range Organics [C10-C28]	ND		5.0		mg/Kg		03/16/21 14:07	03/17/21 03:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*95*		*60 - 138*	*03/16/21 14:07*	*03/17/21 03:11*	*1*

Client: Geosyntec Consultants, Inc.
Job ID: 570-53807-1
Project/Site: Edison Park Waste Delineation / HL1685B

Method: 6010B - Metals (ICP)

Client Sample ID: EP-IDW-01
Date Collected: 03/12/21 18:20
Date Received: 03/15/21 10:15

Lab Sample ID: 570-53807-1
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.97		mg/Kg		03/18/21 15:00	03/19/21 11:01	1
Arsenic	**6.38**		2.48		mg/Kg		03/18/21 15:00	03/19/21 11:01	1
Barium	**91.1**		0.495		mg/Kg		03/18/21 15:00	03/19/21 11:01	1
Beryllium	**1.06**		0.248		mg/Kg		03/18/21 15:00	03/19/21 11:01	1
Cadmium	**1.13**		0.495		mg/Kg		03/18/21 15:00	03/19/21 11:01	1
Chromium	**21.3**		0.990		mg/Kg		03/18/21 15:00	03/19/21 11:01	1
Cobalt	**10.2**		0.990		mg/Kg		03/18/21 15:00	03/19/21 11:01	1
Copper	**20.3**		0.990		mg/Kg		03/18/21 15:00	03/19/21 11:01	1
Lead	ND		4.95		mg/Kg		03/18/21 15:00	03/19/21 11:01	1
Molybdenum	ND		0.495		mg/Kg		03/18/21 15:00	03/19/21 11:01	1
Nickel	**15.5**		0.495		mg/Kg		03/18/21 15:00	03/19/21 11:01	1
Selenium	ND		4.95		mg/Kg		03/18/21 15:00	03/19/21 11:01	1
Silver	ND		0.990		mg/Kg		03/18/21 15:00	03/19/21 11:01	1
Thallium	ND		4.95		mg/Kg		03/18/21 15:00	03/19/21 11:01	1
Vanadium	**42.1**		0.990		mg/Kg		03/18/21 15:00	03/19/21 11:01	1
Zinc	**57.6**		9.90		mg/Kg		03/18/21 15:00	03/19/21 11:01	1

Client: Geosyntec Consultants, Inc.
Job ID: 570-53807-1
Project/Site: Edison Park Waste Delineation / HL1685B

Method: 7471A - Mercury (CVAA)

Client Sample ID: EP-IDW-01
Date Collected: 03/12/21 18:20
Date Received: 03/15/21 10:15

Lab Sample ID: 570-53807-1
Matrix: Solid

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0847		mg/Kg		03/18/21 15:00	03/19/21 12:06	1

Surrogate Summary

Client: Geosyntec Consultants, Inc.
Job ID: 570-53807-1
Project/Site: Edison Park Waste Delineation / HL1685B

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(71-155)	(80-120)	(79-133)	(80-120)
570-53807-1	EP-IDW-01	106	95	96	96
570-53807-1 MS	EP-IDW-01	107	101	103	102
570-53807-1 MSD	EP-IDW-01	105	101	103	103
LCS 570-136182/1-A	Lab Control Sample	100	99	102	102
LCSD 570-136182/2-A	Lab Control Sample Dup	100	102	102	102
MB 570-136182/3-A	Method Blank	108	98	98	97

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		OTCSN1
Lab Sample ID	Client Sample ID	(60-138)
570-53646-A-4-A MS	Matrix Spike	86
570-53646-A-4-B MSD	Matrix Spike Duplicate	94
570-53807-1	EP-IDW-01	95
LCS 570-136343/2-A	Lab Control Sample	85
LCSD 570-136343/3-A	Lab Control Sample Dup	87
MB 570-136343/1-A	Method Blank	86

Surrogate Legend

OTCSN = n-Octacosane (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-136182/3-A
Matrix: Solid
Analysis Batch: 136236

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 136182

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
1,1,1-Trichloroethane	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
1,1,2-Trichloroethane	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
1,1-Dichloroethane	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
1,1-Dichloroethene	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
1,1-Dichloropropene	ND		2.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
1,2,3-Trichlorobenzene	ND		2.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
1,2,3-Trichloropropane	ND		2.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
1,2,4-Trichlorobenzene	ND		2.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
1,2,4-Trimethylbenzene	ND		2.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
1,2-Dibromoethane	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
1,2-Dichlorobenzene	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
1,2-Dichloroethane	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
1,2-Dichloropropane	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
1,3,5-Trimethylbenzene	ND		2.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
1,3-Dichlorobenzene	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
1,3-Dichloropropane	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
1,4-Dichlorobenzene	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
2,2-Dichloropropane	ND		5.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
2-Butanone	ND		20		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
2-Chlorotoluene	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
2-Hexanone	ND		20		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
4-Chlorotoluene	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
4-Methyl-2-pentanone	ND		20		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Acetone	ND		20		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Benzene	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Bromobenzene	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Bromochloromethane	ND		2.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Bromodichloromethane	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Bromoform	ND		5.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Bromomethane	ND		20		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
cis-1,2-Dichloroethene	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
cis-1,3-Dichloropropene	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Carbon disulfide	ND		10		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Carbon tetrachloride	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Chlorobenzene	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Chloroethane	ND		2.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Chloroform	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Chloromethane	ND		20		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Dibromochloromethane	ND		2.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Dibromomethane	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Dichlorodifluoromethane	ND		2.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Ethylbenzene	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Isopropylbenzene	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Methylene Chloride	ND		10		ug/Kg		03/16/21 07:28	03/16/21 10:36	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-136182/3-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 136236 **Prep Batch: 136182**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methyl-t-Butyl Ether (MTBE)	ND		2.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Naphthalene	ND		10		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
n-Butylbenzene	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
N-Propylbenzene	ND		2.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
o-Xylene	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
m,p-Xylene	ND		2.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
p-Isopropyltoluene	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
sec-Butylbenzene	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Styrene	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
trans-1,2-Dichloroethene	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
trans-1,3-Dichloropropene	ND		2.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
tert-Butylbenzene	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Tetrachloroethene	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Toluene	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Trichloroethene	ND		2.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Trichlorofluoromethane	ND		10		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Vinyl acetate	ND		10		ug/Kg		03/16/21 07:28	03/16/21 10:36	1
Vinyl chloride	ND		1.0		ug/Kg		03/16/21 07:28	03/16/21 10:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*71 - 155*	*03/16/21 07:28*	*03/16/21 10:36*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*	*03/16/21 07:28*	*03/16/21 10:36*	*1*
Dibromofluoromethane (Surr)	*98*		*79 - 133*	*03/16/21 07:28*	*03/16/21 10:36*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*	*03/16/21 07:28*	*03/16/21 10:36*	*1*

Lab Sample ID: LCS 570-136182/1-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 136236 **Prep Batch: 136182**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1,1,2-Tetrachloroethane			50.0	48.43		ug/Kg		97	70 - 130		
1,1,1-Trichloroethane			50.0	46.20		ug/Kg		92	70 - 130		
1,1,2,2-Tetrachloroethane			50.0	51.17		ug/Kg		102	70 - 130		
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	41.44		ug/Kg		83	70 - 130		
1,1,2-Trichloroethane			50.0	50.28		ug/Kg		101	70 - 130		
1,1-Dichloroethane			50.0	46.72		ug/Kg		93	70 - 130		
1,1-Dichloroethene			50.0	47.49		ug/Kg		95	74 - 122		
1,1-Dichloropropene			50.0	46.75		ug/Kg		94	70 - 130		
1,2,3-Trichlorobenzene			50.0	51.14		ug/Kg		102	70 - 130		
1,2,3-Trichloropropane			50.0	50.79		ug/Kg		102	70 - 130		
1,2,4-Trichlorobenzene			50.0	50.36		ug/Kg		101	70 - 130		
1,2,4-Trimethylbenzene			50.0	49.41		ug/Kg		99	70 - 130		
1,2-Dibromo-3-Chloropropane			50.0	50.89		ug/Kg		102	70 - 130		
1,2-Dibromoethane			50.0	50.47		ug/Kg		101	70 - 130		
1,2-Dichlorobenzene			50.0	48.68		ug/Kg		97	75 - 120		
1,2-Dichloroethane			50.0	48.29		ug/Kg		97	70 - 130		
1,2-Dichloropropane			50.0	49.28		ug/Kg		99	79 - 115		
1,3,5-Trimethylbenzene			50.0	48.61		ug/Kg		97	70 - 130		

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-136182/1-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 136236 **Prep Batch: 136182**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	50.0	48.72		ug/Kg		97	70 - 130
1,3-Dichloropropane	50.0	49.24		ug/Kg		98	70 - 130
1,4-Dichlorobenzene	50.0	46.79		ug/Kg		94	70 - 130
2,2-Dichloropropane	50.0	49.93		ug/Kg		100	70 - 130
2-Butanone	50.0	55.45		ug/Kg		111	70 - 130
2-Chlorotoluene	50.0	47.35		ug/Kg		95	70 - 130
2-Hexanone	50.0	54.55		ug/Kg		109	70 - 130
4-Chlorotoluene	50.0	48.07		ug/Kg		96	70 - 130
4-Methyl-2-pentanone	50.0	51.75		ug/Kg		104	70 - 130
Acetone	50.0	54.17		ug/Kg		108	70 - 130
Benzene	50.0	45.01		ug/Kg		90	78 - 120
Bromobenzene	50.0	47.72		ug/Kg		95	70 - 130
Bromochloromethane	50.0	48.38		ug/Kg		97	70 - 130
Bromodichloromethane	50.0	51.51		ug/Kg		103	70 - 130
Bromoform	50.0	52.81		ug/Kg		106	70 - 130
Bromomethane	50.0	53.26		ug/Kg		107	70 - 130
cis-1,2-Dichloroethene	50.0	49.54		ug/Kg		99	70 - 130
cis-1,3-Dichloropropene	50.0	51.19		ug/Kg		102	70 - 130
Carbon disulfide	50.0	48.28		ug/Kg		97	70 - 130
Carbon tetrachloride	50.0	47.14		ug/Kg		94	49 - 139
Chlorobenzene	50.0	46.39		ug/Kg		93	79 - 120
Chloroethane	50.0	47.14		ug/Kg		94	70 - 130
Chloroform	50.0	49.29		ug/Kg		99	70 - 130
Chloromethane	50.0	39.53		ug/Kg		79	70 - 130
Dibromochloromethane	50.0	53.56		ug/Kg		107	70 - 130
Dibromomethane	50.0	50.64		ug/Kg		101	70 - 130
Dichlorodifluoromethane	50.0	41.86		ug/Kg		84	70 - 130
Ethylbenzene	50.0	47.46		ug/Kg		95	76 - 120
Isopropylbenzene	50.0	48.63		ug/Kg		97	70 - 130
Methylene Chloride	50.0	47.58		ug/Kg		95	70 - 130
Methyl-t-Butyl Ether (MTBE)	50.0	47.76		ug/Kg		96	70 - 124
Naphthalene	50.0	47.38		ug/Kg		95	70 - 130
n-Butylbenzene	50.0	48.67		ug/Kg		97	77 - 123
N-Propylbenzene	50.0	47.56		ug/Kg		95	70 - 130
o-Xylene	50.0	50.38		ug/Kg		101	70 - 130
m,p-Xylene	100	96.11		ug/Kg		96	70 - 130
p-Isopropyltoluene	50.0	48.94		ug/Kg		98	70 - 130
sec-Butylbenzene	50.0	48.44		ug/Kg		97	70 - 130
Styrene	50.0	50.33		ug/Kg		101	70 - 130
trans-1,2-Dichloroethene	50.0	46.24		ug/Kg		92	70 - 130
trans-1,3-Dichloropropene	50.0	50.71		ug/Kg		101	70 - 130
tert-Butylbenzene	50.0	48.09		ug/Kg		96	70 - 130
Tetrachloroethene	50.0	45.69		ug/Kg		91	70 - 130
Toluene	50.0	47.19		ug/Kg		94	77 - 120
Trichloroethene	50.0	46.52		ug/Kg		93	70 - 130
Trichlorofluoromethane	50.0	44.58		ug/Kg		89	70 - 130
Vinyl acetate	50.0	55.69		ug/Kg		111	70 - 130
Vinyl chloride	50.0	42.41		ug/Kg		85	68 - 122

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-136182/1-A
Matrix: Solid
Analysis Batch: 136236

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 136182

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		71 - 155
4-Bromofluorobenzene (Surr)	99		80 - 120
Dibromofluoromethane (Surr)	102		79 - 133
Toluene-d8 (Surr)	102		80 - 120

Lab Sample ID: LCSD 570-136182/2-A
Matrix: Solid
Analysis Batch: 136236

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 136182

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane			50.0	47.55		ug/Kg		95	70 - 130	2	20
1,1,1-Trichloroethane			50.0	44.51		ug/Kg		89	70 - 130	4	20
1,1,2,2-Tetrachloroethane			50.0	52.39		ug/Kg		105	70 - 130	2	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	40.04		ug/Kg		80	70 - 130	3	20
1,1,2-Trichloroethane			50.0	48.47		ug/Kg		97	70 - 130	4	20
1,1-Dichloroethane			50.0	45.06		ug/Kg		90	70 - 130	4	20
1,1-Dichloroethene			50.0	45.46		ug/Kg		91	74 - 122	4	20
1,1-Dichloropropene			50.0	44.77		ug/Kg		90	70 - 130	4	20
1,2,3-Trichlorobenzene			50.0	48.77		ug/Kg		98	70 - 130	5	20
1,2,3-Trichloropropane			50.0	49.29		ug/Kg		99	70 - 130	3	20
1,2,4-Trichlorobenzene			50.0	49.35		ug/Kg		99	70 - 130	2	20
1,2,4-Trimethylbenzene			50.0	47.41		ug/Kg		95	70 - 130	4	20
1,2-Dibromo-3-Chloropropane			50.0	49.22		ug/Kg		98	70 - 130	3	20
1,2-Dibromoethane			50.0	49.91		ug/Kg		100	70 - 130	1	20
1,2-Dichlorobenzene			50.0	47.84		ug/Kg		96	75 - 120	2	20
1,2-Dichloroethane			50.0	45.67		ug/Kg		91	70 - 130	6	20
1,2-Dichloropropane			50.0	47.19		ug/Kg		94	79 - 115	4	25
1,3,5-Trimethylbenzene			50.0	47.59		ug/Kg		95	70 - 130	2	20
1,3-Dichlorobenzene			50.0	46.65		ug/Kg		93	70 - 130	4	20
1,3-Dichloropropane			50.0	48.49		ug/Kg		97	70 - 130	2	20
1,4-Dichlorobenzene			50.0	45.61		ug/Kg		91	70 - 130	3	20
2,2-Dichloropropane			50.0	48.31		ug/Kg		97	70 - 130	3	20
2-Butanone			50.0	52.32		ug/Kg		105	70 - 130	6	20
2-Chlorotoluene			50.0	46.43		ug/Kg		93	70 - 130	2	20
2-Hexanone			50.0	51.94		ug/Kg		104	70 - 130	5	20
4-Chlorotoluene			50.0	48.57		ug/Kg		97	70 - 130	1	20
4-Methyl-2-pentanone			50.0	48.76		ug/Kg		98	70 - 130	6	20
Acetone			50.0	50.31		ug/Kg		101	70 - 130	7	20
Benzene			50.0	43.12		ug/Kg		86	78 - 120	4	20
Bromobenzene			50.0	46.97		ug/Kg		94	70 - 130	2	20
Bromochloromethane			50.0	47.46		ug/Kg		95	70 - 130	2	20
Bromodichloromethane			50.0	48.85		ug/Kg		98	70 - 130	5	20
Bromoform			50.0	53.33		ug/Kg		107	70 - 130	1	20
Bromomethane			50.0	50.93		ug/Kg		102	70 - 130	4	20
cis-1,2-Dichloroethene			50.0	48.17		ug/Kg		96	70 - 130	3	20
cis-1,3-Dichloropropene			50.0	49.14		ug/Kg		98	70 - 130	4	20
Carbon disulfide			50.0	46.48		ug/Kg		93	70 - 130	4	20
Carbon tetrachloride			50.0	45.38		ug/Kg		91	49 - 139	4	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-136182/2-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 136236 **Prep Batch: 136182**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chlorobenzene			50.0	45.51		ug/Kg		91	79 - 120	2	20
Chloroethane			50.0	46.80		ug/Kg		94	70 - 130	1	20
Chloroform			50.0	47.74		ug/Kg		95	70 - 130	3	20
Chloromethane			50.0	39.64		ug/Kg		79	70 - 130	0	20
Dibromochloromethane			50.0	52.57		ug/Kg		105	70 - 130	2	20
Dibromomethane			50.0	47.92		ug/Kg		96	70 - 130	6	20
Dichlorodifluoromethane			50.0	41.72		ug/Kg		83	70 - 130	0	20
Ethylbenzene			50.0	46.56		ug/Kg		93	76 - 120	2	20
Isopropylbenzene			50.0	47.64		ug/Kg		95	70 - 130	2	20
Methylene Chloride			50.0	46.24		ug/Kg		92	70 - 130	3	20
Methyl-t-Butyl Ether (MTBE)			50.0	46.09		ug/Kg		92	70 - 124	4	20
Naphthalene			50.0	46.78		ug/Kg		94	70 - 130	1	20
n-Butylbenzene			50.0	46.87		ug/Kg		94	77 - 123	4	25
N-Propylbenzene			50.0	46.40		ug/Kg		93	70 - 130	2	20
o-Xylene			50.0	49.43		ug/Kg		99	70 - 130	2	20
m,p-Xylene			100	93.58		ug/Kg		94	70 - 130	3	20
p-Isopropyltoluene			50.0	47.94		ug/Kg		96	70 - 130	2	20
sec-Butylbenzene			50.0	47.17		ug/Kg		94	70 - 130	3	20
Styrene			50.0	49.52		ug/Kg		99	70 - 130	2	20
trans-1,2-Dichloroethene			50.0	44.40		ug/Kg		89	70 - 130	4	20
trans-1,3-Dichloropropene			50.0	48.86		ug/Kg		98	70 - 130	4	20
tert-Butylbenzene			50.0	48.75		ug/Kg		98	70 - 130	1	20
Tetrachloroethene			50.0	44.88		ug/Kg		90	70 - 130	2	20
Toluene			50.0	45.11		ug/Kg		90	77 - 120	4	20
Trichloroethene			50.0	43.99		ug/Kg		88	70 - 130	6	20
Trichlorofluoromethane			50.0	46.56		ug/Kg		93	70 - 130	4	20
Vinyl acetate			50.0	53.52		ug/Kg		107	70 - 130	4	20
Vinyl chloride			50.0	43.04		ug/Kg		86	68 - 122	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*71 - 155*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*79 - 133*
Toluene-d8 (Surr)	*102*		*80 - 120*

Lab Sample ID: 570-53807-1 MS **Client Sample ID: EP-IDW-01**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 136236 **Prep Batch: 136182**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		51.8	44.14		ug/Kg		85	70 - 130
1,1,1-Trichloroethane	ND		51.8	47.35		ug/Kg		91	70 - 130
1,1,2,2-Tetrachloroethane	ND		51.8	45.83		ug/Kg		89	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		51.8	41.81		ug/Kg		81	70 - 130
1,1,2-Trichloroethane	ND		51.8	42.48		ug/Kg		82	70 - 130
1,1-Dichloroethane	ND		51.8	44.86		ug/Kg		87	70 - 130
1,1-Dichloroethene	ND		51.8	45.23		ug/Kg		87	47 - 143
1,1-Dichloropropene	ND		51.8	47.83		ug/Kg		92	70 - 130

Client: Geosyntec Consultants, Inc.
Job ID: 570-53807-1
Project/Site: Edison Park Waste Delineation / HL1685B

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 570-53807-1 MS
Client Sample ID: EP-IDW-01
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 136236
Prep Batch: 136182

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichlorobenzene	ND	F1	51.8	37.72		ug/Kg		73	70 - 130
1,2,3-Trichloropropane	ND		51.8	42.57		ug/Kg		82	70 - 130
1,2,4-Trichlorobenzene	ND	F1	51.8	38.06		ug/Kg		74	70 - 130
1,2,4-Trimethylbenzene	ND		51.8	46.30		ug/Kg		89	70 - 130
1,2-Dibromo-3-Chloropropane	ND		51.8	39.88		ug/Kg		77	70 - 130
1,2-Dibromoethane	ND		51.8	40.08		ug/Kg		77	64 - 124
1,2-Dichlorobenzene	ND		51.8	42.29		ug/Kg		82	35 - 131
1,2-Dichloroethane	ND		51.8	39.96		ug/Kg		77	70 - 130
1,2-Dichloropropane	ND		51.8	43.27		ug/Kg		84	79 - 115
1,3,5-Trimethylbenzene	ND		51.8	46.68		ug/Kg		90	70 - 130
1,3-Dichlorobenzene	ND		51.8	42.85		ug/Kg		83	70 - 130
1,3-Dichloropropane	ND		51.8	40.83		ug/Kg		79	70 - 130
1,4-Dichlorobenzene	ND		51.8	40.88		ug/Kg		79	70 - 130
2,2-Dichloropropane	ND		51.8	50.35		ug/Kg		97	70 - 130
2-Butanone	ND		51.8	49.88		ug/Kg		96	70 - 130
2-Chlorotoluene	ND		51.8	44.85		ug/Kg		87	70 - 130
2-Hexanone	ND		51.8	45.87		ug/Kg		89	70 - 130
4-Chlorotoluene	ND		51.8	44.54		ug/Kg		86	70 - 130
4-Methyl-2-pentanone	ND		51.8	42.25		ug/Kg		82	70 - 130
Acetone	27		51.8	71.05		ug/Kg		84	70 - 130
Benzene	ND		51.8	42.26		ug/Kg		82	61 - 127
Bromobenzene	ND		51.8	41.40		ug/Kg		80	70 - 130
Bromochloromethane	ND		51.8	41.01		ug/Kg		79	70 - 130
Bromodichloromethane	ND		51.8	43.78		ug/Kg		85	70 - 130
Bromoform	ND		51.8	42.48		ug/Kg		82	70 - 130
Bromomethane	ND		51.8	47.33		ug/Kg		91	70 - 130
cis-1,2-Dichloroethene	ND		51.8	45.26		ug/Kg		87	70 - 130
cis-1,3-Dichloropropene	ND		51.8	42.21		ug/Kg		82	70 - 130
Carbon disulfide	ND		51.8	48.30		ug/Kg		92	70 - 130
Carbon tetrachloride	ND		51.8	47.57		ug/Kg		92	51 - 135
Chlorobenzene	ND		51.8	42.38		ug/Kg		82	57 - 123
Chloroethane	ND		51.8	41.47		ug/Kg		80	70 - 130
Chloroform	ND		51.8	46.22		ug/Kg		89	70 - 130
Chloromethane	ND	F1	51.8	34.00	F1	ug/Kg		66	70 - 130
Dibromochloromethane	ND		51.8	43.66		ug/Kg		84	70 - 130
Dibromomethane	ND		51.8	40.02		ug/Kg		77	70 - 130
Dichlorodifluoromethane	ND		51.8	41.21		ug/Kg		80	70 - 130
Ethylbenzene	ND		51.8	46.31		ug/Kg		89	57 - 129
Isopropylbenzene	ND		51.8	48.27		ug/Kg		93	70 - 130
Methylene Chloride	ND		51.8	41.82		ug/Kg		81	70 - 130
Methyl-t-Butyl Ether (MTBE)	ND		51.8	38.27		ug/Kg		74	57 - 123
Naphthalene	ND	F1	51.8	33.61	F1	ug/Kg		65	70 - 130
n-Butylbenzene	ND		51.8	46.77		ug/Kg		90	77 - 123
N-Propylbenzene	ND		51.8	46.82		ug/Kg		90	70 - 130
o-Xylene	ND		51.8	47.43		ug/Kg		92	70 - 130
m,p-Xylene	ND		104	92.43		ug/Kg		89	70 - 130
p-Isopropyltoluene	ND		51.8	47.74		ug/Kg		92	70 - 130
sec-Butylbenzene	ND		51.8	47.69		ug/Kg		92	70 - 130
Styrene	ND		51.8	44.60		ug/Kg		86	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 570-53807-1 MS **Client Sample ID: EP-IDW-01**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 136236 **Prep Batch: 136182**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,2-Dichloroethene	ND		51.8	45.14		ug/Kg		87	70 - 130
trans-1,3-Dichloropropene	ND		51.8	39.56		ug/Kg		76	70 - 130
tert-Butylbenzene	ND		51.8	47.89		ug/Kg		93	70 - 130
Tetrachloroethene	ND		51.8	45.57		ug/Kg		88	70 - 130
Toluene	ND		51.8	44.42		ug/Kg		86	63 - 123
Trichloroethene	ND		51.8	44.43		ug/Kg		86	44 - 158
Trichlorofluoromethane	ND		51.8	44.07		ug/Kg		85	70 - 130
Vinyl acetate	ND		51.8	41.32		ug/Kg		80	70 - 130
Vinyl chloride	ND		51.8	38.17		ug/Kg		74	49 - 139

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*107*		*71 - 155*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*79 - 133*
Toluene-d8 (Surr)	*102*		*80 - 120*

Lab Sample ID: 570-53807-1 MSD **Client Sample ID: EP-IDW-01**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 136236 **Prep Batch: 136182**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		50.5	44.60		ug/Kg		88	70 - 130	1	20
1,1,1-Trichloroethane	ND		50.5	49.24		ug/Kg		97	70 - 130	4	20
1,1,2,2-Tetrachloroethane	ND		50.5	42.78		ug/Kg		85	70 - 130	7	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50.5	41.15		ug/Kg		81	70 - 130	2	20
1,1,2-Trichloroethane	ND		50.5	44.37		ug/Kg		88	70 - 130	4	20
1,1-Dichloroethane	ND		50.5	47.83		ug/Kg		95	70 - 130	6	20
1,1-Dichloroethene	ND		50.5	45.11		ug/Kg		89	47 - 143	0	25
1,1-Dichloropropene	ND		50.5	50.26		ug/Kg		100	70 - 130	5	20
1,2,3-Trichlorobenzene	ND	F1	50.5	33.56	F1	ug/Kg		66	70 - 130	12	20
1,2,3-Trichloropropane	ND		50.5	40.58		ug/Kg		80	70 - 130	5	20
1,2,4-Trichlorobenzene	ND	F1	50.5	34.65	F1	ug/Kg		69	70 - 130	9	20
1,2,4-Trimethylbenzene	ND		50.5	46.70		ug/Kg		92	70 - 130	1	20
1,2-Dibromo-3-Chloropropane	ND		50.5	37.66		ug/Kg		75	70 - 130	6	20
1,2-Dibromoethane	ND		50.5	42.65		ug/Kg		84	64 - 124	6	20
1,2-Dichlorobenzene	ND		50.5	39.41		ug/Kg		78	35 - 131	7	25
1,2-Dichloroethane	ND		50.5	43.61		ug/Kg		86	70 - 130	9	20
1,2-Dichloropropane	ND		50.5	46.74		ug/Kg		93	79 - 115	8	25
1,3,5-Trimethylbenzene	ND		50.5	47.29		ug/Kg		94	70 - 130	1	20
1,3-Dichlorobenzene	ND		50.5	41.05		ug/Kg		81	70 - 130	4	20
1,3-Dichloropropane	ND		50.5	43.58		ug/Kg		86	70 - 130	7	20
1,4-Dichlorobenzene	ND		50.5	38.95		ug/Kg		77	70 - 130	5	20
2,2-Dichloropropane	ND		50.5	52.83		ug/Kg		105	70 - 130	5	20
2-Butanone	ND		50.5	57.22		ug/Kg		113	70 - 130	14	20
2-Chlorotoluene	ND		50.5	44.77		ug/Kg		89	70 - 130	0	20
2-Hexanone	ND		50.5	46.36		ug/Kg		92	70 - 130	1	20
4-Chlorotoluene	ND		50.5	44.11		ug/Kg		87	70 - 130	1	20
4-Methyl-2-pentanone	ND		50.5	44.03		ug/Kg		87	70 - 130	4	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 570-53807-1 MSD **Client Sample ID: EP-IDW-01**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 136236 **Prep Batch: 136182**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	27		50.5	82.53		ug/Kg		109	70 - 130	15	20
Benzene	ND		50.5	45.67		ug/Kg		90	61 - 127	8	20
Bromobenzene	ND		50.5	41.39		ug/Kg		82	70 - 130	0	20
Bromochloromethane	ND		50.5	43.86		ug/Kg		87	70 - 130	7	20
Bromodichloromethane	ND		50.5	46.85		ug/Kg		93	70 - 130	7	20
Bromoform	ND		50.5	40.70		ug/Kg		81	70 - 130	4	20
Bromomethane	ND		50.5	49.70		ug/Kg		98	70 - 130	5	20
cis-1,2-Dichloroethene	ND		50.5	48.38		ug/Kg		96	70 - 130	7	20
cis-1,3-Dichloropropene	ND		50.5	45.23		ug/Kg		90	70 - 130	7	20
Carbon disulfide	ND		50.5	45.92		ug/Kg		90	70 - 130	5	20
Carbon tetrachloride	ND		50.5	49.41		ug/Kg		98	51 - 135	4	29
Chlorobenzene	ND		50.5	43.65		ug/Kg		86	57 - 123	3	20
Chloroethane	ND		50.5	41.14		ug/Kg		81	70 - 130	1	20
Chloroform	ND		50.5	49.02		ug/Kg		97	70 - 130	6	20
Chloromethane	ND	F1	50.5	36.19		ug/Kg		72	70 - 130	6	20
Dibromochloromethane	ND		50.5	45.05		ug/Kg		89	70 - 130	3	20
Dibromomethane	ND		50.5	43.33		ug/Kg		86	70 - 130	8	20
Dichlorodifluoromethane	ND		50.5	40.57		ug/Kg		80	70 - 130	2	20
Ethylbenzene	ND		50.5	47.90		ug/Kg		95	57 - 129	3	22
Isopropylbenzene	ND		50.5	47.85		ug/Kg		95	70 - 130	1	20
Methylene Chloride	ND		50.5	45.35		ug/Kg		90	70 - 130	8	20
Methyl-t-Butyl Ether (MTBE)	ND		50.5	43.29		ug/Kg		86	57 - 123	12	21
Naphthalene	ND	F1	50.5	30.72	F1	ug/Kg		61	70 - 130	9	20
n-Butylbenzene	ND		50.5	46.95		ug/Kg		93	77 - 123	0	21
N-Propylbenzene	ND		50.5	47.76		ug/Kg		95	70 - 130	2	20
o-Xylene	ND		50.5	48.62		ug/Kg		96	70 - 130	2	20
m,p-Xylene	ND		101	95.46		ug/Kg		95	70 - 130	3	20
p-Isopropyltoluene	ND		50.5	47.86		ug/Kg		95	70 - 130	0	20
sec-Butylbenzene	ND		50.5	48.47		ug/Kg		96	70 - 130	2	20
Styrene	ND		50.5	44.81		ug/Kg		89	70 - 130	0	20
trans-1,2-Dichloroethene	ND		50.5	47.17		ug/Kg		93	70 - 130	4	20
trans-1,3-Dichloropropene	ND		50.5	41.20		ug/Kg		82	70 - 130	4	20
tert-Butylbenzene	ND		50.5	48.62		ug/Kg		96	70 - 130	1	20
Tetrachloroethene	ND		50.5	47.32		ug/Kg		94	70 - 130	4	20
Toluene	ND		50.5	47.37		ug/Kg		94	63 - 123	6	20
Trichloroethene	ND		50.5	47.01		ug/Kg		93	44 - 158	6	20
Trichlorofluoromethane	ND		50.5	43.36		ug/Kg		86	70 - 130	2	20
Vinyl acetate	ND		50.5	42.76		ug/Kg		85	70 - 130	3	20
Vinyl chloride	ND		50.5	42.63		ug/Kg		84	49 - 139	11	47

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*71 - 155*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*79 - 133*
Toluene-d8 (Surr)	*103*		*80 - 120*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 570-136343/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 136311 **Prep Batch: 136343**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		5.0		mg/Kg		03/16/21 14:05	03/16/21 23:20	1
C7 as C7	ND		5.0		mg/Kg		03/16/21 14:05	03/16/21 23:20	1
C8 as C8	ND		5.0		mg/Kg		03/16/21 14:05	03/16/21 23:20	1
C9-C10	ND		5.0		mg/Kg		03/16/21 14:05	03/16/21 23:20	1
C11-C12	ND		5.0		mg/Kg		03/16/21 14:05	03/16/21 23:20	1
C13-C14	ND		5.0		mg/Kg		03/16/21 14:05	03/16/21 23:20	1
C15-C16	ND		5.0		mg/Kg		03/16/21 14:05	03/16/21 23:20	1
C17-C18	ND		5.0		mg/Kg		03/16/21 14:05	03/16/21 23:20	1
C19-C20	ND		5.0		mg/Kg		03/16/21 14:05	03/16/21 23:20	1
C21-C22	ND		5.0		mg/Kg		03/16/21 14:05	03/16/21 23:20	1
C23-C24	ND		5.0		mg/Kg		03/16/21 14:05	03/16/21 23:20	1
C25-C28	ND		5.0		mg/Kg		03/16/21 14:05	03/16/21 23:20	1
C29-C32	ND		5.0		mg/Kg		03/16/21 14:05	03/16/21 23:20	1
C33-C36	ND		5.0		mg/Kg		03/16/21 14:05	03/16/21 23:20	1
C37-C40	ND		5.0		mg/Kg		03/16/21 14:05	03/16/21 23:20	1
C41-C44	ND		5.0		mg/Kg		03/16/21 14:05	03/16/21 23:20	1
C6-C44	ND		5.0		mg/Kg		03/16/21 14:05	03/16/21 23:20	1
Diesel Range Organics [C10-C28]	ND		5.0		mg/Kg		03/16/21 14:05	03/16/21 23:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*86*		*60 - 138*	*03/16/21 14:05*	*03/16/21 23:20*	*1*

Lab Sample ID: LCS 570-136343/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 136311 **Prep Batch: 136343**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics [C10-C28]			400	432.0		mg/Kg		108	80 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane (Surr)	*85*		*60 - 138*

Lab Sample ID: LCSD 570-136343/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 136311 **Prep Batch: 136343**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			400	446.0		mg/Kg		112	80 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
n-Octacosane (Surr)	*87*		*60 - 138*

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 570-53646-A-4-A MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 136311 — **Prep Batch: 136343**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics [C10-C28]	6.2		402	438.9		mg/Kg		108	43 - 165		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
n-Octacosane (Surr)	*86*		*60 - 138*

Lab Sample ID: 570-53646-A-4-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 136311 — **Prep Batch: 136343**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	6.2		393	445.4		mg/Kg		112	43 - 165	1	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
n-Octacosane (Surr)	*94*		*60 - 138*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 570-136938/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 137251 — **Prep Batch: 136938**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.96		mg/Kg		03/18/21 15:00	03/19/21 10:14	1
Arsenic	ND		2.46		mg/Kg		03/18/21 15:00	03/19/21 10:14	1
Barium	ND		0.493		mg/Kg		03/18/21 15:00	03/19/21 10:14	1
Beryllium	ND		0.246		mg/Kg		03/18/21 15:00	03/19/21 10:14	1
Cadmium	ND		0.493		mg/Kg		03/18/21 15:00	03/19/21 10:14	1
Chromium	ND		0.985		mg/Kg		03/18/21 15:00	03/19/21 10:14	1
Cobalt	ND		0.985		mg/Kg		03/18/21 15:00	03/19/21 10:14	1
Copper	ND		0.985		mg/Kg		03/18/21 15:00	03/19/21 10:14	1
Lead	ND		4.93		mg/Kg		03/18/21 15:00	03/19/21 10:14	1
Molybdenum	ND		0.493		mg/Kg		03/18/21 15:00	03/19/21 10:14	1
Nickel	ND		0.493		mg/Kg		03/18/21 15:00	03/19/21 10:14	1
Selenium	ND		4.93		mg/Kg		03/18/21 15:00	03/19/21 10:14	1
Silver	ND		0.985		mg/Kg		03/18/21 15:00	03/19/21 10:14	1
Thallium	ND		4.93		mg/Kg		03/18/21 15:00	03/19/21 10:14	1
Vanadium	ND		0.985		mg/Kg		03/18/21 15:00	03/19/21 10:14	1
Zinc	ND		9.85		mg/Kg		03/18/21 15:00	03/19/21 10:14	1

Lab Sample ID: LCS 570-136938/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 137251 — **Prep Batch: 136938**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony			25.3	26.68		mg/Kg		106	80 - 120		
Arsenic			25.3	24.33		mg/Kg		96	80 - 120		
Barium			25.3	26.89		mg/Kg		106	80 - 120		

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 570-136938/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 137251 **Prep Batch: 136938**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	25.3	25.01		mg/Kg		99	80 - 120
Cadmium	25.3	24.99		mg/Kg		99	80 - 120
Chromium	25.3	25.27		mg/Kg		100	80 - 120
Cobalt	25.3	25.20		mg/Kg		100	80 - 120
Copper	25.3	25.76		mg/Kg		102	80 - 120
Lead	25.3	25.62		mg/Kg		101	80 - 120
Molybdenum	25.3	25.84		mg/Kg		102	80 - 120
Nickel	25.3	26.52		mg/Kg		105	80 - 120
Selenium	25.3	24.29		mg/Kg		96	80 - 120
Silver	12.6	12.62		mg/Kg		100	80 - 120
Thallium	25.3	26.68		mg/Kg		106	80 - 120
Vanadium	25.3	24.49		mg/Kg		97	80 - 120
Zinc	25.3	25.63		mg/Kg		101	80 - 120

Lab Sample ID: LCSD 570-136938/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 137251 **Prep Batch: 136938**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	24.9	27.05		mg/Kg		109	80 - 120	1	20
Arsenic	24.9	24.54		mg/Kg		99	80 - 120	1	20
Barium	24.9	26.43		mg/Kg		106	80 - 120	2	20
Beryllium	24.9	24.80		mg/Kg		100	80 - 120	1	20
Cadmium	24.9	24.73		mg/Kg		99	80 - 120	1	20
Chromium	24.9	24.93		mg/Kg		100	80 - 120	1	20
Cobalt	24.9	24.92		mg/Kg		100	80 - 120	1	20
Copper	24.9	25.49		mg/Kg		102	80 - 120	1	20
Lead	24.9	25.68		mg/Kg		103	80 - 120	0	20
Molybdenum	24.9	25.78		mg/Kg		104	80 - 120	0	20
Nickel	24.9	26.12		mg/Kg		105	80 - 120	2	20
Selenium	24.9	23.63		mg/Kg		95	80 - 120	3	20
Silver	12.4	12.41		mg/Kg		100	80 - 120	2	20
Thallium	24.9	25.24		mg/Kg		101	80 - 120	6	20
Vanadium	24.9	24.12		mg/Kg		97	80 - 120	2	20
Zinc	24.9	25.12		mg/Kg		101	80 - 120	2	20

Lab Sample ID: 570-54150-A-5-B MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 137251 **Prep Batch: 136938**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND	F1	26.0	11.68	F1	mg/Kg		45	50 - 115
Arsenic	3.94		26.0	29.43		mg/Kg		98	75 - 125
Barium	34.4	F1	26.0	76.81	F1	mg/Kg		163	75 - 125
Beryllium	0.258		26.0	27.17		mg/Kg		103	75 - 125
Cadmium	ND		26.0	25.59		mg/Kg		98	75 - 125
Chromium	2.51		26.0	28.80		mg/Kg		101	75 - 125
Cobalt	1.89		26.0	28.19		mg/Kg		101	75 - 125
Copper	3.41		26.0	30.07		mg/Kg		102	75 - 125

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 570-54150-A-5-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 137251 — **Prep Batch: 136938**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	ND		26.0	30.34		mg/Kg		104	75 - 125
Molybdenum	ND		26.0	26.22		mg/Kg		101	75 - 125
Nickel	2.68		26.0	30.48		mg/Kg		107	75 - 125
Selenium	ND		26.0	21.29		mg/Kg		82	75 - 125
Silver	ND		13.0	13.16		mg/Kg		101	75 - 125
Thallium	ND		26.0	24.83		mg/Kg		95	75 - 125
Vanadium	7.87		26.0	34.04		mg/Kg		100	75 - 125
Zinc	ND		26.0	34.82		mg/Kg		99	75 - 125

Lab Sample ID: 570-54150-A-5-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 137251 — **Prep Batch: 136938**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND	F1	25.9	10.68	F1	mg/Kg		41	50 - 115	9	20
Arsenic	3.94		25.9	30.54		mg/Kg		103	75 - 125	4	20
Barium	34.4	F1	25.9	87.53	F1	mg/Kg		205	75 - 125	13	20
Beryllium	0.258		25.9	27.00		mg/Kg		103	75 - 125	1	20
Cadmium	ND		25.9	25.16		mg/Kg		97	75 - 125	2	20
Chromium	2.51		25.9	28.59		mg/Kg		101	75 - 125	1	20
Cobalt	1.89		25.9	26.79		mg/Kg		96	75 - 125	5	20
Copper	3.41		25.9	29.69		mg/Kg		101	75 - 125	1	20
Lead	ND		25.9	29.24		mg/Kg		100	75 - 125	4	20
Molybdenum	ND		25.9	25.35		mg/Kg		98	75 - 125	3	20
Nickel	2.68		25.9	29.00		mg/Kg		102	75 - 125	5	20
Selenium	ND		25.9	21.94		mg/Kg		85	75 - 125	3	20
Silver	ND		13.0	13.07		mg/Kg		101	75 - 125	1	20
Thallium	ND		25.9	24.64		mg/Kg		95	75 - 125	1	20
Vanadium	7.87		25.9	33.55		mg/Kg		99	75 - 125	1	20
Zinc	ND		25.9	35.43		mg/Kg		102	75 - 125	2	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 570-136940/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 137221 — **Prep Batch: 136940**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0877		mg/Kg		03/18/21 15:00	03/19/21 11:30	1

Lab Sample ID: LCS 570-136940/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 137221 — **Prep Batch: 136940**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury			0.820	0.8204		mg/Kg		100	85 - 121

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: LCSD 570-136940/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 137221 — **Prep Batch: 136940**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury			0.806	0.8081		mg/Kg		100	85 - 121	2	10

Lab Sample ID: 570-54150-A-5-E MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 137221 — **Prep Batch: 136940**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	ND		0.806	0.7923		mg/Kg		98	71 - 137		

Lab Sample ID: 570-54150-A-5-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 137221 — **Prep Batch: 136940**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.833	0.8099		mg/Kg		97	71 - 137	2	14

QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Edison Park Waste Delineation / HL1685B

Job ID: 570-53807-1

GC/MS VOA

Prep Batch: 136182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-53807-1	EP-IDW-01	Total/NA	Solid	5030C	
MB 570-136182/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-136182/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-136182/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	
570-53807-1 MS	EP-IDW-01	Total/NA	Solid	5030C	
570-53807-1 MSD	EP-IDW-01	Total/NA	Solid	5030C	

Analysis Batch: 136236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-53807-1	EP-IDW-01	Total/NA	Solid	8260B	136182
MB 570-136182/3-A	Method Blank	Total/NA	Solid	8260B	136182
LCS 570-136182/1-A	Lab Control Sample	Total/NA	Solid	8260B	136182
LCSD 570-136182/2-A	Lab Control Sample Dup	Total/NA	Solid	8260B	136182
570-53807-1 MS	EP-IDW-01	Total/NA	Solid	8260B	136182
570-53807-1 MSD	EP-IDW-01	Total/NA	Solid	8260B	136182

GC Semi VOA

Analysis Batch: 136311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-53807-1	EP-IDW-01	Total/NA	Solid	8015B	136343
MB 570-136343/1-A	Method Blank	Total/NA	Solid	8015B	136343
LCS 570-136343/2-A	Lab Control Sample	Total/NA	Solid	8015B	136343
LCSD 570-136343/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	136343
570-53646-A-4-A MS	Matrix Spike	Total/NA	Solid	8015B	136343
570-53646-A-4-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	136343

Prep Batch: 136343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-53807-1	EP-IDW-01	Total/NA	Solid	3550C	
MB 570-136343/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 570-136343/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 570-136343/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	
570-53646-A-4-A MS	Matrix Spike	Total/NA	Solid	3550C	
570-53646-A-4-B MSD	Matrix Spike Duplicate	Total/NA	Solid	3550C	

Metals

Prep Batch: 136938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-53807-1	EP-IDW-01	Total/NA	Solid	3050B	
MB 570-136938/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 570-136938/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-136938/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
570-54150-A-5-B MS	Matrix Spike	Total/NA	Solid	3050B	
570-54150-A-5-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3050B	

Prep Batch: 136940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-53807-1	EP-IDW-01	Total/NA	Solid	7471A	
MB 570-136940/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-136940/2-A	Lab Control Sample	Total/NA	Solid	7471A	

Metals (Continued)

Prep Batch: 136940 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 570-136940/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
570-54150-A-5-E MS	Matrix Spike	Total/NA	Solid	7471A	
570-54150-A-5-F MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	

Analysis Batch: 137221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-53807-1	EP-IDW-01	Total/NA	Solid	7471A	136940
MB 570-136940/1-A	Method Blank	Total/NA	Solid	7471A	136940
LCS 570-136940/2-A	Lab Control Sample	Total/NA	Solid	7471A	136940
LCSD 570-136940/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	136940
570-54150-A-5-E MS	Matrix Spike	Total/NA	Solid	7471A	136940
570-54150-A-5-F MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	136940

Analysis Batch: 137251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-53807-1	EP-IDW-01	Total/NA	Solid	6010B	136938
MB 570-136938/1-A	Method Blank	Total/NA	Solid	6010B	136938
LCS 570-136938/2-A	Lab Control Sample	Total/NA	Solid	6010B	136938
LCSD 570-136938/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	136938
570-54150-A-5-B MS	Matrix Spike	Total/NA	Solid	6010B	136938
570-54150-A-5-C MSD	Matrix Spike Duplicate	Total/NA	Solid	6010B	136938

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Job ID: 570-53807-1
Project/Site: Edison Park Waste Delineation / HL1685B

Client Sample ID: EP-IDW-01
Date Collected: 03/12/21 18:20
Date Received: 03/15/21 10:15

Lab Sample ID: 570-53807-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.05 g	5 mL	136182	03/16/21 11:27	BE5H	ECL 2
Total/NA	Analysis	8260B		1	5 mL	5 mL	136236	03/16/21 11:57	BE5H	ECL 2
	Instrument ID: GCMSGGG									
Total/NA	Prep	3550C			9.97 g	10 mL	136343	03/16/21 14:07	EM5C	ECL 1
Total/NA	Analysis	8015B		1			136311	03/17/21 03:11	N1A	ECL 1
	Instrument ID: GC48									
Total/NA	Prep	3050B			2.02 g	100 mL	136938	03/18/21 15:00	SP7J	ECL 1
Total/NA	Analysis	6010B		1			137251	03/19/21 11:01	ULPF	ECL 1
	Instrument ID: ICP8									
Total/NA	Prep	7471A			0.59 g	100 mL	136940	03/18/21 15:00	SP7J	ECL 1
Total/NA	Analysis	7471A		1			137221	03/19/21 12:06	VYQ5	ECL 1
	Instrument ID: HG7									

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Accreditation/Certification Summary

Client: Geosyntec Consultants, Inc. Job ID: 570-53807-1
Project/Site: Edison Park Waste Delineation / HL1685B

Laboratory: Eurofins Calscience LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	20-003R	10-31-20 *
Nevada	State	CA00111	07-31-21
Oregon	NELAP	CA300001	01-30-22
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Edison Park Waste Delineation / HL1685B

Job ID: 570-53807-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
8015B	Diesel Range Organics (DRO) (GC)	SW846	ECL 1
6010B	Metals (ICP)	SW846	ECL 1
7471A	Mercury (CVAA)	SW846	ECL 1
3050B	Preparation, Metals	SW846	ECL 1
3550C	Ultrasonic Extraction	SW846	ECL 1
5030C	Purge and Trap	SW846	ECL 2
7471A	Preparation, Mercury	SW846	ECL 1

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Sample Summary

Client: Geosyntec Consultants, Inc.
Job ID: 570-53807-1
Project/Site: Edison Park Waste Delineation / HL1685B

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-53807-1	EP-IDW-01	Solid	03/12/21 18:20	03/15/21 10:15	

eurofins | Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us

570-53807 Chain of Custody

CHAIN OF CUSTODY RECORD

DATE: 03/15/21 **53807**

PAGE: 1 OF 1

LABORATORY CLIENT: Geosyntec Consultants, Inc.	CLIENT PROJECT NAME / NUMBER: Edison Park Waste Delineation / HL1685B
ADDRESS: 2100 Main St , Suite 150	PO NO: 100024134
CITY: Huntington Beach STATE: CA ZIP: 92648	PROJECT CONTACT: Karthik Viswanathan
TEL: 714-465-1250 E-MAIL: kviswanathan@geosyntec.com	SAMPLER(S). (PRINT): K. Viswanathan

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ✠ STANDARD

☐ COELT EDF | GLOBAL ID: | LOG CODE:

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

Please check box or fill in blank as needed

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	8260B Routine Volatiles List	8015B C6-C44 w/Carbon Chains	6010B Title 22 Metals	7471A Mercury
	EP-IDW-01	3/12/2021	18:20	Soil	2	Y	N	N	X	X	X	X

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 3/15/21	Time: 10:15
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date	Time
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date	Time

06/02/14 Revision

4-9/13 8 8

3/19/2021

Login Sample Receipt Checklist

Client: Geosyntec Consultants, Inc.

