Hawthorne Municipal Airport Hangars Project - CEQA Initial Study (IS) Mitigated Negative Declaration (MND)

Lead Agency: **City of Hawthorne**

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Acronyms and Abbreviations

Acronym/Abbreviation	Full Form
AB	Assembly Bill
ASTM	American Society for Testing and Materials
BMP	Best Management Practices
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards Code
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFC	California Fire Code
CHRIS	California Historical Resources Information System
CFR	Code of Federal Regulations
CGP	Construction General Permit
CGS	California Geological Survey
CNEL	Community Noise Equivalent Level
CO	Carbon Monoxide
CRHR	California Register of Historical Resources
CWA	Clean Water Act
dBA	A-weighted Decibels
DWR	California Department of Water Resources
DTSC	California Department of Toxic Substances Control
EIR	Environmental Impact Report
EISB	Enhanced In-Situ Bioremediation
EMS	Emergency Medical Services
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency

Acronym/Abbreviation	Full Form
FHSZ	Fire Hazard Severity Zone
FMMP	California Department of Conservation Farmland Mapping and Monitoring Program
FTA	Federal Transit Administration
GBN	Ground-borne Noise
GBV	Ground-borne Vibration
GHG	Greenhouse Gases
HCP	Habitat Conservation Plan
HMBP	Hazardous Materials Business Plan
HPD	Hawthorne Police Department
HUC	Hydrologic Unit Code
HWCL	Hazardous Waste Control Law
IGP	Industrial General Permit
IPaC	Information for Planning and Consultation
IS	Initial Study
LACFD	Los Angeles County Fire Department
LACRHD	Los Angeles County Register of Historic Districts
LACSD	Los Angeles County Sanitation Districts
MBTA	Migratory Bird Treaty Act
MLD	Most Likely Descendant
MS4	Municipal Separate Storm Sewer System
MWDSC	Metropolitan Water District of Southern California
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
MND	Mitigated Negative Declaration
NFPA	National Fire Protection Association
NIFZ	Newport-Inglewood Fault Zone
NOx	Nitrogen Oxide
NPDES	National Pollutant Discharge Elimination System
NWI	National Wetlands Inventory
OSHA	Occupational Safety and Health Administration
PM	Particulate Matter
ppm	Parts per million

Acronym/Abbreviation	Full Form
PRC	Public Resources Code
Project	Hawthorne Airport Hangars Project
RCRA	Resource Conservation and Recovery Act
RMS	Root Mean Square
RWQCB	Los Angeles Regional Water Quality Control Board
SB	Senate Bill
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SCAG	Southern California Association of Governments
SGMA	Sustainable Groundwater Management Act
SHZR	Seismic Hazard Zone Report
SOx	Sulfur Oxide
SWPPP	Storm Water Pollution Prevention Plan
TACs	Toxic Air Contaminants
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VdB	Vibration Decibels
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound
WBMWD	West Basin Municipal Water District

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1.0 General Project Information

1. **Project Title**:
   - Hawthorne Airport Hangars Project
2. **Lead Agency/Project Sponsor's Name and Address:**
   - City of Hawthorne – Airport Division
   - 12101 Crenshaw Blvd. Suite 300, Hawthorne, CA 90250
3. **Contact Person and Phone Number**:
   - Guido Fernandez
   - (310) 349-1636
   - GFernandez@cityofhawthorne.org
4. **General Plan Designation**: Public/Quasi-Public – Designated for airport and transportation-related facilities within the City of Hawthorne General Plan.
5. **Zoning:** Aviation – Zoned for airport operations, aviation-related businesses, and associated support facilities.
6. **Project Location**: Hawthorne Municipal Airport (Jack Northrop Field)
   12101 Crenshaw Blvd., Hawthorne, CA 90250
   Los Angeles County, California