Job Number: 570-53807-1

Login Number: 53807
List Number: 1
Creator: Soriano, Precy

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ALPHA SCIENTIFIC CORPORATION
Environmental Laboratories

10-08-2020

Mr. John Farmer
American Integrated Services
1502 E. Opp Street
Wilmington, CA 90744

Project: HB-40219
Project Site: 21377 Magnolia St., Huntington Beach, CA 92646
Sample Date: 10-02-2020
Lab Job No.: A010003

Dear Mr. Farmer:

Enclosed please find the analytical report for the sample(s) received by Alpha Scientific Corporation on 10-02-2020 and analyzed by the following EPA methods:

EPA 8015M (Total Petroleum Hydrocarbons)
EPA 8260B (VOCs & Oxygenates by GC/MS)
EPA 6010B/7471A for CAM Metals

All analyses have met the QA/QC criteria of this laboratory.

The sample(s) arrived in good conditions (i.e., chilled, intact) and with a chain of custody record attached.

Alpha Scientific Corporation is a CA ELAP certified laboratory (Certificate Number 3007). Thank you for giving us the opportunity to serve you. Please feel free to call me at (562) 809-8880 if our laboratory can be of further service to you.

Sincerely,

Roger Wang, Ph.D.
Laboratory Director

Enclosures

This cover letter is an integral part of this analytical report.

Client:	American Integrated Services	Lab Job No.:	A010003
Project:	HB-40219		
Project Site:	21377 Magnolia St., Huntington Beach, CA 92646	Date Sampled:	10-02-2020
Matrix:	Soil	Date Received:	10-02-2020
Batch No. for TPH-g: AMJ02-GS1		Date Analyzed:	10-02-2020
Batch No. for TPH-d&o:BJ05-DS1		Date Analyzed:	10-05-2020
		Date Reported:	10-08-2020

EPA 8015M (Total Petroleum Hydrocarbons)
Reporting Unit: mg/kg (ppm)

Sample ID	Lab ID	DF for TPH-G	C4-C12 TPH-G*	Surrog Rec.% TPH-G	DF for TPH-D/O	C13-C23 TPH-D	C24-C40 TPH-O	Surrog Rec.% TPH-D/O
MDL			0.2			2	20	
PQL			0.5			5	40	
Method Blank		1	ND	91	1	ND	ND	98
DRM-1, DRM-2, DRM-3	A010003-1,2,3	1	ND	93	1	11.5	67.5	100

* Gasoline Range TPH result is obtained from purge and trap analysis using LUFT-GC/MS method;
MDL: Method Detection Limit;
PQL: Practical Quantitation Limit;
ND: Not Detected (below MDL);
J: Result is between MDL and PQL.;
Note: Surrogate recovery acceptance limits are 70-130%.

Client: American Integrated Services | Lab Job No.: A010003 | Date Reported: 10-08-2020
Project: HB-40219 | Matrix: Soil | Date Sampled: 10-02-2020

EPA 8260B (VOCs by GC/MS, Page 1 of 2)
Reporting Unit: µg/kg(ppb)

DATE ANALYZED			10-02	10-02-20			
DILUTION FACTOR			1	1			
LAB SAMPLE I.D.			MB	A010003-1,2,3			
CLIENT SAMPLE I.D.				DRM-1, DRM-2, DRM-3			
COMPOUND	**MDL**	**PQL**					
Dichlorodifluoromethane	2	5	ND	ND			
Chloromethane	2	5	ND	ND			
Vinyl Chloride	2	5	ND	ND			
Bromomethane	2	5	ND	ND			
Chloroethane	2	5	ND	ND			
Trichlorofluoromethane	2	5	ND	ND			
1,1-Dichloroethene	2	5	ND	ND			
Iodomethane	2	5	ND	ND			
Methylene Chloride	5	10	ND	ND			
trans-1,2-Dichloroethene	2	5	ND	ND			
1,1-Dichloroethane	2	5	ND	ND			
2,2-Dichloropropane	2	5	ND	ND			
cis-1,2-Dichloroethene	2	5	ND	ND			
Bromochloromethane	2	5	ND	ND			
Chloroform	2	5	ND	ND			
1,2-Dichloroethane (EDC)	2	5	ND	ND			
1,1,1-Trichloroethane	2	5	ND	ND			
Carbon tetrachloride	2	5	ND	ND			
1,1-Dichloropropene	2	5	ND	ND			
Benzene	1	2	ND	ND			
Trichloroethene	2	5	ND	ND			
1,2-Dichloropropane	2	5	ND	ND			
Bromodichloromethane	2	5	ND	ND			
Dibromomethane	2	5	ND	ND			
Trans-1,3-Dichloropropene	2	5	ND	ND			
cis-1,3-Dichloropropene	2	5	ND	ND			
1,1,2-Trichloroethane	2	5	ND	ND			
1,3-Dichloropropane	2	5	ND	ND			
Dibromochloromethane	2	5	ND	ND			
2-Chloroethylvinyl ether	2	10	ND	ND			
Bromoform	2	5	ND	ND			
Isopropylbenzene	2	5	ND	ND			
Bromobenzene	2	5	ND	ND			
Toluene	1	2	ND	ND			

Client: American Integrated Services | Lab Job No.: A010003 | Date Reported:10-08-2020
Project: HB-40219 | Matrix: Soil | Date Sampled: 10-02-2020

EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: ppb

COMPOUND	MDL	PQL	MB	DRM-1, DRM-2, DRM-3			
Tetrachloroethene	2	5	ND	ND			
1,2-Dibromoethane(EDB)	2	5	ND	ND			
Chlorobenzene	2	5	ND	ND			
1,1,1,2-Tetrachloroethane	2	5	ND	ND			
Ethylbenzene	1	2	ND	ND			
Total Xylenes	2	4	ND	ND			
Styrene	2	5	ND	ND			
1,1,2,2-Tetrachloroethane	2	5	ND	ND			
1,2,3-Trichloropropane	2	5	ND	ND			
n-Propylbenzene	2	5	ND	ND			
2-Chlorotoluene	2	5	ND	ND			
4-Chlorotoluene	2	5	ND	ND			
1,3,5-Trimethylbenzene	2	5	ND	ND			
tert-Butylbenzene	2	5	ND	ND			
1,2,4-Trimethylbenzene	2	5	ND	ND			
Sec-Butylbenzene	2	5	ND	ND			
1,3-Dichlorobenzene	2	5	ND	ND			
p-Isopropyltoluene	2	5	ND	ND			
1,4-Dichlorobenzene	2	5	ND	ND			
1,2-Dichlorobenzene	2	5	ND	ND			
n-Butylbenzene	2	5	ND	ND			
1,2,4-Trichlorobenzene	2	5	ND	ND			
1,2-Dibromo-3-Chloropropane	2	5	ND	ND			
Hexachlorobutadiene	2	5	ND	ND			
Naphthalene	2	5	ND	ND			
1,2,3-Trichlorobenzene	2	5	ND	ND			
Acetone	75	100	ND	ND			
2-Butanone (MEK)	50	100	ND	ND			
Carbon Disulfide	25	50	ND	ND			
4-Methyl-2-pentanone	50	100	ND	ND			
2-Hexanone	50	100	ND	ND			
Vinyl Acetate	25	50	ND	ND			
Ethanol	500	1000	ND	ND			
MTBE	2	5	ND	ND			
ETBE	2	5	ND	ND			
DIPE	2	5	ND	ND			
TAME	2	5	ND	ND			
TBA	20	50	ND	ND			
SURROGATE	**Accept Limit%**		**%RC**	**%RC**			
Dibromofluoro-methane	79-126		98	98			
Toluene-d8	79-121		95	96			
Bromofluoro-benzene	71-131		94	96			

MB=Method Blank; MDL=Method Detection Limit; PQL=Practical Quantitation Limit; ND=Not Detected (below DF × MDL); J=Result is between DF × MDL and DF × PQL. m=Matrix interference.

Client:	American Integrated Services	Lab Job No.:	A010003
Project:	HB-40219		
Project Site:	21377 Magnolia St., Huntington Beach, CA 92646	Date Sampled:	10-02-2020
Matrix:	Soil	Date Received:	10-02-2020
Digestion Method:	EPA 3050B	Date Digested:	10-05-2020
Batch No.:	1005-MS1	Date Analyzed:	10-05-2020
		Date Reported:	10-08-2020

EPA 6010B/7471A for CAM Metals (TTLC)

Reporting Units: mg/kg (ppm)

Element	EPA Method	Method Blank	A010003-1,2,3 DRM-1, DRM-2, DRM-3				MDL	PQL
Antimony (Sb)	6010B	ND	2.0				1	2
Arsenic (As)	6010B	ND	7.6				0.5	1
Barium (Ba)	6010B	ND	120				1	2
Beryllium (Be)	6010B	ND	ND				1	2
Cadmium (Cd)	6010B	ND	ND				1	2
Chromium (Cr)	6010B	ND	24.4				1	2
Cobalt (Co)	6010B	ND	11.7				1	2
Copper (Cu)	6010B	ND	37.2				1	2
Lead (Pb)	6010B	ND	58.0				1	2
Molybdenum (Mo)	6010B	ND	1.7J				1	2
Nickel (Ni)	6010B	ND	ND				1	2
Selenium (Se)	6010B	ND	ND				0.5	1
Silver (Ag)	6010B	ND	ND				1	2
Thallium (Tl)	6010B	ND	ND				1	2
Vanadium (V)	6010B	ND	100				1	2
Zinc (Zn)	6010B	ND	125				1	2
Mercury (Hg)	7471A	ND	ND				0.1	0.2

MDL: Method Detection Limit;
PQL: Practical Quantitation Limit;
ND: Not Detected (less than MDL);
J: Result is between MDL and PQL.

1.

10-08-2020

TPH-Gasoline
Batch QA/QC Report

Client:	American Integrated Services	Lab Job No:	A010003
Project:	HB-40219		
Matrix:	Soil	Lab Sample I.D.:	EA010004-1
Batch No:	AMJ02-GS1	Date Analyzed:	10-02-2020

I. MS/MSD Report
Unit: ppb

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
TPH-g	ND	1,000	843	871	84.3	87.1	3.3	30	70-130

II. LCS Result
Unit: ppb

Analyte	LCS Value	True Value	Rec.%	Accept. Limit
TPH-g	877	1,000	87.7	80-120

ND: Not Detected (at the specified limit).

10-08-2020

EPA 8015M (TPH)
Batch QA/QC Report

Client:	American Integrated Services	Lab Job No:	A010003
Project:	HB-40219		
Matrix:	Soil	Lab Sample I.D.:	EA010005-1
Batch No:	BJ05-DS1	Date Analyzed:	10-05-2020

I. MS/MSD Report
Unit: ppm

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
TPH-D	ND	200	160	199	80.0	99.5	21.7	30	70-130

II. LCS Result
Unit: ppm

Analyte	LCS Value	True Value	Rec.%	Accept. Limit
TPH-D	191	200	95.5	80-120

ND: Not Detected (at the specified limit)

10-08-2020

EPA 8260B
Batch QA/QC Report

Client:	American Integrated Services	Lab Job No:	A010003
Project:	HB-40219		
Matrix:	Soil	Lab Sample I.D.:	EA010004-2
Batch No:	1002-VOAS1	Date Analyzed:	10-03-2020

I. MS/MSD Report
Unit: ppb

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
1,1-Dichloroethene	ND	20	18.1	16.8	90.5	84.0	7.4	30	70-130
Benzene	ND	20	19.8	19.2	99.0	96.0	3.1	30	70-130
Trichloro-ethene	ND	20	20.4	18.9	102.0	94.5	7.6	30	70-130
Toluene	ND	20	19.4	18.5	97.0	92.5	4.7	30	70-130
Chlorobenzene	ND	20	20.1	19.3	100.5	96.5	4.1	30	70-130

II. LCS Result
Unit: ppb

Analyte	LCS Value	True Value	Rec.%	Accept. Limit
1,1-Dichloroethene	16.5	20	82.5	80-120
Benzene	19.1	20	95.5	80-120
Trichloro-ethene	19.0	20	95.0	80-120
Toluene	19.4	20	97.0	80-120
Chlorobenzene	18.5	20	92.5	80-120

ND: Not Detected (at the specified limit).

10-08-2020

EPA 6010B/7471A for CAM Metals (TTLC)
Batch QA/QC Report

Client:	American Integrated Services	Lab Job No:	A010003
Project:	HB-40219		
Matrix:	Soil	Lab Sample I.D.:	EA010004-1
Batch No.:	1005-MS1	Date Analyzed:	10-05-2020

I. MS/MSD Report
Unit: ppm

Analyte	EPA Method	Sample Conc.	Spike Conc.	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
Antimony (Sb)	6010B	2.2	10	99.4	102.2	2.8	30	70-130
Arsenic (As)	6010B	1.5	10	93.6	96.9	3.5	30	70-130
Barium (Ba)	6010B	106	10	93.8	93.4	0.5	30	70-130
Beryllium (Be)	6010B	ND	10	89.3	88.7	0.7	30	70-130
Cadmium (Cd)	6010B	ND	10	98.8	99.3	0.4	30	70-130
Chromium (Cr)	6010B	18.1	10	94.0	92.6	1.4	30	70-130
Cobalt (Co)	6010B	9.2	10	100.8	96.0	4.9	30	70-130
Copper (Cu)	6010B	25.2	10	104.8	98.6	6.1	30	70-130
Lead (Pb)	6010B	26.9	10	96.9	96.7	0.3	30	70-130
Molybdenum (Mo)	6010B	ND	10	101.7	101.9	0.2	30	70-130
Nickel (Ni)	6010B	ND	10	91.1	93.1	2.1	30	70-130
Selenium (Se)	6010B	ND	10	100.1	100.9	0.7	30	70-130
Silver (Ag)	6010B	ND	10	110.5	113.7	2.9	30	70-130
Thallium (Tl)	6010B	ND	10	89.2	88.0	1.3	30	70-130
Vanadium (V)	6010B	71.6	10	95.1	94.4	0.8	30	70-130
Zinc (Zn)	6010B	58.5	10	98.0	98.3	0.2	30	70-130

ND: Not Detected.

10-08-2020

EPA 6010B/7471A for CAM Metals
Batch QA/QC Report

Client:	American Integrated Services	Lab Job No:	A010003
Project:	HB-40219		
Matrix:	Soil	Lab Sample I.D.:	LCS
Batch No.:	1005-MS1	Date Analyzed:	10-05-2020

II. LCS Result
Unit: ppm

Analyte	EPA Method	LCS Value	True Value	Rec.%	Accept. Limit
Antimony (Sb)	6010B	11.25	10	112.5	80-120
Arsenic (As)	6010B	9.877	10	98.8	80-120
Barium (Ba)	6010B	9.760	10	97.6	80-120
Beryllium (Be)	6010B	9.451	10	94.5	80-120
Cadmium (Cd)	6010B	10.49	10	104.9	80-120
Chromium (Cr)	6010B	9.681	10	96.8	80-120
Cobalt (Co)	6010B	10.50	10	105.0	80-120
Copper (Cu)	6010B	9.770	10	97.7	80-120
Lead (Pb)	6010B	10.28	10	102.8	80-120
Molybdenum (Mo)	6010B	10.15	10	101.5	80-120
Nickel (Ni)	6010B	10.40	10	104.0	80-120
Selenium (Se)	6010B	10.41	10	104.1	80-120
Silver (Ag)	6010B	10.86	10	108.6	80-120
Thallium (Tl)	6010B	10.44	10	104.4	80-120
Vanadium (V)	6010B	9.403	10	94.0	80-120
Zinc (Zn)	6010B	10.58	10	105.8	80-120

ND: Not Detected (at the specified limit).

ALPHA SCIENTIFIC CORPORATION

CHAIN OF CUSTODY RECORD

Lab Job Number A010003

Client: American Integrated Services, Inc.			
Address 1502 E. Opp Street, Wilmington, CA 90740			
Report Attention John Farmer	**Phone** 714-307-4322	**Fax** 310-522-0474	**Sampled by** Scott Anderson
Project Name/No. HB - 40219	**Project Site** 21377 Magnolia Street, Huntington Beach, CA 92646		

Analyses Requested

T.A.T. Requested
☐ 8 hrs ☐ 24 hrs ☐ 48 hrs
☐ 3 days ☑ Normal

Sample Condition
☒ Chilled ☒ Intact
☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserve	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	TPH-Motor Oil			Remark
DRM-1	A010003-1	10/2/20	10 ao	Soil		1/ Jar/ 4oz	X	X		X		X		X			email results to:
DRM-2	-2	10/2/20	1005	Soil		1/ Jar/ 4oz	X	X		X		X		X			jfarmer@americanintegrated.com
DRM-3	-3	10/2/20	1010	Soil		1/ Jar/ 4oz	X	X		X		X		X			
									Composite (1, 2, & 3) together for chemical analysis								

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
Scott Anderson	AIS	10/2/20	1145	Meilingi	ASC	10-2-20	11:45
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: White with report, Yellow to courier.

Alpha Scientific Corporation
Sample Acceptance Checklist

Section 1

Client: A2S Project: HB-40219 Lab Job# A010003

Date Received: 10-2-20

Sample(s) received in cooler(s)? Yes ✓ No ____ (skip to Section 2)

Cooler(s) packed with: Ice ____ Ice Packs ✓ Packing Material ____

Cooler Temperature (°C) : #1: 4°C #2: ____ #3: ____ #4: ____ #5 ____

(Acceptable range is 0°C to 6°C or arriving on ice for samples received on the same day as collected.)

(Ambient Temperature for vapor or air samples is acceptable).

If sample(s) received outside acceptable range, Project Manager contacted by(Personnel Initial): ____

Section 2	YES	NO	N/A
Was a COC received?	✓		
Were client sample IDs present?	✓		
Were sample(s) collection dates present?	✓		
Was the COC signed?	✓		
Were tests clearly indicated?	✓		
Did all samples arrive intact? If no, indicate below.	✓		
Did all container labels agree with COC?	✓		
Were correct containers used for the tests required?	✓		
Was there sufficient sample amount for requested tests?	✓		
Were the samples correctly preserved?	✓		
Was there headspace in VOA vials?			✓
Were Custody seals present?		✓	
If yes-were they intact?			✓

Section 3

Explanations/Comments: ____

Section 4

Was the Project Manager notified of anomalies? Yes ____ No ____ N/A ✓

Via Phone: By: ____ Date/Time ____

By Email: Sent to: ____

Project Manager's response: ____

Completed by: ML Date: 10-2-20

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: asc90703@gmail.com
Tel: (562) 809-8880
Fax: (562) 809-8801

ALPHA SCIENTIFIC CORPORATION
Environmental Laboratories

10-12-2020

Mr. John Farmer
American Integrated Services
1502 E. Opp Street
Wilmington, CA 90744

Project: HB-40219
Project Site: 21377 Magnolia St., Huntington Beach, CA 92646
Sample Date: 10-02-2020
Lab Job No.: A010003A

Dear Mr. Farmer:

Enclosed please find the analytical report for the sample(s) received by Alpha Scientific Corporation on 10-02-2020 and analyzed by the following EPA methods

EPA 6010B (Lead, STLC)

All analyses have met the QA/QC criteria of this laboratory.

The sample(s) arrived in good conditions (i.e., chilled, intact) and with a chain of custody record attached.

Alpha Scientific Corporation is a CA ELAP certified laboratory (Certificate Number 3007). Thank you for giving us the opportunity to serve you. Please feel free to call me at (562) 809-8880 if our laboratory can be of further service to you.

Sincerely,

Roger Wang, Ph.D.
Laboratory Director

Enclosures

This cover letter is an integral part of this analytical report.

Client:	American Integrated Services	Lab Job No.:	A010003A
Project:	HB-40219		
Project Site:	21377 Magnolia St., Huntington Beach, CA 92646	Date Sampled:	10-02-2020
Matrix:	Soil	Date Received:	10-02-2020
Batch No.:	1012-MS1	Date Analyzed:	10-12-2020
		Date Reported:	10-12-2020

EPA 6010B (Lead, STLC)
Reporting Unit: mg/L (ppm)

Sample ID	Lab ID	Lead (Pb), STLC			
MDL		0.1			
PQL		0.2			
Extraction Blank		ND			
DRM-1, DRM-2, DRM-3	A010003-1,2,3	1.52			

Note: Sample Preparation: Extraction Procedures, STLC Metals, Title 22, Chapter 11, Appendix II-1, 48 hours (10-07 to 10-09-2020).

MDL: Method Dectection Limit;
PQL: Practical Quantitation Limit;
ND: Not Detected (Below MDL)
J: Result is between MDL and PQL.

10-12-2020

EPA 6010B (Lead)
Batch QA/QC Report

Client:	American Integrated Services	Lab Job No:	A010003A
Project:	HB-40219		
Matrix:	Soil	Lab Sample I.D.:	A010016-1
Batch No.:	1012-MS1	Date Analyzed:	10-12-2020

I. MS/MSD Report
Unit: ppm

Analyte	Sample Conc.	Spike Conc.	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
Lead (Pb)	19.6	10	100.8	103.9	3.0	30	70-130

II. LCS Result
Unit: ppm

Analyte	LCS Value	True Value	Rec.%	Accept. Limit
Lead (Pb)	10.58	10.0	105.8	80-120

ND: Not Detected (at the specified limit).

Geosyntec
consultants

APPENDIX C

GEOSYNTEC (2023) GEOPHYSICAL OIL WELL LOCATING SURVEY REPORT

Geosyntec consultants

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27 July 2023

Mr. Patrick Bannon
Capital Projects Administrator
Public Works Department – Engineering
City of Huntington Beach
2000 Main Street
Huntington Beach, California 92648

Subject: Letter Report – Geophysical Oil Well Locating Survey
Edison Park, Huntington Beach, California

Dear Mr. Bannon:

Geosyntec Consultants, Inc. (Geosyntec) prepared this letter report for the City of Huntington Beach, Public Works Department (City). This letter documents the geophysical survey performed to locate the existing oil wells at the Edison Park, located at 21377 Magnolia Street, Huntington Beach, California (Site). The services documented in this letter were performed in general accordance with the Professional Services Contract between the City and Geosyntec for As-Needed General Environmental Engineering Services, dated February 2021 and the scope of work described in our proposal dated July 3, 2023.

BACKGROUND AND PROJECT UNDERSTANDING

A review of the State of California Geologic Energy Management Division (CalGEM) database indicated the presence of two historical oil wells [Aldrich Fee #1 (API: 0405905847) and Aldrich #2 (API: 0405901101)] located at the northeast corner of the Site, within the approximate areas of proposed park improvements. The status of the two oil wells are listed as "plugged" per CalGEM's database. While CalGEM records provide the approximate locations of the wells, the exact locations of these oil wells were unknown/needed to be confirmed to avoid potential disturbance to the wells.

Accordingly, the objective of this project was to perform a non-intrusive geophysical survey to attempt to identify the interpreted locations of the two oil wells at the Site.

GEOPHYSICAL SURVEY

Geosyntec retained the services of a **GEO***Vision* Geophysical Services (**GEO***Vision*), a geophysical specialty subcontractor to perform geophysical mapping survey at and near

the approximate locations of the two subject oil wells. The geophysical survey was performed on July 18, 2023, under the observation of Geosyntec field personnel.

The approximate location of the two oil wells were identified in the field using a Geometrics G858 cesium magnetometer (G858). This instrument measures the intensity of the magnetic field of the earth. Metallic-cased oil wells generally give rise to very high amplitude and broad magnetic anomalies and can typically be located using a magnetometer.

Once positive anomalies were detected for the two subject oil wells, magnetic data was acquired along a rectangular grid centered on the expected well locations. The magnetometer was used in conjunction with a Global Positioning System (GPS) for spatial control. The magnetometer was used to identify the magnetic field maxima associated with the well casing, the location of which was surveyed using GPS. The magnetic data and spatial data were stored in the instruments internal memory and downloaded to a laptop computer upon completion of the survey for data processing and interpretation.

Additional details on the geophysical method, field procedures, data processing, and results are provided in the Geophysical Oil Well Locating Survey Report prepared by **GEO***Vision* and included here as Attachment A. Geosyntec's Daily Field Report with photo logs summarizing the field activities is included here as Attachment B.

Approximate interpreted locations of the centers of the two Oil Wells based on the geophysical interpretation are shown in Figure 1 and summarized in Table 1.

Table 1. Approximate Interpreted Coordinates of the Center of the Identified Oil Wells

Oil Well Name	Interpreted Easting (US Survey Feet)	Interpreted Northing (US Survey Feet)
Aldrich Fee #1	6037822.8	2185799.7
Aldrich #2	6037540.1	2185767.1

LIMITATIONS

Please note, the geophysical survey to locate the existing wells is a non-intrusive method and results can be affected by several factors that include soil characteristics at the site,

condition of the well casing and soil cover. The accuracy of the location identified by this method can vary and is generally considered approximate. The actual location of the well will require confirmation/verification via intrusive (i.e., excavation) work.

CLOSURE

We appreciate the opportunity to assist the City on this important project. Should you have any questions about this letter or require additional information, please do not hesitate to call Yonas Zemuy at (714) 465-1256.

Sincerely,

Sneha Upadhyaya, Ph.D., E.I.T. (CA)
Senior Staff Professional

Yonas Zemuy, P.E. (AZ, CA, NV)
Senior Principal Engineer

Attachments:

Figure 1 – Approximate Inferred Locations of the Oil Wells
Attachment A: **GEO***Vision* Geophysical Oil Well Locating Survey Report
Attachment B: Geosyntec Daily Field Report

FIGURE

LEGEND

APPROXIMATE LIMITS OF EXISTING CANNERY STREET FORMER REFUSE DISPOSAL STATION WASTE [TRC, 2001]

LATERAL LIMITS OF WASTE MATERIAL DELINATED DURING GEOSYNTEC 2020 AND 2021 EXPLORATIONS

INTERPRETED LOCATION OF OIL WELL

AERIAL BACKGROUND IMAGERY: © 2023 MICROSOFT CORPORATION, © 2023 MAXAR, © CNES (2023) DISTRIBUTION AIRBUS DS

N

0 50

SCALE IN FEET

APPROXIMATE INFERRED LOCATION OF THE OIL WELLS
GEOPHYSICAL OIL WELL LOCATING SURVEY
EDISON PARK
HUNTINGTON BEACH, CALIFORNIA

Geosyntec consultants

FIGURE 1

PROJECT NO: SC1369 | JULY 2023

N:\CAC\ADDIE\EDISON PARK\EDISON PARK-SC1369\FIGURES\1369F001 - Last Saved by: KViswanathan on 7/25/23

ATTACHMENT A: GEOVISION GEOPHYSICAL OIL WELL LOCATING SURVEY REPORT

engineers | scientists | innovators

GEOVision
geophysical services

July 25, 2023
Project Number 23241

Mr. Yonas Zemuy
Geosyntec Consultants
3530 Hyland Avenue, Suite 100
Costa Mesa, California 92625

Subject: **Steel Oil Well Location at 21377 Magnolia Street, Huntington Beach, California**

Mr. Zemuy:

On July 18th, 2023, a geophysical investigation was conducted for two suspected oil wells at the site located above, in Edison Park in the city of Huntington Beach.

METHODOLOGY

The geophysical instrument used during this investigation consisted of a Geometrics G858 optically pumped cesium-vapor magnetometer (G858). This magnetometer measures the intensity of the earth's magnetic field in nanoteslas (nT) and, optionally, the vertical gradient of the earth's magnetic field in nanoteslas per meter (nT/m). Buried ferrous metallic objects give rise to anomalies in the earth's magnetic field. These anomalies are generally dipolar with a positive response south and a negative response north of the object. The dimensions and amplitude of a magnetic anomaly are a function of the size, mass, depth, and magnetic properties of the source. Magnetometers can typically locate a metallic-cased oil well to depths of over 15 feet providing background noise levels are not too high and the steel is not extensively corroded.

FIELD PROCEDURE

Before conducting a magnetic survey, an attempt was made to locate each of the existing oil wells using the magnetometer in search mode. Two areas with anomalies were relatively clear and therefore a magnetic survey was conducted in these areas. The magnetometer was used in conjunction with the GPS system for spatial control. GPS data were collected in the geodetic coordinate system and then converted to California State Plane 1983, NAD83 (Conus), Zone VI (0406) in US Survey Feet, during data processing. Positions were taken using a Spectra Precision GPS system with Centerpoint RTX corrections.

Prior to data acquisition, the G858 was programmed with the appropriate sampling interval and GPS input settings. Spatial information was sent to the console at 1 second intervals using a GGA NMEA stream. Magnetic data and spatial data were downloaded

to a laptop computer at the end of the survey using the program MAGMAP 2000 by Geometrics, Inc.

Details on the geophysical method can be found in the attached technical note titled "Magnetic Method".

DATA PROCESSING

A color-enhanced contour map of the magnetic data was generated using the GEOSOFT® Oasis montaj ™ geophysical mapping system. The map was color-enhanced to aid in the interpretation of subtle anomalies. Prior to map generation, a number of preprocessing steps were completed and included:

- Backup of all original field data files to computer.
- Correcting of all data acquisition errors (typically removing null data and erroneous GPS points).
- Reformatting field data files to free format XYZ files containing at a minimum GPS time and field measurements.
- Merging GPS position data and geophysical data using commercial and in-house software.
- Merging of multiple data files into a single file and sorting, if necessary.
- Converting of data files to State Plane northings and eastings.

These data adjustments were made using a combination of commercial and proprietary software. Adjustments made to data files and resulting file names were documented and are retained in project files.

The output of the data preprocessing was a data file containing the magnetic total field response. Data processing steps included the following:

- Reformatting of data files to GEOSOFT® format.
- Generating final map scale.
- Gridding data using down- and cross-line splines or minimum curvature.
- Masking grid in areas where data not acquired (i.e. around site perimeter or building).
- Applying Hanning filter to smooth the data, as necessary.
- Generating color zone file describing color for different data ranges.
- Contouring the data.
- Generating map surrounds (title block, legend, scale, color bar, north arrow, etc.).
- Annotating anomalies.
- Merging various plot files and plotting final map.

The names of the files generated and the processing parameters used were documented and are retained in project files. Files generated during the processing sequence were archived on a backup drive.

RESULTS

A site map with geophysical interpretation is presented in Figure 1. A map of total magnetic field response of the surveyed areas is presented in Figure 2. The coordinates

shown on the maps reference the California State Plane, NAD83 (Conus), Zone VI (0406), US survey feet coordinate system. The color bar indicates the amplitude of the measured quantity with magenta and dark blue indicating high and low amplitudes, respectively. Light orange, yellow, and light green indicate average "background" values of the measured quantity. A typical magnetic oil well response is a round anomaly that is high in amplitude, shown in the attached Technical Note. However, atypical magnetic oil well responses can occur, though less common.

There were two broad, positive high amplitude anomalies located within the surveyed areas, with values over 48,000 nT, indicative of metal oil wells. For reference, background magnetic field strength at this site was around 46,000 nT. GPS locations from the approximate center of each such anomaly are provided in Table 1. The characteristics of the anomalies indicate that the top of the metallic casings are likely located within the upper 15 feet. Other anomalies such as buried electric lines, an unknown line, and a small buried metallic object located within the survey area are labeled on the figures.

Well Name	Interpreted Easting (US Survey feet)	Interpreted Northing (US Survey feet)	Peak Amplitude (nT)
Aldrich Fee 1	6037822.8	2185799.7	49,800
Aldrich 2	6037540.1	2185767.1	48,300

Table 1: Coordinates of Possible Oil Well Anomalies

We recommend the source of each anomaly is uncovered to confirm its source and location.

If you have any questions concerning this investigation, please call us at 951-549-1234, or email at efeldman@geovision.com.

Sincerely,
GEO*Vision* Geophysical Services

Emily Feldman, PGp Project Geophysicist

Attachments:
Figure 1 – Site Map with Geophysical Interpretation
Figure 2 – Total Magnetic Field Response
Technical Note – Magnetic Method

Street Light Pole
Monitoring Well
Small Buried Metallic Object / Debris
Underground Electric Line
Underground Utility Line (Unknown type)
Interpreted Location of Oil Well

Notes:
Coordinate System: NAD 1983 StatePlane California VI FIPS 0406 Feet
Base map source: City of Huntington Beach (2022), Maxar

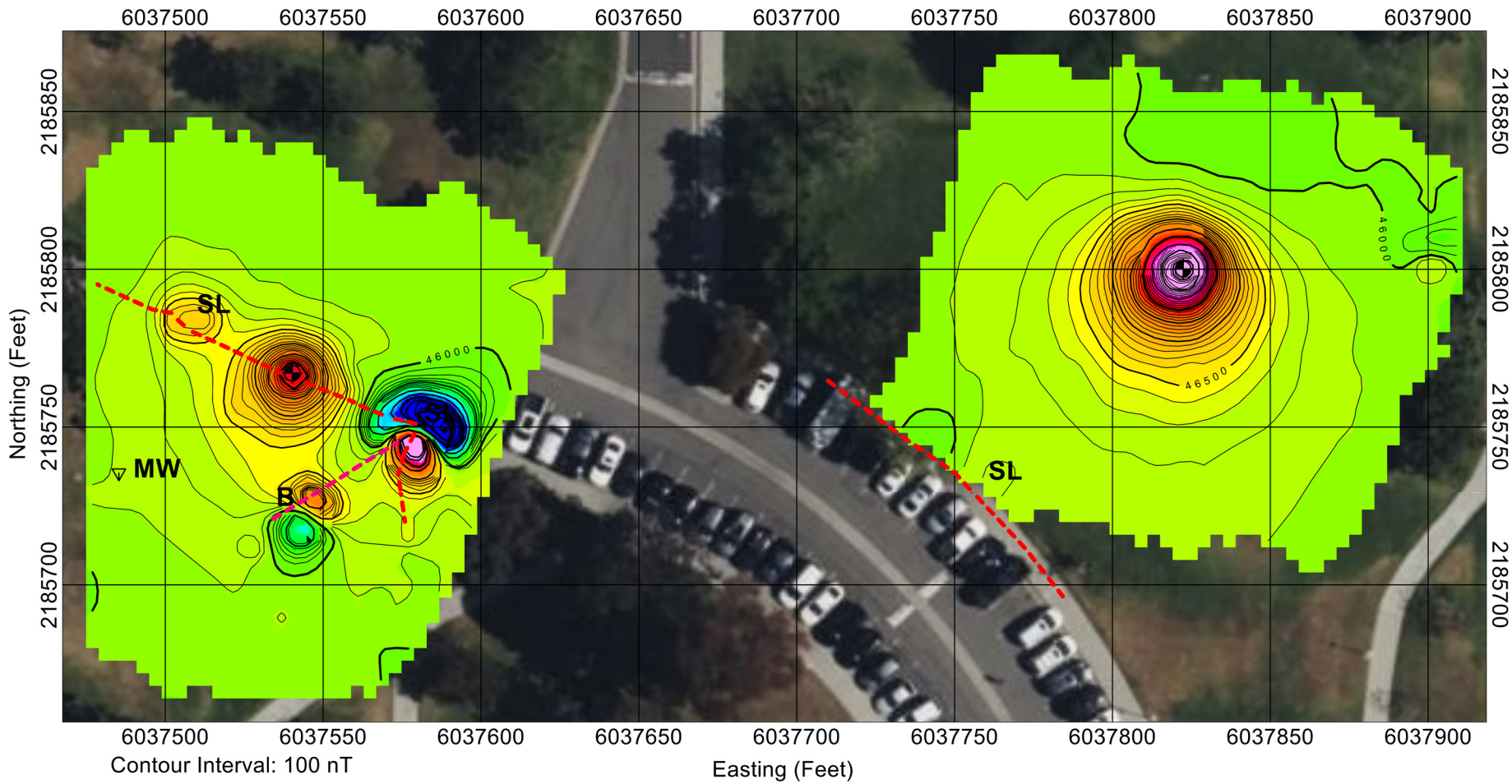
GEOVision geophysical services

Date:	7/25/2023
GV Project:	23241
Developed by:	E Feldman
Drawn by:	T Rodriguez
Approved by:	A Martin
File Name:	GV_23241

FIGURE 1
SITE MAP
WITH GEOPHYSICAL INTERPRETATION

SITE LOCATED AT
21377 MAGNOLIA ST
HUNTINGTON BEACH, CALIFORNIA

CREATED FOR
GEOSYNTEC



LEGEND

- Approximate GV Located Oil Well
- **MW** Monitoring Well
- **B** Buried Metallic Object
- **SL** Streetlight
- Located Utility Line

Aerial Source: Azure Maps Imagery, 2023

GEOVision geophysical services

Figure 2

Total Magnetic Field Response
G858 Magnetometer

Site Located at 21377 Magnolia St
Huntington Beach, California

Created for Geosyntec

MAGNETIC METHOD

GEOVision geophysical services

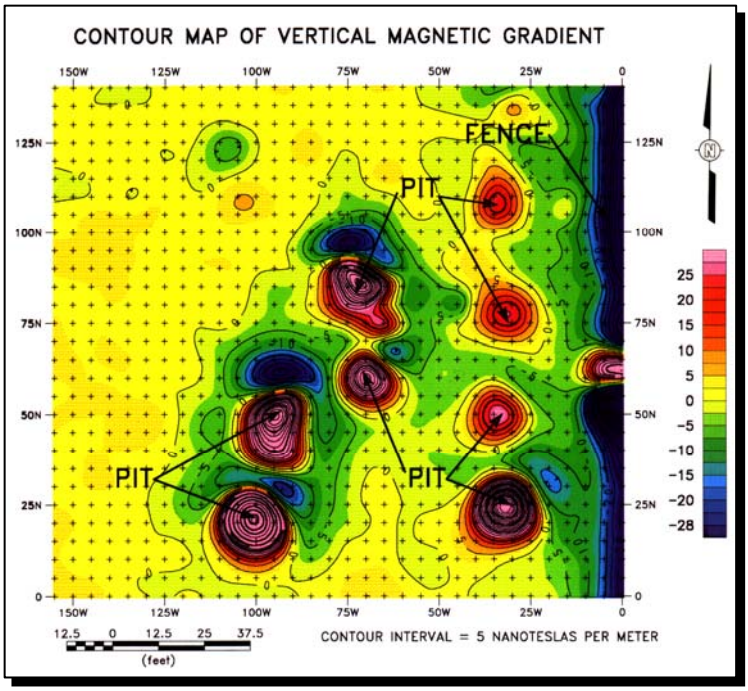
The magnetic method involves the measurement of the earth's magnetic field intensity. Typically the total magnetic field and/or vertical magnetic gradient is measured. Measurements of the horizontal or vertical component or horizontal gradient of the magnetic field may also be made.

Anomalies in the earth's magnetic field are caused by induced or remanent magnetism. Induced magnetic anomalies are the result of secondary magnetization induced in a ferrous body by the earth's magnetic field. The shape, dimensions, and amplitude of an induced magnetic anomaly is a function of the orientation, geometry, size, depth, and magnetic susceptibility of the body as well as the intensity and inclination of the earth's magnetic field in the survey area. Buried ferrous metallic objects, such as pipes, drums, tanks, and debris generally give rise to dipolar anomalies with a positive response south and a negative response north of the object. The magnetic method is an effective way to search for small metallic objects because magnetic anomalies have spatial dimensions much larger than those of the objects. An oil well typically gives rise to a monopolar anomaly with a very high amplitude, positive peak several feet south of the well and a low amplitude, broad negative response to the north. The magnetic anomaly over a buried oil well often has a diameter of over 50 feet and amplitude of several thousand nanoteslas, depending on depth and casing characteristics. Magnetometers can typically locate an abandoned oil well to depths of over 20 feet providing that background noise levels are not too high and the well casing is not significantly corroded. Magnetometers are not able to detect nonferrous metals such as aluminum and brass.

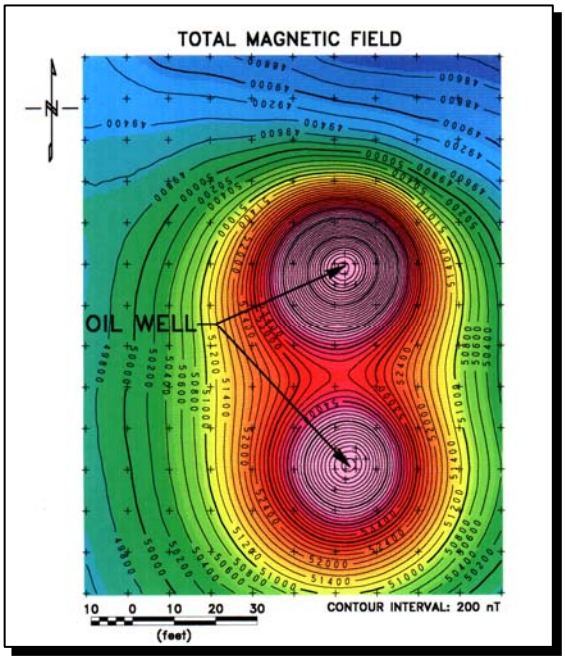
Geometrics G-858 Magnetometer

The magnetic method is typically used to:

- Locate abandoned steel well casings
- Locate buried tanks and pipes
- Locate pits and trenches containing buried metallic debris
- Detect buried unexploded ordnance (UXO)
- Map old waste sites and landfill boundaries
- Clear drilling locations
- Map basement faults and geology
- Investigate archaeological sites



Magnetic Survey to Locate Pits Containing Buried Metallic Containers



Magnetic Survey to Locate Abandoned Oil Wells

1124 Olympic Drive, Corona, California 92881, ph. 951-549-1234, fx. 951-549-1236, www.geovision.com

ATTACHMENT B: GEOSYNTEC DAILY FIELD REPORT

Geosyntec consultants

DAILY FIELD REPORT

PROJECT: Edison Park Geotech Support		
LOCATION: Huntington Beach, California	PROJECT NO.: SC1369	TASK NO.: 03
DESCRIPTION: Geophysical Oil Well Locating Survey	CONTRACTOR: GEOVision	
DAY OF WEEK: Tuesday	DATE: July 18, 2023	
WEATHER: Sunny, Low 64°F High 82°F		

Time	Field Work Activities
0700	S. Upadhyaya (Geosyntec) arrived on site at the Edison Park and met with GEOVision crew E. Feldman and E. Vasquez.
0705	Geosyntec and GEOVision discussed health and safety.
0710	GEOVision started the geophysical oil well locating survey at the northeastern corner of the Edison Park using the Geometrics G858 cesium magnetometer. Other equipment used included Fisher metal detector and Ground Penetrating Radar (GPR).
0730-0945	GEOVision detected strong anomalies that were identified as the potential location of the two oil wells. GEOVision collected magnetic data around the center of the identified approximate locations of the two wells and surveyed the approximate location of the two oil wells using GPS units. GEOVision also marked the approximate centers of the wells in the field using stakes/whiskers (flushed to ground).
0945	GEOVision completed the survey.
1000	GEOVision departed the site. S. Upadhyaya (Geosyntec) measured straight line distances to the oil wells from atleast three fixed objects and removed the “No Parking” signs per City’s request.
1030	Geosyntec departed the site.
Hours on-site: 3.5 hrs; Travel time: 0.5 hrs	

Geosyntec consultants

DAILY FIELD REPORT

PROJECT: Edison Park Geotech Support		
LOCATION: Huntington Beach, California	PROJECT NO.: SC1369	TASK NO.: 03
DESCRIPTION: Geophysical Oil Well Locating Survey	CONTRACTOR: GEOVision	
DAY OF WEEK: Tuesday	DATE: July 18, 2023	
WEATHER: Sunny, Low 64°F High 82°F		

Approximate Inferred Oil Well #1 location (looking west)

Approximate Inferred Oil Well #2 location (looking south)

Geophysical survey being performed using the magnetometer at Oil Well #1 location (looking south)

Geophysical survey being performed using the Fisher metal detector around the Oil Well #2 area.

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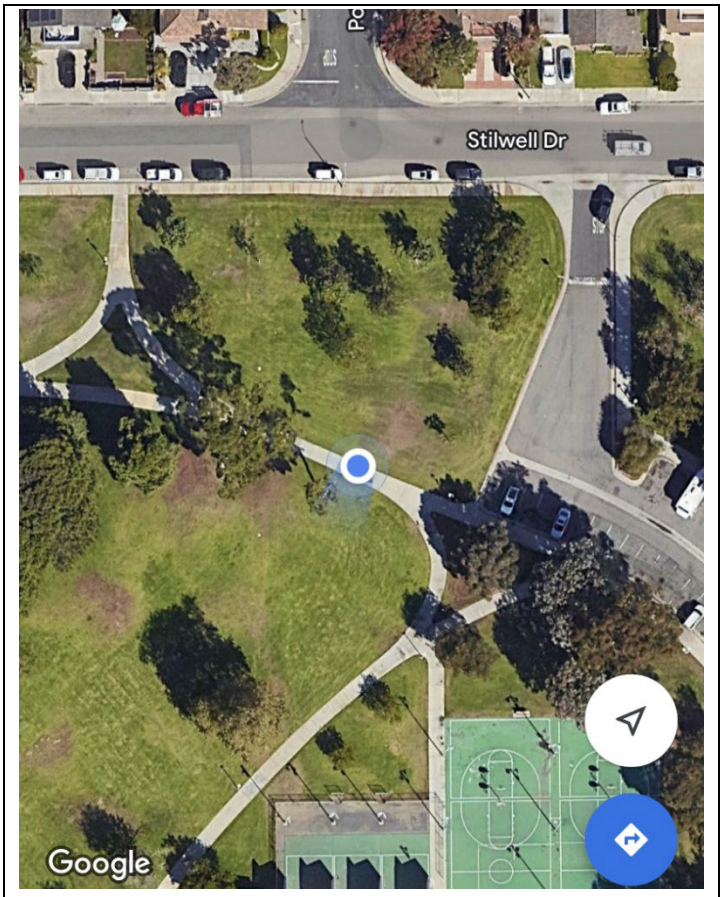
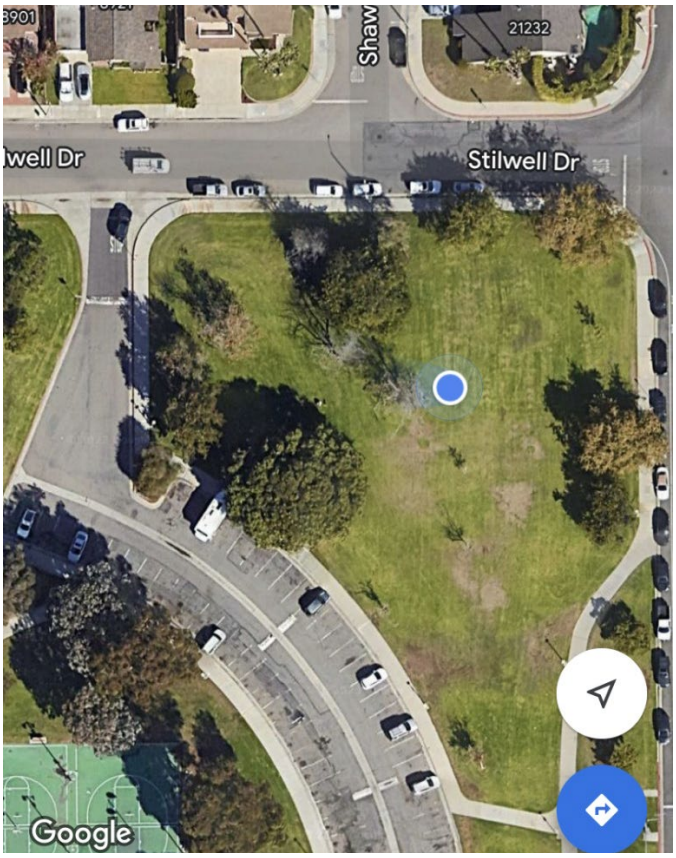
DAILY FIELD REPORT

PROJECT: Edison Park Geotech Support		
LOCATION: Huntington Beach, California	PROJECT NO.: SC1369	TASK NO.: 03
DESCRIPTION: Geophysical Oil Well Locating Survey	CONTRACTOR: GEOVision	
DAY OF WEEK: Tuesday	DATE: July 18, 2023	
WEATHER: Sunny, Low 64°F High 82°F		



Approximate inferred location of Oil Well #2



Approximate inferred location of Oil Well #1

Geosyntec
consultants

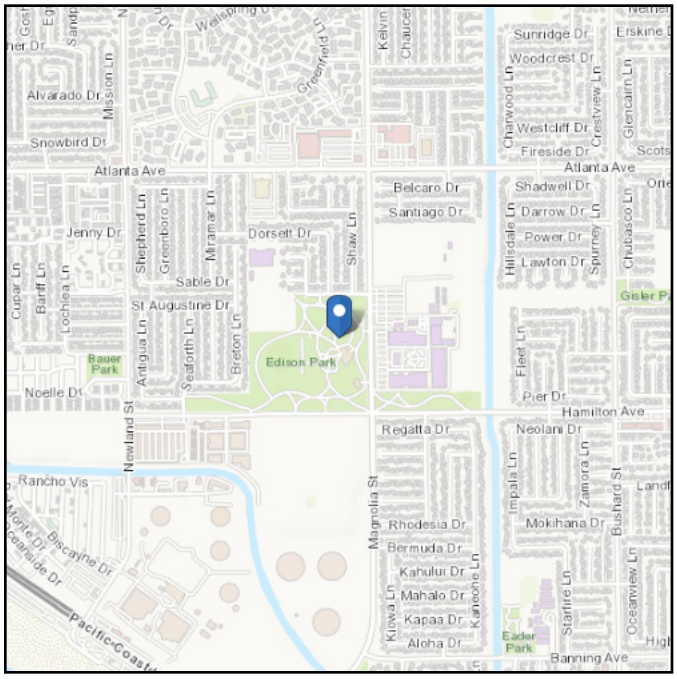
APPENDIX D

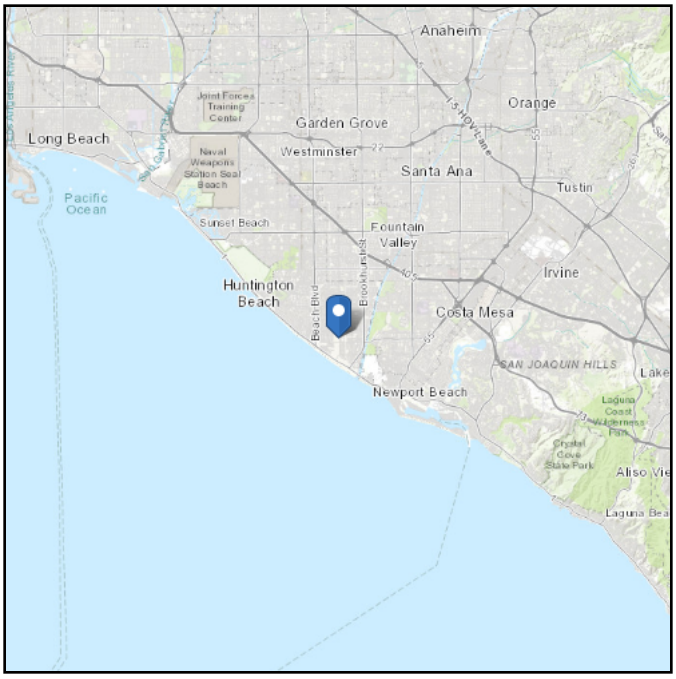
ASCE7 HAZARD TOOL OUTPUT

ASCE 7 Hazards Report

Address:
No Address at This Location

Standard:	ASCE/SEI 7-16	**Latitude:**	33.652693
Risk Category:	II	**Longitude:**	-117.9721
Soil Class:	D - Default (see Section 11.4.3)	**Elevation:**	6.7946934949892395 ft (NAVD 88)





Seismic

Site Soil Class: D - Default (see Section 11.4.3)

Results:

S_S :	1.391	S_{D1} :	N/A
S_1 :	0.502	T_L :	8
F_a :	1.2	PGA :	0.606
F_v :	N/A	PGA_M :	0.728
S_{MS} :	1.67	F_{PGA} :	1.2
S_{M1} :	N/A	I_e :	1
S_{DS} :	1.113	C_v :	1.378

Ground motion hazard analysis may be required. See ASCE/SEI 7-16 Section 11.4.8.

Data Accessed: Mon Sep 11 2023

Date Source: USGS Seismic Design Maps

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided “as is” and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

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In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE 7 Hazard Tool.

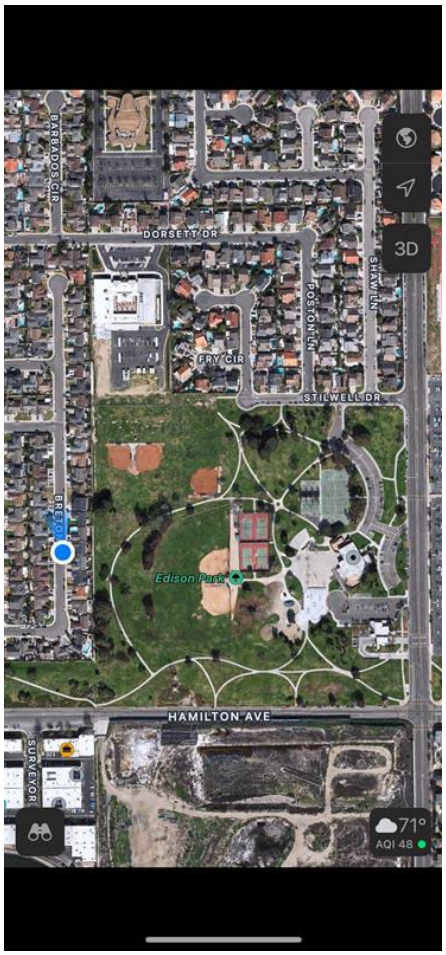
Site Number: NM-1	
Recorded By: Dennis Dinh, Darshan Shivaiah	
Job Number: 208581	
Date: 7/31/2025	
Time: 10:54 a.m.	
Location: In front of 21362 Breton Lane	
Source of Ambient Noise: Traffic along Breton Lane	

Noise Data		
L_{eq} (dB)	L_{min} (dB)	L_{max} (dB)
50.4	35.4	74.6

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Brüel & Kjær**	**2250**	**3011133**	**06/04/2023**	
	Microphone	**Brüel & Kjær**	**4189**	**3086765**	**06/04/2023**	
	Preamp	**Brüel & Kjær**	**ZC 0032**	**25380**	**06/04/2023**	
	Calibrator	**Brüel & Kjær**	**4231**	**2545667**	**06/04/2023**	

Weather Data			
Est.	**Duration:** 10 minutes	**Sky:** Cloudy	
	Note: dBA Offset = -0.01	**Sensor Height (ft):** 5 ft	
	Wind Ave Speed (mph / m/s)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (inches)**
	6	71	30.06

Photo of Measurement Location



2250

Instrument:		2250
Application:		BZ7225 Version 4.7.6
Start Time:		07/31/2025 10:54:06
End Time:		07/31/2025 11:04:06
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		142.20

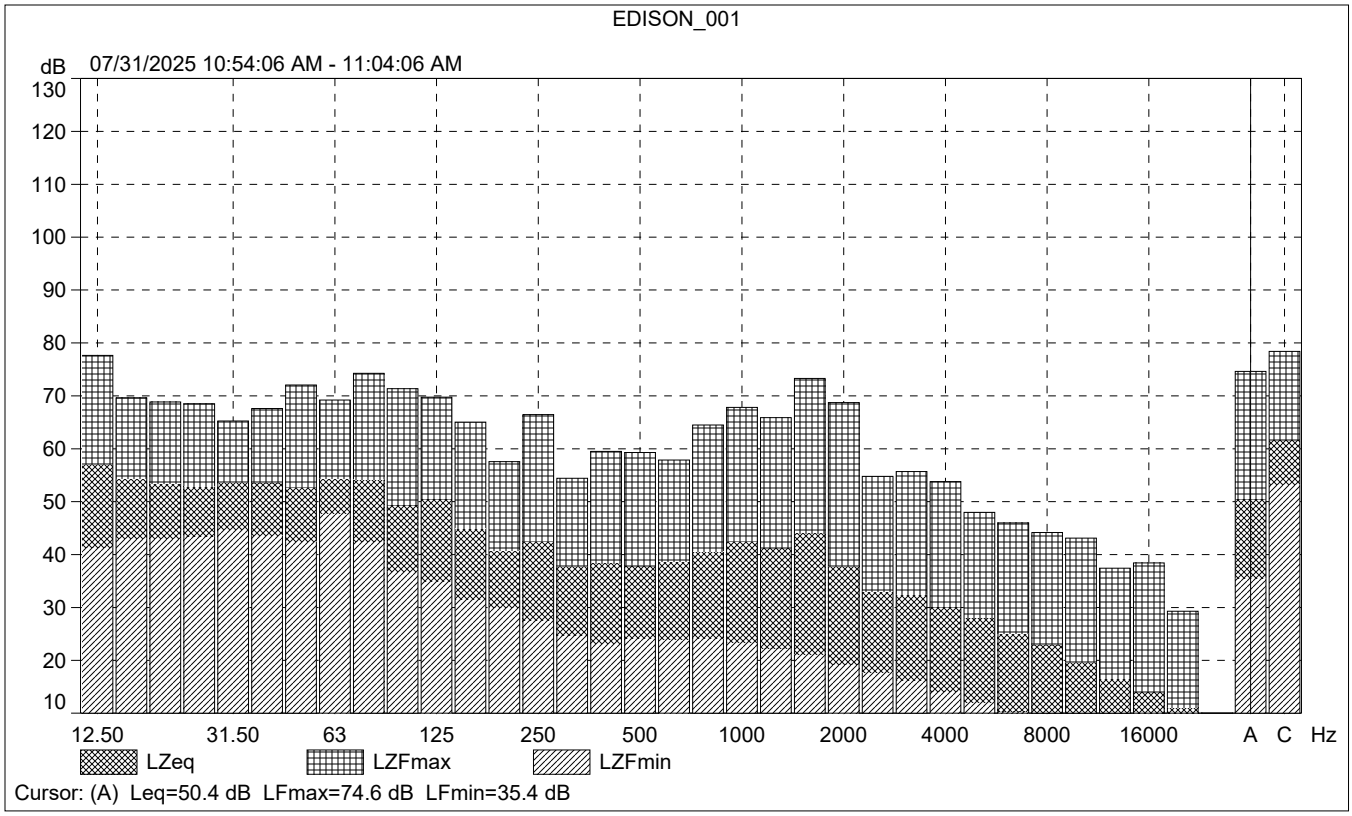
	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

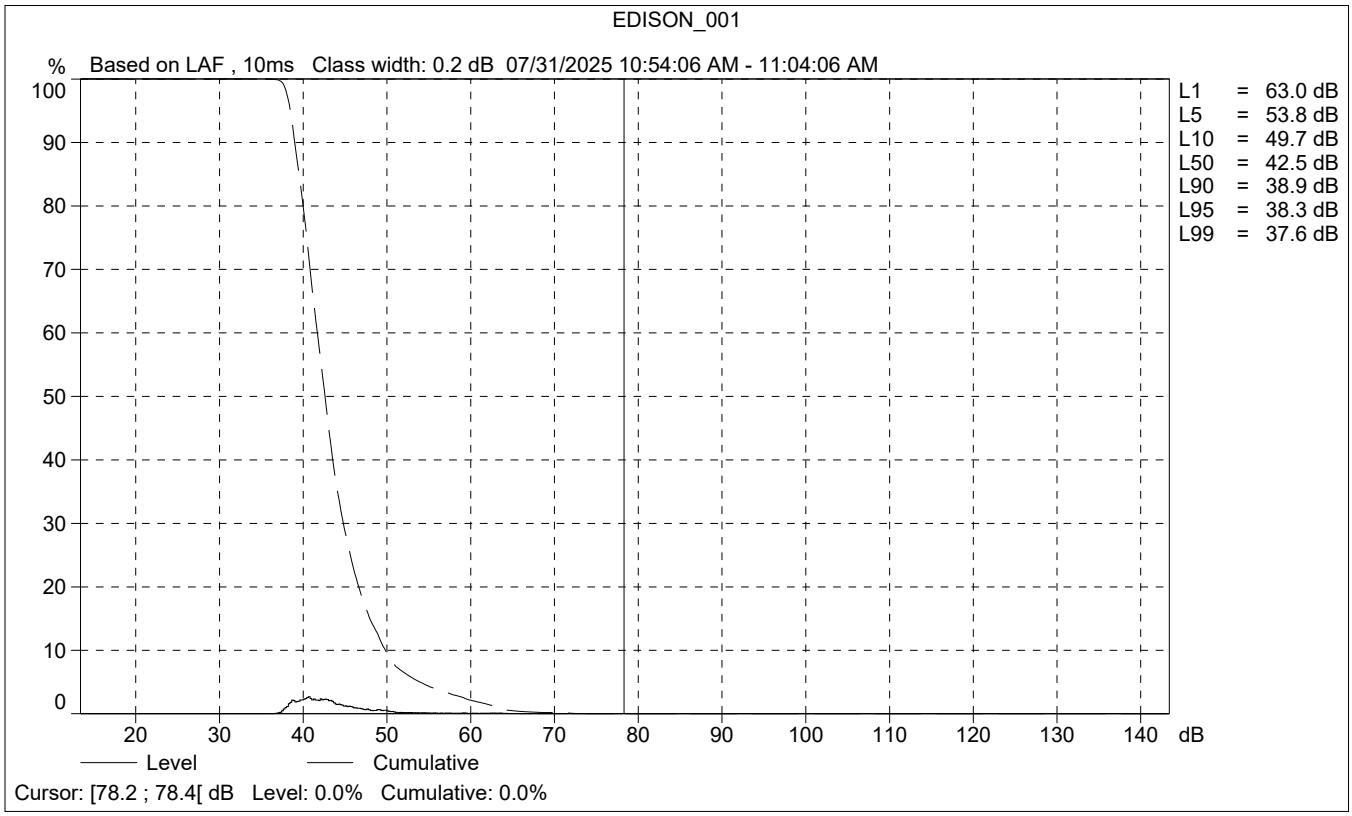
Instrument Serial Number:		3011133
Microphone Serial Number:		3086765
Input:		Top Socket
Windscreen Correction:		UA-1650
Sound Field Correction:		Free-field

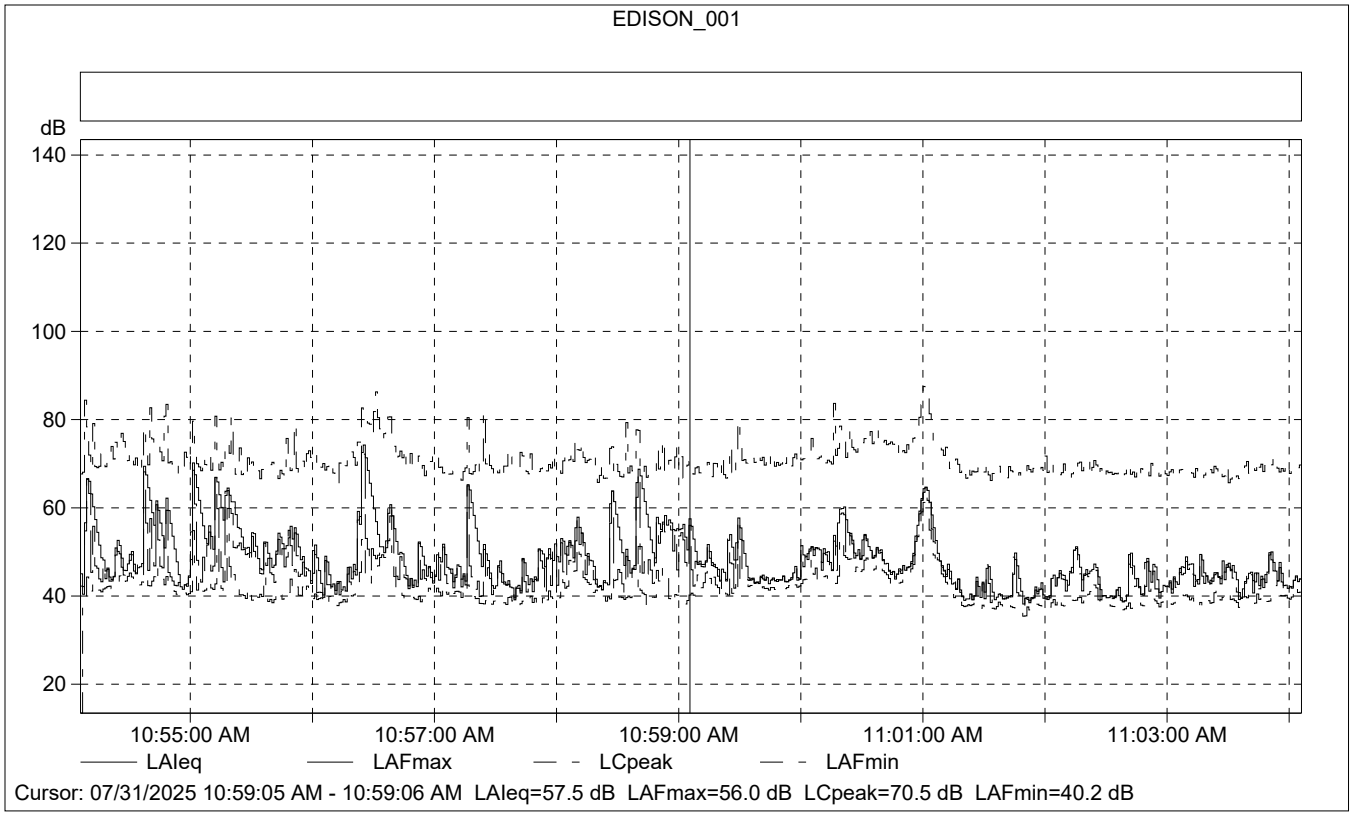
Calibration Time:		07/31/2025 10:44:30
Calibration Type:		External reference
Sensitivity:		43.22599619627 mV/Pa

EDISON_001

	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	50.4	74.6	35.4
Time	10:54:06 AM	11:04:06 AM	0:10:00				
Date	07/31/2025	07/31/2025					

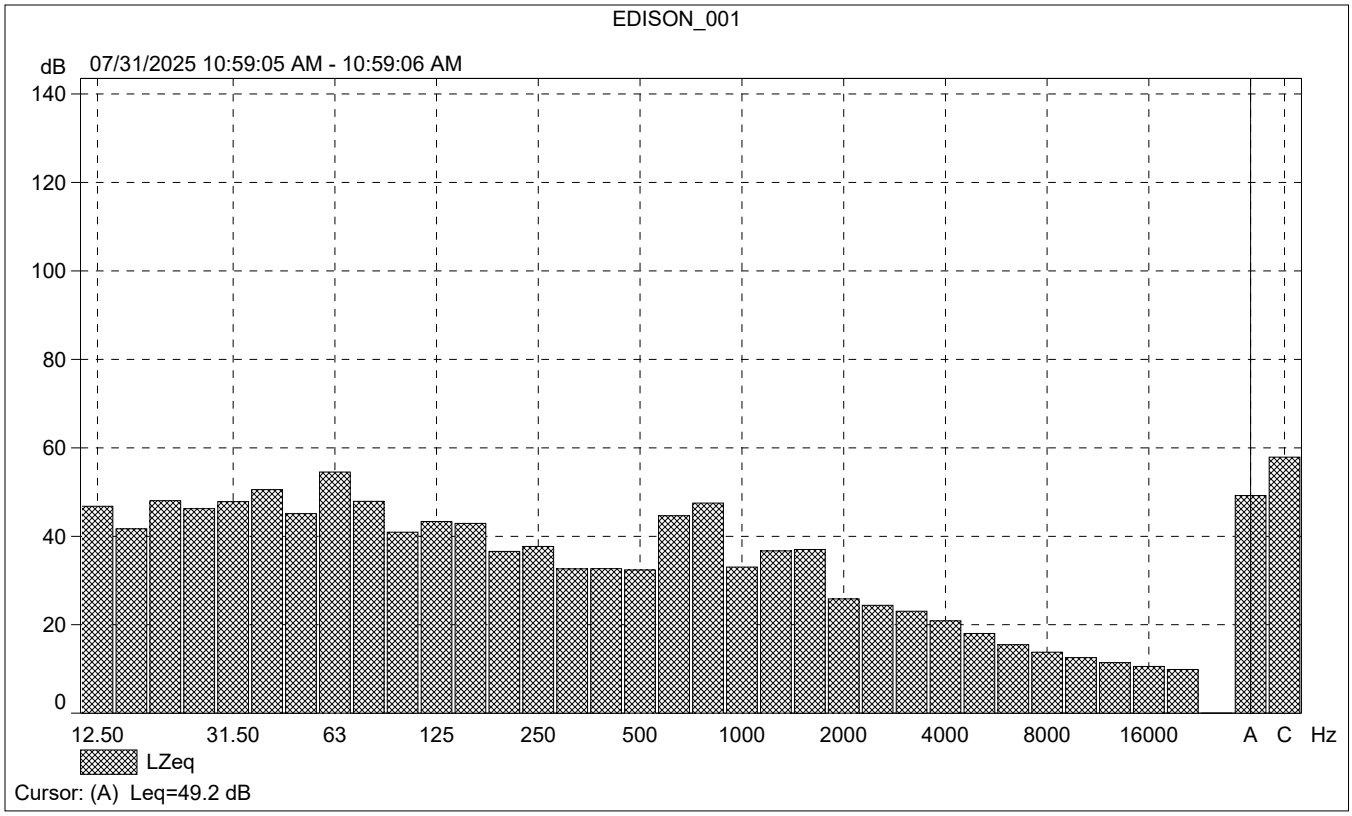

EDISON_001
dB 07/31/2025 10:54:06 AM - 11:04:06 AM
130
120
110
100
90
80
70
60
50
40
30
20
10
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A C Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=50.4 dB LFmax=74.6 dB LFmin=35.4 dB

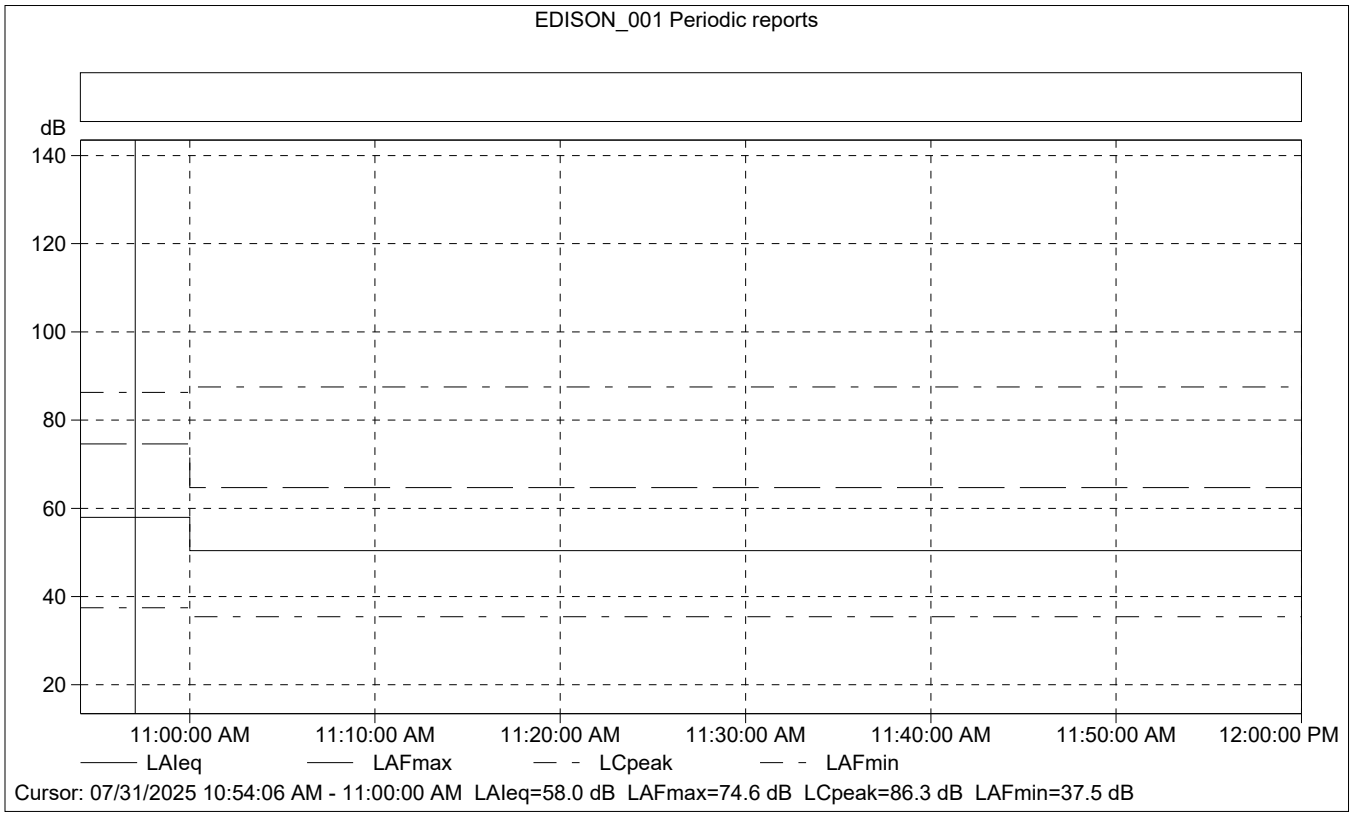

EDISON_001
% Based on LAF , 10ms Class width: 0.2 dB 07/31/2025 10:54:06 AM - 11:04:06 AM
100
90
80
70
60
50
40
30
20
10
0
20
30
40
50
60
70
80
90
100
110
120
130
140
dB
L1 = 63.0 dB
L5 = 53.8 dB
L10 = 49.7 dB
L50 = 42.5 dB
L90 = 38.9 dB
L95 = 38.3 dB
L99 = 37.6 dB
Level
Cumulative
Cursor: [78.2 ; 78.4[dB Level: 0.0% Cumulative: 0.0%



EDISON_001

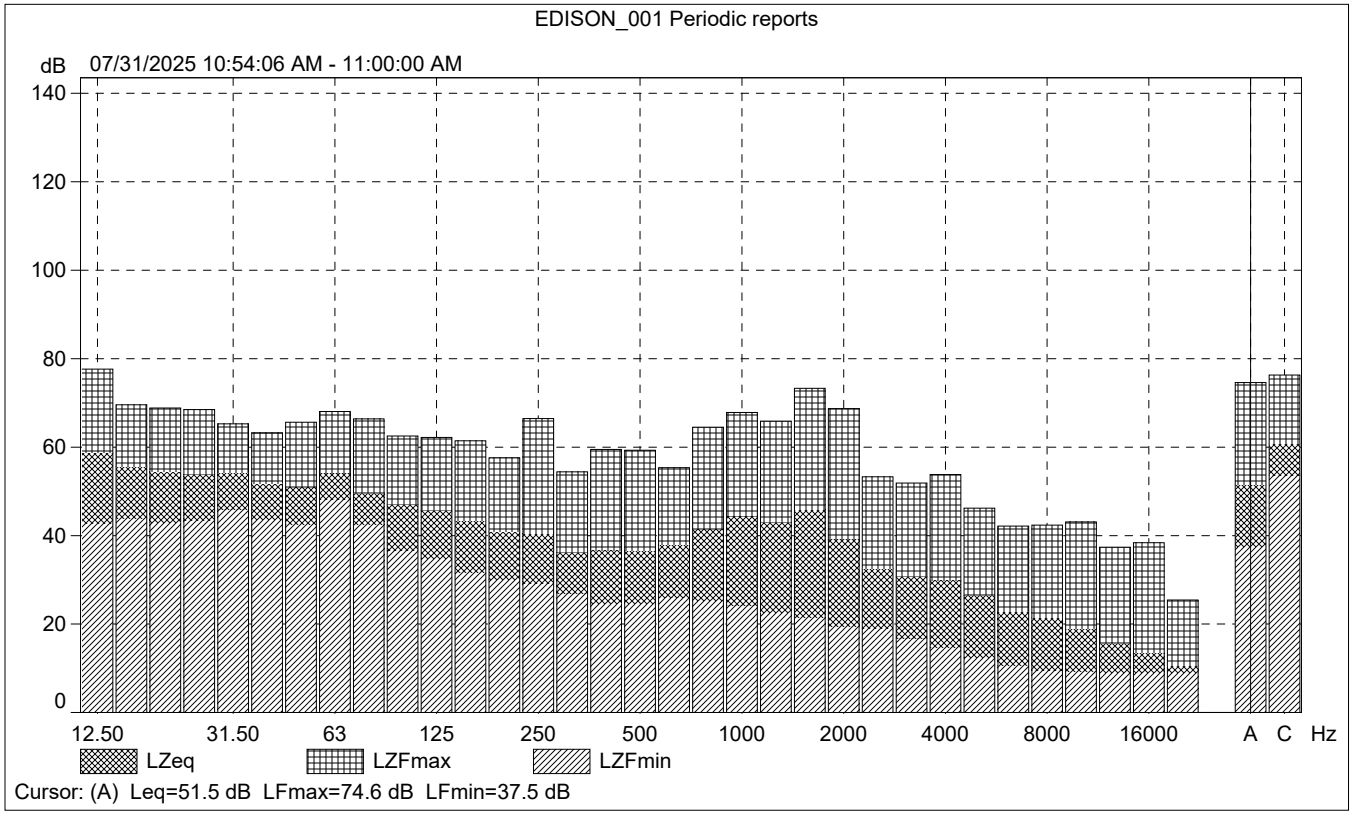
	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	57.5	56.0	40.2
Time	10:59:05 AM	0:00:01				
Date	07/31/2025					

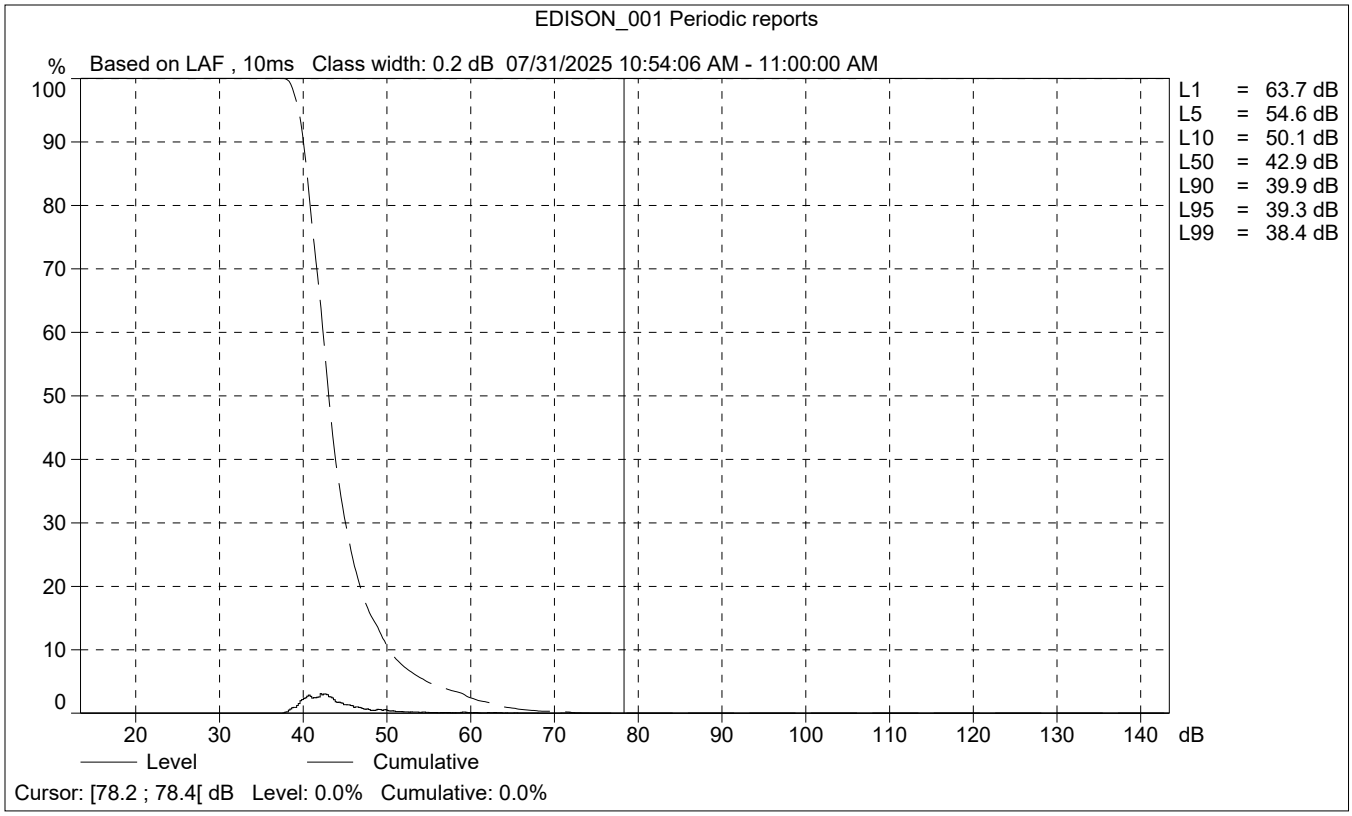

EDISON_001
dB
07/31/2025 10:59:05 AM - 10:59:06 AM
140
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
Cursor: (A) Leq=49.2 dB