   The project is within the existing airport property, with new hangars distributed across four designated locations. Refer to **Exhibits 1** and **2** for the site vicinity and aerial imagery of the project location. The project location in relation to HUC-12 watersheds and HUC-8 watersheds are provided in **Exhibits 3** and **4**, respectively.
7. **Description of Project**: The purpose of the Hawthorne Airport Hangars Project is to enhance aviation operations by constructing 13 new aircraft hangars at four designated sites within the airport. The project will increase aircraft storage capacity, modernize airport infrastructure, and support operational efficiency. To accommodate the new hangars, the project will include the demolition of six existing buildings totaling 18,000 square feet, removal of 55,000 square feet of impervious surfaces and replacement with new pavement, and airfield safety enhancements. The hangars will range in size from 2,500 to 25,300 square feet and incorporate modern fire suppression systems, energy-efficient lighting, and structural reinforcements for seismic safety. Construction will occur in multiple phases from June 2025 to late 2028. See **Appendix A** for the photo log of the proposed project location.
8. **Surrounding Land Uses and Setting**: The Hawthorne Municipal Airport is situated in a developed urban area surrounded by a mix of residential, commercial, and industrial land uses. To the north, the airport is bordered by residential neighborhoods and commercial properties. To the south, the area consists of industrial facilities, including facilities operated by Space X. To the east, light industrial and commercial buildings are present. To the west, the airport is adjacent to commercial land uses and residential neighborhoods. The airport serves as critical transportation within Los Angeles County, operating under Federal Aviation Administration (FAA) regulations.
9. **Other Public Agencies Whose Approval is Required (e.g., permits, financial approval, or participation agreements)**: The Hawthorne Airport Hangars Project will require approvals

and permits from multiple public agencies to ensure compliance with federal, state, and local regulations. The FAA will review and approve airspace and facility developments to ensure that the project aligns with aviation safety and operational standards. Environmental compliance will require oversight from the South Coast Air Quality Management District (SCAQMD) for air quality regulations and the Los Angeles Regional Water Quality Control Board (RWQCB) for stormwater discharge permits. At the local level, the City of Hawthorne will oversee construction and environmental compliance, while the Los Angeles County Fire Department (LACFD) will review fire safety measures, particularly for hangar fire suppression systems. Additionally, the California Department of Toxic Substances Control (DTSC) will be involved in overseeing remediation well protection during construction.

10. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resource Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?** Yes, the Native American Heritage Commission (NAHC) has been contacted to identify tribes traditionally and culturally affiliated with the project area pursuant to Public Resources Code §21080.3.1. The following tribes have been notified and invited to consult regarding potential tribal cultural resources impacts:

    - Cahuilla Band of Indians
    - Gabrieleño Band of Mission Indians – Kizh Nation
    - Gabrielino Tongva Indians of California Tribal Council
    - Gabrieleno/Tongva San Gabriel Band of Mission Indians
    - Gabrielino/Tongva Nation of the Greater Los Angeles Basin
    - Gabrielino-Tongva Tribe
    - Santa Rosa Band of Cahuilla Indians
    - Soboba Band of Luiseno Indians

    On behalf of the City of Hawthorne, Watearth sent tribal consultation letters on April 11, 2025. Refer to **Appendix B** for the tribal consultation notification letters, and the consultation information and coordination with the tribes. The Gabrieleño Band of Mission Indians – Kizh Nation formally requested consultation on July 8, 2025, and subsequently provided proposed mitigation measures on July 17, 2025. No other tribe responded. The mitigation measures the Kizh Nation proposed have been included as mitigation measures in this Initial Study/Mitigated Negative Declaration. The mitigation measures include requirements for tribal monitoring during ground disturbance, cultural sensitivity training, procedures for the unanticipated discovery of tribal cultural resources, and coordination with the Most Likely Descendant in the event human remains are discovered. In November 2025, staff contacted the Kizh Nation to confirm all requested mitigation was incorporated. Staff did not receive any additional response from the Kizh Nation. Therefore, the City of Hawthorne determined consultation with the Kizh Nation concluded on November 25, 2025.

2.0 Introduction

2.1 Project Description

The proposed project involves the development of 13 new aircraft hangars at four distinct locations within Hawthorne Municipal Airport. The project will consist of seven hangars in the southwest section, one hangar in the southeast section, four hangars in the northeast section, and one hangar in the northwest section. The proposed new hangars will enhance the airport's functionality by expanding storage capacity for private aircraft, improving aviation operations, and supporting the airport's long-term growth.

The project requires the demolition of six existing buildings within the airport property. The structures previously used for maintenance, administrative offices, and storage, have reached the end of their functional lifespan and will be removed to accommodate the new hangars. Demolition activities will involve removing structures, utilities, and approximately 55,000 square feet of impervious surfaces. The concrete tarmac removed as part of the demolition will be processed and reused onsite as a gravel-based material, while the asphalt pavement will be removed from the site and properly disposed of. All excavated material will be removed from the site and not reused unless specifically noted. Temporary stabilization measures will be required during demolition, and all waste material will be disposed of at an approved site.