EDISON_001 Periodic reports
dB
140
120
100
80
60
40
20
11:00:00 AM
11:10:00 AM
11:20:00 AM
11:30:00 AM
11:40:00 AM
11:50:00 AM
12:00:00 PM
LAIeq
LAFmax
LCpeak
LAFmin
Cursor: 07/31/2025 10:54:06 AM - 11:00:00 AM LAIeq=58.0 dB LAFmax=74.6 dB LCpeak=86.3 dB LAFmin=37.5 dB

EDISON_001 Periodic reports

	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	58.0	74.6	37.5
Time	10:54:06 AM	0:05:54				
Date	07/31/2025					




EDISON_001 Periodic reports
% Based on LAF , 10ms Class width: 0.2 dB 07/31/2025 10:54:06 AM - 11:00:00 AM
100
90
80
70
60
50
40
30
20
10
0
20 30 40 50 60 70 80 90 100 110 120 130 140 dB
Level
Cumulative
L1 = 63.7 dB
L5 = 54.6 dB
L10 = 50.1 dB
L50 = 42.9 dB
L90 = 39.9 dB
L95 = 39.3 dB
L99 = 38.4 dB
Cursor: [78.2 ; 78.4[dB Level: 0.0% Cumulative: 0.0%

Site Number: NM-2		
Recorded By: Dennis Dinh, Darshan Shivaiah		
Job Number: 208581		
Date: 7/31/2025		
Time: 11:11 a.m.		
Location: In front of 8931 Stilwell Drive		
Source of Ambient Noise: Traffic along Stilwell Drive		
Noise Data		
L_{eq} (dB)	**L_{min} (dB)**	**L_{max} (dB)**
53.3	41.2	67.8

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Brüel & Kjær**	**2250**	**3011133**	**06/04/2023**	
	Microphone	**Brüel & Kjær**	**4189**	**3086765**	**06/04/2023**	
	Preamp	**Brüel & Kjær**	**ZC 0032**	**25380**	**06/04/2023**	
	Calibrator	**Brüel & Kjær**	**4231**	**2545667**	**06/04/2023**	

Weather Data			
Est.	**Duration:** 10 minutes	**Sky:** Cloudy	
	Note: dBA Offset = -0.01	**Sensor Height (ft):** 5 ft	
	Wind Ave Speed (mph / m/s)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (inches)**
	6	72	30.06

Photo of Measurement Location

2250

Instrument:		2250
Application:		BZ7225 Version 4.7.6
Start Time:		07/31/2025 11:11:58
End Time:		07/31/2025 11:21:58
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		142.20

	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

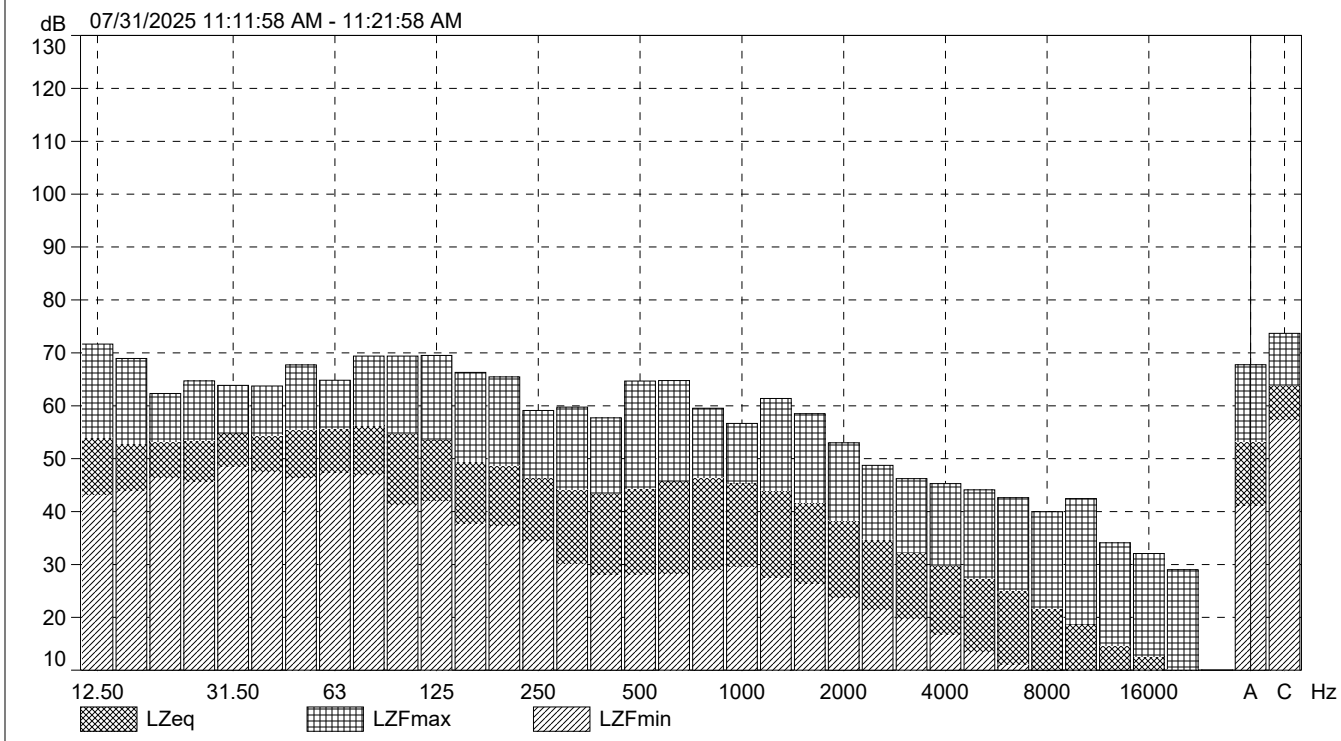
Instrument Serial Number:		3011133
Microphone Serial Number:		3086765
Input:		Top Socket
Windscreen Correction:		UA-1650
Sound Field Correction:		Free-field

Calibration Time:		07/31/2025 10:44:30
Calibration Type:		External reference
Sensitivity:		43.22599619627 mV/Pa

EDISON_002

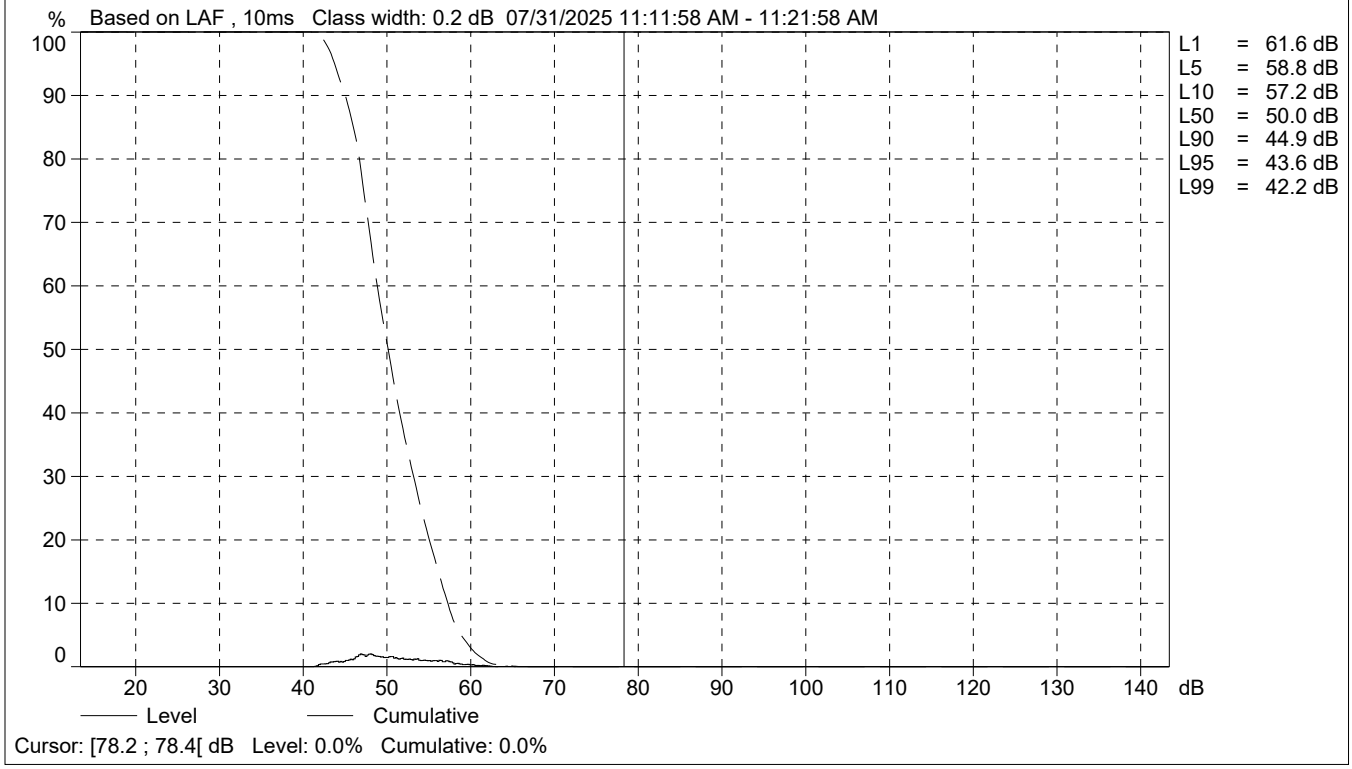
	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	53.3	67.8	41.2
Time	11:11:58 AM	11:21:58 AM	0:10:00				
Date	07/31/2025	07/31/2025					

EDISON_002

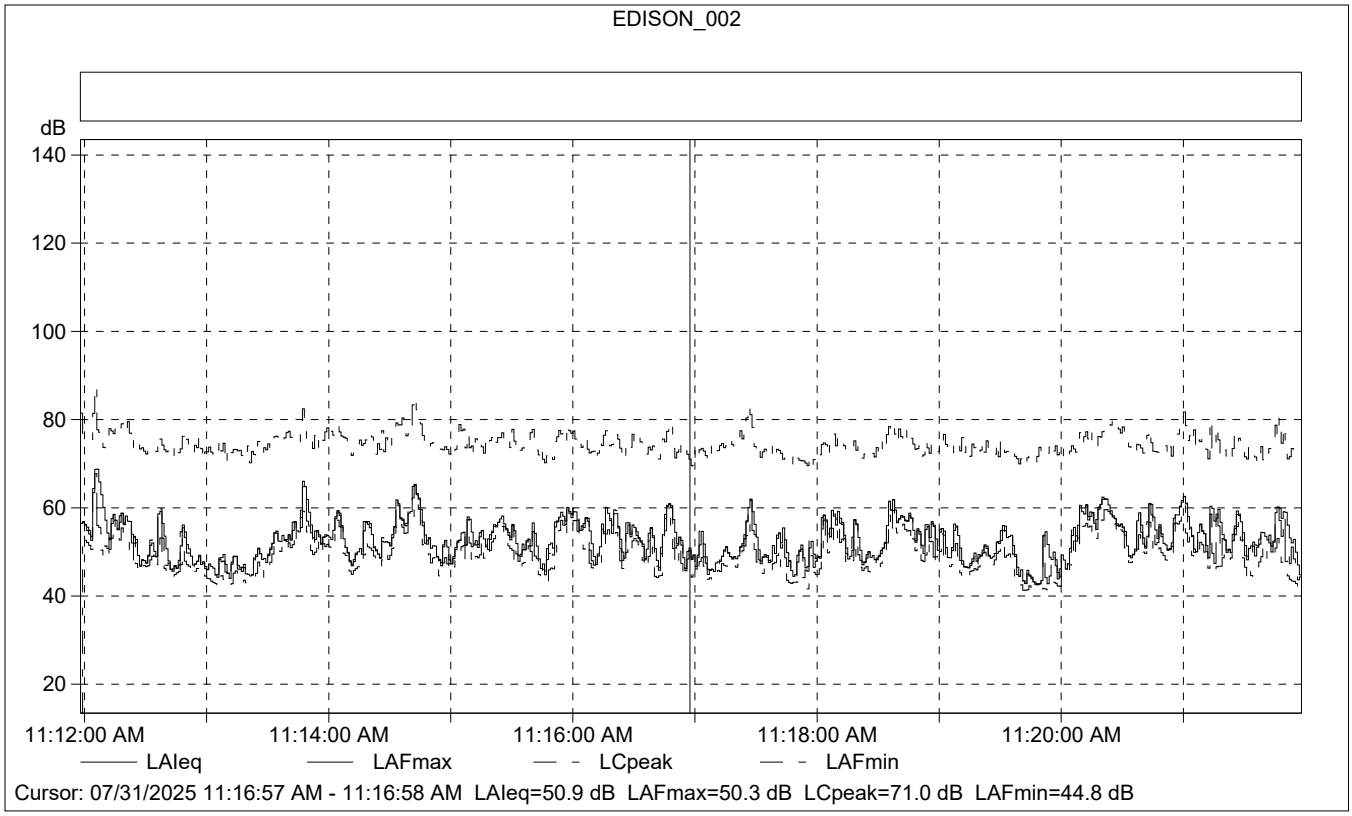


Cursor: (A) Leq=53.3 dB LFmax=67.8 dB LFmin=41.2 dB

EDISON_002

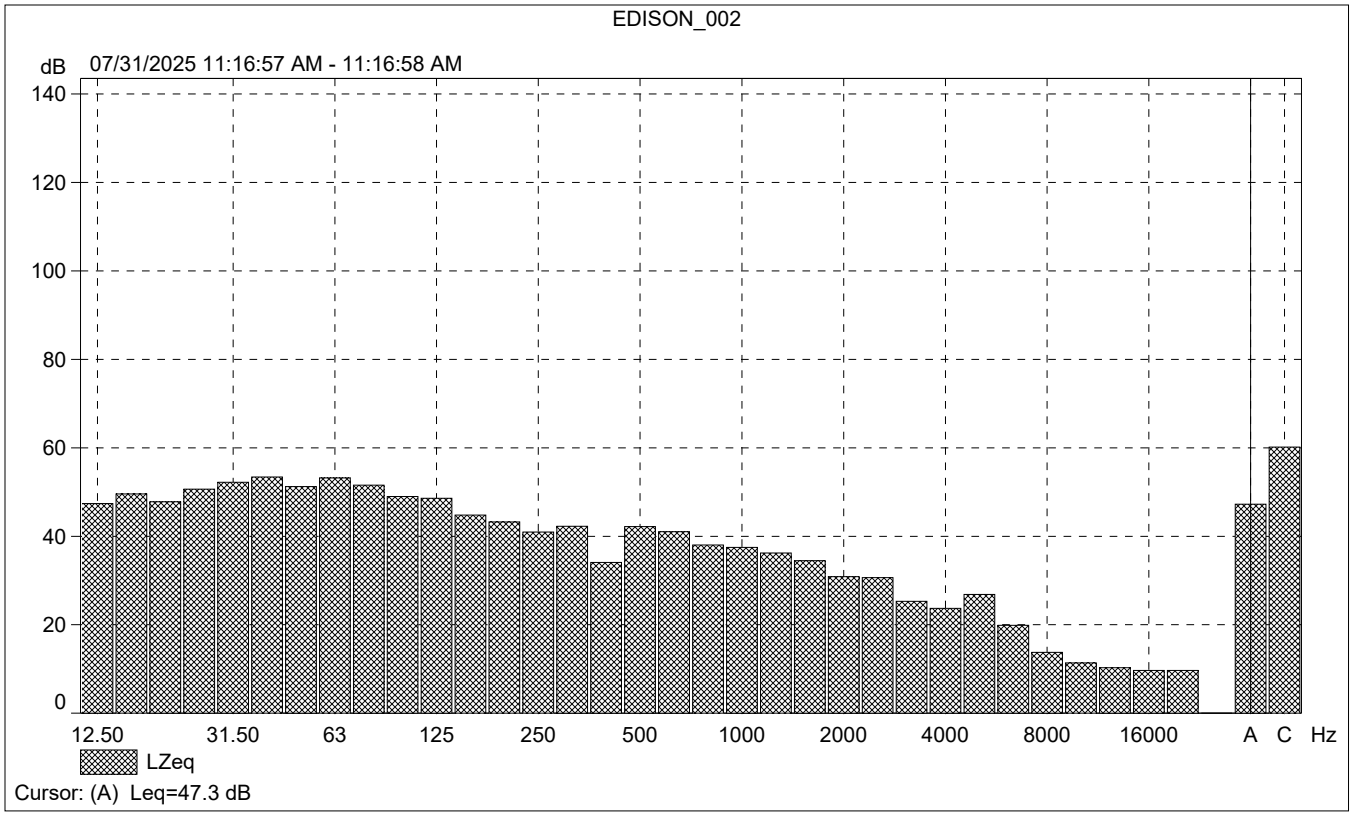


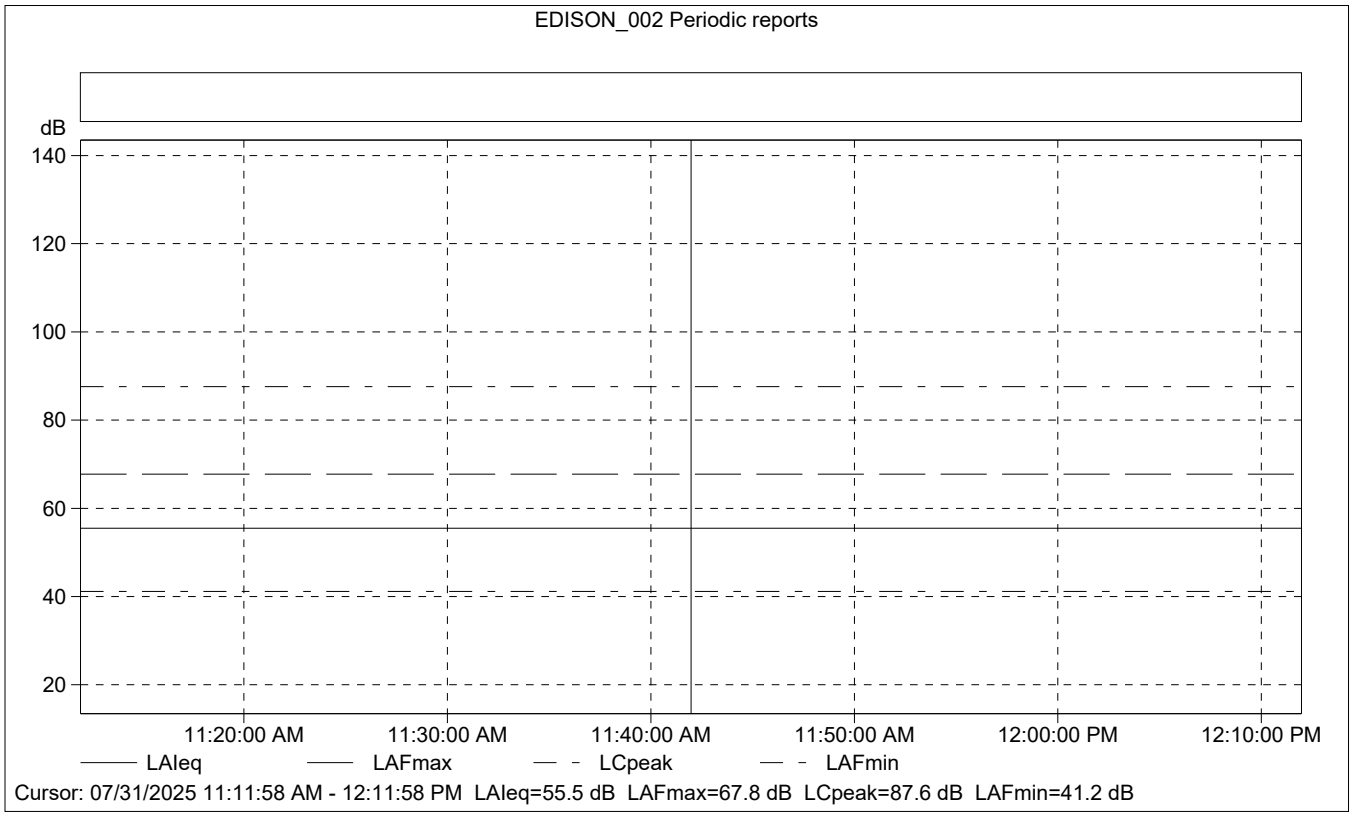
Cursor: [78.2 ; 78.4[dB Level: 0.0% Cumulative: 0.0%



EDISON_002

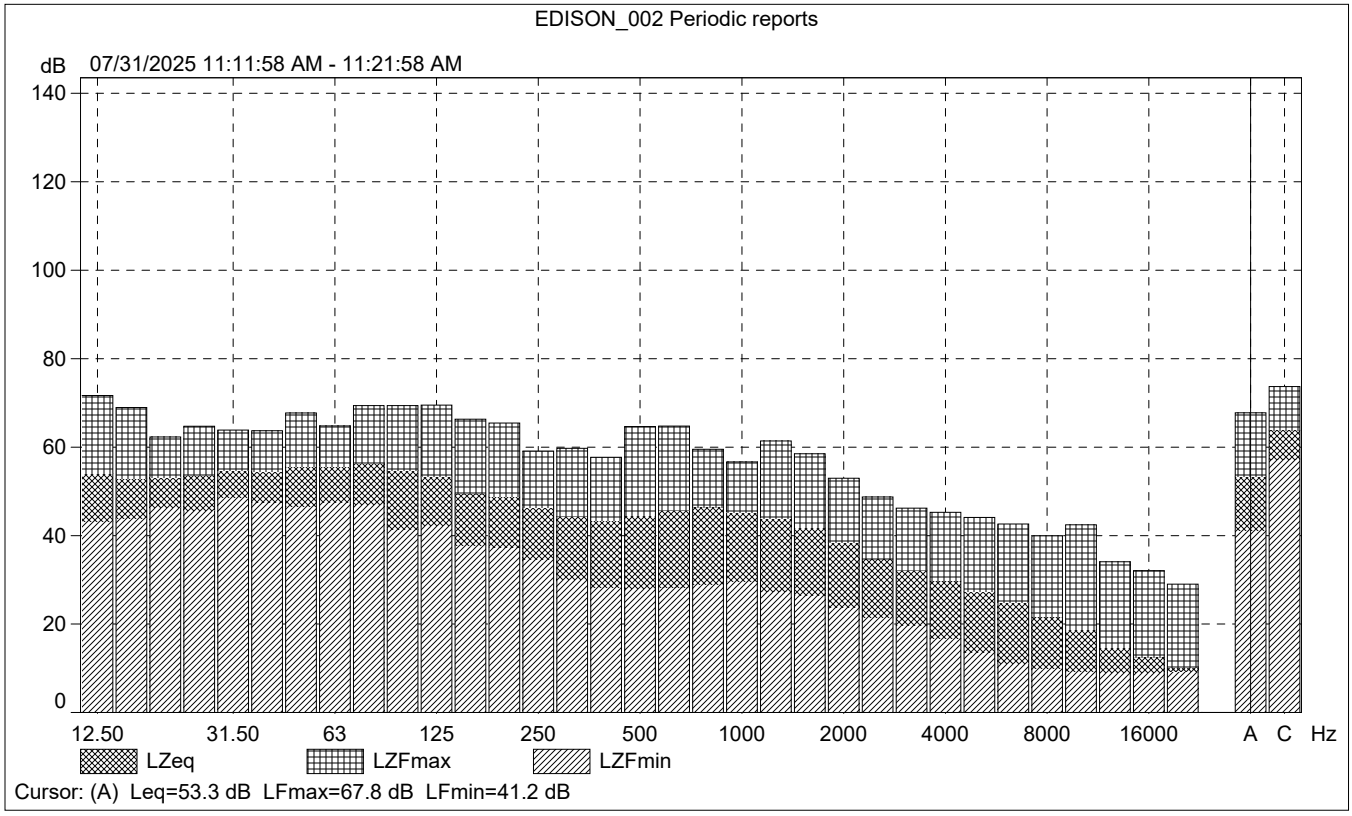
	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	50.9	50.3	44.8
Time	11:16:57 AM	0:00:01				
Date	07/31/2025					

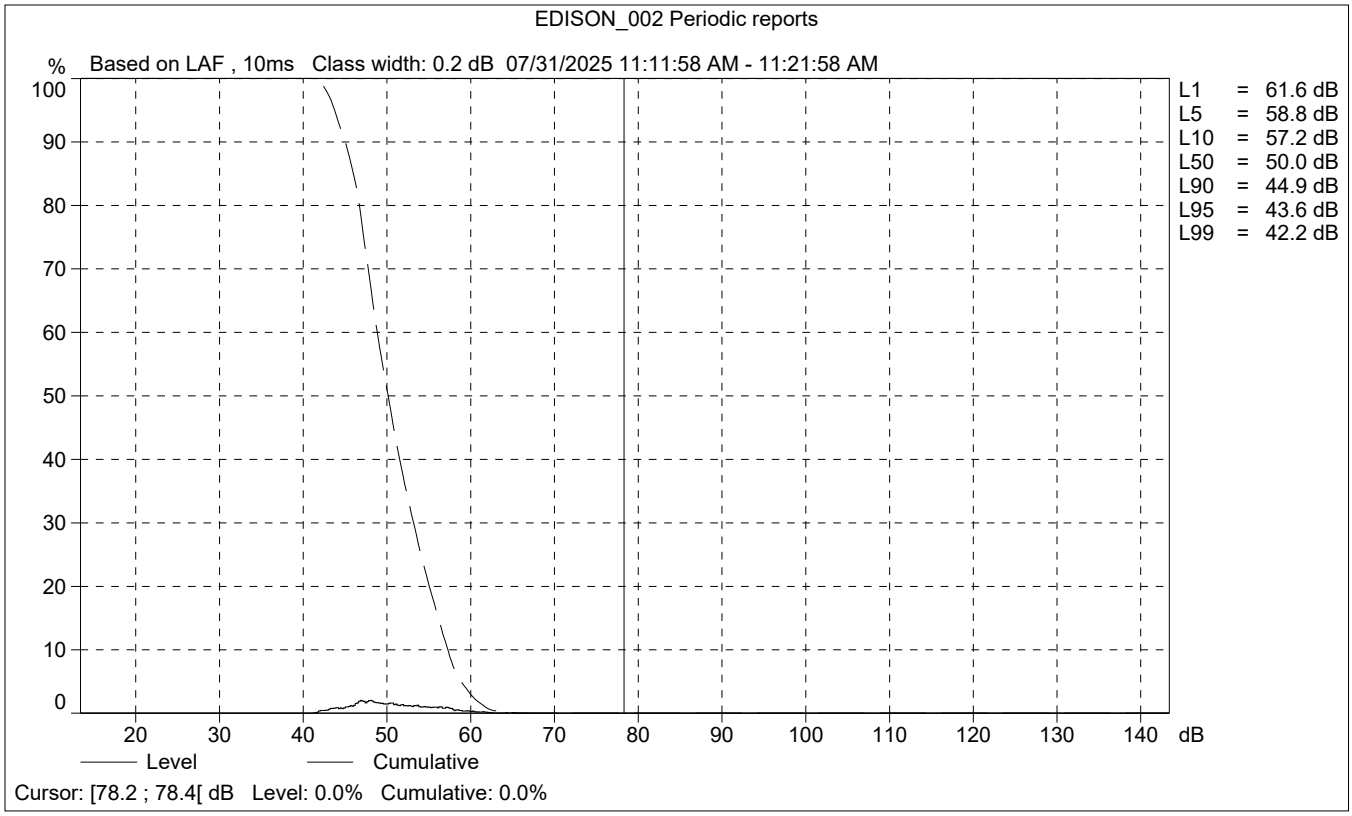

EDISON_002
dB
07/31/2025 11:16:57 AM - 11:16:58 AM
140
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
Cursor: (A) Leq=47.3 dB


EDISON_002 Periodic reports
dB
140
120
100
80
60
40
20
11:20:00 AM
11:30:00 AM
11:40:00 AM
11:50:00 AM
12:00:00 PM
12:10:00 PM
LAIeq
LAFmax
LCpeak
LAFmin
Cursor: 07/31/2025 11:11:58 AM - 12:11:58 PM LAIeq=55.5 dB LAFmax=67.8 dB LCpeak=87.6 dB LAFmin=41.2 dB

EDISON_002 Periodic reports

	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	55.5	67.8	41.2
Time	11:11:58 AM	0:10:00				
Date	07/31/2025					




EDISON_002 Periodic reports
% Based on LAF , 10ms Class width: 0.2 dB 07/31/2025 11:11:58 AM - 11:21:58 AM
100
90
80
70
60
50
40
30
20
10
0
20 30 40 50 60 70 80 90 100 110 120 130 140 dB
L1 = 61.6 dB
L5 = 58.8 dB
L10 = 57.2 dB
L50 = 50.0 dB
L90 = 44.9 dB
L95 = 43.6 dB
L99 = 42.2 dB
Level
Cumulative
Cursor: [78.2 ; 78.4[dB Level: 0.0% Cumulative: 0.0%

Site Number: NM-3		
Recorded By: Dennis Dinh, Darshan Shivaiah		
Job Number: 208581		
Date: 7/31/2025		
Time: 11:25 a.m.		
Location: In front of Edison High School		
Source of Ambient Noise: Traffic along Magnolia Street		
Noise Data		
L_{eq} (dB)	**L_{min} (dB)**	**L_{max} (dB)**
68.1	49.9	82.5

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Brüel & Kjær**	**2250**	**3011133**	**06/04/2023**	
	Microphone	**Brüel & Kjær**	**4189**	**3086765**	**06/04/2023**	
	Preamp	**Brüel & Kjær**	**ZC 0032**	**25380**	**06/04/2023**	
	Calibrator	**Brüel & Kjær**	**4231**	**2545667**	**06/04/2023**	

Weather Data			
Est.	**Duration:** 10 minutes	**Sky:** Cloudy	
	Note: dBA Offset = -0.01	**Sensor Height (ft):** 5 ft	
	Wind Ave Speed (mph / m/s)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (inches)**
	6	72	30.06

Photo of Measurement Location

2250

Instrument:		2250
Application:		BZ7225 Version 4.7.6
Start Time:		07/31/2025 11:25:30
End Time:		07/31/2025 11:35:30
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		142.20

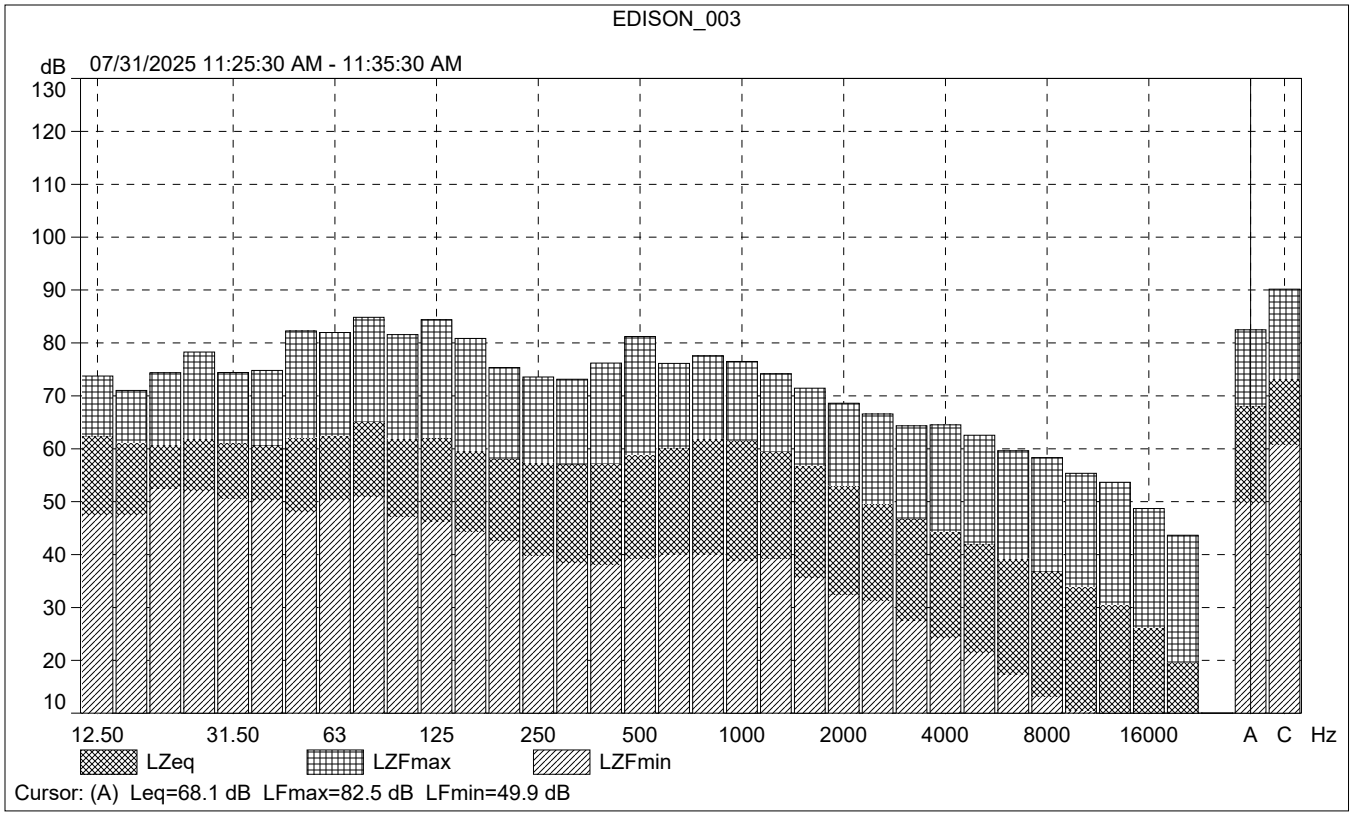
	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

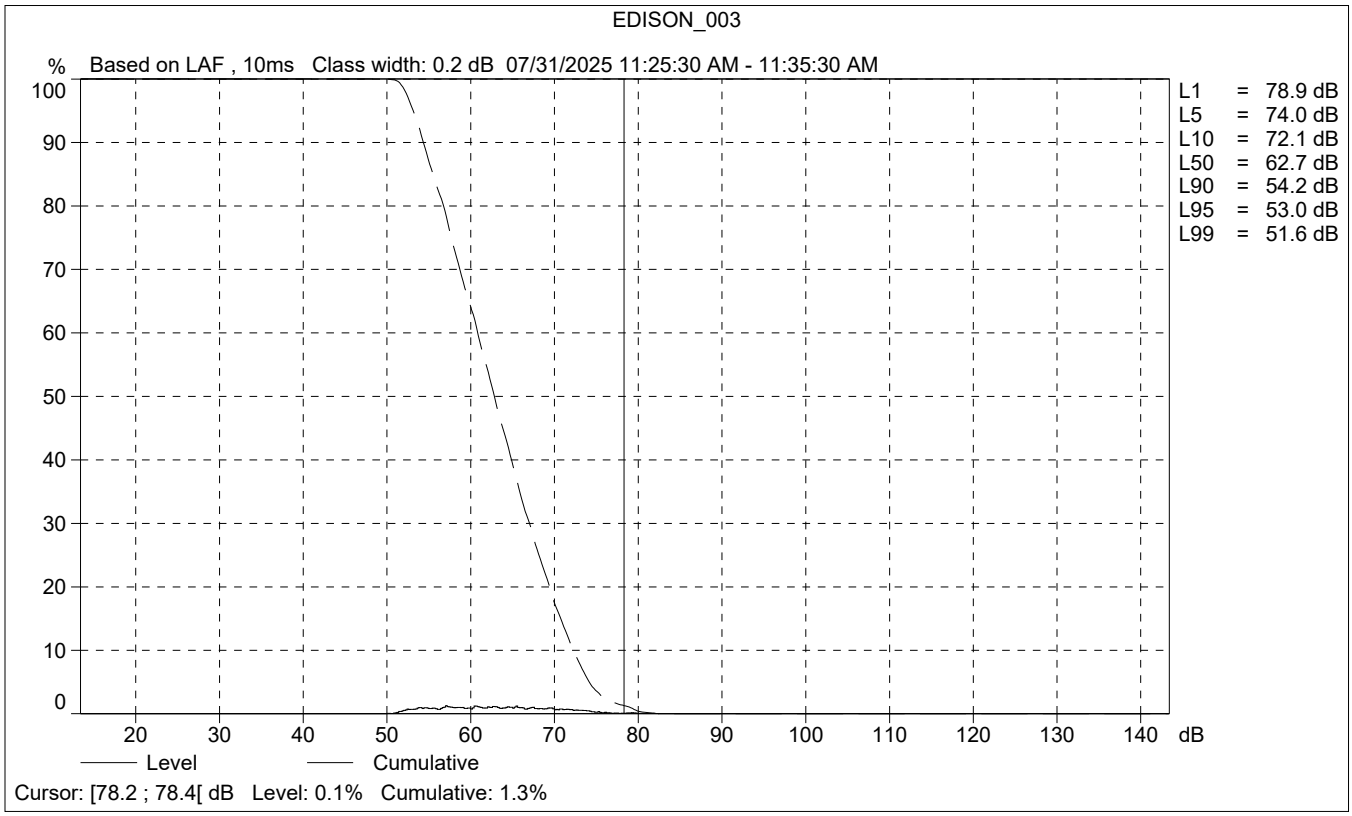
Instrument Serial Number:		3011133
Microphone Serial Number:		3086765
Input:		Top Socket
Windscreen Correction:		UA-1650
Sound Field Correction:		Free-field

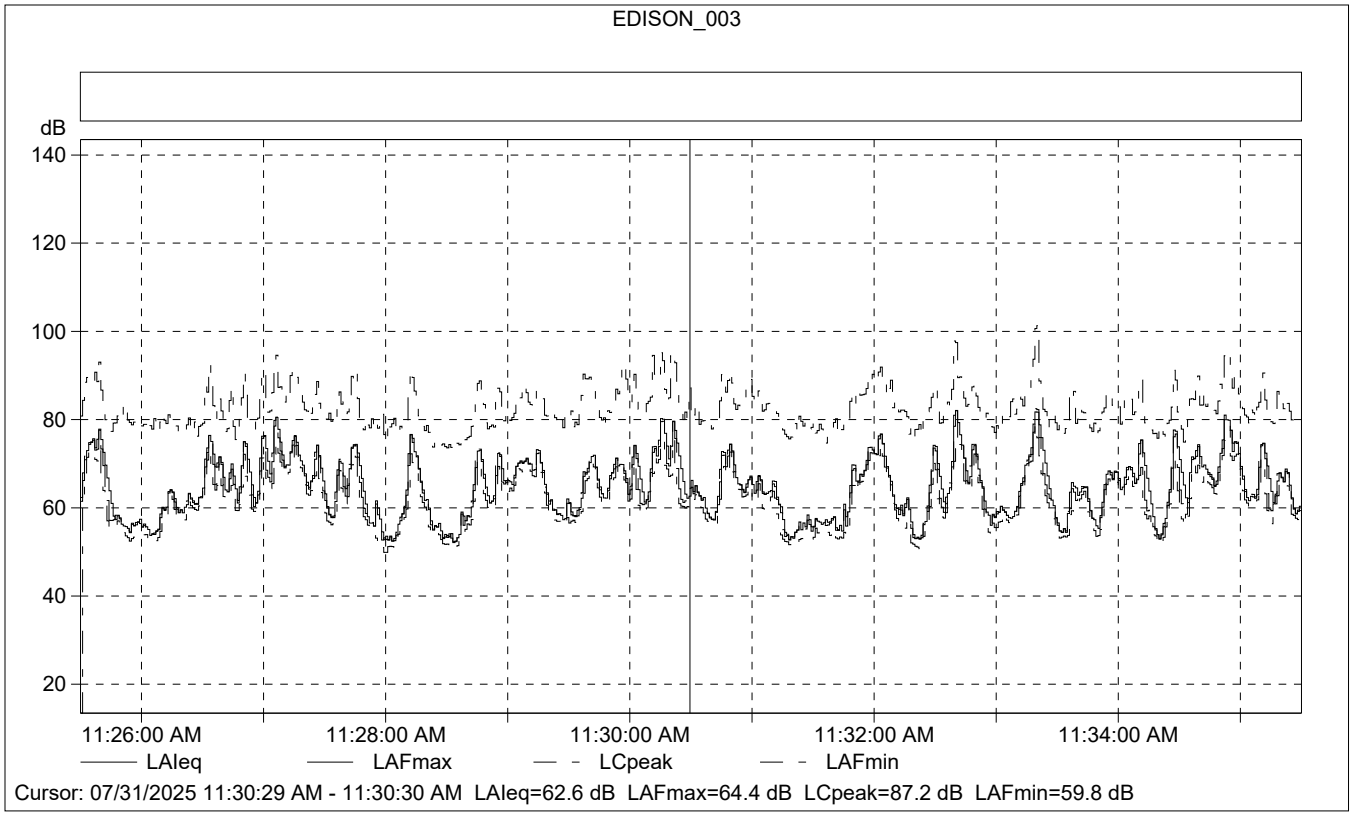
Calibration Time:		07/31/2025 10:44:30
Calibration Type:		External reference
Sensitivity:		43.22599619627 mV/Pa

EDISON_003

	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	68.1	82.5	49.9
Time	11:25:30 AM	11:35:30 AM	0:10:00				
Date	07/31/2025	07/31/2025					