The new hangars will range in size from 2,500 to 25,300 square feet, with a total combined footprint of approximately 135,000 square feet of new impervious cover. Each hangar will be climate-controlled and equipped with fire suppression systems, modern lighting, and energy-efficient designs. Some hangars will include office spaces for aviation businesses and small workshops. The hangars are not intended for hazardous material storage, though aviation-related chemicals such as lubricants and cleaning agents will be handled in compliance with regulatory standards. The project will result in an increase of approximately 10,000 square feet of new impervious surface, including expanded hangar space, access roads, parking areas, and taxiways.

The construction process will involve site preparation, grading, foundation work, and hangar assembly, requiring a diverse fleet of heavy equipment. The estimated equipment needs include excavators for site preparation and demolition, bulldozers for grading and site leveling, cranes for structural assembly of the hangar frames, concrete mixers for pouring hangar foundations and taxiways, dump trucks for hauling demolition debris and construction materials, loaders and backhoes for material handling and utility trenching, compactors for preparing the subgrade for paving, and asphalt pavers for taxiway construction.

The hangars will be constructed in phases, beginning in 2025, with full project completion anticipated by late 2028. The proposed phased construction schedule will begin with demolition and site preparation across all four locations, including utility relocations and grading. Compaction and grading activities will follow strict quality assurance protocols, requiring compliance with American Society for Testing and Materials (ASTM) soil testing standards. The hangar foundations will be designed based on geotechnical investigation conducted by Bay City Geology in August 2024, with borings advanced to a depth of 10 feet per ASTM D1586 and soil classification conducted under the Unified Soil Classification System. Pavement cores will be analyzed for thickness, mix type, and aggregate quality, ensuring that the new hangars can withstand repetitive aircraft loading and operational vibrations.

The project will include removal, preparation, and replacement of existing pavement where required. Emulsified asphalt tack coats will be applied before each lift of pavement, and joint offset requirements will be strictly followed to ensure structural integrity. Proposed bituminous

surface courses will be subject to the same material acceptance criteria as the asphalt leveling course. Existing pavement markings will be removed and replaced according to FAA and airport regulations, with new markings applied to meet airport operational standards to facilitate safe aircraft movement and taxiway navigation.

To ensure compliance with erosion control and sediment management requirements, the project will implement a comprehensive set of Best Management Practices (BMPs) designed to minimize soil displacement and protect local water quality. In accordance with the Construction General Permit (CGP) 2022 (Order 2022-0057-DWQ), the project will develop and adhere to a Storm Water Pollution Prevention Plan (SWPPP) that outlines erosion and sediment control measures tailored to site conditions and construction activities.

The proposed project will involve the removal and replacement of certain storm drains to accommodate new infrastructure improvements, as well as the installation of new utility lines throughout the project site. While outdated utilities will not be removed, trenching activities will be required to install the updated utility systems. The deepest excavation will be for sewer lines, which may extend to depths of approximately 10 feet, while all other utility installations will require trenching at depths of six feet or less. To ensure soil stability and structural integrity, the project is expected to implement cement treatment to a depth of 24 inches below the finished grade, a measure directed at enhancing soil compaction and reducing settlement risks. Although a geotechnical study is available to provide further details on subsurface conditions, the proposed cement treatment is anticipated to be sufficient in preparing the site for long-term structural support. See **Appendix C** for the civil design plans for the proposed project.

The project site is located within the boundaries of a former Northrop Grumman aerospace manufacturing facility historically located at Hawthorne Municipal Airport. Past operations at the site led to the release of hazardous substances, including volatile organic compounds (VOCs), into subsurface soil and groundwater. These contaminants primarily affected the B Horizon (shallow aquifer zone) within and adjacent to the proposed hangar development footprint.

DTSC is the lead regulatory agency overseeing investigation, cleanup, and long-term monitoring at the site under its Hazardous Waste Management Program. The remediation program is being implemented by Northrop Grumman Systems Corporation, the designated responsible party, in coordination with DTSC. CDM Smith, a remediation contractor for Northrop Grumman Systems Corporation, manages the Enhanced In-Situ Bioremediation (EISB) system at the site. The EISB system includes extraction wells, injection wells, and a network of groundwater monitoring wells to track progress and ensure regulatory compliance.