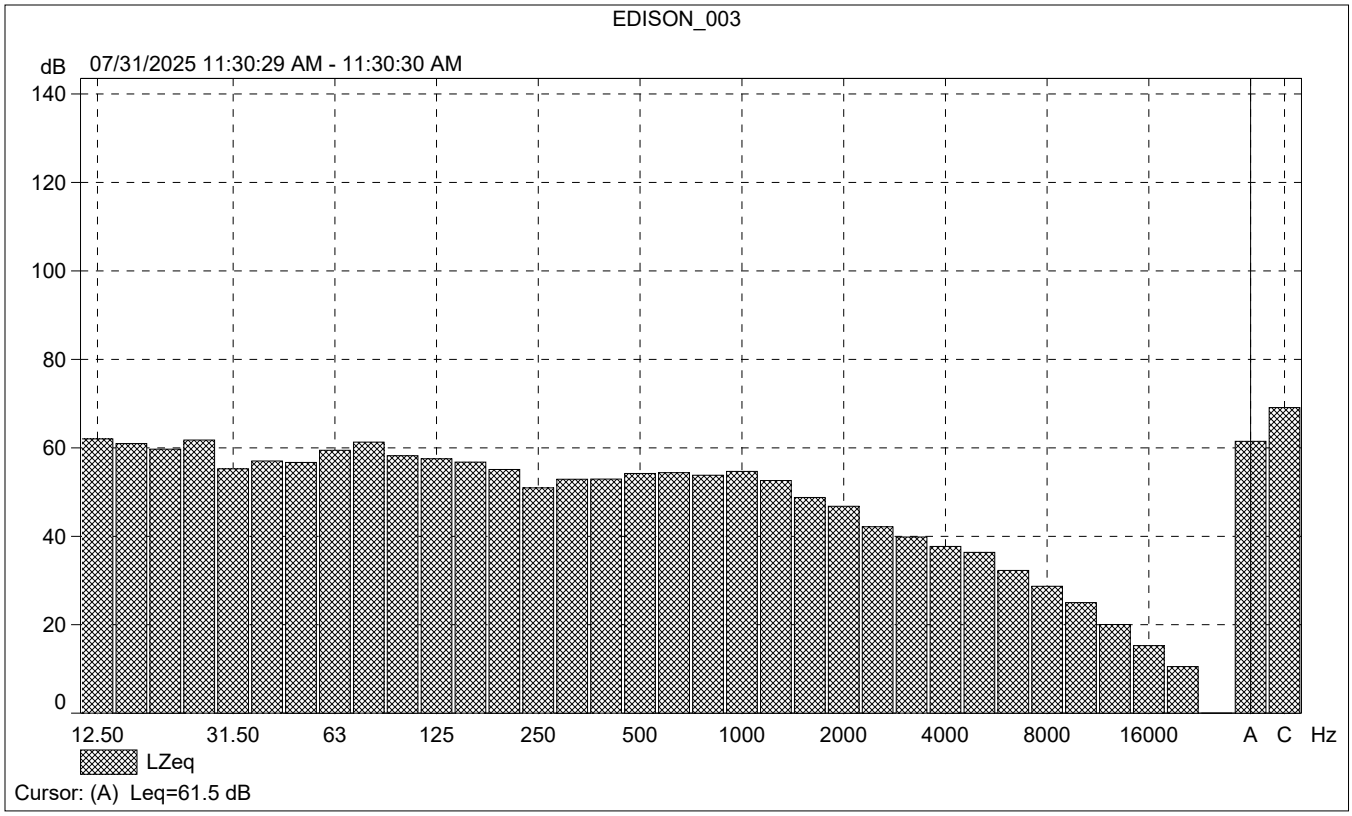

EDISON_003
dB 07/31/2025 11:25:30 AM - 11:35:30 AM
130
120
110
100
90
80
70
60
50
40
30
20
10
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A C Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=68.1 dB LFmax=82.5 dB LFmin=49.9 dB

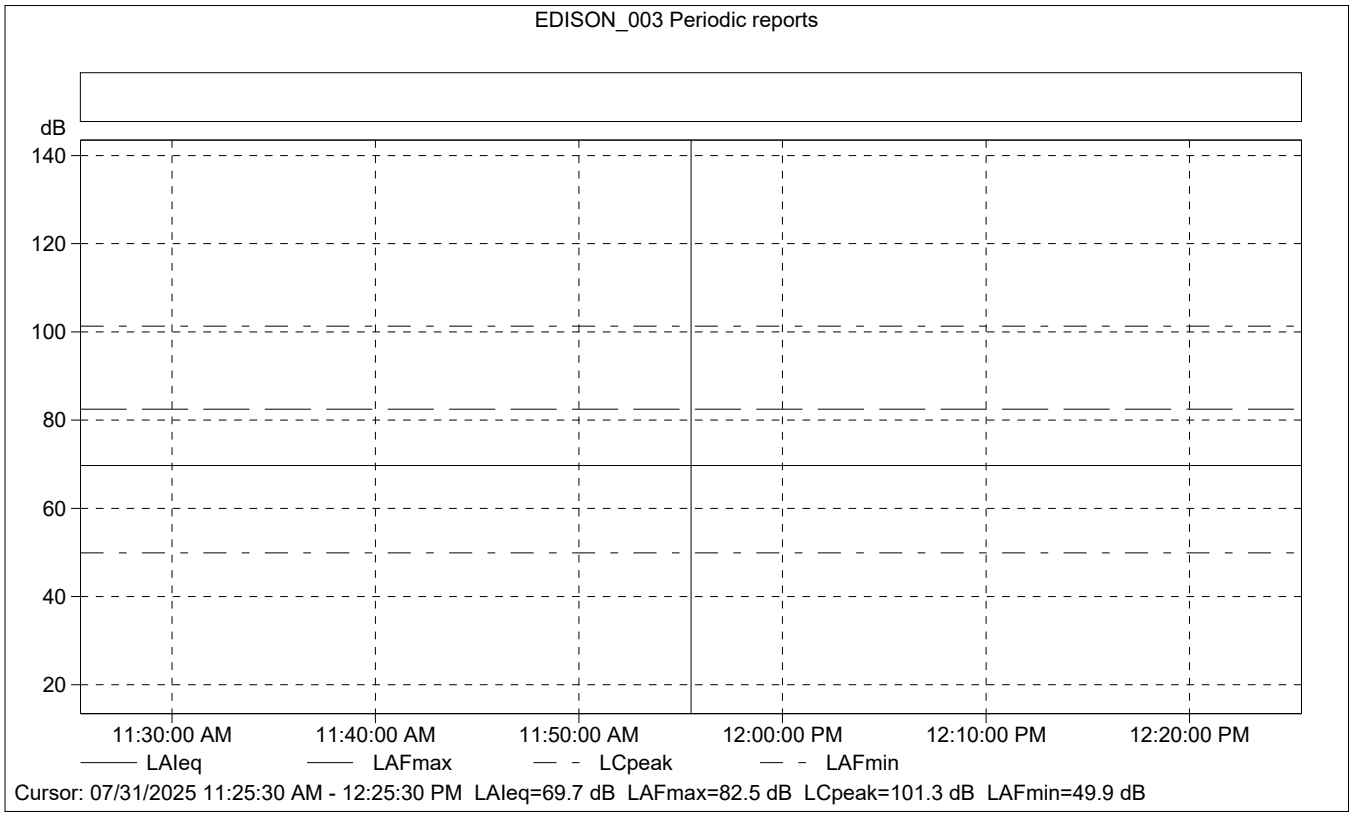

EDISON_003
% Based on LAF , 10ms Class width: 0.2 dB 07/31/2025 11:25:30 AM - 11:35:30 AM
100
90
80
70
60
50
40
30
20
10
0
20
30
40
50
60
70
80
90
100
110
120
130
140
dB
L1 = 78.9 dB
L5 = 74.0 dB
L10 = 72.1 dB
L50 = 62.7 dB
L90 = 54.2 dB
L95 = 53.0 dB
L99 = 51.6 dB
Level
Cumulative
Cursor: [78.2 ; 78.4[dB Level: 0.1% Cumulative: 1.3%



EDISON_003

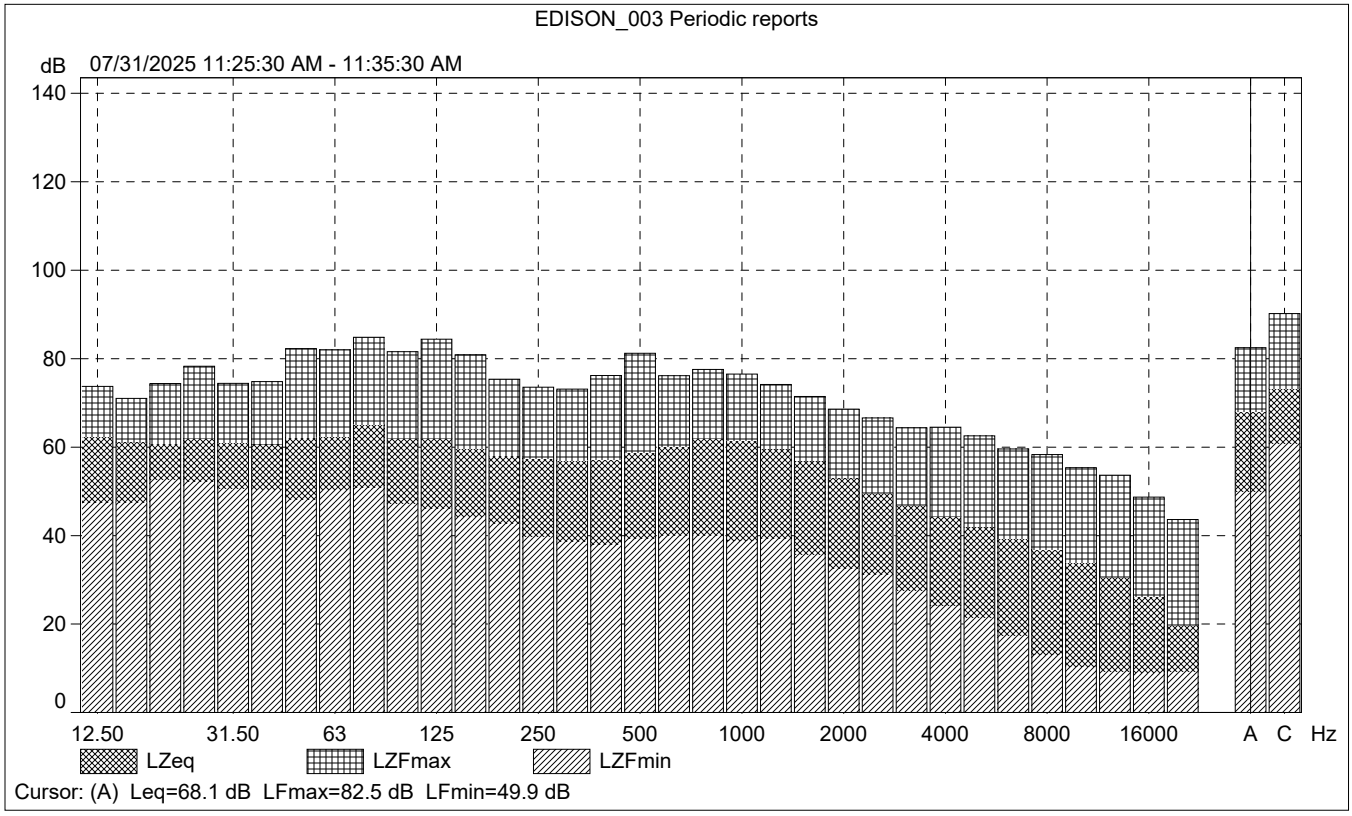
	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	62.6	64.4	59.8
Time	11:30:29 AM	0:00:01				
Date	07/31/2025					

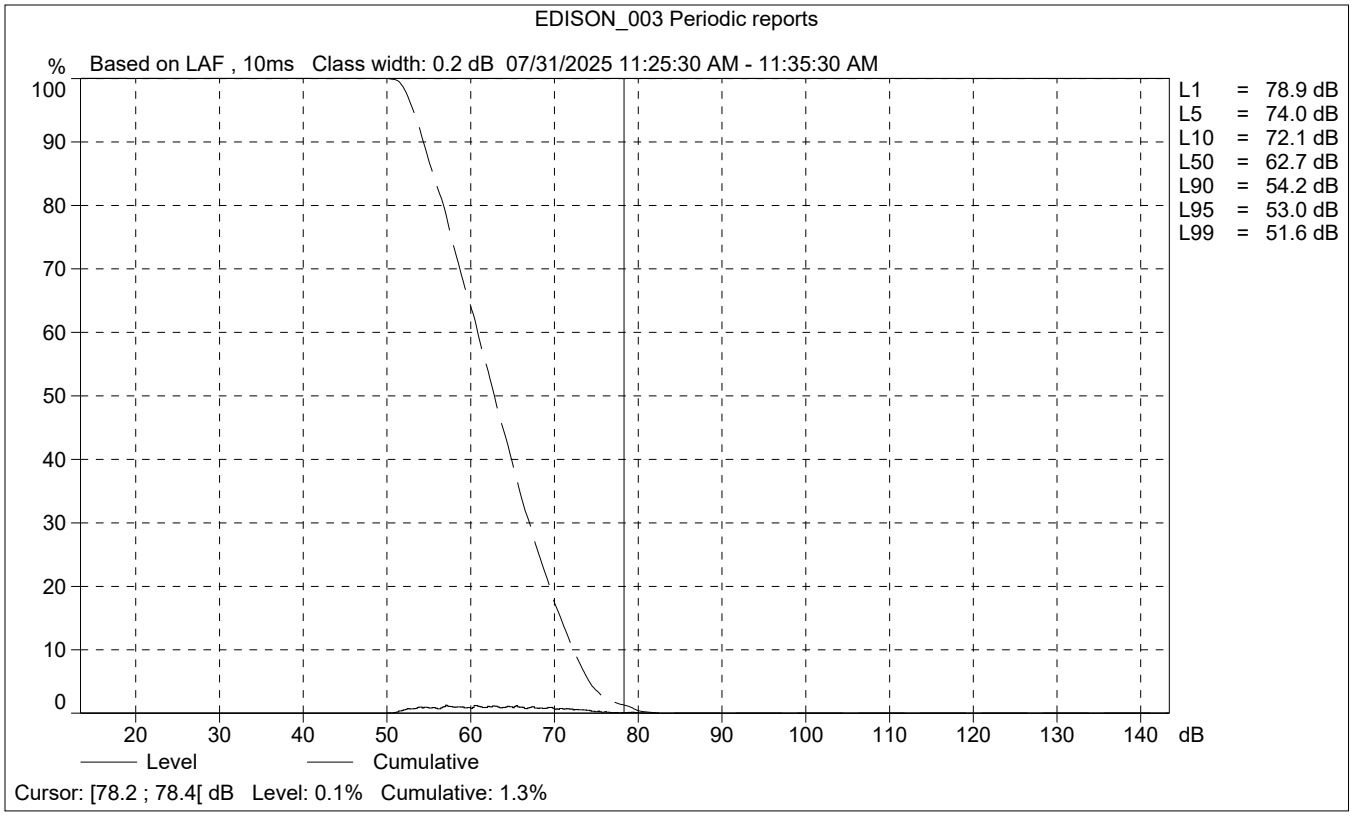

EDISON_003
dB
07/31/2025 11:30:29 AM - 11:30:30 AM
140
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
Cursor: (A) Leq=61.5 dB


EDISON_003 Periodic reports
dB
140
120
100
80
60
40
20
11:30:00 AM
11:40:00 AM
11:50:00 AM
12:00:00 PM
12:10:00 PM
12:20:00 PM
LAIeq
LAFmax
LCpeak
LAFmin
Cursor: 07/31/2025 11:25:30 AM - 12:25:30 PM LAIeq=69.7 dB LAFmax=82.5 dB LCpeak=101.3 dB LAFmin=49.9 dB

EDISON_003 Periodic reports

	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	69.7	82.5	49.9
Time	11:25:30 AM	0:10:00				
Date	07/31/2025					



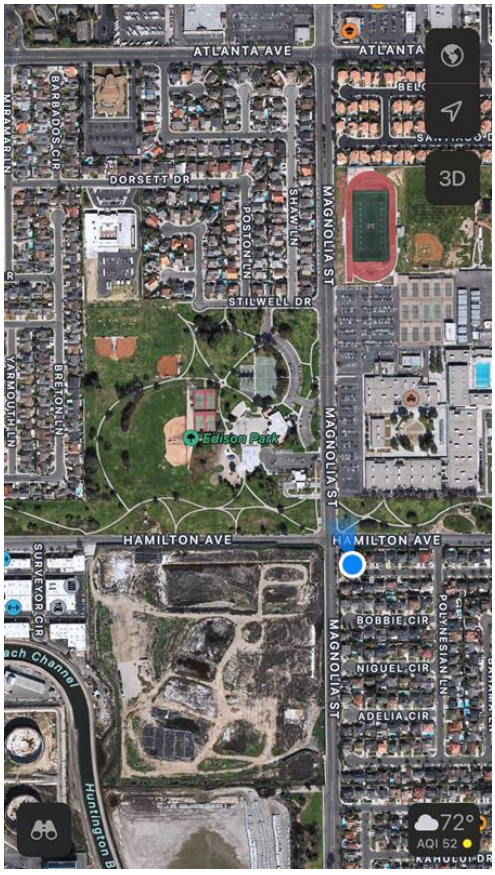

EDISON_003 Periodic reports
% Based on LAF , 10ms Class width: 0.2 dB 07/31/2025 11:25:30 AM - 11:35:30 AM
100
90
80
70
60
50
40
30
20
10
0
20 30 40 50 60 70 80 90 100 110 120 130 140 dB
Level
Cumulative
L1 = 78.9 dB
L5 = 74.0 dB
L10 = 72.1 dB
L50 = 62.7 dB
L90 = 54.2 dB
L95 = 53.0 dB
L99 = 51.6 dB
Cursor: [78.2 ; 78.4[dB Level: 0.1% Cumulative: 1.3%

Site Number: NM-4		
Recorded By: Dennis Dinh, Darshan Shivaiah		
Job Number: 208581		
Date: 7/31/2025		
Time: 11:41 a.m.		
Location: In between 9001 and 9021 Regatta Drive		
Source of Ambient Noise: Traffic along Magnolia Street and Regatta Drive; construction noise		
Noise Data		
L_{eq} (dB)	**L_{min} (dB)**	**L_{max} (dB)**
53.7	45.1	63.3

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Brüel & Kjær**	**2250**	**3011133**	**06/04/2023**	
	Microphone	**Brüel & Kjær**	**4189**	**3086765**	**06/04/2023**	
	Preamp	**Brüel & Kjær**	**ZC 0032**	**25380**	**06/04/2023**	
	Calibrator	**Brüel & Kjær**	**4231**	**2545667**	**06/04/2023**	

Weather Data			
Est.	**Duration:** 10 minutes	**Sky:** Cloudy	
	Note: dBA Offset = -0.01	**Sensor Height (ft):** 5 ft	
	Wind Ave Speed (mph / m/s)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (inches)**
	6	72	30.06

Photo of Measurement Location



2250

Instrument:		2250
Application:		BZ7225 Version 4.7.6
Start Time:		07/31/2025 11:41:41
End Time:		07/31/2025 11:51:41
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		142.20

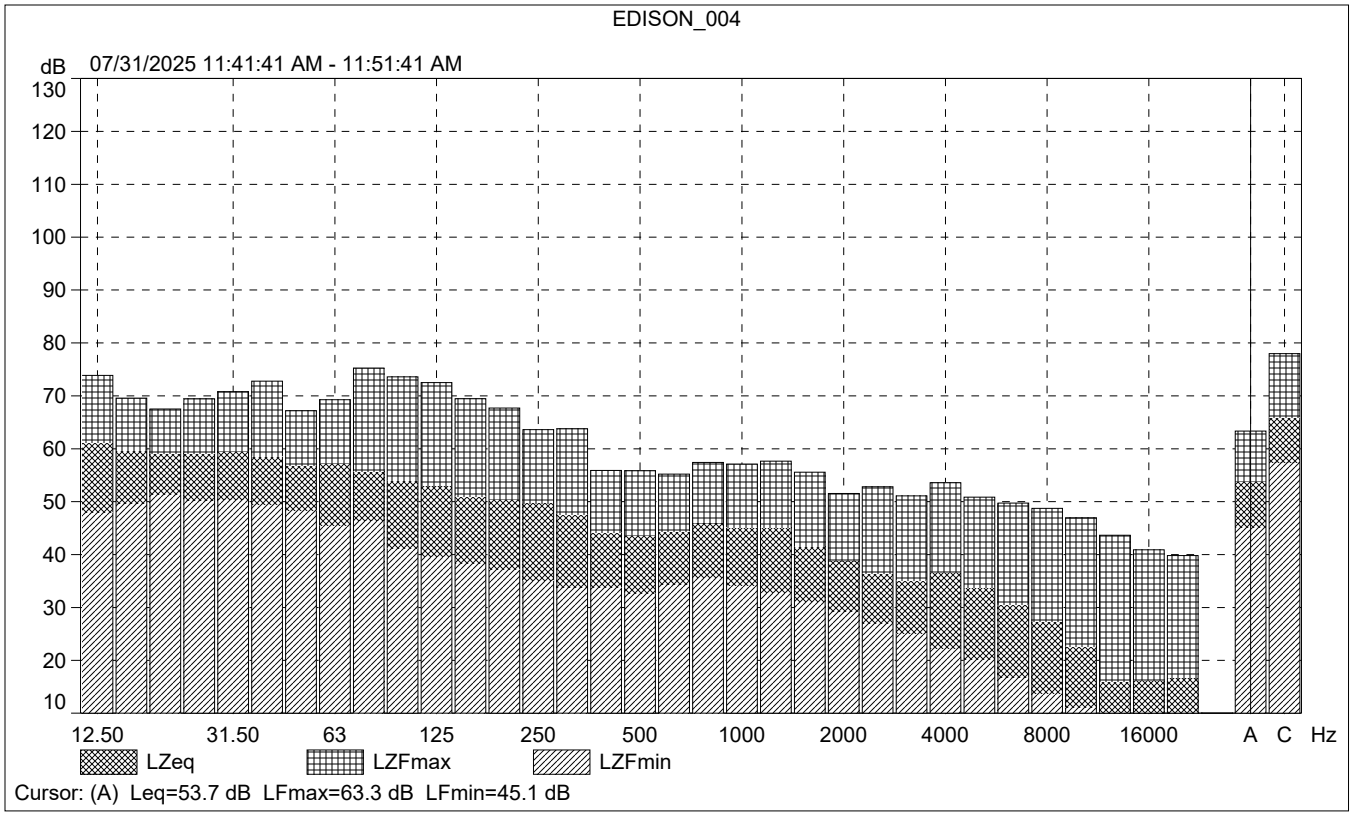
	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

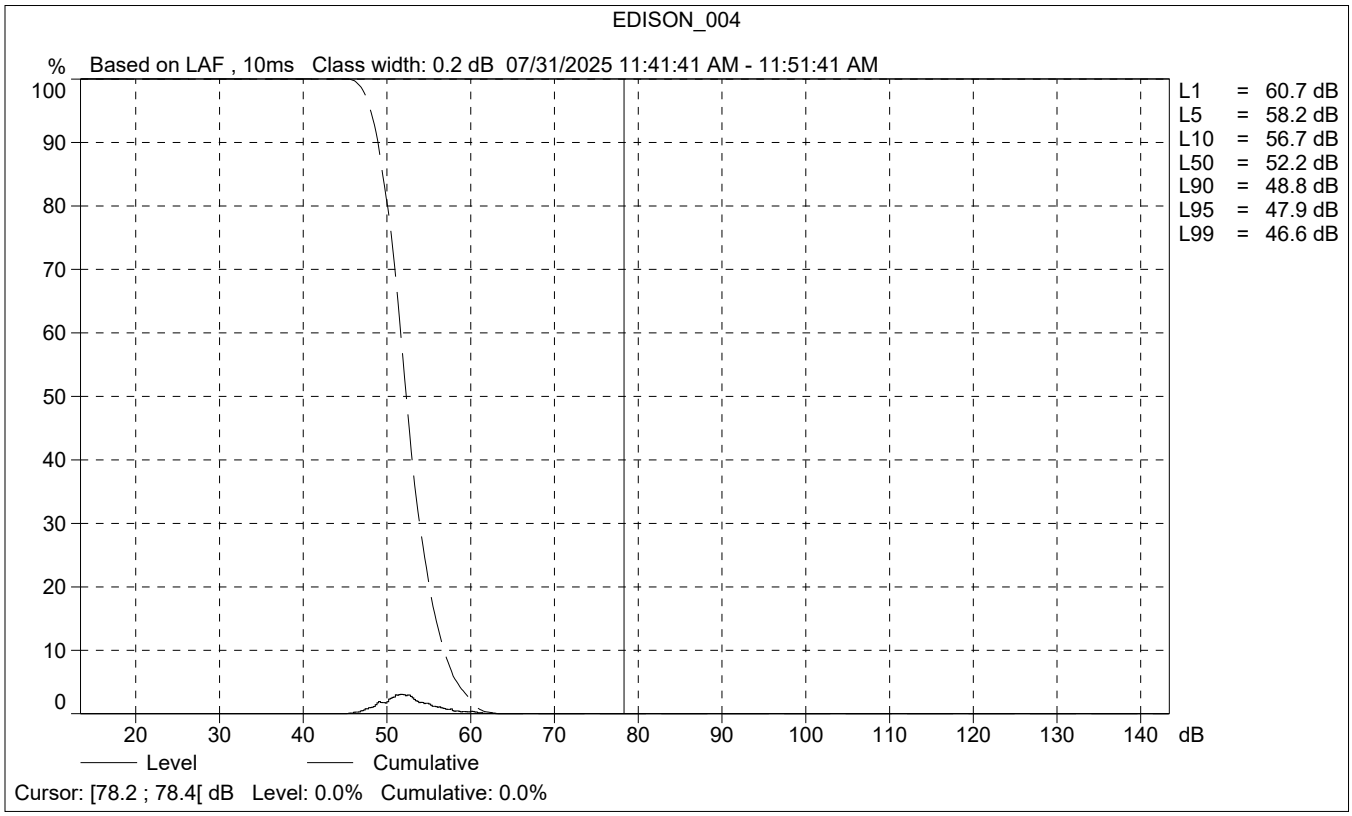
Instrument Serial Number:		3011133
Microphone Serial Number:		3086765
Input:		Top Socket
Windscreen Correction:		UA-1650
Sound Field Correction:		Free-field

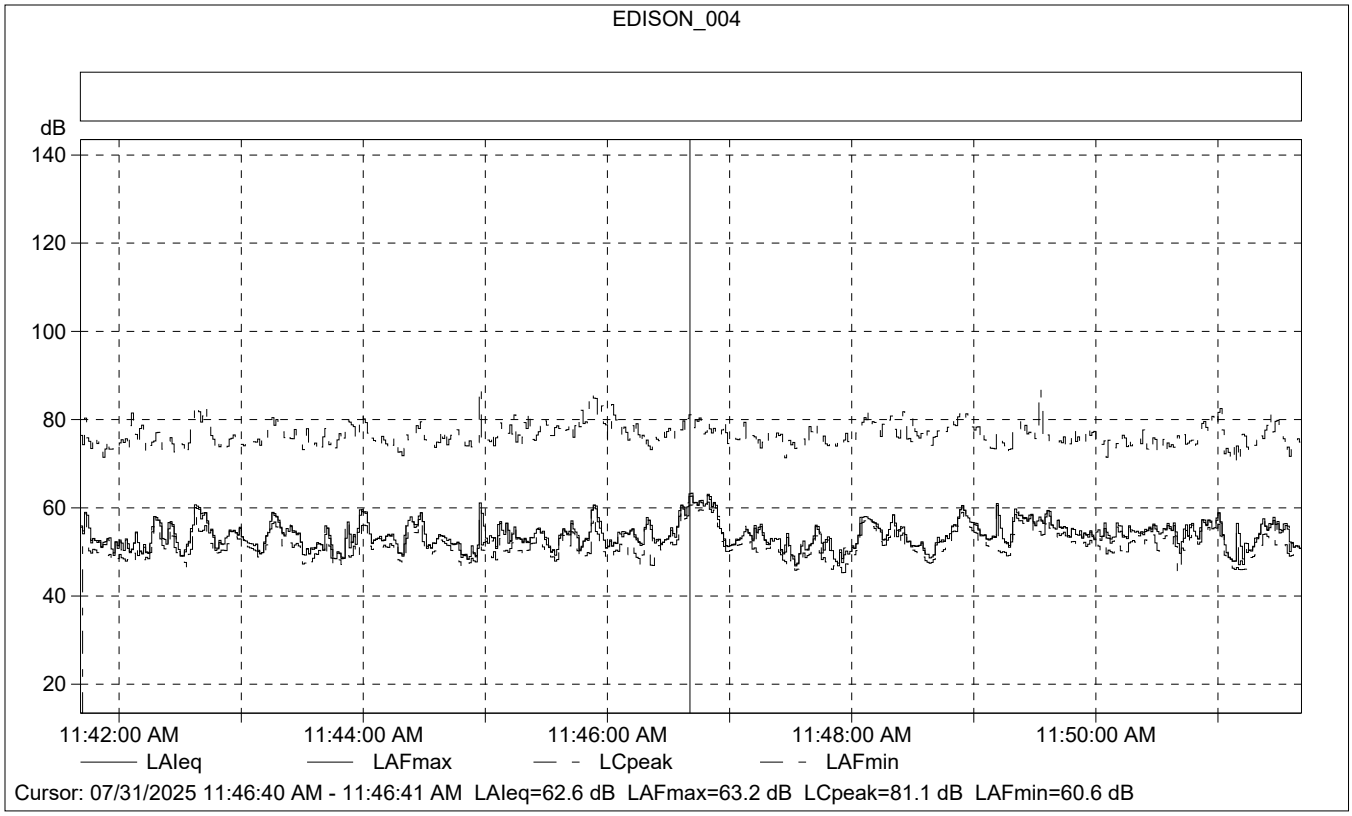
Calibration Time:		07/31/2025 10:44:30
Calibration Type:		External reference
Sensitivity:		43.22599619627 mV/Pa

EDISON_004

	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	53.7	63.3	45.1
Time	11:41:41 AM	11:51:41 AM	0:10:00				
Date	07/31/2025	07/31/2025					

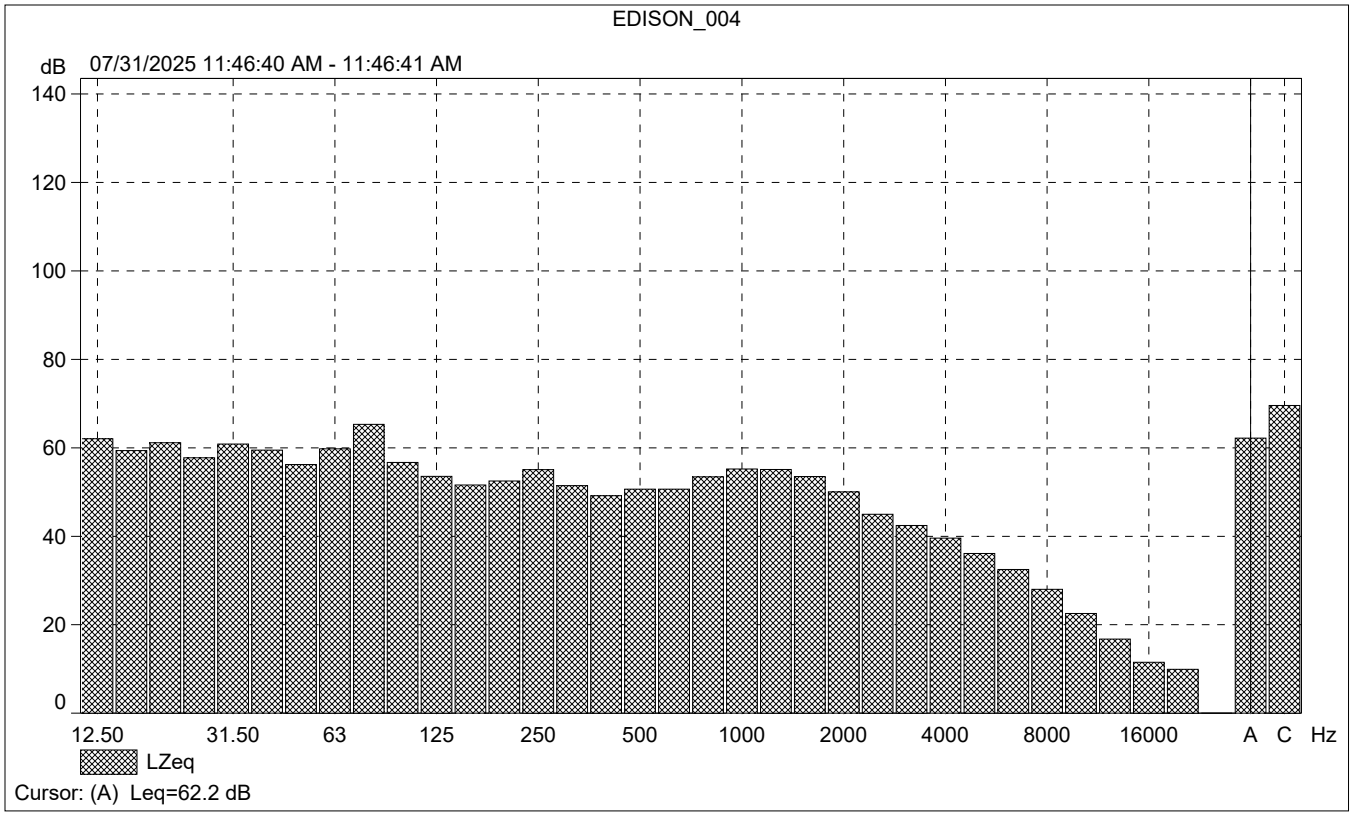

EDISON_004
dB 07/31/2025 11:41:41 AM - 11:51:41 AM
130
120
110
100
90
80
70
60
50
40
30
20
10
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A C Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=53.7 dB LFmax=63.3 dB LFmin=45.1 dB

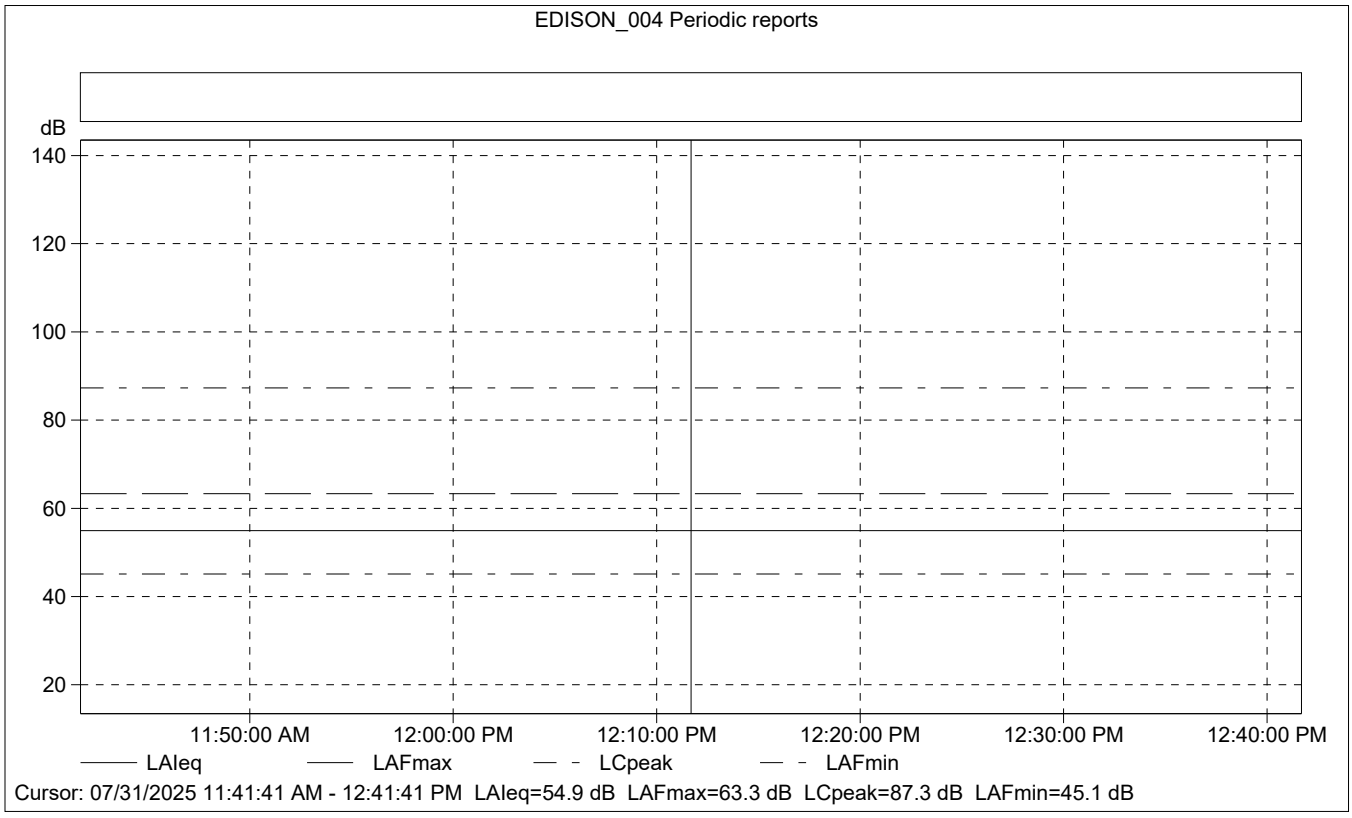

EDISON_004
% Based on LAF , 10ms Class width: 0.2 dB 07/31/2025 11:41:41 AM - 11:51:41 AM
100
90
80
70
60
50
40
30
20
10
0
20
30
40
50
60
70
80
90
100
110
120
130
140
dB
L1 = 60.7 dB
L5 = 58.2 dB
L10 = 56.7 dB
L50 = 52.2 dB
L90 = 48.8 dB
L95 = 47.9 dB
L99 = 46.6 dB
Level
Cumulative
Cursor: [78.2 ; 78.4[dB Level: 0.0% Cumulative: 0.0%



EDISON_004

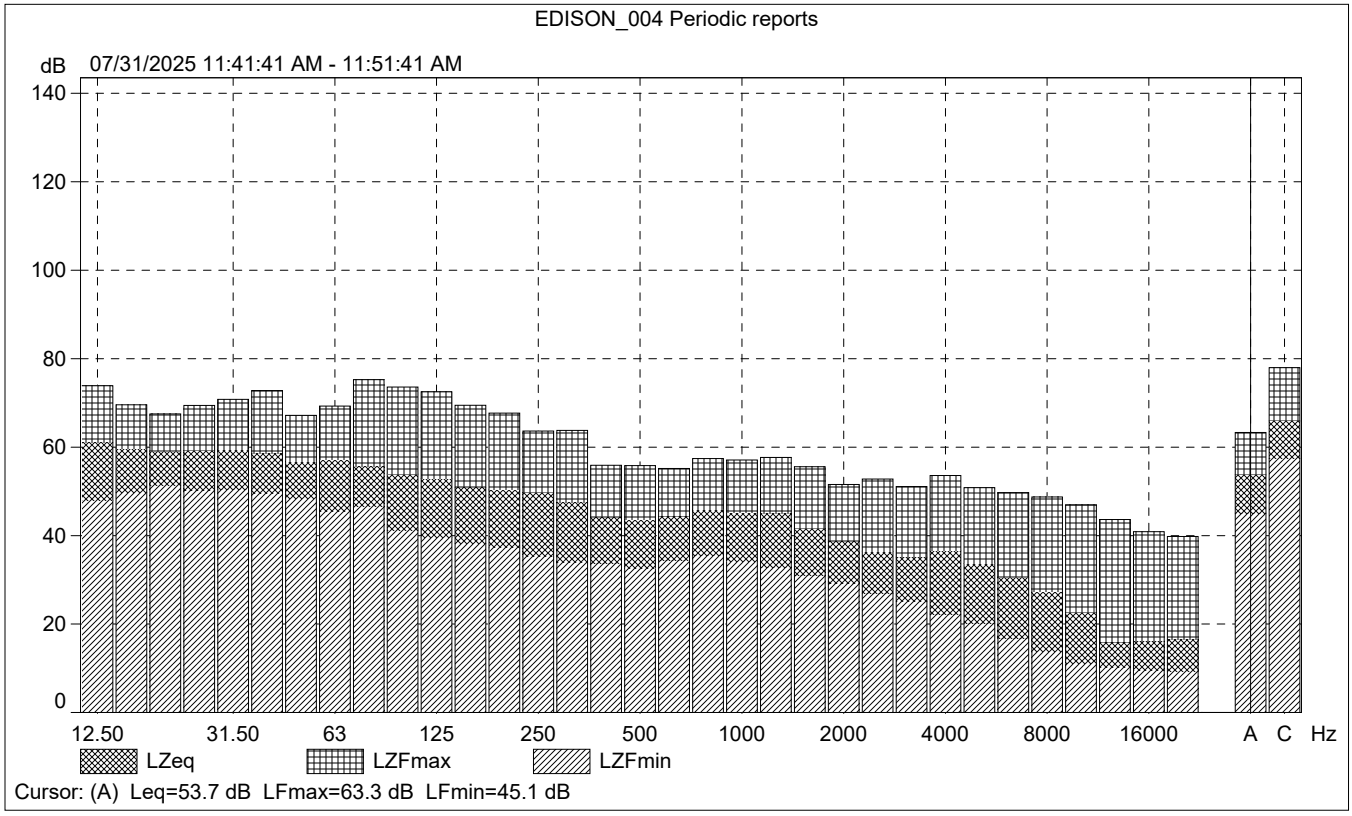
	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	62.6	63.2	60.6
Time	11:46:40 AM	0:00:01				
Date	07/31/2025					

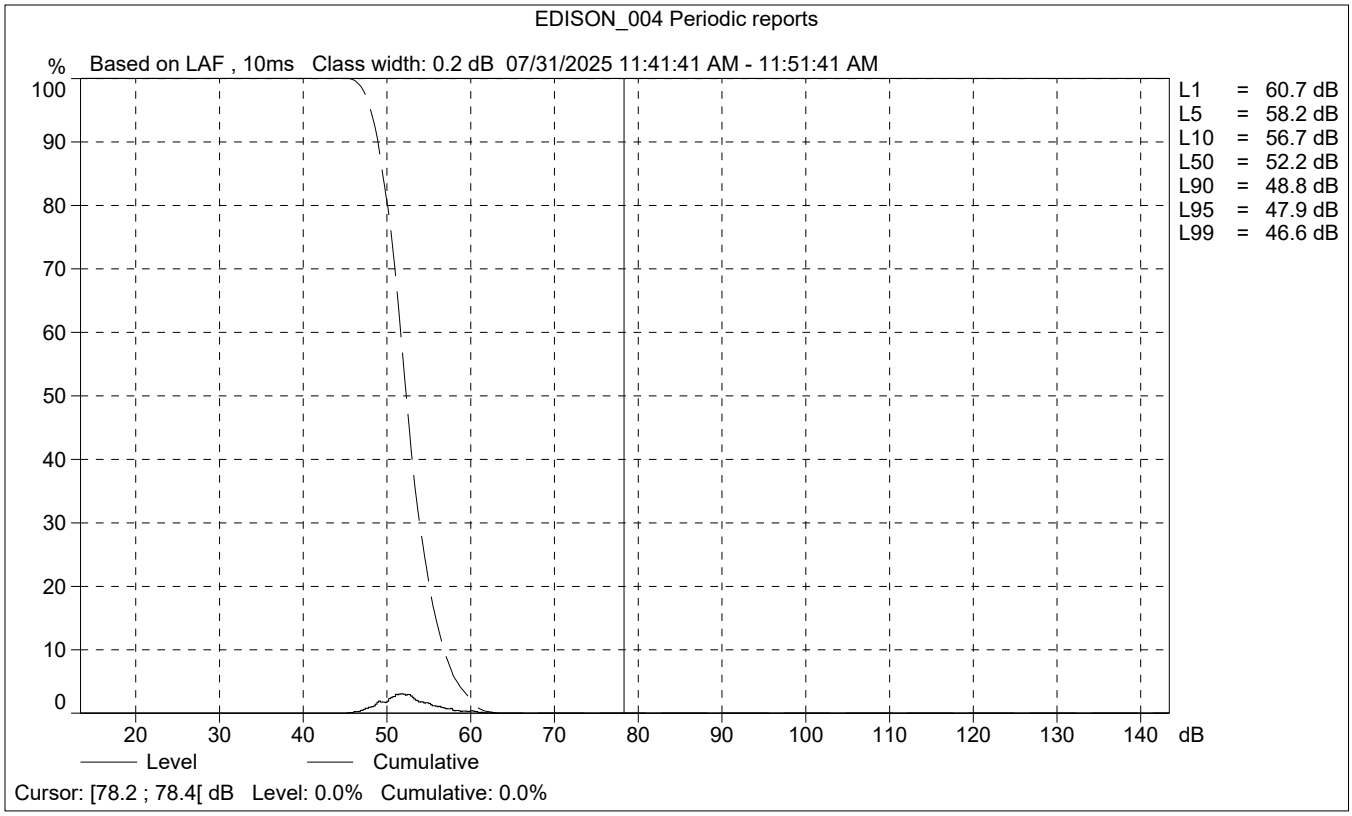

EDISON_004
dB
07/31/2025 11:46:40 AM - 11:46:41 AM
140
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
Cursor: (A) Leq=62.2 dB


EDISON_004 Periodic reports
dB
140
120
100
80
60
40
20
11:50:00 AM
12:00:00 PM
12:10:00 PM
12:20:00 PM
12:30:00 PM
12:40:00 PM
LAIeq
LAFmax
LCpeak
LAFmin
Cursor: 07/31/2025 11:41:41 AM - 12:41:41 PM LAIeq=54.9 dB LAFmax=63.3 dB LCpeak=87.3 dB LAFmin=45.1 dB

EDISON_004 Periodic reports

	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	54.9	63.3	45.1
Time	11:41:41 AM	0:10:00				
Date	07/31/2025					




EDISON_004 Periodic reports
% Based on LAF , 10ms Class width: 0.2 dB 07/31/2025 11:41:41 AM - 11:51:41 AM
100
90
80
70
60
50
40
30
20
10
0
20 30 40 50 60 70 80 90 100 110 120 130 140 dB
L1 = 60.7 dB
L5 = 58.2 dB
L10 = 56.7 dB
L50 = 52.2 dB
L90 = 48.8 dB
L95 = 47.9 dB
L99 = 46.6 dB
Level
Cumulative
Cursor: [78.2 ; 78.4[dB Level: 0.0% Cumulative: 0.0%

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 09/02/2025
Case Description: Demolition

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Residential	Residential	1.0	1.0	1.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Concrete Saw	No	20	89.6	685.0		0.0
Excavator	No	40	80.7	685.0		0.0
Excavator	No	40	80.7	685.0		0.0
Excavator	No	40	80.7	685.0		0.0
Dozer	No	40	81.7	685.0		0.0
Dozer	No	40	81.7	685.0		0.0

Results

		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	Calculated (dBA)	Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw	66.8 59.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	58.0 54.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	58.0 54.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	58.0 54.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	58.9 55.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	58.9 55.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	66.8 63.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 09/02/2025
Case Description: Grading

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Residential	Residential	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	685.0	0.0
Excavator	No	40		80.7	685.0	0.0
Grader	No	40	85.0		685.0	0.0
Dozer	No	40		81.7	685.0	0.0
Scraper	No	40		83.6	685.0	0.0
Scraper	No	40		83.6	685.0	0.0
Tractor	No	40	84.0		685.0	0.0
Tractor	No	40	84.0		685.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator	58.0	54.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	58.0	54.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	62.3	58.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	58.9	55.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	60.8	56.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	60.8	56.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	61.3	57.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	61.3	57.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	62.3	65.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 09/02/2025
Case Description: Grading

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Residential	Residential	1.0	1.0	1.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	685.0	0.0
Pickup Truck	No	40		75.0	685.0	0.0
Pickup Truck	No	40		75.0	685.0	0.0
Pickup Truck	No	40		75.0	685.0	0.0
Generator	No	50		80.6	685.0	0.0
Tractor	No	40	84.0		685.0	0.0
Tractor	No	40	84.0		685.0	0.0
Tractor	No	40	84.0		685.0	0.0
Welder / Torch	No	40		74.0	685.0	0.0

Results

Equipment	Calculated (dBA) Lmax	Calculated (dBA) Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Noise Limit Exceedance (dBA) Day Lmax	Noise Limit Exceedance (dBA) Day Leq	Noise Limit Exceedance (dBA) Evening Lmax	Noise Limit Exceedance (dBA) Evening Leq	Noise Limit Exceedance (dBA) Night Lmax	Noise Limit Exceedance (dBA) Night Leq
Crane	57.8	49.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pickup Truck	52.3	48.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pickup Truck	52.3	48.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pickup Truck	52.3	48.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	57.9	54.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	61.3	57.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	61.3	57.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	61.3	57.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Welder / Torch	51.3	47.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	61.3	63.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 09/02/2025
Case Description: Paving

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Residential	Residential	1.0	1.0	1.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Paver	No	50	77.2	685.0	0.0	
Paver	No	50	77.2	685.0	0.0	
Paver	No	50	77.2	685.0	0.0	
Paver	No	50	77.2	685.0	0.0	
Roller	No	20	80.0	685.0	0.0	
Roller	No	20	80.0	685.0	0.0	

Results

Equipment	Calculated (dBA) Lmax	Calculated (dBA) Leq	Noise Limits (dBA) Day Lmax	Noise Limits (dBA) Day Leq	Noise Limits (dBA) Evening Lmax	Noise Limits (dBA) Evening Leq	Noise Limits (dBA) Night Lmax	Noise Limits (dBA) Night Leq	Noise Limit Exceedance (dBA) Day Lmax	Noise Limit Exceedance (dBA) Day Leq	Noise Limit Exceedance (dBA) Evening Lmax	Noise Limit Exceedance (dBA) Evening Leq	Noise Limit Exceedance (dBA) Night Lmax	Noise Limit Exceedance (dBA) Night Leq
Paver	54.5	51.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	54.5	51.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	54.5	51.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	54.5	51.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	57.3	50.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	57.3	50.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	57.3	58.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 09/02/2025
Case Description: Coating

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Residential	Residential	1.0	1.0	1.0

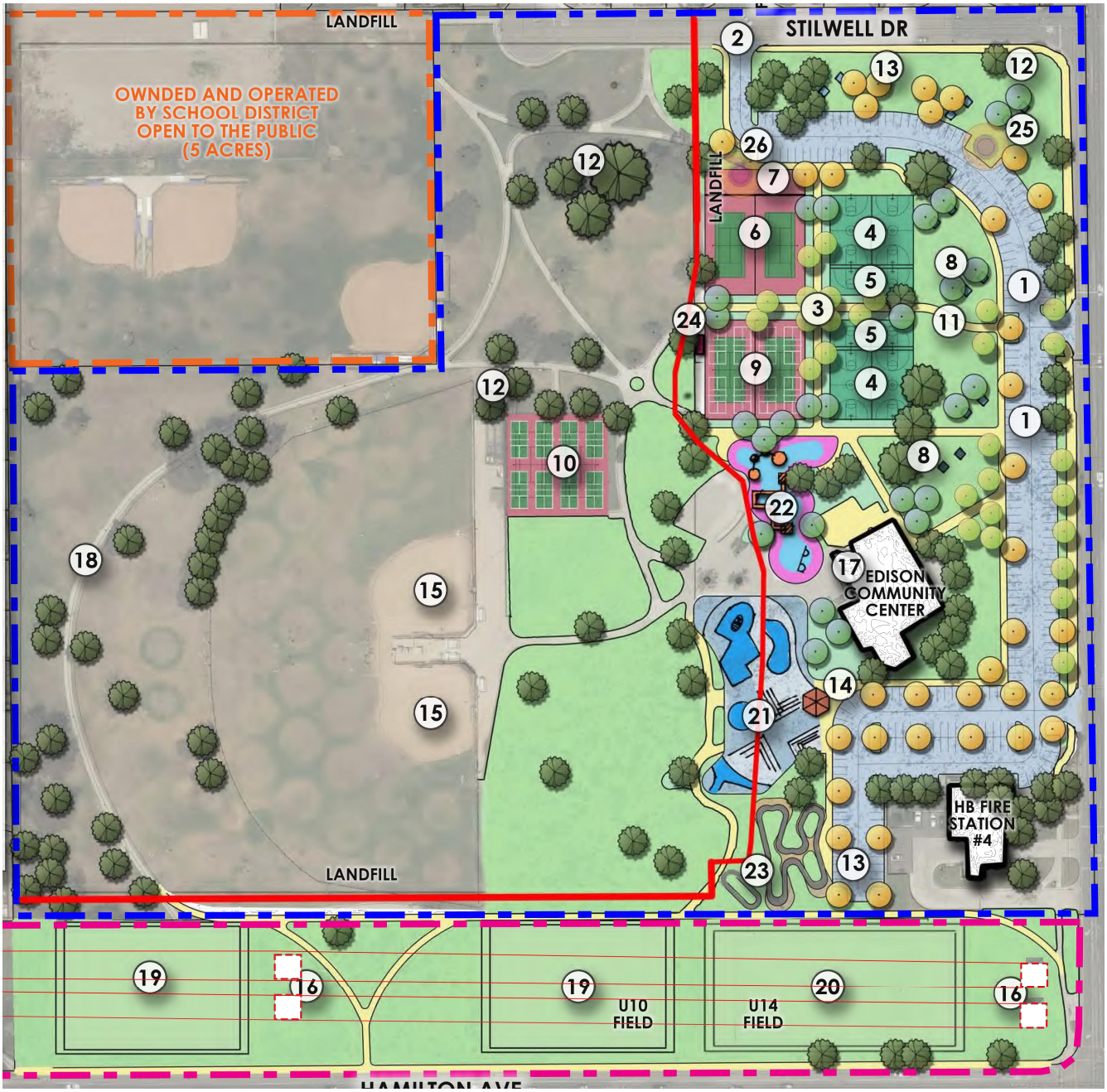
Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	685.0	0.0

Results

	Calculated (dBA)		Noise Limits (dBA) Day		Evening		Night		Noise Limit Exceedance (dBA) Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)	54.9	51.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	54.9	51.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

EDISON PARK PICKLEBALL COURTS
NOISE IMPACT STUDY
City of Huntington Beach, CA



EDISON PARK PICKLEBALL COURTS
NOISE IMPACT STUDY
City of Huntington Beach, California

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December 15, 2023

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1.0 Introduction

1.1 Purpose of Analysis and Study Objectives

The purpose of this study is to evaluate the noise impacts from the proposed Pickleball Courts at Edison Park (hereinafter referred to as "project"), and provide recommendations, if necessary, to minimize any potential project noise impacts.

The following information is provided in this report:

- A description of the study area and the proposed project
- Information regarding the fundamentals of noise
- Identification of the applicable City of Huntington Beach noise standards
- Analysis of the existing noise environment
- Analysis of the project's operational noise impact to adjacent residential receptors
- Summary of recommendations to reduce noise level impacts.

1.2 Site Location and Project Description

The project site is located within Edison Park, near the northwest corner of Magnolia Street and Hamilton Avenue, in the City of Huntington Beach. The proposed project consists of converting the existing tennis courts into pickleball courts and installing new dual courts that will be striped for both tennis and pickleball. A total of 16 pickleball courts are included as part of the project.

The proposed pickleball and dual tennis/pickleball courts will be located near two tennis-only courts also being installed within Edison Park. It is possible that pickleball activity will occasionally occur at the tennis-only courts. Therefore, this study analyzes potential pickleball noise at the pickleball, tennis, and dual pickleball/tennis courts simultaneously for a conservative, worst-case assessment of impacts.

There are several noise sensitive receptors surrounding the project site, including:

Northern Receptors Existing residential homes located approximately 244 feet north of the tennis-only courts, approximately 25 feet north of the centerline of Stilwell Drive.

Western Receptors Existing residential homes located approximately 600 feet west of the proposed pickleball courts, just west of Edison Park's western property line.

Eastern Receptor Existing Edison High School located approximately 360 feet east of the proposed dual tennis/pickleball courts, approximately 50 feet east of the centerline of Magnolia Street.

A project site location map, including sensitive receptor locations, is provided in Exhibit A.

The site plan used for this analysis, provided by RJM DESIGN GROUP, is illustrated on Exhibit B.

1.3 Summary of Analysis Results

- The City of Huntington Beach Municipal Code, Section 8.40.050, establishes 55 dBA Leq and 75 dBA Lmax daytime (7:00 a.m. to 10:00 p.m.) exterior noise standards for residential properties and schools.

- Per the City's Municipal Code, Section 8.40.050, noise which consists entirely of impact noise, simple tone noise, speech, music, or any combination thereof (which pickleball noise could be categorized as), the noise standards shall be reduced by five (5) db(A). As a result, the daytime residential noise standards would be reduced to 50 dBA Leq and 70 dBA Lmax.

- The proposed project is not expected to exceed the 55 dBA Leq standard or the reduced impact noise standard of 50 dBA Leq at the nearest adjacent residential properties.

- The proposed project is not expected to exceed the 75 dBA Lmax standard or the reduced impact noise standard of 70 dBA Lmax at the nearest adjacent residential properties.

- Due to the project's expected future noise levels falling below the City's noise level thresholds, no further design improvements or mitigation measures are being recommended.

- To ensure pickleball noise levels do not adversely impact the adjacent community, **pickleball court hours of operation should be limited from 7:00 a.m. to 10:00 p.m.**

2.0 Fundamentals of Noise

This section of the report provides basic information about noise and vibration and presents some of the terms used in the report.

2.1 Sound, Noise, and Acoustics

The sound is a disturbance created by a moving or vibrating source and is capable of being detected by the hearing organs. The sound may be thought of as mechanical energy of a moving object transmitted by pressure waves through a medium to a human ear. For traffic or stationary noise, the medium of concern is air. *Noise* is defined as sound that is loud, unpleasant, unexpected, or unwanted.

2.2 Frequency and Hertz

A continuous sound is described by its *frequency* (pitch) and its *amplitude* (loudness). Frequency relates to the number of pressure oscillations per second. Low-frequency sounds are low in pitch (bass sounding) and high-frequency sounds are high in pitch (squeak). These oscillations per second (cycles) are commonly referred to as Hertz (Hz). The human ear can hear from the bass pitch starting out at 20 Hz all the way to the high pitch of 20,000 Hz.

2.3 Sound Pressure Levels and Decibels

The *amplitude* of a sound determines its loudness. The loudness of sound increases or decreases, as the amplitude increases or decreases. Sound pressure amplitude is measured in units of micro-Newton per square inch meter (N/m2), also called micro-Pascal (μPa). One μPa is approximately one hundred billionths (0.00000000001) of normal atmospheric pressure. Sound pressure level (SPL or L_p) is used to describe in logarithmic units the ratio of actual sound pressures to a reference pressure squared. These units are called decibels and abbreviated as dB.

2.4 Addition of Decibels

Because decibels are on a logarithmic scale, sound pressure levels cannot be added or subtracted by simple plus or minus addition. When two (2) sounds of equal SPL are combined, they will produce an SPL 3 dB greater than the original single SPL. In other words, sound energy must be doubled to produce a 3dB increase.

If two (2) sounds differ by approximately 10 dB the higher sound level is the predominant sound.

2.5 Human Response to Changes in Noise Levels[1]

In general, the healthy human ear is most sensitive to sounds between 1,000 Hz and 5,000 Hz, (A-weighted scale) and it perceives a sound within that range as being more intense than a sound with a higher or lower frequency with the same magnitude. For purposes of this report as well as with most environmental documents, the A-scale weighing is typically reported in terms of A-weighted decibel (dBA). Typically, the human ear can barely perceive the change in the noise level of 3 dB. A change in 5 dB is readily perceptible, and a change in 10 dB is perceived as being twice or half as loud. As previously discussed, a doubling of sound energy results in a 3 dB increase in sound, which means that a doubling of sound energy (e.g. doubling the volume of traffic on a highway), would result in a barely perceptible change in sound level.

2.6 Noise Descriptors

Noise in our daily environment fluctuates over time. Some noise levels occur in regular patterns, others are random. Some noise levels are constant, while others are sporadic. Noise descriptors were created to describe the different time-varying noise levels. Following are the most commonly used noise descriptors along with brief definitions.

A-Weighted Sound Level

The sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighting filter de-emphasizes the very low and very high-frequency components of the sound in a manner similar to the response of the human ear. A numerical method of rating human judgment of loudness.

Ambient Noise Level

The composite of noise from all sources, near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

[1] Technical Noise Supplement to the Traffic Noise Analysis Protocol, September 2013.

Community Noise Equivalent Level (CNEL)

The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five (5) decibels to sound levels in the evening from 7:00 to 10:00 PM and after addition of ten (10) decibels to sound levels in the night before 7:00 AM and after 10:00 PM.

Decibel (dB)

A unit for measuring the amplitude of a sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micro-pascals.

dB(A)

A-weighted sound level (see definition above).

Equivalent Sound Level (LEQ)

The sound level corresponding to a steady noise level over a given sample period with the same amount of acoustic energy as the actual time-varying noise level. The energy average noise level during the sample period.

Habitable Room

Any room meeting the requirements of the Uniform Building Code or other applicable regulations which is intended to be used for sleeping, living, cooking or dining purposes, excluding such enclosed spaces as closets, pantries, bath or toilet rooms, service rooms, connecting corridors, laundries, unfinished attics, foyers, storage spaces, cellars, utility rooms, and similar spaces.

L(n)

The A-weighted sound level exceeded during a certain percentage of the sample time. For example, L10 in the sound level exceeded 10 percent of the sample time. Similarly, L50, L90, and L99, etc.

Noise

Any unwanted sound or sound which is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying. The State Noise Control Act defines noise as "...excessive undesirable sound...".

Percent Noise Levels

See L(n).

Sound Level (Noise Level)

The weighted sound pressure level obtained by use of a sound level meter having a standard frequency-filter for attenuating part of the sound spectrum.

Sound Level Meter

An instrument, including a microphone, an amplifier, an output meter, and frequency weighting networks for the measurement and determination of noise and sound levels.

Single Event Noise Exposure Level (SENEL)

The dBA level which, if it lasted for one (1) second, would produce the same A-weighted sound energy as the actual event.

2.7 Sound Propagation

As sound propagates from a source it spreads geometrically. The sound from a small, localized source (i.e., a point source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates at a rate of 6 dB per doubling of distance. The movement of vehicles down a roadway makes the source of the sound appear to propagate from a line (i.e., line source) rather than a point source. This line source results in the noise propagating from a roadway in a cylindrical spreading versus a spherical spreading that results from a point source. The sound level attenuates for a line source at a rate of 3 dB per doubling of distance.

As noise propagates from the source, it is affected by the ground and atmosphere. Noise models use the hard site (reflective surfaces) and soft site (absorptive surfaces) to help calculate predicted noise levels. Hard site conditions assume no excessive ground

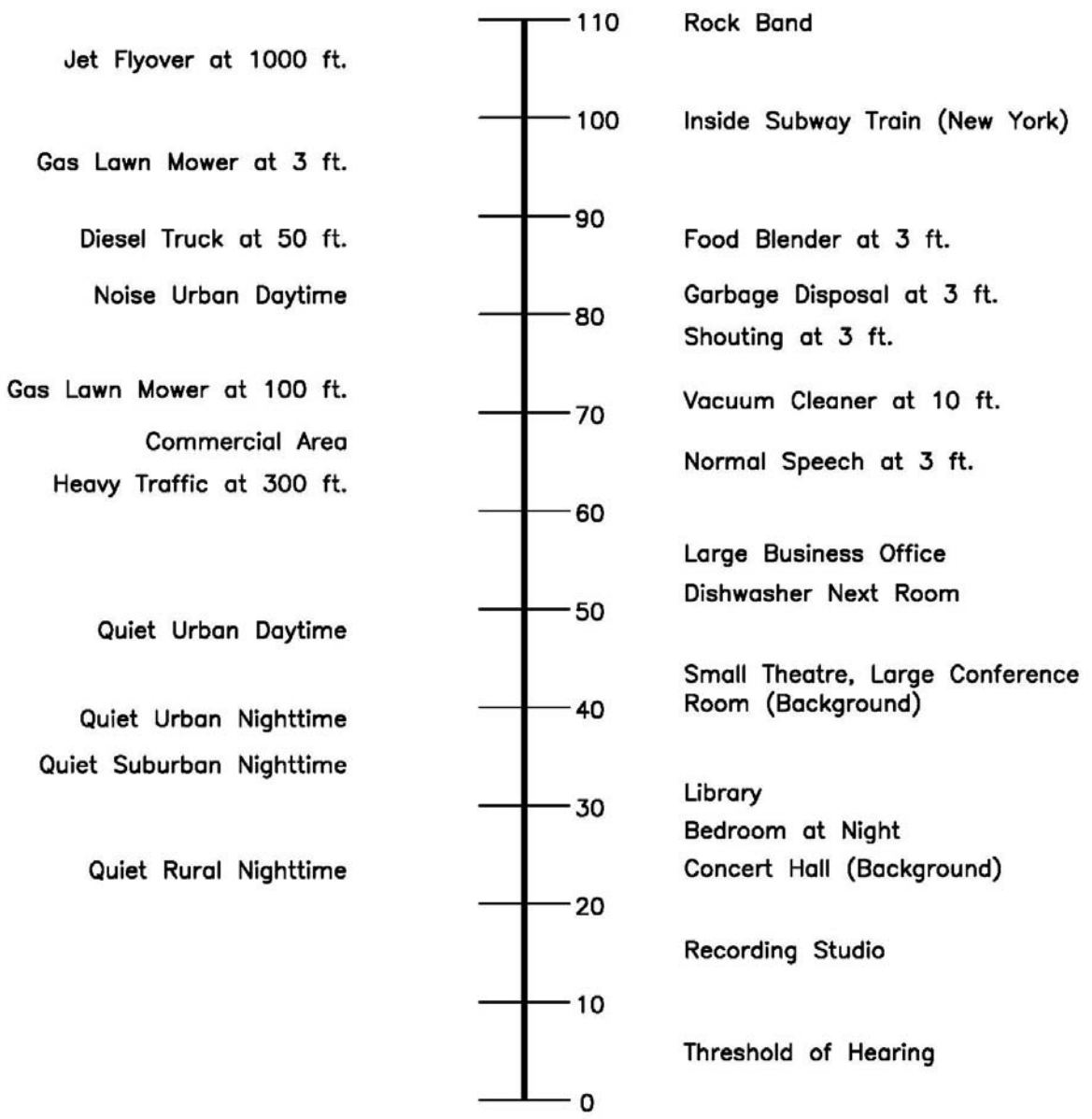
absorption between the noise source and the receiver. Soft site conditions such as grass, soft dirt or landscaping attenuate noise at an additional rate of 1.5 dB per doubling of distance. When added to the geometric spreading, the excess ground attenuation results in an overall noise attenuation of 4.5 dB per doubling of distance for a line source and 6.0 dB per doubling of distance for a point source.

Research has demonstrated that atmospheric conditions can have a significant effect on noise levels when noise receivers are located 200 feet and greater from a noise source. Wind, temperature, air humidity, and turbulence can further impact how far sound can travel.

Figure 1 shows typical sound levels from indoor and outdoor noise sources.

Figure 1[2]

TYPICAL SOUND LEVELS FROM
INDOOR AND OUTDOOR NOISE SOURCES



[2] Technical Noise Supplement to the Traffic Noise Analysis Protocol, September 2013.

3.0 Regulatory Setting

The proposed project is located in the City of Huntington Beach and the project must adhere to the applicable noise regulations established within the Huntington Beach Municipal Code.

3.1 City of Huntington Beach Municipal Code Noise Regulations

The City outlines their noise regulations and standards within the Huntington Beach Municipal Code, Chapter 8.40, Noise Control. The noise standards from the Municipal Code are provided in Appendix A.

Table 1 shows the City of Huntington Beach's daytime exterior noise standards for the land uses adjacent to the project site, as prescribed in Section 8.40.050 of the Municipal Code. It is assumed that the project will not operate during nighttime hours (10:00 p.m. to 7:00 a.m.). Therefore, potential noise impacts resulting from the project are compared to the City's daytime noise standards only.

Table 1
City of Huntington Beach Exterior Noise Standards

Noise Zone	Time Period[1]	Noise Standard (Leq)	Noise Standard (Lmax)
Low-Density Residential	7:00 a.m. to 10:00 p.m.	55 dBA	75 dBA
Schools	Hours of Operation		

[1]The project will not be open during nighttime hours (10:00 p.m. to 7:00 a.m.), therefore only the daytime noise standards are reported and analyzed in this report.

Municipal Code Section 8.40.050, Exterior Noise Standards, also includes a provision that states the following:

"*In the event the alleged offensive noise consists entirely of impact noise, simple tone noise, speech, music, or any combination thereof, each of the above noise levels shall be reduced by five (5) dB(A).*"

Since pickleball activity does include impact noises (as well as speech and potentially music), the City should consider designing the project to meet these more stringent requirements. As a result, the daytime residential noise standards would be reduced to 50 dBA Leq and 70 dBA Lmax.

4.0 Study Method and Procedures

The following section describes the noise measurement procedures, measurement locations, and noise modeling procedures and assumptions used in the noise analysis.

4.1 Noise Measurement Procedures and Criteria

A noise receiver or receptor is any location in the noise analysis in which noise might produce an impact. The following criteria are used to select measurement locations and receptors:

- Locations expected to receive the highest noise impacts, such as the first row of houses
- Locations that are acoustically representative and equivalent of the area of concern
- Human land usage
- Sites clear of major obstruction and contamination

RK conducted the sound level measurements in accordance with Caltrans technical noise specifications. All measurement equipment meets American National Standards Institute (ANSI) specifications for sound level meters (ANSI S1.4: Specification for Sound Level Meter, 1983)

Piccolo-II Type 2 integrating-averaging level meters were used to conduct long-term (24-hour) noise measurements at the project site and nearest residential properties.

The Leq, Lmin, Lmax, L2, L8, L25, and L50 statistical data were recorded over the measurement time period intervals and the information was utilized to define the noise characteristics for the project. The following gives a brief description of the Caltrans Technical Noise Supplement procedures for sound level measurements:

- Microphones for sound level meters were placed one and half feet above ground level for short-term and ten (10) feet above the ground for long-term noise measurements
- Sound level meters were calibrated before and after each measurement
- Following the calibration of equipment, a windscreen was placed over the microphone
- Frequency weighting was set on "A" and slow response
- Temperature and sky conditions were observed and documented

Appendix B includes photos, field sheets, and measured noise data.

4.2 Stationary Noise Modeling

On-site stationary noise sources were analyzed using SoundPLAN™ noise modeling software. SoundPLAN™ is a standards-based program that incorporates more than twenty national and international noise modeling guidelines. This project consists of stationary noise sources.

Projected noise levels from SoundPLAN™ are based on the following key parameters:

- Developing three-dimensional noise models of the project,
- Predicting the project noise levels at the selected community locations and
- Comparing the predicted noise with the existing community ambient noise levels at the receptor locations.

The sides of the buildings, walls, etc. were modeled as reflective surfaces and also as diffractive bodies. Most of the ground within the project site and adjacent areas are covered with field grass and vegetation and are modeled as a soft site (Ground Factor=1). The Effective Flow Resistivity for field grass is the SoundPLAN default. The elevation profile for the project site is derived from Google Earth, and receptors are placed at five feet above ground level.

Sound Power and Sound Pressure Level

Sound power level is the acoustic energy emitted by a source which produces a sound pressure level at some distance. While the sound power level of a source is fixed, the sound pressure level depends upon the distance from the source and the acoustic characteristics of the area in which it is located.

SoundPLAN requires that the source noise level be input using sound power level which must be back calculated based on a measured sound pressure level. The sound power level is calculated using SoundPLAN software by calibrating the source noise level to equal the sound pressure level at an equal distance from the source in which the referenced measurement was taken.

4.2.1 Reference Noise Levels

The noise sources associated with the project can be broken down into two categories:

- **'Impact noise'**, a short impulsive noise from the impact of the ball against the paddle and/or ground during active play.

- **'Other noise'**, includes speech, yelling and other noise created by patrons of the proposed project.

To evaluate the anticipated noise levels generated by the project, RK obtained reference noise level data from the existing Bonita Canyon Pickleball Courts in the City of Newport Beach. The referenced noise levels were measured on April 10, 2023.

The site used for existing reference noise level measurements consists of four pickleball courts enclosed by fencing retrofitted with noise-reducing lining. To be conservative, this study analyzes potential noise impacts using referenced noise measurements taken inside of the retrofitted fencing for an unmitigated, worst-case scenario.

Table 2 indicates the referenced noise levels for on-site stationary noise sources. Referenced noise level field sheets and calculations are provided in Appendix C.

Table 2
Bonita Canyon Pickleball Courts Referenced Noise Levels

Source	Noise Levels (dBA)	
	L_{eq}	L_{max}
Bonita Canyon Pickleball Courts	71.4[1]	85.7[1]

[1] Worst-case measured noise level. See Appendix C for field sheets.

The referenced noise levels shown in Table 2 are indicative of the noise levels generated by the proposed pickleball courts at the noise source location. To estimate noise level impacts at the surrounding residential receptor locations, the above referenced noise levels are input into the SoundPLAN model as area sources and projected from the source to the receptor locations. The model projections take into account the noise attenuation effects from distance, local topography, ground effects, and physical barriers to arrive at the predicted noise levels at the receptor locations described in Section 6.0.

It should be noted that the proposed project consists of 16 pickleball courts, however the referenced noise levels used in this study were measured at a location where only four courts were active. Therefore, to account for the sound generated by all 16 proposed courts, the model employs one area source with the referenced noise levels per set or four courts (i.e., 71.4 dBA Leq per four courts and 85.7 dBA Lmax per four courts).

Furthermore, the proposed pickleball and dual tennis/pickleball courts will be located near two tennis-only courts that are also being installed within Edison Park. It is possible that pickleball activity will occasionally occur at the tennis-only courts. Therefore, this study assesses potential pickleball noise at the pickleball, tennis, and dual pickleball/tennis courts simultaneously for a conservative, worst-case assessment of impacts.

5.0 Existing Noise Environment

The existing noise environment for the project site and surrounding areas has been established based on noise measurement data collected by RK.

5.1 24-Hour Noise Measurement Results

In order to establish the ambient noise environment at the nearest residential uses, RK conducted two (2) 24-hour noise level measurements.

Noise levels were measured on May 17, 2023 using Piccolo-II Type 2 integrating-averaging sound level meters. The information was utilized to establish the noise characteristics of the existing ambient environment.

The noise monitoring locations were selected based on the proximity and location to adjacent sensitive receptors. Exhibit C graphically illustrates the location of the long-term measurements.

- Noise Monitoring Location 1 (L-1) was taken within Edison Park, approximately 60 feet south of the centerline of Stilwell Drive and approximately 475 feet west of the centerline of Magnolia Street.

- Noise Monitoring Location 2 (L-2) was taken within Edison Park, approximately 350 feet north of the centerline of Hamilton Avenue and approximately 1,260 feet west of the centerline of Magnolia Street.

24-hour noise monitoring locations represent the existing ambient noise levels near the adjacent noise sensitive land uses near the project site. Ambient noise is consistent with a typical passive park setting, and includes rustling leaves, chirping birds, traffic noise propagating from nearby roadways, as well as perceptible noise from activity at the park's other features (playground, tennis courts, etc.) and noise from the residential properties.

Appendix B includes photographs, field sheets, and measured ambient noise data.

24-hour noise measurements are summarized in Tables 3 and 4 below.

Table 3
24-Hour Noise Measurement Results, (L-1)[1]

Time	Leq (dBA)	Time	Leq (dBA)
12:00 AM	43.9	12:00 PM	54.4
1:00 AM	42.3	1:00 PM	53.0
2:00 AM	41.6	2:00 PM	53.6
3:00 AM	38.3	3:00 PM	55.1
4:00 AM	40.7	4:00 PM	54.9
5:00 AM	45.7	5:00 PM	54.6
6:00 AM	48.8	6:00 PM	54.0
7:00 AM	51.0	7:00 PM	53.5
8:00 AM	51.6	8:00 PM	51.8
9:00 AM	55.2	9:00 PM	48.4
10:00 AM	49.4	10:00 PM	56.6
11:00 AM	51.6	11:00 PM	44.9
24-Hour CNEL			**56.6**

[1] L-1 was recorded on 05/17/2023.

Table 4
24-Hour Noise Measurement Results, (L-2)[1]

Time	Leq (dBA)	Time	Leq (dBA)
12:00 AM	51.2	12:00 PM	53.6
1:00 AM	45.5	1:00 PM	53.6
2:00 AM	45.4	2:00 PM	55.1
3:00 AM	40.7	3:00 PM	56.5
4:00 AM	43.7	4:00 PM	56.7
5:00 AM	47.6	5:00 PM	57.2
6:00 AM	50.5	6:00 PM	58.7
7:00 AM	53.8	7:00 PM	56.7
8:00 AM	52.6	8:00 PM	58.1
9:00 AM	52.4	9:00 PM	50.9
10:00 AM	52.2	10:00 PM	50.1
11:00 AM	56.3	11:00 PM	51.6
24-Hour CNEL			**57.8**

[1] L-2 was recorded on 05/17/2023.

As shown in the tables above, existing daytime ambient noise levels occasionally exceed the City's 55 dBA Leq noise level standard for residential land uses and schools.

6.0 Operational Noise Impacts

This assessment analyzes the anticipated noise levels generated by the project. The main sources of noise generated by the project would include on-site operational activities. Noise level impacts are compared to the City of Huntington Beach Leq and Lmax noise standards.

The project must demonstrate that noise levels generated by the project site would not be in excess of standards established in the Huntington Beach, California Municipal Code. The Municipal Code has a provision that penalizes "impact" noises (such as those generated by pickleball activity). For informational purposes, this report compares noise impacts to both the base noise standards and the impact noise standards.

Appendix D includes SoundPLAN results sheets.

6.1 Pickleball Courts Noise Impacts

The noise generated by pickleball can vary depending on several factors such as the number of players and the type of ball and paddles used. Typically, the sound of a pickleball hitting a paddle is a sharp, distinct sound and is often described as a "pop" or a "whack," and it can be particularly loud if a player hits the ball with a lot of force.

In addition to the sound of the ball hitting the paddle, there may also be additional noise generated by the movement of players on the court. This can include the sound of shoes scuffing on the court surface or the sound of players calling out to each other during the game.

On-site stationary noise impacts from the pickleball courts are assessed at the property lines of the nearest northern, western, and eastern receptors. It is assumed that the project will not operate during nighttime hours (10:00 p.m. to 7:00 a.m.). Therefore, potential noise impacts resulting from the project are compared to the City's daytime noise standards only.

Table 5 below shows the results of the daytime Leq noise impact analysis. The SoundPLAN analysis results and receiver locations are graphically illustrated in Exhibits D and E.

The project is not expected to exceed the City of Huntington Beach daytime exterior noise standard of 55 dBA Leq or the 50 dBA Leq standard for impact noise.

It should be noted that although the noise generated by the pickleball courts is not expected to exceed the City's noise ordinance, this does not mean that it will not be

audible from the exterior areas of the surrounding residential properties and the sound may still be perceived as an annoyance.

Table 5
Daytime Noise Impact Analysis – Leq (dBA)

Receptor	Receiver	Daytime Exterior Noise Level (dBA)		
		Project Noise Contribution (Leq)	Huntington Beach Noise Level Criteria[1] (Leq)	Noise Level Exceeds Standard (?)
Northern Receptors	1	43.6	55.0 / 50.0	No / No
	2	45.6		No / No
	3	46.9		No / No
Western Receptors	4	38.5		No / No
	5	42.4		No / No
	6	38.0		No / No
Eastern Receptor	7	43.9		No / No

[1] Huntington Beach daytime residential/schools noise standard / Huntington Beach daytime residential/schools "impact" noise standard.

Table 6 shows the results of the daytime Lmax noise impact analysis. The SoundPLAN analysis results and receiver locations are graphically illustrated in Exhibits F and G.

The project is not expected to exceed the City of Huntington Beach daytime exterior noise standard of 75 dBA Lmax or the 70 dBA Lmax standard for impact noise.

Table 6
Daytime Noise Impact Analysis – Lmax (dBA)

Receptor	Receiver	Daytime Exterior Noise Level (dBA)		
		Project Noise Contribution (Leq)	Huntington Beach Noise Level Criteria[1] (Leq)	Noise Level Exceeds Standard (?)
Northern Receptors	1	57.9	75.0 / 70.0	No / No
	2	59.9		No / No
	3	61.2		No / No
Western Receptors	4	52.8		No / No
	5	56.7		No / No
	6	52.3		No / No
Eastern Receptor	7	58.2		No / No

[1] Huntington Beach daytime residential/schools noise standard / Huntington Beach daytime residential/schools "impact" noise standard.

As shown in the tables above, the project is expected to generate maximum noise levels of 46.9 dBA Leq and 61.2 dBA Lmax at the nearest adjacent residential properties. This falls below the City's exterior noise standards of 55 dBA Leq and 75 dBA Lmax, and below the reduced impact noise standards of 50 dBA Leq and 70 dBA Lmax. Therefore, based on its current design, the project does not require any further design improvements or mitigation measures to meet the City of Huntington Beach Municipal Code requirements.

To ensure pickleball noise levels do not adversely impact the adjacent community, **pickleball court hours of operation should be limited to 7:00 a.m. to 10:00 p.m. only.**

Exhibits

Exhibit A

Location Map

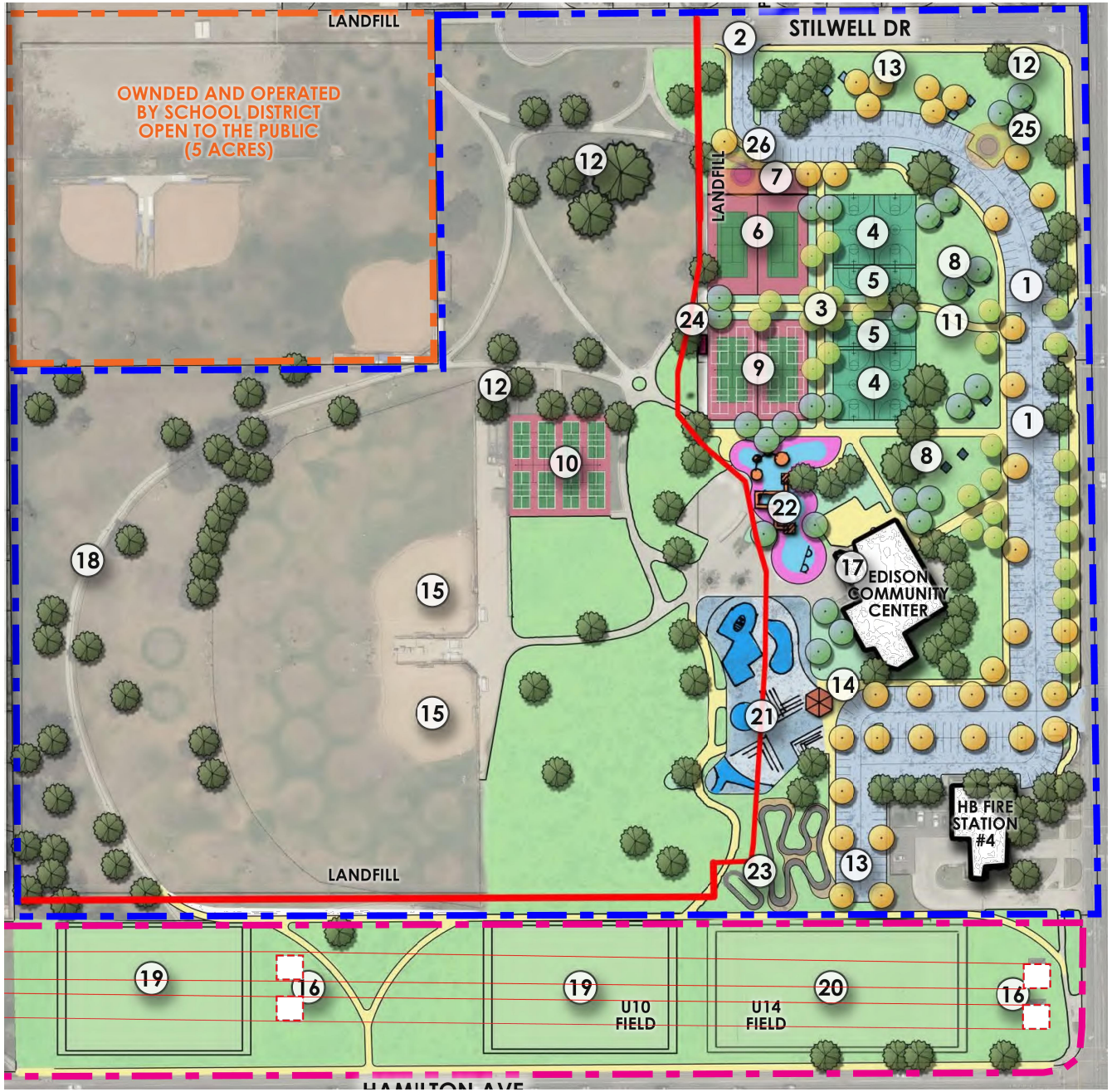
Legend:

▬ ▬ = Proposed Court Boundaries

N

Exhibit B

Site Plan



RK engineering group, inc.