The current corrective action includes the operation of EISB extraction wells and long-term monitoring to verify contaminant reduction. DTSC has reviewed and approved periodic remedial action plans, and the system remains active across several parcels within the airport. As of 2025, no final remediation completion date has been publicly confirmed. The timeline for site closure will depend on DTSC's ongoing evaluation of groundwater data and the achievement of cleanup goals established in the corrective action agreement. DTSC will determine when the cleanup is complete and will issue a formal site closure or "No Further Action" determination only when cleanup standards are met.

The presence of ongoing remediation and long-term monitoring infrastructure directly informs project design and coordination. Several extraction and monitoring wells are located within or near the proposed hangar footprints. To ensure compatibility with remediation objectives, the project will coordinate closely with DTSC, Northrop Grumman, and CDM Smith to protect in-place wells, convert selected extraction wells to monitoring wells with aircraft-rated surface access covers, and properly abandon redundant wells under DTSC oversight. This coordination

ensures that site remediation and aviation-related redevelopment can proceed concurrently without conflict.

Existing remediation wells on-site — CEW-04B, CEW-05B, and CEW-03B within the footprint of Hangar 42 and Hangar 41, as well as additional remediation wells located outside Hangar 41 to the west (CEW-01B and CEW-02B) will remain in place and operational throughout construction to support ongoing site remediation efforts. The wells, classified as horizon extraction wells, are part of the Enhanced In-Situ Bioremediation (EISB) system. Refer to **Appendix D** for the southwest hangar site layout map, and for the associated remediation well locations. Two of the wells within Hangar 42's footprint (CEW-04B and CEW-05B) will be converted to monitoring wells, featuring smaller surface aircraft-rated covers of 8 to 12 inches in diameter, by the end of April 2026 or early May 2026. The converted wells would remain accessible for semi-annual sampling, subject to approval by DTSC. The plan is contingent on the ability to abandon the wells in the future without the use of a drill rig. The two converted wells will be properly abandoned prior to the completion of the hangar. Northrop Grumman and CDM Smith will work with Advanced Air to coordinate and maintain access to all wells during construction and ensure protection of the wells located within the footprint of both Hangars 41 and 42 and the surrounding areas during construction.

Table 1: Summary of DTSC Well Conversion and Retention Plan for Hangar Construction within Airport Property Boundary

Well ID	Well Type	Location	Planned Action	Timing
CEW-04B	EISB B Horizon Extraction Well	Proposed Hangar 42	Convert to monitoring well with surface cover	April 2026 or May 2026
CEW-05B	EISB B Horizon Extraction Well	Proposed Hangar 42	Convert to monitoring well with surface cover	April 2026 or May 2026
CEW-06B	EISB B Horizon Monitoring Well	Proposed Hangar 42	Remain in place	Ongoing
CEW-03B	EISB B Horizon Extraction Well	Proposed Hangar 41	Remain in place	Ongoing
CEW-02B	EISB B Horizon Extraction Well	West of Proposed Hangar 41	Remain in place	Ongoing
CMW-03B	Existing B Horizon Monitoring Well	Adjacent to Proposed Hangar 42	Remain in place	Ongoing
CEW-01B	EISB B Horizon Extraction Well	West of Proposed Hangar 41	Remain in place	Ongoing

Well ID	Well Type	Location	Planned Action	Timing
CMW-03	Existing C Horizon Monitoring Well	Adjacent to Proposed Hangar 42	Remain in place	Ongoing

2.2 Existing Conditions

Hawthorne Municipal Airport, also known as Jack Northrop Field, is a public-use airport owned by the City of Hawthorne, California. The airport spans approximately 80 acres and is located at 12101 S. Crenshaw Boulevard, Hawthorne, CA 90250. It is situated approximately three miles east of Los Angeles International Airport (LAX) and 10 miles from downtown Los Angeles. The airport is conveniently located near the interchange of the I-405 and I-105 freeways, offering easy accessibility for general aviation, corporate aviation, and flight training operations (*City of Hawthorne, 2025*).

The topography of the site is flat, consistent with airport runways. Refer to **Exhibit 5** for the topography of the project site. Hawthorne Municipal Airport is situated in a densely developed urban environment with a combination of industrial, commercial, and residential land uses. Refer to **Exhibit 6** for the land cover map of the project site. To the north, the area consists of commercial and residential properties, while the eastern side is primarily occupied by industrial facilities and commercial establishments. The southern boundary of the airport is adjacent to residential neighborhoods and industrial facilities, whereas the western side features commercial businesses and transportation infrastructure. Additionally, the airport is located near major aerospace and technology companies, including SpaceX, Starlink, and the Tesla Design Center, all of which operate within close proximity to the airport.

The geotechnical investigation conducted for the proposed hangars at Hawthorne Municipal Airport by Bay City Geology, Inc. (2024) indicates that the site is underlain by Quaternary alluvial deposits composed of silty sand, sandy silt, and clayey sand, with a low to moderate expansion potential. The groundwater table is approximately 30 feet below the surface, reducing the risk of encountering groundwater during construction. The site is not within an Alquist-Priolo Earthquake Fault Zone, but is near the Newport-Inglewood Fault Zone, requiring compliance with California Building Code (CBC) seismic design standards. Liquefaction potential is low due to soil composition and groundwater depth, and the site is not in a designated landslide hazard zone. To ensure stability, recommendations include over-excavation, re-compaction, and the use of cement-treated soil or deepened foundations where necessary. The measures will help maintain the integrity of the new hangars and associated infrastructure while preventing potential geotechnical hazards.

The airport supports various general aviation activities, including private aircraft operations, flight training, and corporate aviation services. Several aviation-related businesses, including Jet Center Los Angeles, provide hangar rentals, fueling services, and aircraft maintenance (*City of Hawthorne, 2024*). Hawthorne experiences a Mediterranean climate, characterized by mild, wet winters and warm, dry summers. The climate provides favorable year-round conditions for aviation activities. The National Weather Service (NWS) and the FAA provide real-time meteorological data for pilots and airport operations (*NWS, 2025*).

2.3 Cumulative Projects

Several major infrastructure projects are currently underway near Hawthorne Municipal Airport, including the Metro C Line Extension to Torrance and the LAX Automated People Mover (APM).

While the projects are located within the broader Los Angeles County region, they are not expected to have cumulative environmental impacts with the Hawthorne Airport Hangars Project, primarily due to their differences in location, scope, and timeline. The Metro C Line Extension, which is expected to begin construction in 2025 and be operational by 2030–2033, will primarily follow Metro's existing right-of-way between Redondo Beach and Torrance (*Los Angeles Metro, 2025*). The corridor runs south of the airport, meaning its construction and operational footprint will not directly impact aviation-related activities at Hawthorne. Similarly, the LAX APM, a fully automated transit system currently under construction and scheduled to be operational in 2025, is entirely within LAX property, approximately four miles west of Hawthorne Municipal Airport (*Los Angeles World Airports, 2025*). The project's focus is on reducing vehicle congestion at LAX, with no direct intersection with airport hangar operations in Hawthorne.

The Hawthorne Airport Hangars Project is an aviation-specific development, focused on modernizing and expanding aircraft storage and support infrastructure within airport property. Unlike the Metro C Line Extension and LAX APM, which are designed for regional transit and airport passenger mobility, the hangar project will not contribute to changes in commuter traffic patterns, public transit demand, or major roadway use. While temporary construction-related impacts such as noise, air quality, and traffic congestion are common across all projects, their geographical separation minimizes the likelihood of overlapping disturbances. The timing of the projects further reduces cumulative effects, as the LAX APM will be completed before significant construction begins on the hangars, and the Metro C Line construction will occur along an existing transit corridor without overlap in heavy construction zones near Hawthorne. Given the factors, there is no expectation of significant cumulative environmental impacts between the Hawthorne Airport Hangars Project and other regional developments.

3.0 Environmental Analysis

This section analyzes the potential environmental factors that may be potentially affected by this proposed project, as indicated by the checklist below.