Exhibit C

Noise Monitoring Locations

Legend:

▬ = Proposed Court Boundaries

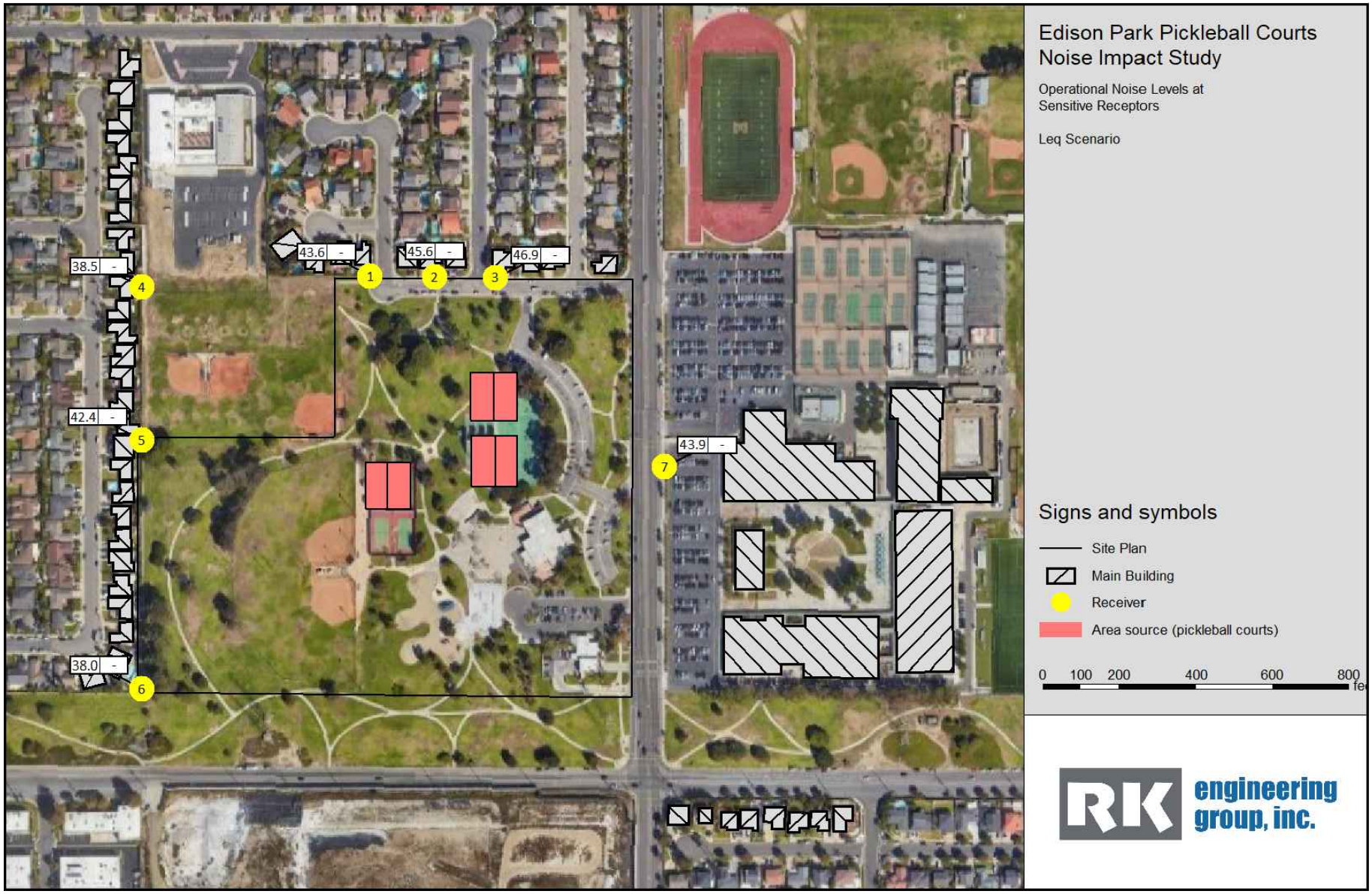
① = Noise Monitoring Location

N

RK engineering group, inc.

Exhibit D

Operational Daytime Noise Levels (dBA) - Leq



N

Daytime Noise Contours - Leq

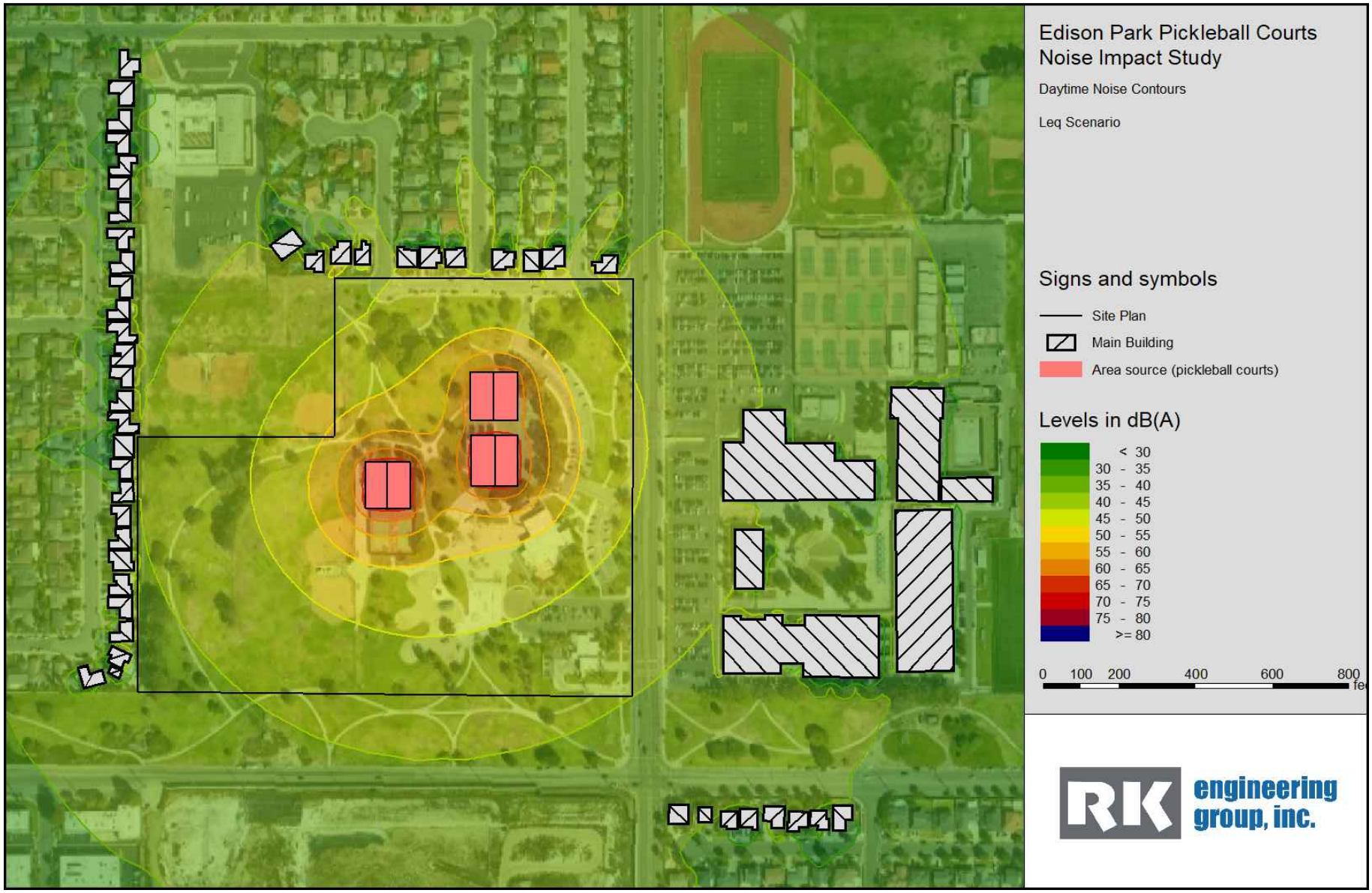


Exhibit F

Operational Daytime Noise Levels (dBA) - Lmax

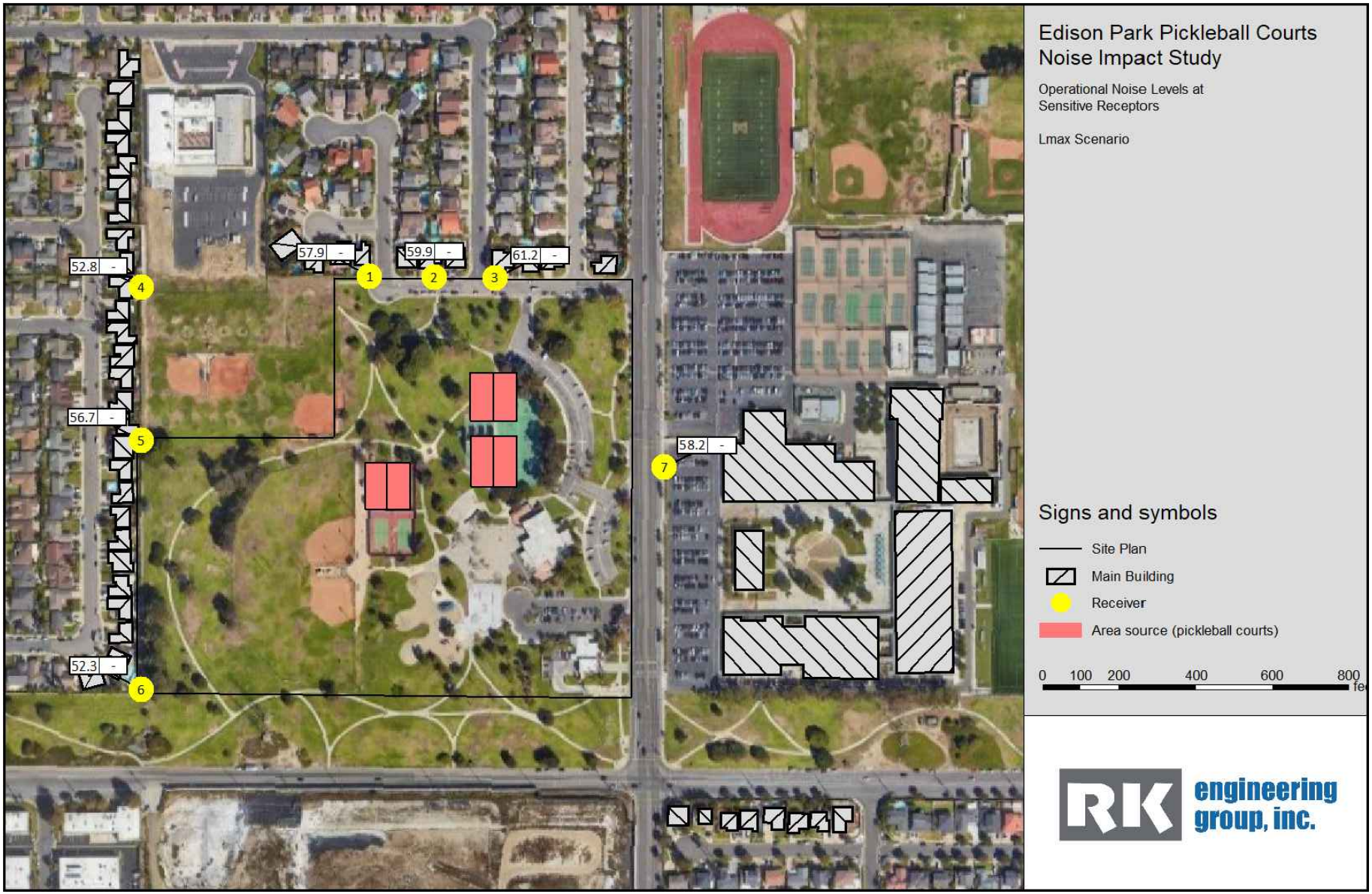
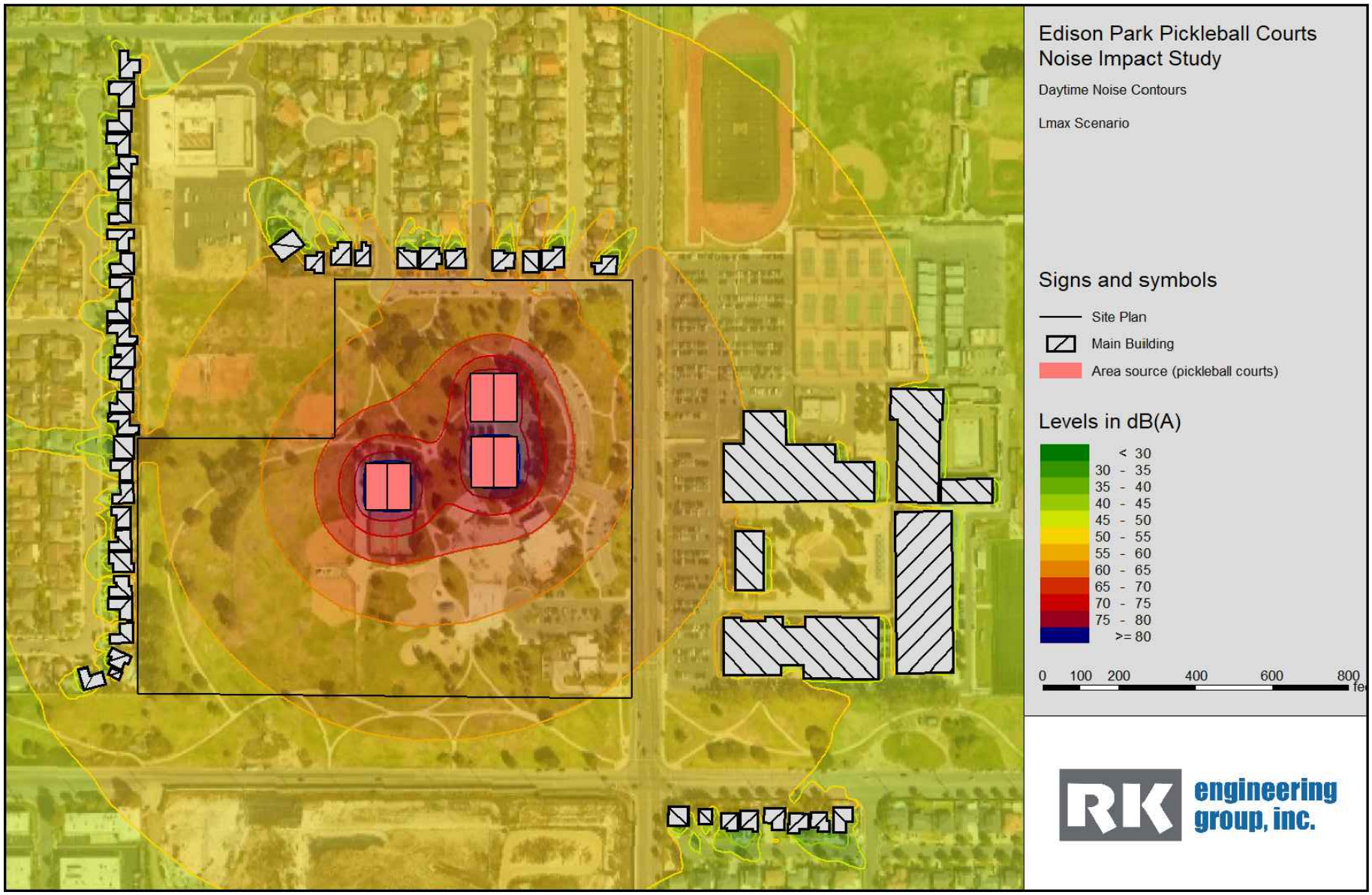


Exhibit G

Daytime Noise Contours - Lmax



Appendices

Appendix A

City of Huntington Beach, California
Municipal Code Chapter 8.40 – Noise Control

Huntington Beach, California Municipal Code

MUNICIPAL CODE

Title 8 HEALTH AND SAFETY

Chapter 8.40 NOISE CONTROL

Note

Note

8.40.010 Declaration of Policy

8.40.020 Definitions

8.40.030 Noise Level Measurement Criteria

8.40.050 Exterior Noise Standards

8.40.090 Special Provisions

8.40.095 Leaf Blowers

8.40.100 Schools, Hospitals and Churches—Special Provisions

8.40.111 Prohibited Noises

8.40.112 Loud Noises

8.40.113 Vibration

8.40.120 Manner of Enforcement

8.40.130 Permit Process

8.40.150 Appeals

Note

Sections:

8.40.010 Declaration of Policy

8.40.020 Definitions

8.40.030 Noise Level Measurement Criteria

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8.40.150 Appeals

Note

* **Note:** §§ 8.40.140, 8.40.160 and 8.40.170 repealed by Ord. 3940-7/12.

8.40.010 Declaration of Policy

A. In order to control unnecessary, excessive and annoying sounds emanating from incorporated areas of the City, it is hereby declared to be the policy of the City to prohibit such sounds generated from all sources as specified in this chapter.

B. It is determined that certain noise levels are detrimental to the public health, welfare and safety and contrary to public interest; therefore, the City Council does ordain and declare that creating, maintaining, causing or allowing to create, maintain or cause any noise in a manner prohibited by, or not in conformity with the provisions of this chapter, is a public nuisance and shall be punishable as such. (2379-7/79)

8.40.020 Definitions

The following words, phrases and terms as used in this chapter shall have the meaning as indicated below:

"**Ambient noise level**" means the all-encompassing noise level associated with a given environment, being a composite of sounds from all sources, excluding the alleged offensive noise, at the location and approximate time at which a comparison with the alleged offensive noise is to be made.

"**A-weighted decibel (dBA)**" means the overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear as represented by the A-weighted network. The reference pressure is 20 micropascals.

"**Commercial property**" means a parcel of real property which is developed and used either in part or in whole for commercial purposes including, but not limited to, retail and wholesale businesses and professional offices.

"**Cumulative period**" means an additive period or time composed of individual time segments which may be continuous or interrupted.

"**Decibel (dB)**" means a unit which denotes the ratio between two quantities which are proportional to power; the number of decibels corresponding to the ratio of two amounts of power is 10 times the logarithm to the base 10 of this ratio.

"**Domestic power tool**" means a mechanically-powered saw, sander, drill, grinder, lawn or garden tool, snow blower, leaf blower or similar device that is used in residential areas for work that is typically done by or for residential occupants.

"**Emergency machinery, vehicle or work**" means any machinery, vehicle or work used, employed or performed in an effort to protect, provide or restore safe conditions in the community or for the citizenry, or work by private or public utilities when restoring utility service.

"**Equivalent continuous sound level (Leq)**" means the value of an equivalent, steady sound level which, in a stated time period, has the same sound energy as the time-varying sound. Thus, the Leq metric is a single numerical value that represents the equivalent amount of variable sound energy received at a location over the specified duration.

"**Fixed noise source**" means a stationary device or point source which creates sounds while fixed or motionless, including, but not limited to, industrial and commercial machinery and equipment, pumps, fans, compressors, generators, air conditioners and refrigeration equipment, or an area source such as a special event on a property. That is, all sources that are non-mobile transportation sources (e.g., vehicle traffic on public roads and aircraft).

"**Grading**" means any excavating or filling of earth material, or any combination thereof, conducted to prepare said site for construction or the placement of the improvements thereon.

"**Impact noise**" means the noise produced by the collision of one mass in motion with a second mass which may be either in motion or at rest.

"**Impulsive noise**" means sound of short duration, usually less than one second, with an abrupt onset and rapid decay.

"**Industrial property**" means a parcel of real property which is developed and used in part or in whole for manufacturing purposes including research and development uses.

"**Leaf blower**" means any machine, however powered, used to blow leaves, dirt and other debris off sidewalks, driveways, lawns and other surfaces.

“**Maximum sound level (Lmax)**” means the highest RMS sound level measured during the measurement period.

“**Mobile noise source**” means any noise source other than a fixed noise source.

“**Motorboat**” means any vessel which operates on water and which is propelled by a motor, including, but not limited to, boats, barges, amphibious craft, water ski towing devices and hover craft.

“**Noise level**” means the “A” weighted sound pressure level in decibels obtained by using a sound level meter at slow response with a reference pressure of 20 micropascals (micronewtons per square meter). The unit of measurement shall be designated as dBA.

“**Parcel**” means an area of real property with a separate or distinct number or other designation shown on a plat recorded in the office of the County Recorder. Contiguous parcels owned by the same individual or entity shall be considered one parcel for purposes of this chapter.

“**Person**” means a person, firm, association, co-partnership, joint venture, corporation or any entity, public or private in nature.

“**Predominant tone noise**” means a noise characterized by a predominant frequency or frequencies so that other frequencies cannot be readily distinguished.

“**Residential property**” means a parcel of real property which is developed and used either in part or in whole for residential purposes, other than transient uses such as hotels or motels.

“**Root-mean-square sound level (RMS)**” means the square root of the average of the square of the sound pressure over the measurement period.

“**Simple tone noise**” means a noise characterized by a predominant frequency or frequencies so that other frequencies cannot be readily distinguished. In case of dispute, a simple tone noise shall exist if the one-third octave band sound pressure level in the band with the tone exceeds the arithmetic average of the sound pressure levels of the two contiguous one-third octave bands by five dB for center frequencies of 500 Hz and above and by eight dB for center frequencies between 160 and 400 Hz and by 15 dB for center frequencies less than or equal to 125 Hz.

“**Sound amplifying equipment**” means any machine or device used for the amplification of the human voice, music, or any other sound, excluding standard automobile stereos when used and heard only by the occupants of the vehicle and, as used in this chapter, warning devices on authorized emergency vehicles or horns or other warning devices on any vehicle used for traffic safety purposes.

“**Sound pressure level**” of a sound, in decibels, means 20 times the logarithm to the base of 10 of the ratio of the pressure of the sound to the reference pressure of 20 micropascals.

“**Vibration decibel (VdB)**” means a measure of vibration expressed on a logarithmic scale with the reference velocity of one micro-inch per second (1x10-6 in/sec).

"**Vibration-sensitive use**" means residential, hotels, motels, schools, hospitals and medical offices with vibration-sensitive equipment, churches, cultural land uses, commercial, office and government uses. Outdoor areas with no buildings and industrial and manufacturing uses are not considered vibration sensitive. (2379-7/79, 4222-9/21)

8.40.030 Noise Level Measurement Criteria

Any noise level measurements made pursuant to the provisions of this chapter shall be performed using a sound level meter which meets at least American National Standards Institute (ANSI) Type 2 standards. While the exterior noise standards in Section 8.40.050 are applied to the property line of the receiving use, the location for measuring noise levels may be at any legally accessible vantage point where a reasonable person would conclude the noise may exceed this chapter's noise standards. All noise level measurements shall be performed in accordance with the procedures established by the City and shall be at a height of at least four feet, at least four feet away from reflective surfaces, and for a duration of at least 15 minutes, where feasible. The measurement shall be made using the A-weighting network (dBA) with "slow" meter response. Impulsive or impact noises shall be measured using "fast" meter response. The purpose of the measurement is to determine if the alleged noise violation exceeds the standards established in Section 8.40.050. If for any reason the alleged offending noise cannot be turned off, shut down or temporarily removed from the area, then the ambient noise shall be estimated by performing a representative measurement in the same general area of the source but at a sufficient distance such that the noise source is inaudible. (2379-7/79, 3940-7/12, 4222-9/21)

8.40.050 Exterior Noise Standards

A. The following exterior noise standards shall apply to the applicable land use. It is unlawful for any person at any location within the incorporated area of the City to create any noise due to a fixed noise source (or any mobile source not pre-empted by State or Federal laws), or to allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person, which causes the noise level when measured at the property line of any residential, hotel, motel, public institutional, recreational, or commercial property, either within or outside the City, to exceed the applicable noise standards:

Exterior Noise Standards

Land Use	Leq Noise Level dBA	Lmax Noise Level dBA	Time Period
Low-Density Residential	55	75	7 a.m.–10 p.m.
	50	70	10 p.m.–7 a.m.
Medium-, High-Density Residential, Hotels, Motels	60	80	7 a.m.–10 p.m.
	50	70	10 p.m.–7 a.m.
Schools	55	75	Hours of Operation
Hospitals, Churches, Cultural, Museum, Library, Public Park, Recreational	60	80	Hours of Operation
Commercial/Office	65	85	Hours of Operation

B. The above standard does not apply to the establishment of multifamily residence private balconies and patios. Multifamily developments with balconies or patios that do not meet noise standards are required to provide occupancy disclosure notices to all future tenants regarding potential noise impacts.

C. The above daytime (7:00 a.m.–10:00 p.m.) standards for hotels, motels and commercial uses shall apply only to active outdoor use areas such as a pool or outdoor courtyard.

D. In the event the alleged offensive noise consists entirely of impact or impulsive noise, simple tone noise, speech, music, or any combination thereof, each of the above noise levels shall be reduced by five dBA.

E. If the alleged offense affects a property outside the City's jurisdiction, the exterior noise standards shall be enforced at the City boundary.

F. In the event the measured ambient noise level exceeds any of the noise limit categories above, the noise limit shall be increased to reflect said ambient noise level.

G. In the event that the noise source and the affected property are within different land use categories, the noise standards of the affected property shall apply. (2379-8/79, 2788-9/85, 3940-7/12, 4222-9/21)

8.40.090 Special Provisions

The following activities shall be exempt from the provisions of this chapter:

A. School bands, school athletics and school entertainment events, provided such events are conducted on school property or authorized by special permit from the City.

B. Activities lawfully permitted in public parks, public playgrounds and public or private school grounds.

C. Any mechanical device, apparatus or equipment used, related to or connected with emergency City work, including City contractors.

D. Noise sources associated with construction, repair, remodeling, or grading of any real property, provided that: (1) the City has issued a building, grading or similar permit for such activities; (2) said activities do not take place between the hours of 7:00 p.m. and 7:00 a.m., Monday through Saturday, or at any time on Sunday or a Federal holiday; and (3) the average construction noise levels do not exceed 80 dBA Leq at nearby noise-sensitive land uses. If outdoor construction activities are permitted by the City after 7:00 p.m. or before 7:00 a.m., the average construction Noise Levels at nearby noise-sensitive land uses shall be limited to 50 dBA Leq.

E. Mobile noise sources associated with pest control through pesticide application, provided that the application is made in accordance with restricted material permits issued by or regulations enforced by the Agricultural Commissioner.

F. Noise sources associated with the maintenance of real property and use of domestic power tools provided said activities take place between the hours of 8:00 a.m. and 7:00 p.m. Monday through Saturday or between the hours of 9:00 a.m. and 6:00 p.m. on Sunday or a Federal holiday. Noise from typical and occasional property maintenance and the use of domestic power tools which does not require a building permit shall not be subject to the noise limits in subsection D of this section.

G. Leaf blower noise shall be governed by Section 8.40.095.

H. Any activity or equipment to the extent that design regulation thereof has been pre-empted by State or Federal laws.

I. Noise sources associated with temporary public or private events located on private or public property, provided that a permit has been obtained from the City.

J. Noise generated outdoors by business operations which are temporarily prohibited from occurring indoors due to City-declared emergency conditions. This applies only to City-approved businesses whose operations would typically occur indoors. Noise generated by sound amplifying equipment such as stereos or megaphones is not exempt. (2379-7/79, 3131-4/92, 3940-7/12, 4222-9/21)

8.40.095 Leaf Blowers

A. **Unlawful to Propel Debris Beyond Parcel Boundary.** It is unlawful for any person to use or operate any leaf blower in such a manner as to blow, dispel or make airborne, dust, leaves, grass cuttings, paper, trash or any other type of unattached debris or material, beyond the parcel boundaries of the parcel being cleaned, unless the consent of the adjoining owner or person in possession is obtained. It is unlawful for any person to use or operate any leaf blower within the City in such a way as to blow leaves, dirt and other debris onto the public rights-of-way or private property and to allow such debris to remain there in excess of 30 minutes.

B. **Special Prohibitions.** It is unlawful for any person to operate a leaf blower within a residential zone or within 100 feet of a residential zone of the City of Huntington Beach, except under the following conditions:

1. **Time Restriction.** Noise sources associated with the maintenance of real property provided said activities take place between the hours of 8:00 a.m. and 7:00 p.m. Monday through Saturday or between the hours of 9:00 a.m. and 6:00 p.m. on Sunday or a Federal holiday.

2. **Distance Restriction.** Leaf blowers shall not be operated within a horizontal distance of 10 feet of any operable window, door, or mechanical air intake opening or duct.

3. **Duration of Use Restriction.** Leaf blowers shall not be operated for more than 15 minutes per hour, per day, on parcels less than one-half acre and no more than 30 minutes per hour on parcels greater than one-half acre up to one acre. Leaf blowers shall not be operated for more than two hours on parcels of one acre or more.

4. **Number Restriction.** No person shall operate more than one leaf blower per parcel on one-half acre, no more than two leaf blowers on parcels greater than one-half acre and no more than three leaf blowers on parcels greater than one acre or more.

5. The maximum decibel level of 70 dBA as measured 10 feet from the leaf blower shall not be exceeded. (3131-4/92, 4222-9/21)

8.40.100 Schools, Hospitals and Churches—Special Provisions

It is unlawful for any person to create any noise which causes the noise level at any school, hospital or church while same is in use, to exceed the noise limits specified for exterior noise standards in Section 8.40.050, or which noise level unreasonably interferes with the use of such institutions, including, unreasonably disturbs or annoys persons at a school, hospital or church, provided conspicuous signs are displayed in three separate locations within one-tenth of a mile of the institution indicating the presence of a school, hospital or church. (2379-7/79, 4222-9/21)

8.40.111 Prohibited Noises

A. It is unlawful for any person to willfully make or continue, or cause to be made or continued, any loud, unnecessary or unusual noise which disturbs the peace or quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area.

B. In determining whether a violation of the provisions of this section exists, the City will determine:

1. The level of the noise;

2. The level and intensity of background noise, if any;

3. The proximity of the noise to residences;

4. The zoning where the noise emanates;

5. The density of the area within which the noise emanates;

6. The time the noise occurs;

7. The duration of the noise and its tonal content; and

8. Whether the noise is recurrent, intermittent or constant. (3216-12/93, 4222-9/21)

8.40.112 Loud Noises

It is unlawful for any person to:

A. Use, operate, or permit to be operated any radio, receiving set or device, television set, musical instrument, phonograph, digital music player, CD, DVD, tape player, juke box, or other sound-amplifying device for producing or reproducing sound in such a manner as to disturb the peace, quiet, and comfort of other persons.

B. Make or allow to be made any noise which continues for more than a five-minute period between the hours of 10:00 p.m. and 7:00 a.m. if such noise is audible for 50 feet or more from the source of the noise.

C. Maintain, manage, or control any business or residential property in violation of subsection A or B of this section.

D. When within 200 feet of residences, load, unload, open, close or other handling of boxes, crates, containers, building materials, refuse handling or similar objects, between the hours of 10:00 p.m. and 7:00 a.m. in such a manner as to cause a noise disturbance across a noise-sensitive property line. This includes, but is not limited to, noise disturbances related to commercial delivery operations, vehicle idling, vehicle queuing, vehicle backup alarms, and vehicle refrigeration equipment.

E. Repair, rebuild, modify, or test any motor vehicle, motorcycle, or motorboat in such a manner as to cause a noise disturbance across a noise-sensitive property line.

F. Operate, play or permit the operation of any sound amplifying equipment in any place of public entertainment at a sound level greater than 90 dBA as read by the slow response on a sound level meter at any point that is normally occupied by customers, unless a conspicuous and legible sign is located immediately outside or near the public entrance stating, “Warning: Sound Levels Within May Cause Permanent Hearing Impairment.”

G. Sound or permit the sounding of any amplified signal from such as a bell, chime, siren, whistle, vehicle horn or similar device, intended primarily for non-emergency purposes which causes a noise disturbance across a noise-sensitive property line. Devices used in conjunction with school and place of worship shall be exempt from this provision.

H. Operate or permit the operation of any motorboat in such a manner to cause a noise disturbance across a noise-sensitive property line.

I. Operate or cause to be operated any motor vehicle or motorcycle not equipped with a muffler or other sound dissipative device in good working order and in constant operation. No person shall remove or render inoperative, or cause to be removed or rendered inoperative, other than for purposes of maintenance, repair, or replacement, any muffler or sound dissipative device on a motor vehicle or motorcycle.

J. Own, maintain, control, or operate any premises or property where noise continues after being informed, anytime within the preceding 30 days by the Police Department or Community Development Department that a violation of this chapter has been committed on said premises.

K. Violations of this section are hereby declared a nuisance per se. (3514-12/01, 4222-9/21)

8.40.113 Vibration

Notwithstanding other sections of this chapter, it is unlawful for any person to create, maintain or cause any operational ground vibration on any property which exceeds 72 VdB at nearby vibration-sensitive land uses. The vibration limit at vibration-sensitive uses with high sensitivity such as operations conducting medical research and imaging shall be 65 VdB. (4222-9/21)

8.40.120 Manner of Enforcement

A. The Director of Community Development ("Director") or Police Chief and his or her duly authorized representatives are directed to enforce the provisions of this chapter. The Director or Police Chief and their duly authorized representatives are authorized pursuant to Penal Code Section 836.5 to arrest any person without a warrant when they have reasonable cause to believe that such person has violated a provision of this chapter in their presence.

B. If the Director or Police Chief and their duly authorized representatives conduct noise monitoring tests or other noise measurement readings for purposes of enforcement, and the noise level is found to exceed the noise levels in this chapter, the property owner or the operator of the noise source shall be required to pay the City's cost of the noise monitoring tests or readings. (2379-7/79, 2533-2/82, 3216-12/93, 3940-7/12, 4222-9/21)

8.40.130 Permit Process

A. An application for a temporary permit to deviate from this chapter ("noise deviation permit") shall be submitted to the Director with all prescribed information and fees. In part, the application shall set forth: (1) all facts regarding the request for deviation; (2) all actions the applicant took to comply with the provisions of this chapter; (3) the reasons why compliance with this chapter cannot be achieved; (4) any proposed methods to minimize noise during the temporary activity; and (5) any such additional information the Director may require.

B. Within 10 days after receipt of a complete application, the City will notify all property owners within 300 feet of the proposed application.

C. A separate application shall be filed for each noise source; provided, however, that several mobile sources under common ownership, or several fixed sources on a single property may be combined into one application.

D. In all cases, the Director shall process the application in compliance with the California Environmental Quality Act.

E. The Director may approve, conditionally approve or deny the noise deviation permit no sooner than 20 days after notification was provided to property owners within 300 feet of the proposed noise source of the application. In acting upon the application, the Director shall weigh the factors set forth at subsection A above, and those set forth in Section 8.40.111 of this chapter.

F. The Director's decision on the permit shall be served by mail upon the applicant and all property owners within 300 feet of the proposed noise source. The Director's decision shall be effective 11 days after the mailing of the decision unless an appeal is filed.

G. An applicant for a permit shall remain subject to this chapter until a permit is granted, and all rights to a hearing and appeal are exhausted. (2379-7/79, 3940-7/12, 4222-9/21)

8.40.150 Appeals

Appeal Process. A person desiring to appeal the Director's decision on a noise deviation permit shall file a written notice of appeal with the director within 10 days after the Director's decision. Notice of appeal shall be accompanied by a fee as set forth in the City's current fee resolution and shall follow the hearing requirements in Chapter 248 of the Huntington Beach Zoning and Subdivision Ordinance. (3940-7/12, 4222-9/21)

Contact:

City Clerk: 714-536-5227

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Appendix B

Ambient Noise Measurement
Field Data and Photos

Field Sheet

Project: Edison Park Pickleball Courts
Engineer: B. Estrada
Date: 5/16/23 - 5/18/23
JN: 3092-2023-01

Measurement Address:
Edison Park

City:
Huntington Beach, CA

Site No.: 1

Sound Level Meter:
Piccolo II
Serial # P0221010801
Serial # P0222082205

Calibrator:
BSWA
Serial # 500732

Calibration Record:

	Input, dB/	Time	Date
1	94.0	2:25 PM	5/16/23
2	90.0	2:35 PM	5/16/23
3	/	/	/
4	/	/	/
5	/	/	/

Conditions:

Temp (F):	72 Deg. F.
Windspeed:	9 m.p.h.
Direction:	Southwest
Skies:	Partly Cloudy

Meter Settings:

☑ A-WTD	☐ LINEAR	☑ SLOW	☐ 1/1 OCT	☑ _60_ MINUTE INTERVALS
☐ C-WTD	☐ IMPULSE	☐ FAST	☐ 1/3 OCT	☐ L(N) PERCENTILE VALUES

Notes:
Measurements recorded from 12:00 AM on 5/17/23 to 12:00 AM on 5/18/23

Measurement Type:
☑ Long-term
☐ Short-term

1 = Noise Monitoring Location

RK engineering group, inc.

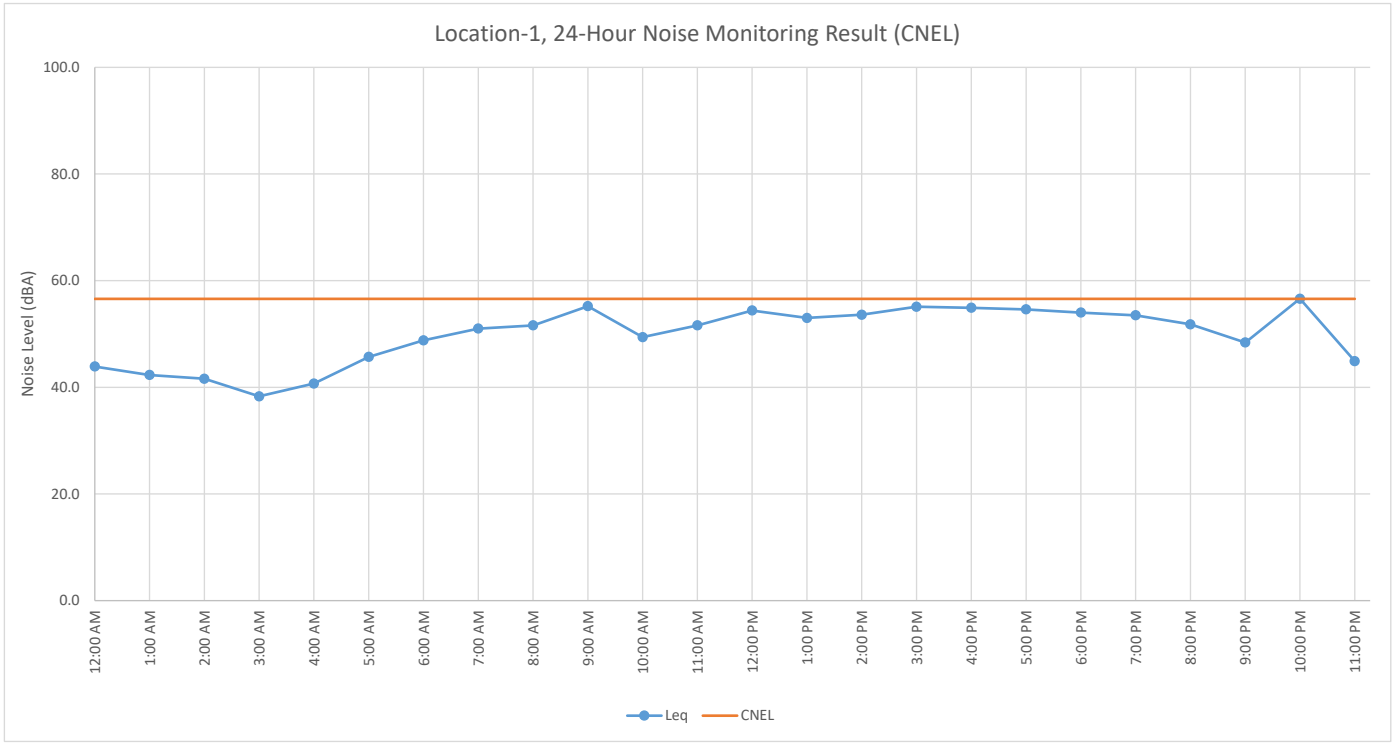
Field Sheet - Noise Monitoring Location 1 Photo

Project: Edison Park Pickleball Courts	**Engineer:** B. Estrada	**Date:**	5/16/23 - 5/18/23
		JN:	3092-2023-01
Measurement Address: Edison Park	**City:** Huntington Beach, CA	**Site No.:**	
Notes: Measurement was taken approximately 60 ft. south of the centerline of Stilwell Drive and approximately 475 ft. west of the centerline of Magnolia Street			1

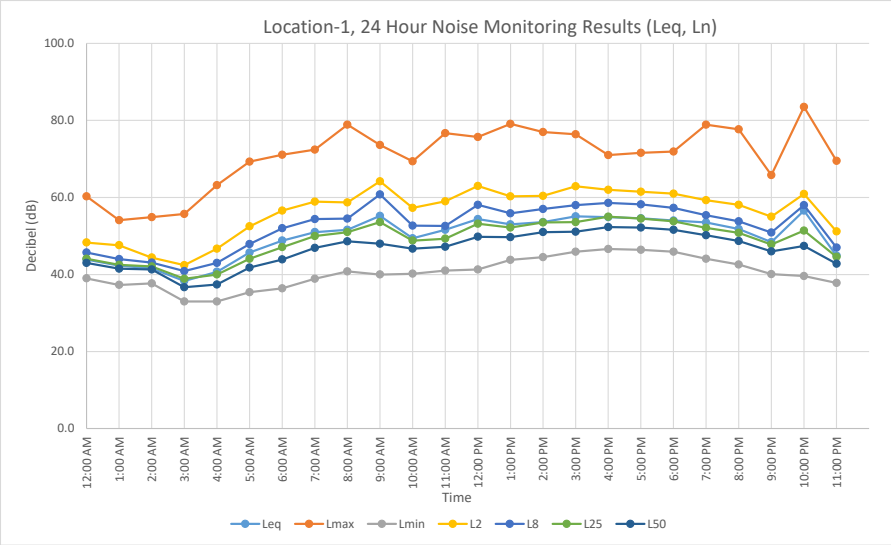
RK engineering group, inc.