Potentially Affected Environmental Factors		
☐Aesthetics	☐Agriculture/Forestry Resources	☐Air Quality
☐Biological Resources	☒Cultural Resources	☐Energy
☐Geology/Soils	☐Greenhouse Gas Emissions	☒Hazards & Hazardous Materials
☐Hydrology/Water Quality	☐Land Use/Planning	☐Mineral Resources
☐Noise	☐Population/Housing	☐Public Services
☐Recreation	☐Transportation	☒Tribal Cultural Resources
☐Utilities/Service Systems	☐Wildfire	☒Mandatory Findings of Significance

This environmental analysis contains an analysis of each environmental factor from the checklist above and of the potential impacts that could occur. There are four levels of impact that can be used that include:

1. **No Impact:** The approval and implementation of the project will not have any measurable impact on the environment.
2. **Less than Significant Impact:** The approval and implementation of the project may have the potential to affect the environment, but the impacts will be below levels or thresholds that are considered to be significant.
3. **Less than Significant Impact with Mitigation:** The approval and implementation of the project may have the potential to generate impacts having a significant impact on the environment, but the impacts may be reduced to less than significant levels with mitigation measures.
4. **Potentially Significant Impact:** The approval and implementation of the project may have significant environmental impacts.

4.0 CEQA Environmental Checklist

4.1 Aesthetics

The potential impacts, if any, to aesthetics for the proposed project's surrounding environments are provided in **Table 2**.

Table 2: Potential Impacts to Aesthetics

Potential Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c. In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Discussion

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

No Impact. The proposed project is situated within an urbanized area of Hawthorne, California, characterized predominantly by industrial and commercial land uses. The airport itself is bordered by major transportation routes, such as Crenshaw Boulevard and 120th Street, with no officially designated scenic vistas in its immediate vicinity. Given the airport's location and the nature of the surrounding environment, the construction of additional hangars is unlikely to have a substantial adverse effect on any recognized scenic vistas. The area lacks natural landscapes or panoramic views that would typically be classified as scenic vistas. Moreover, the new hangar structures are expected to be consistent with the existing airport facilities and the industrial character of the surrounding area, thereby minimizing any potential visual impact. In summary, based on the available information and the urban context of Hawthorne Municipal Airport, the proposed hangar development is not anticipated to adversely affect any scenic vistas.

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

No Impact. The proposed project is situated within an urbanized area of Hawthorne, California, characterized predominantly by industrial and commercial land uses. The airport itself is bordered by major thoroughfares such as Crenshaw Boulevard and 120th Street, with no officially designated trees, rock outcroppings, and historic buildings in its immediate vicinity. Given the airport's location and the nature of the surrounding environment, the construction of additional hangars will not damage scenic resources; therefore, no impact would occur.

c. In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

No Impact. The proposed project is situated within an area designated under the Airport Master Plan zoning classification, as outlined in the City of Hawthorne's zoning regulations. The Airport Master Plan zoning classification is specifically intended to accommodate aviation-related uses and developments within the airport premises. The designation supports infrastructure improvements and expansions that align with the operational needs of the airport.

Regarding regulations governing scenic quality, the City of Hawthorne has established guidelines to preserve and enhance the visual aesthetics of the community. The guidelines are primarily focused on residential and commercial areas, emphasizing aspects such as building design, landscaping, and signage. However, within the context of the Airport Master Plan zoning, the emphasis is on facilitating aviation-related developments, and specific regulations pertaining to scenic quality are not prominently featured. Given that the proposed hangar development is consistent with the intended use of the Airport Master Plan zoning classification, it is unlikely that the project would conflict with applicable zoning or other regulations governing scenic quality in the City of Hawthorne; therefore, no impact would occur.

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

Less than significant. The project will introduce new lighting for safety, security, and operational efficiency, which includes hangar interior and exterior lighting, as well as lighting along access roads, parking areas, and taxiways. The new hangars will likely be constructed using metal or other reflective materials that could generate glare during daylight hours.

The airport is located in an area surrounded by a mix of commercial, industrial, and residential properties. The closest sensitive receptors, such as residential neighborhoods, are located to the north and east of the airport, where excessive lighting could potentially cause nuisance glare. The project will introduce new light sources, but with proper design and compliance with City and FAA lighting regulations, the impacts can be minimized. Given that the airport is already an established aviation facility with existing lighting infrastructure, the additional lighting from the project is not expected to create a substantial adverse effect on day and nighttime views in the area.

4.2 Agriculture and Forestry Resources

The potential impacts, if any, to agriculture and forestry resources for the proposed project's surrounding environments are provided in **Table 3**.

Table 3: Potential Impacts to Agriculture and Forestry

Potential Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Discussion

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. The California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) shows the extent of Prime Farmland, Unique Farmland, and Farmland of Statewide Importance within Los Angeles County. According to the FMMP, the project site does not include any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (*California Department of Conservation, 2024*). Therefore, no impact on the conversion of farmland or agricultural resources would occur.

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

No Impact. The project site is not under the Williamson Act contract. The project site is not located on agricultural land, and the proposed project would not involve any development that could result in the conversion of farmland to non-agricultural uses. Therefore, there would be no impact related to agricultural zoning or Williamson Act contracts.

c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

No Impact. No forest land or timberland zoning is present within the project site, or in the surrounding area. Therefore, the proposed project would not conflict with existing zones for forest land or timberland, and no impact would occur with regards to these resources.

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

No impact. The proposed project is not located on land zoned as "forest land." Further, the trees in the vicinity of the site are not used for timber production, nor have they been used for timber production in the recent past, and, therefore, would not be converted into non-forest use. Thus, the proposed project would not result in the loss of forest land or conversion of forest land to non-forest use, and no impacts would occur.

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?

No Impact. As there are no agricultural uses or related operations on or in proximity to the project site, the proposed project would not involve the conversion of farmland to other uses, either directly or indirectly. No impacts involving the conversion of farmland to non-agricultural use would occur.

4.3 Air Quality

The potential impacts, if any, to air quality for the proposed project's surrounding environments are provided in **Table 4**.

Table 4: Potential Impacts to Air Quality

Potential Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐

Potential Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Discussion

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

Less than significant. The project site is located within the South Coast Air Basin (SCAB). Air quality planning for the SCAB is under the jurisdiction of the SCAQMD. The project would be subject to SCAQMD's Air Quality Management Plan (AQMP), which contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. Contractors must abide by air quality standards, specified by the SCAQMD.

In developing thresholds of significance for air pollutants, the SCAQMD considers the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions (*South Coast AQMD CEQA Handbook, 1993*). The thresholds listed below are related to cumulative air pollutants and pertain to a project's contribution to cumulative impacts. Additional construction thresholds are found in the SCAQMD significant thresholds checklist (*South Coast AQMD Air Quality Significance Thresholds, 2023*):

> a. Average daily emission thresholds (construction thresholds) of 550 pounds/day of carbon monoxide (CO), 150 pounds/day of particulate matter (PM_{10}) or sulfur oxide (SO_x), 100 pounds/day of nitrogen oxide (NO_x), 75 pounds/day of volatile organic compounds (VOC), 55 pounds/day of $PM_{2.5}$, or 3 pounds/day of lead; and
>
> b. CO concentrations exceeding the California Ambient Air Quality Standards of 9 parts per million (ppm) averaging over 8 hours and 20 ppm for one hour.

During project construction, emissions will not exceed the average daily emission thresholds of 550 pounds/day of CO, 150 pounds/day of PM_{10} or SO_x, 55 pounds/day of $PM_{2.5}$, 75 pounds/day of VOC, 100 pounds/day of NO_x, or 3 pounds/day of Lead. All construction equipment is expected to meet all applicable environmental regulations and requirements, in accordance with the AQMP. In summary, the project and construction operations will be required to comply with SCAQMD's significant threshold limits, which would prevent negative effects on air quality.

The project will not generate substantial new traffic and will adhere to all applicable building energy efficiency and emission reduction requirements, ensuring compliance with local air quality goals. In summary, construction-related emissions (from grading, excavation, equipment use, and truck trips) are expected to be below the SCAQMD thresholds when implementing best management practices (BMPs) such as dust suppression and low-emission construction equipment. During the construction phases, there will be a temporary increase in the number of workers at the site. However, since the workers will be on site only temporarily, they are not expected to relocate permanently to the area. As a result, the project is unlikely to directly or indirectly contribute to a population increase or lead to land-use changes that would alter air

contaminant emissions compared to current conditions. Therefore, the proposed project would not conflict with the AQMP, and impacts would be less than significant.

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?

Less than significant. The proposed project is situated within Los Angeles County, an area governed by SCAQMD and located within SCAB. The SCAB is currently classified as non-attainment for several criteria pollutants under both National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). The pollutants include ozone (O_3), $PM_{2.5}$ and PM_{10}, and NO_2 (*SCAQMD, 2022*). Emissions generated by the proposed project would include temporary construction emissions. The project will be in compliance with local and regional air pollutant emissions during construction (short-term or temporary). Construction and operation of the project would result in less than significant impacts relative to the daily significance thresholds for criteria air pollutant emissions established by the SCAQMD for construction phases.