Time	Leq	CNEL
12:00 AM	43.9	56.6
1:00 AM	42.3	56.6
2:00 AM	41.6	56.6
3:00 AM	38.3	56.6
4:00 AM	40.7	56.6
5:00 AM	45.7	56.6
6:00 AM	48.8	56.6
7:00 AM	51.0	56.6
8:00 AM	51.6	56.6
9:00 AM	55.2	56.6
10:00 AM	49.4	56.6
11:00 AM	51.6	56.6
12:00 PM	54.4	56.6
1:00 PM	53.0	56.6
2:00 PM	53.6	56.6
3:00 PM	55.1	56.6
4:00 PM	54.9	56.6
5:00 PM	54.6	56.6
6:00 PM	54.0	56.6
7:00 PM	53.5	56.6
8:00 PM	51.8	56.6
9:00 PM	48.4	56.6
10:00 PM	56.6	56.6
11:00 PM	44.9	56.6

Day Min:	48.4
Night Min	38.3



PROJECT:	Edison Park Pickleball Courts					JOB #:	3092-2023-01
NOISE METER:	Piccolo II SLM, 24-Hour Measurement					DATE:	5/16/23 - 5/18/23
LOCATION:	L-1					BY:	B. Estrada
Time	Leq	Lmax	Lmin	L2	L8	L25	L50
12:00 AM	43.9	60.3	39.0	48.3	45.7	44.1	43.0
1:00 AM	42.3	54.1	37.3	47.6	44.0	42.5	41.5
2:00 AM	41.6	54.9	37.7	44.4	43.1	42.1	41.3
3:00 AM	38.3	55.7	33.0	42.4	40.9	38.9	36.7
4:00 AM	40.7	63.2	33.0	46.7	43.0	40.0	37.4
5:00 AM	45.7	69.3	35.4	52.5	47.9	44.1	41.8
6:00 AM	48.8	71.1	36.4	56.6	52.0	47.1	43.9
7:00 AM	51.0	72.4	38.9	58.9	54.4	50.0	46.9
8:00 AM	51.6	78.9	40.8	58.7	54.5	51.0	48.6
9:00 AM	55.2	73.6	40.0	64.2	60.8	53.6	48.0
10:00 AM	49.4	69.4	40.2	57.3	52.7	48.8	46.7
11:00 AM	51.6	76.7	41.0	59.0	52.6	49.3	47.2
12:00 PM	54.4	75.7	41.3	63.0	58.1	53.2	49.8
1:00 PM	53.0	79.1	43.8	60.3	55.9	52.2	49.7
2:00 PM	53.6	77.0	44.5	60.4	57.0	53.5	51.0
3:00 PM	55.1	76.4	45.9	62.9	58.0	53.6	51.1
4:00 PM	54.9	71.0	46.6	62.0	58.6	55.0	52.3
5:00 PM	54.6	71.6	46.4	61.5	58.2	54.5	52.2
6:00 PM	54.0	71.9	45.9	61.0	57.3	53.8	51.6
7:00 PM	53.5	78.9	44.1	59.3	55.4	52.1	50.2
8:00 PM	51.8	77.7	42.6	58.1	53.8	50.8	48.7
9:00 PM	48.4	65.8	40.1	55.0	50.9	47.8	46.0
10:00 PM	56.6	83.5	39.6	60.9	58.0	51.4	47.4
11:00 PM	44.9	69.5	37.8	51.2	47.0	44.6	42.8
Daytime	53.5	83.5	38.9	60.7	56.7	52.4	49.7
Nighttime	44.4	71.1	33.0	50.9	46.8	43.6	41.6



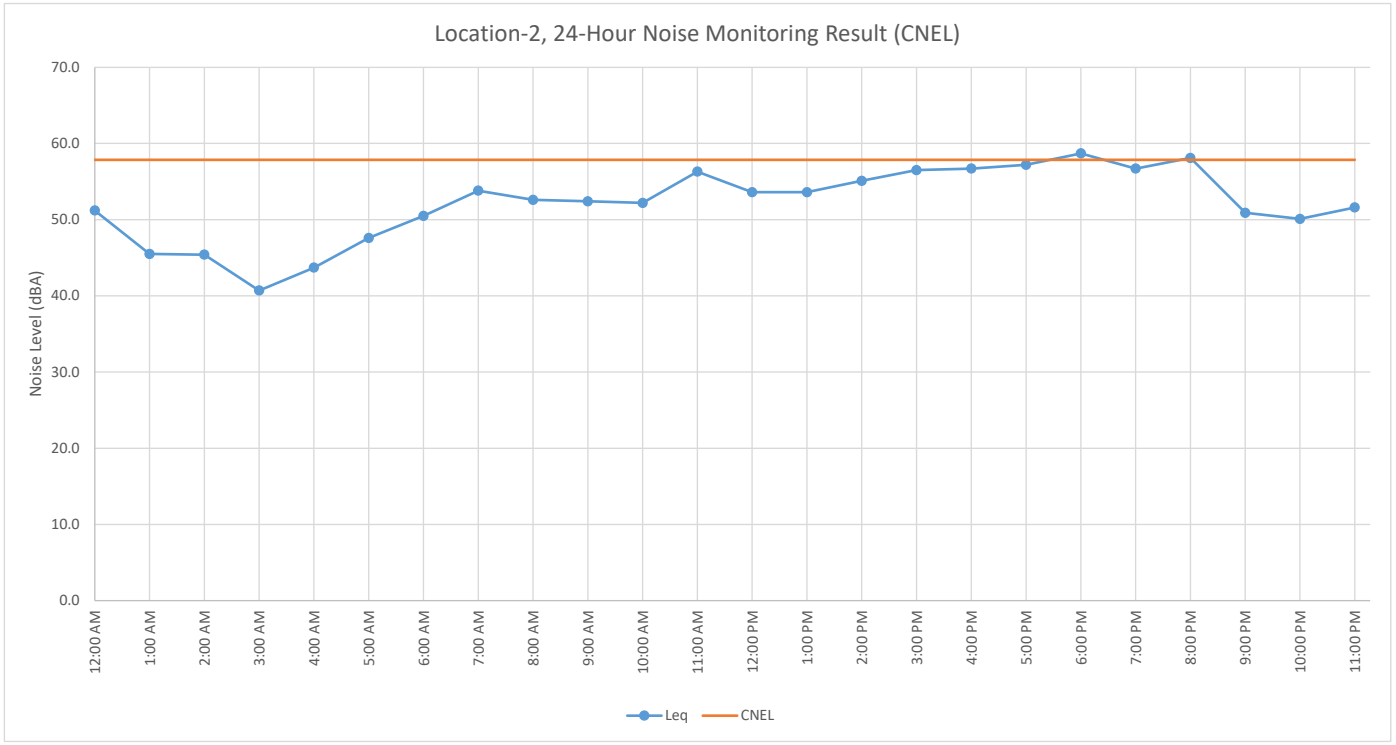
Field Sheet - Noise Monitoring Location 2 Photo

Project: Edison Park Pickleball Courts	**Engineer:** B. Estrada	**Date:**	5/16/23 - 5/18/23
		JN:	3092-2023-01
Measurement Address: Edison Park	**City:** Menifee, CA	**Site No.:**	
Notes: Measurement was taken approximately 350 ft. north of the centerline of Hamilton Ave. and approximately 1,260 ft. west of the centerline of Magnolia St.			1

RK engineering group, inc.

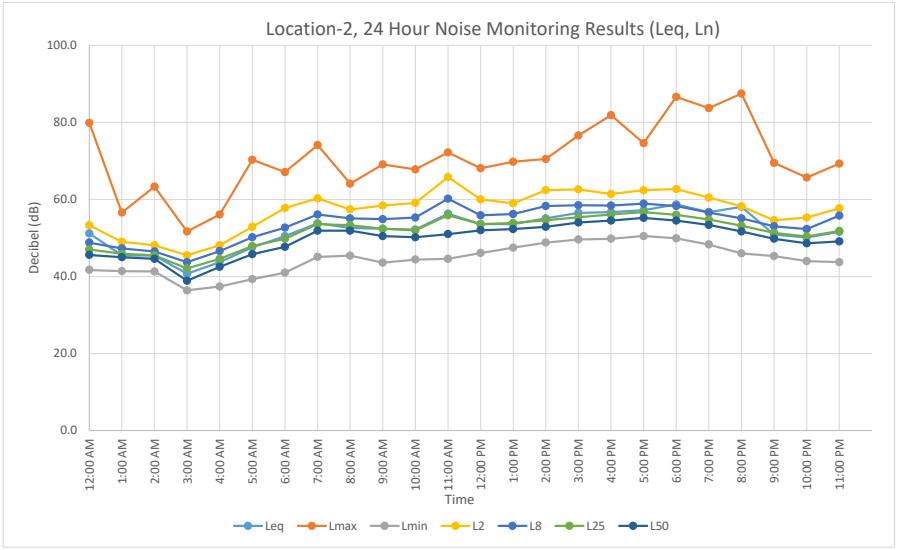
Time	Leq	CNEL
12:00 AM	51.2	57.8
1:00 AM	45.5	57.8
2:00 AM	45.4	57.8
3:00 AM	40.7	57.8
4:00 AM	43.7	57.8
5:00 AM	47.6	57.8
6:00 AM	50.5	57.8
7:00 AM	53.8	57.8
8:00 AM	52.6	57.8
9:00 AM	52.4	57.8
10:00 AM	52.2	57.8
11:00 AM	56.3	57.8
12:00 PM	53.6	57.8
1:00 PM	53.6	57.8
2:00 PM	55.1	57.8
3:00 PM	56.5	57.8
4:00 PM	56.7	57.8
5:00 PM	57.2	57.8
6:00 PM	58.7	57.8
7:00 PM	56.7	57.8
8:00 PM	58.1	57.8
9:00 PM	50.9	57.8
10:00 PM	50.1	57.8
11:00 PM	51.6	57.8

Day Min:	50.9
Night Min	40.7



PROJECT:	Edison Park Pickleball Courts					JOB #:	3092-2023-01
NOISE METER:	Piccolo II SLM, 24-Hour Measurement					DATE:	5/16/23 - 5/18/23
LOCATION:	L-1					BY:	B. Estrada

Time	Leq	Lmax	Lmin	L2	L8	L25	L50
12:00 AM	51.2	79.9	41.7	53.3	48.8	47.0	45.6
1:00 AM	45.5	56.6	41.4	49.0	47.3	45.9	45.0
2:00 AM	45.4	63.3	41.3	48.1	46.5	45.5	44.6
3:00 AM	40.7	51.7	36.4	45.5	43.7	42.1	38.9
4:00 AM	43.7	56.1	37.4	48.1	46.6	44.6	42.5
5:00 AM	47.6	70.3	39.3	52.9	50.2	47.9	45.8
6:00 AM	50.5	67.1	41.0	57.8	52.7	49.8	47.7
7:00 AM	53.8	74.1	45.1	60.3	56.1	53.6	51.9
8:00 AM	52.6	64.1	45.4	57.4	55.1	53.3	51.9
9:00 AM	52.4	69.1	43.6	58.4	54.9	52.4	50.5
10:00 AM	52.2	67.8	44.4	59.1	55.3	52.0	50.2
11:00 AM	56.3	72.2	44.6	65.8	60.2	55.9	51.0
12:00 PM	53.6	68.1	46.1	60.0	55.9	53.6	52.0
1:00 PM	53.6	69.8	47.5	59.0	56.2	53.9	52.3
2:00 PM	55.1	70.5	48.8	62.4	58.3	54.6	52.9
3:00 PM	56.5	76.6	49.6	62.6	58.5	55.4	54.0
4:00 PM	56.7	81.9	49.8	61.4	58.4	56.1	54.5
5:00 PM	57.2	74.6	50.5	62.4	58.9	56.7	55.2
6:00 PM	58.7	86.6	49.9	62.7	58.3	56.0	54.5
7:00 PM	56.7	83.7	48.3	60.5	56.6	54.8	53.4
8:00 PM	58.1	87.5	46.0	58.2	55.1	53.2	51.7
9:00 PM	50.9	69.5	45.3	54.6	53.0	51.3	49.8
10:00 PM	50.1	65.7	44.0	55.3	52.3	50.4	48.6
11:00 PM	51.6	69.3	43.7	57.7	55.8	51.8	49.1
Daytime	55.4	87.5	43.6	60.9	56.9	54.3	52.5
Nighttime	48.4	79.9	36.4	53.6	50.6	47.8	45.7



Appendix C

Bonita Canyon Courts Referenced Noise Levels
Field Data and Photos

Field Sheet

Project: Pickleball Courts Reference Noise Levels
Engineer: B. Morrison
Date: 05/10/2023
JN: 3092-2023-02

Measurement Address: Bonita Canyon Pickleball Courts
City: Newport Beach, CA
Site No.: 1

Sound Level Meter:
Piccolo II
Serial # P0222082204
P0222082205
P0221010801

Calibrator:
BSWA
Serial # 500732

Calibration Record:

	Input, dB/	Time
Meter 1	94.0	9:54 AM
Meter 2	94.0	9:56 AM
Meter 3	/	/
Meter 4	/	/
Meter 5	/	/

Conditions:

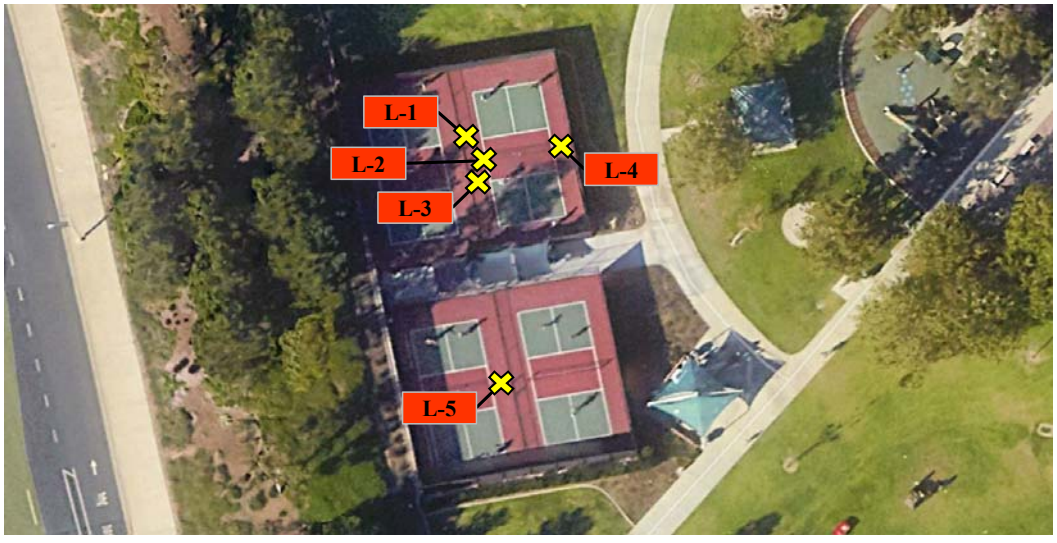
Temp:	63 Deg. F.
Windspeed:	6 m.p.h.
Direction:	Southwest
Skies:	Partly Cloudy

Meter Settings:
☑ A-WTD ☐ C-WTD | ☐ LINEAR ☐ IMPULSE | ☑ SLOW ☐ FAST | ☐ 1/1 OCT ☐ 1/3 OCT | ☐ ___ MINUTE INTERVALS ☑ L(N) PERCENTILE VALUES

Notes:
The noise measurement site consists of four pickleball courts, located approximately 178 feet from the centerline of Macarthur Boulevard. All four courts were active during each of the 15-minute measurements. Ambient noise during the measurement periods consisted of noise from active pickleball play, people speaking, and minimal roadway noise along MacArthur Boulevard.

Measurement Type:
☐ Long-term
☑ Short-term

		Start Time	Stop Time	Leq	Lmax	Lmin	L2	L8	L25	L50
Interval	L-1	10:25 AM	10:50 AM	70.2	83.8	56.9	76.7	73.8	70.9	68.3
		Comments: Measurement was taken approximately 14 feet northwest of the center of the northeastern pickleball court and approximately 208 feet east of the centerline of MacArthur Boulevard.								
	L-2	10:02 AM	10:17 AM	70.1	83.6	57.8	76.9	73.5	70.4	68.0
		Comments: Measurement was taken approximately 13 feet west of the center of the northeastern pickleball court and approximately 208 feet east of the centerline of MacArthur Boulevard.								
	L-3	10:25 AM	10:50 AM	69.6	82.6	56.9	76.1	73.3	70.1	67.7
		Comments: Measurement was taken approximately 14 feet southwest of the center of the northeastern pickleball court and approximately 207 feet east of the centerline of MacArthur Boulevard.								
	L-4	10:02 AM	10:17 AM	69.9	84.5	57.5	77.2	73.3	70.1	67.8
		Comments: Measurement was taken approximately 13 feet east of the center of the northeastern pickleball court and approximately 234 feet east of the centerline of MacArthur Boulevard.								
	L-5	11:11 AM	11:26 AM	71.4	85.7	55.1	79.0	75.0	71.5	68.6
		Comments: Measurement was taken approximately 16 feet east of the center of the southwestern pickleball court and approximately 203 feet east of the centerline of MacArthur Boulevard.								



1 = Noise Monitoring Location

RK engineering group, inc.

Field Sheet - Photos

Project: Pickleball Courts Reference Noise Levels	**Engineer:** B. Morrison	**Date:** 05/10/2023 **JN:** 3092-2023-02
Measurement Address: Bonita Canyon Pickleball Courts	**City:** Newport Beach, CA	**Meter No.:** 1

RK engineering group, inc.

Field Sheet - Photos

Project: Pickleball Courts Reference Noise Levels	**Engineer:** B. Morrison	**Date:** 05/10/2023 **JN:** 3092-2023-02
Measurement Address: Bonita Canyon Pickleball Courts	**City:** Newport Beach, CA	**Meter No.:** 2

RK engineering group, inc.

Appendix D

Noise Analysis Results
(SoundPLAN Results Sheets)

Leq Scenario

Contribution levels of the receivers

Source name		Traffic lane	Level Day	Night
			dB(A)	
1	1.Fl		43.6	0.0
1		-	36.3	-
2		-	36.3	-
3		-	36.0	-
4		-	35.5	-
5		-	38.2	-
2	1.Fl		45.6	0.0
1		-	38.2	-
2		-	38.4	-
3		-	38.2	-
4		-	36.8	-
5		-	40.7	-
3	1.Fl		46.9	0.0
1		-	34.9	-
2		-	36.4	-
3		-	39.5	-
4		-	39.6	-
5		-	43.6	-
4	1.Fl		38.5	0.0
1		-	32.7	-
2		-	32.2	-
3		-	30.7	-
4		-	30.2	-
5		-	31.1	-
5	1.Fl		42.4	0.0
1		-	37.4	-
2		-	36.6	-
3		-	34.1	-
4		-	33.5	-
5		-	33.8	-
6	1.Fl		38.0	0.0
1		-	32.7	-
2		-	32.2	-
3		-	30.1	-
4		-	29.6	-
5		-	29.0	-
7	1.Fl		43.9	0.0
1		-	33.3	-
2		-	34.1	-
3		-	37.7	-
4		-	39.0	-
5		-	37.6	-

Lmax Scenario

Contribution levels of the receivers

Source name		Traffic lane	Level Day	Level Night
			dB(A)	
1	1.Fl		57.9	0.0
1		-	50.7	-
2		-	50.6	-
3		-	50.3	-
4		-	49.8	-
5		-	52.5	-
2	1.Fl		59.9	0.0
1		-	52.5	-
2		-	52.7	-
3		-	52.5	-
4		-	51.1	-
5		-	55.0	-
3	1.Fl		61.2	0.0
1		-	49.2	-
2		-	50.7	-
3		-	53.8	-
4		-	53.9	-
5		-	57.9	-
4	1.Fl		52.8	0.0
1		-	47.0	-
2		-	46.5	-
3		-	45.0	-
4		-	44.5	-
5		-	45.4	-
5	1.Fl		56.7	0.0
1		-	51.7	-
2		-	50.9	-
3		-	48.4	-
4		-	47.8	-
5		-	48.1	-
6	1.Fl		52.3	0.0
1		-	47.0	-
2		-	46.5	-
3		-	44.4	-
4		-	43.9	-
5		-	43.3	-
7	1.Fl		58.2	0.0
1		-	47.6	-
2		-	48.4	-
3		-	52.0	-
4		-	53.3	-
5		-	51.9	-

Updated Pickleball Noise Modeling

Michael Baker International, January 2026

Updated Pickleball Noise Modeling

Michael Baker International, December 2025

Edison Park Pickleball Noise Study

Leq Scenario

Signs and symbols

- Edison Park Property Line
- Receiver
- Area source (Pickleball Courts)

1 : 204

0 50 100 200 300 400 feet

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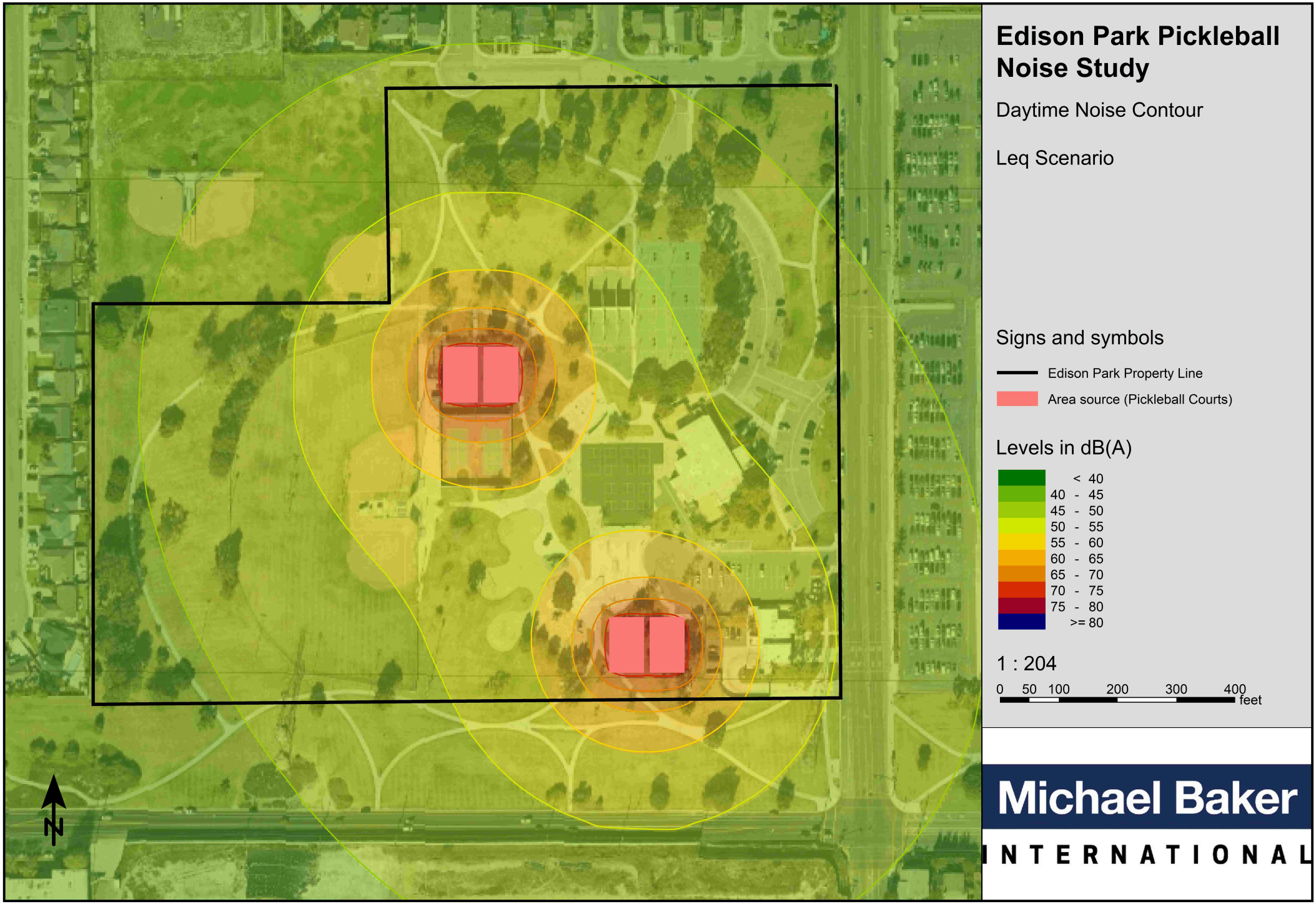
Edison Park Pickleball Noise Study
Daytime Noise Contour
Leq Scenario
Signs and symbols
Edison Park Property Line
Area source (Pickleball Courts)
Levels in dB(A)
< 40
40 - 45
45 - 50
50 - 55
55 - 60
60 - 65
65 - 70
70 - 75
75 - 80
>= 80
1 : 204
0 50 100 200 300 400
feet
N
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Receiver list

No.	Receiver name	Building side	Floor	Limit		Level		Conflict	
				Day	Night	Day	Night	Day	Night
				dB(A)		dB(A)		dB	
1	1	-	GF	-	-	45.1	0.0	-	-
2	2	-	GF	-	-	45.2	0.0	-	-
3	3	-	GF	-	-	44.5	0.0	-	-
4	4	-	GF	-	-	41.7	0.0	-	-
5	5	-	GF	-	-	43.8	0.0	-	-
6	6	-	GF	-	-	42.7	0.0	-	-
7	7	-	GF	-	-	45.5	0.0	-	-
8	8	-	GF	-	-	44.7	0.0	-	-

Contribution levels of the receivers

Source name		Traffic lane	Level Day	Night
			dB(A)	
1	GF		45.1	0.0
1		-	41.2	-
2		-	41.1	-
3		-	35.1	-
4		-	34.9	-
2	GF		45.2	0.0
1		-	41.0	-
2		-	41.2	-
3		-	35.5	-
4		-	35.4	-
3	GF		44.5	0.0
1		-	40.0	-
2		-	40.5	-
3		-	35.6	-
4		-	35.6	-
4	GF		41.7	0.0
1		-	37.7	-
2		-	37.1	-
3		-	33.0	-
4		-	32.6	-
5	GF		43.8	0.0
1		-	40.0	-
2		-	39.0	-
3		-	35.2	-
4		-	34.7	-
6	GF		42.7	0.0
1		-	37.4	-
2		-	36.8	-
3		-	36.5	-
4		-	35.8	-
7	GF		45.5	0.0
1		-	38.5	-
2		-	39.4	-
3		-	39.6	-
4		-	40.3	-
8	GF		44.7	0.0
1		-	34.5	-
2		-	34.9	-
3		-	40.2	-
4		-	41.1	-

Edison Park Pickleball Noise Study

Lmax Scenario

Signs and symbols

- Edison Park Property Line
- Receiver
- Area source (Pickleball Courts)

1 : 204

0 50 100 200 300 400 feet

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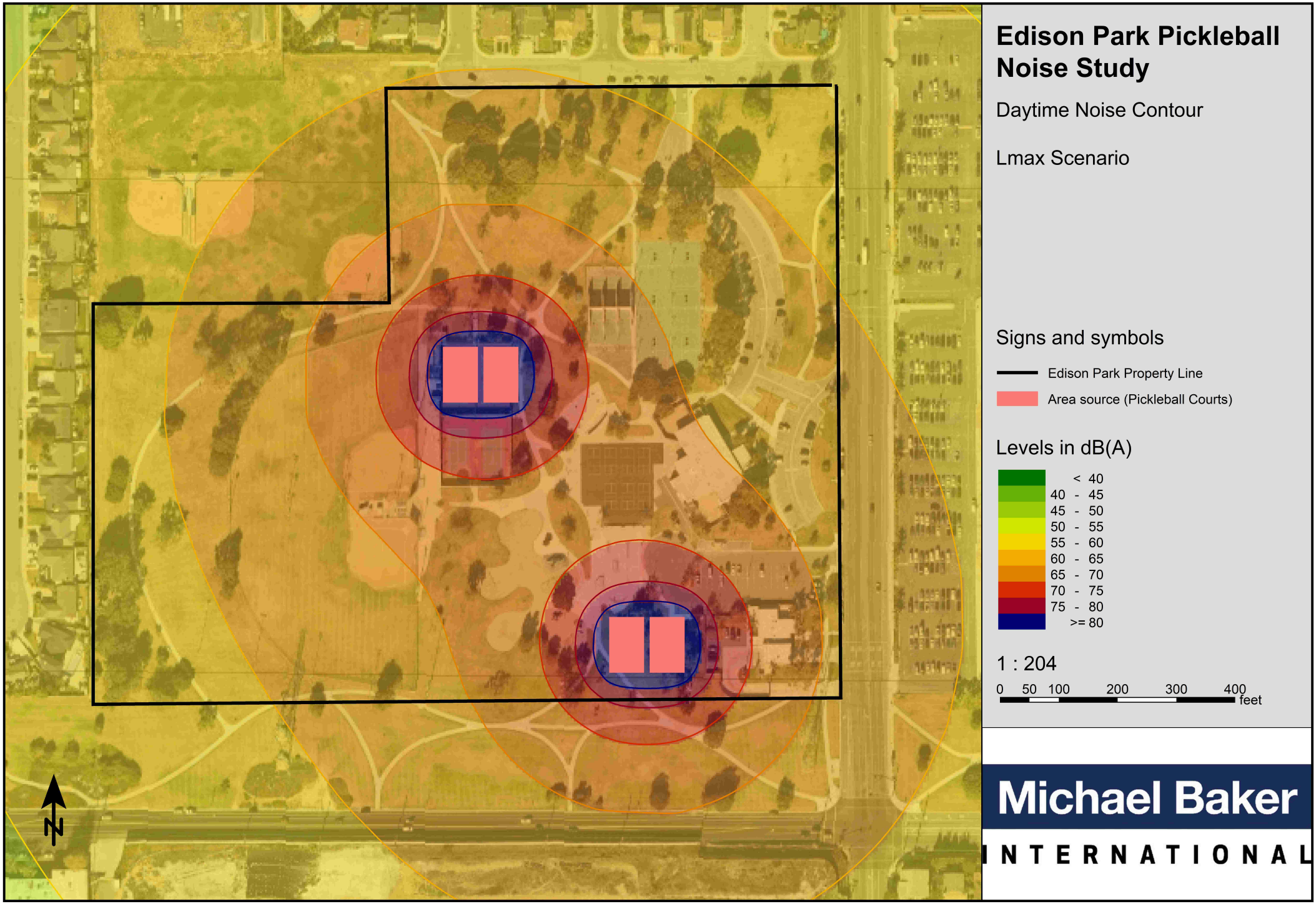
Edison Park Pickleball Noise Study
Daytime Noise Contour
Lmax Scenario
Signs and symbols
Edison Park Property Line
Area source (Pickleball Courts)
Levels in dB(A)
< 40
40 - 45
45 - 50
50 - 55
55 - 60
60 - 65
65 - 70
70 - 75
75 - 80
>= 80
1 : 204
0 50 100 200 300 400
feet
N
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Receiver list

No.	Receiver name	Building side	Floor	Limit		Level		Conflict	
				Day	Night	Day	Night	Day	Night
				dB(A)		dB(A)		dB	
1	1	-	GF	-	-	59.4	0.0	-	-
2	2	-	GF	-	-	59.5	0.0	-	-
3	3	-	GF	-	-	58.8	0.0	-	-
4	4	-	GF	-	-	56.0	0.0	-	-
5	5	-	GF	-	-	58.1	0.0	-	-
6	6	-	GF	-	-	57.0	0.0	-	-
7	7	-	GF	-	-	59.8	0.0	-	-
8	8	-	GF	-	-	59.0	0.0	-	-

Contribution levels of the receivers

Source name		Traffic lane	Level Day	Night
			dB(A)	
1	GF		59.4	0.0
1		-	55.5	-
2		-	55.4	-
3		-	49.4	-
4		-	49.2	-
2	GF		59.5	0.0
1		-	55.3	-
2		-	55.5	-
3		-	49.8	-
4		-	49.7	-
3	GF		58.8	0.0
1		-	54.3	-
2		-	54.8	-
3		-	49.9	-
4		-	49.9	-
4	GF		56.0	0.0
1		-	52.0	-
2		-	51.4	-
3		-	47.3	-
4		-	46.9	-
5	GF		58.1	0.0
1		-	54.3	-
2		-	53.3	-
3		-	49.5	-
4		-	49.0	-
6	GF		57.0	0.0
1		-	51.7	-
2		-	51.1	-
3		-	50.8	-
4		-	50.1	-
7	GF		59.8	0.0
1		-	52.8	-
2		-	53.7	-
3		-	53.9	-
4		-	54.6	-
8	GF		59.0	0.0
1		-	48.8	-
2		-	49.2	-
3		-	54.5	-
4		-	55.4	-

Michael Baker
INTERNATIONAL

Technical Memorandum

August 22, 2025

To: Engineering Department, City of Huntington Beach

From: Alejandro Tapia PE, Michael Baker International
Jake Swim TE, Michael Baker International

CC: Alan Ashimine, Michael Baker International

Subject: Edison Park Reconfiguration and Improvements – Vehicle Miles Traveled Assessment

Introduction

The purpose of this memorandum is to document the Vehicle Miles Traveled (VMT) assessment for the proposed Edison Park Reconfiguration and Improvements (project) located in the City of Huntington Beach, California in support of the Transportation component of the California Environmental Quality Act (CEQA) process. **Table 1** provides key project information. **Attachment A** contains all associated exhibits. **Exhibit 1** shows the regional location of the project, **Exhibit 2** shows the local vicinity map, and **Exhibit 3** shows the conceptual site plan.

Table 1- Project Information

Item	Description
Project Name	Edison Park Reconfiguration and Improvements
Project Location	Northwest corner of Hamilton Avenue and Magnolia Street in the City of Huntington Beach.
Site Area	Edison Park covers approximately 39.69 acres.
Existing Use	Public Park
Surrounding Land Use	Stilwell Drive and residential homes to the north; residential homes to the west; Magnolia Street and Edison High School to the east; Hamilton Avenue and Ascon Landfill Site to the south.
Proposed Project	The project aims enhance the park and its amenities. Roughly 27.5 acres or 63.3% of the park is a former landfill site. The former landfill site is resettling and sinking in various locations. Reconfiguration and improvements efforts aim to create new park amenities off of the former landfill site, and onto non-landfill land. The project does include improving amenities already on and off of the former landfill site. Other amenities that are on the former landfill site will either be left alone or converted into open space. The various new and upgraded amenities (sports courts, wheel sports, playground, trees, walkways, parking lot, and access) will allow for more park engagement (by offering diversified recreation) as well as opportunities for more open space, by clearing the currently resettling and sinking amenities that are becoming unusable.

Project Trip Generation

The project site trips were calculated using trip generation rates obtained from the *Institute of Transportation Engineers (ITE) Trip Generation Manual* (11th Edition). Since some proposed improvements would replace or relocate existing park facilities, a trip credit may be applied to account for the displacement. However, for the purposes of this analysis, a worst-case development scenario will be analyzed assessing the park as a whole, assuming 39.69 acres of Public Park. **Table 2** provides the trip generation rates based on the project's land use. **Table 3** presents the vehicle trip generation summary forecast to be generated by the project.

As shown, the project is forecast to generate approximately 31 weekday vehicle trips with 1 AM peak hour trips , 4 PM peak hour trips, and 11 Saturday peak hour trips.

Table 2- Trip Generation Rates

Land Use	ITE Code[1]	Weekday Trip Rate	AM Peak Hour Rate		PM Peak Hour Rate		Saturday Peak Hour	
			Total	In / Out	Total	In / Out	Total	In / Out
Public Park	411	0.78 / ac	0.02 / ac	59% / 41%	0.11 / ac	55% / 45%	0.28 / ac	55% / 45%

[1] *Source: ITE Trip Generation Manual, 11th Edition.*
ac = Acres

Table 3 – Trip Generation Summary

Land Use	Intensity	Weekday Trips	AM Peak Hour Trips		PM Peak Hour Trips		Saturday Peak Hour	
			Total	In / Out	Total	In / Out	Total	In / Out
Public Park	39.69 ac	31	1	1 / 0	4	2 / 2	11	6 / 5

Screening Methodology

The City of Huntington Beach adopted VMT thresholds in the *Vehicle Miles Traveled Guidelines* in October 2023 (City Guidelines). Land use projects that meet one or more of the screening thresholds documented in the City Guidelines can be presumed to result in a less-than-significant transportation impact under CEQA, without conducting a detailed VMT study. For land development projects, these criteria include proximity to transit, location, or project type. Each of the screening criteria and the individual project assessments are discussed below.

Table 4 – VMT Screening Criteria Summary

Screening Criteria[1]		Project Evaluation	Result
Transit Priority Area Screening	A Transit Priority Area (TPA) is defined as a ½ mile area around an existing major transit stop or an existing stop along a high-quality transit corridor. Qualified "major transit stop" and "high-quality transit corridor" are defined below: • Major Transit Stop: a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. • High-Quality Transit Corridor: a corridor with fixed route bus service with service intervals no longer than 15 minutes during the morning and afternoon peak commute hours. Please note that projects located within a TPA may be presumed to have a less than significant impact absent substantial evidence to the contrary, and this presumption may not be appropriate if the project meets any one of the following conditions: • Has a Floor Area Ratio (FAR) of less than 0.75 • Includes more parking for use by residents, customers, or employees of the project than required by the City • Is inconsistent with the Southern California Association of Governments (SCAG) Sustainable Communities Strategy, as confirmed by the City • Replaces affordable residential units with a smaller number of moderate- or high-income residential units	Based on the TPA Screening Maps provided in the City Guidelines, the project is not within a TPA.	**Criterion not satisfied**
Low VMT Area Screening	A low VMT-generating area is defined as a TAZ where VMT per Capita or VMT per Employee is 15% below the City of Huntington Beach's average VMT per Capita or VMT per Employee. If a project is located in a low VMT-generating area, then the project may be presumed to have a less than significant impact absent substantial evidence to the contrary. To qualify for this screening, the project must be within a low VMT-generating area and be consistent with the SCAG RTP/SCS, as confirmed by the City of Huntington Beach. Additionally, the analyst shall confirm if the project is consistent with the existing land uses within that TAZ and use engineering judgement to verify that there is nothing unique about the project when compared to the existing land uses.	Based on the Low VMT Screening Maps provided in the City Guidelines, the project is not within a Low VMT area.	**Criterion not satisfied**

Screening Criteria[1]		Project Evaluation	Result
Project Type Screening	Some project types have been identified as having the presumption of a less-than-significant impact as listed below, absent substantial evidence to the contrary. **Project Generating less than 110 net Daily Vehicle Trips** A project that generates less than 110 net daily vehicle trips (less pass-by, diverted and/or internal capture vehicle trips) is presumed to have a less than significant transportation impact, absent substantial evidence to the contrary. The daily vehicle trips shall be calculated using the latest edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual. The use of other sources of trip generation shall first be approved by the City Engineer. **Affordable Housing** If a project is 100% affordable-housing units, it is presumed to have a less than significant impact, absent substantial evidence to the contrary. Additionally, the following "typical" developments are generally considered in this category: • Senior Housing (as defined by Department of Housing and Urban Development (HUD)) • Student Housing • Assisted Living Facilities **Local Serving Retail** If a project is a local-serving retail use of less than 50,000 square-feet (SF), it is presumed to have a less than significant impact, absent substantial evidence to the contrary. If the retail project is greater than 50,000 SF in total, each building size less than 50,000 SF shall be screened out. Local-serving retail generally reduces VMT by shortening trips that will occur. The final determination of whether the development is local serving will be made by the City Engineer on a case-by-case basis. The following "typical" developments are generally considered in this category: • Gas Stations/EV Charging Stations • Banks • Restaurants • Medical Clinics • Urgent Care • Auto Repair/Tire Shop • Gyms/Health Clubs/Fitness Center • Mini Warehouse (Self Storage) Facilities • Local-Serving Hotels/Motels (Non-Resort Hotels) **Educational/Institutional Land Use** If a project is an educational or institutional land use, it is presumed to have a less than significant impact, absent substantial evidence to the contrary. The following "typical" developments are generally considered into this category: • Public Elementary School • Public Middle School	Based on the project trip generation, the project is anticipated to generate 31 weekday daily trips, less than 110 daily trips. Additionally, as a public park project, it falls under a "typical" development for municipal/public service land uses. Therefore, the criterion is met.	**Criterion is satisfied.**

Screening Criteria[1]		Project Evaluation	Result
	• Public High School • Community College • Day Care Center • Local-Serving K-12 Schools • Pre-School • Community and Religious Assembly Uses **Municipal/Public Service Land Use** If a project is a municipal/public service land use, it is presumed to have a less than significant impact, absent substantial evidence to the contrary. The following "typical" developments are generally considered in this category: • Library • Civic Center • Police/Fire Department • Community Center • Local/Community Park • Other Local Serving Civic Uses **Transit and Active Transportation Projects** Transit and active transportation projects generally reduce VMT and therefore are presumed to cause a less-than-significant impact on transportation. This presumption may apply to all passenger rail projects, bus and bus rapid transit projects, and bicycle and pedestrian infrastructure projects.		

[1]Source: City of Huntington Beach's *Vehicle Miles Traveled Guidelines* (October 2023)

VMT Screening Conclusions

Based on the City Guidelines, projects that meet certain screening thresholds should be expected to result in a less-than-significant transportation impact under CEQA and do not require a detailed quantitative VMT assessment. The project satisfies the screening threshold based on Project Type screening. Therefore, a detailed VMT analysis for the project is not required and the project is presumed to have a less-than-significant impact on transportation. Therefore, no mitigation is required.

Michael Baker
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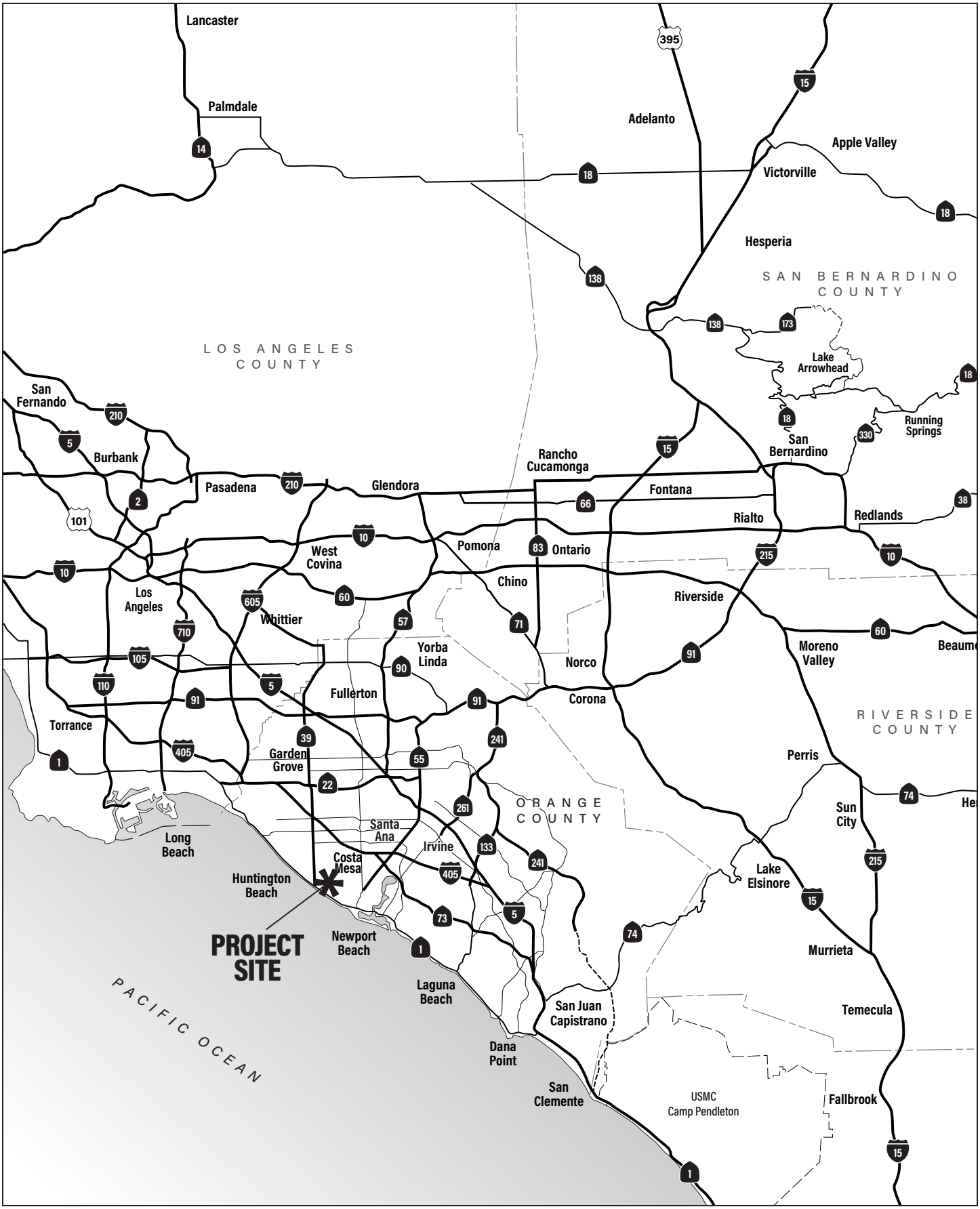
Attachment A
Exhibits



EDISON PARK RECONFIGURATION AND IMPROVEMENTS PROJECT
CEQA 15183 EXEMPTION CHECKLIST

Regional Vicinity

Michael Baker INTERNATIONAL

NOT TO SCALE

07/2025 • JN 208581

Exhibit 1

Source: Google Earth Pro, July 2025

EDISON PARK RECONFIGURATION AND IMPROVEMENTS PROJECT
CEQA 15183 EXEMPTION CHECKLIST

Site Vicinity

Exhibit 2

Michael Baker INTERNATIONAL

NOT TO SCALE

07/2025 • JN 208581

Source: RJM Design Group, 2025

Michael Baker INTERNATIONAL

NOT TO SCALE

07/2025 • JN 208581

EDISON PARK RECONFIGURATION AND IMPROVEMENTS PROJECT
CEQA 15183 EXEMPTION CHECKLIST

Conceptual Reconfiguration Plan

Exhibit 3