During construction, temporary emissions will result from equipment operation, soil disturbance, material transport, and fugitive dust. The primary pollutants of concern include $PM_{2.5}$, PM_{10}, NO_x, VOCs, and CO. However, the project is required to comply with SCAQMD Rule 403, which mandates dust control measures, as well as California Air Resources Board (CARB) off-road diesel engine regulations, which limit emissions from construction equipment. The requirements will minimize any air quality impacts during the construction phase. Once operational, the hangars will primarily function as storage and maintenance facilities for private aircraft. The project does not include any major stationary sources of emissions, such as industrial manufacturing or large-scale fuel combustion, that could contribute to long-term air quality degradation. Although an increase in vehicular activity is anticipated, it is not expected to result in a cumulatively considerable net increase in any non-attainment pollutant.

Furthermore, the project will be evaluated against SCAQMD air quality significance thresholds to determine compliance with applicable regulations. According to SCAQMD guidance, low-VMT projects are typically considered to have a less-than-significant impact on regional air quality, provided that emissions do not exceed daily thresholds (*SCAQMD, 2019*). Additionally, the project aligns with air quality improvement goals established in the Final 2022 AQMP, which outlines strategies to reduce emissions across the SCAB (*SCAQMD, 2022*). Based on the project's compliance with SCAQMD regulations, CARB emission reduction strategies, and dust control measures, it is not expected to result in a cumulatively considerable net increase in criteria pollutants for which SCAB is designated as non-attainment. As such, the project's air quality impacts are anticipated to be less than significant.

The SCAQMD's approach for assessing cumulative impacts is based on attainment of ambient air quality standards in accordance with the requirements of the Federal and State Clean Air Acts. As discussed earlier, the SCAQMD has an adopted AQMP, which addresses the region's cumulative air quality condition. A significant impact may occur if a project were to add a cumulatively considerable contribution of a federal or state non-attainment pollutant. The project's incremental contribution to cumulative air quality impacts is determined based on compliance with the SCAQMD adopted AQMP. The project would be consistent with the AQMP and would not have a cumulatively considerable air quality impact. Therefore, the emissions of non-attainment pollutants generated by the project would not exceed the SCAQMD project-level thresholds and would be considered less than significant.

c. Expose sensitive receptors to substantial pollutant concentrations?

Less than significant. Construction activities for the project are expected to produce temporary air emissions, including fugitive dust (PM_{10} and $PM_{2.5}$) and exhaust from construction equipment. Compliance with SCAQMD Rule 403 will ensure the implementation of measures to control fugitive dust emissions at the project site.

The project site is located within a densely developed urban area with a mix of industrial, commercial, and residential uses. Sensitive receptors in proximity to the site include residential neighborhoods to the south and west of the airport, as well as schools and medical facilities within a one-mile radius. Zela Davis Elementary School is located northeast of Hawthorne Municipal Airport. College Medical Center Hawthorne Campus is situated approximately one mile east of the airport. The Maxine Waters Health and Dignity Center is positioned northeast of the airport, while the Vasek Polak Health Clinic is located east of the airport. Given the airport's primary function as a general aviation facility, existing background air quality conditions already reflect emissions from aircraft operations, vehicular traffic, and nearby industrial activities.

Construction activities, including demolition, grading, material transport, and equipment operation, will result in temporary emissions of PM_{10}, $PM_{2.5}$, nitrogen oxides (NO_x), VOCs, and CO. The emissions could temporarily increase pollutant levels in the surrounding area. However, the project will be required to comply with SCAQMD Rule 403 for dust control and CARB diesel emission standards for construction equipment. The implementation of BMPs will help minimize potential air quality impacts. The measures include watering exposed soils to reduce fugitive dust, using low-emission or electric construction equipment when feasible, and limiting idling times for diesel engines. Once operational, the new hangars will primarily function as storage and maintenance facilities for private aircraft. The project does not propose any new industrial facilities, large-scale fuel combustion, or stationary sources of emissions. Aircraft operations and vehicular traffic associated with the hangars are expected to remain consistent with existing airport activity levels and are not anticipated to generate substantial new emissions that would significantly affect nearby sensitive receptors.

While construction-phase emissions will be temporary, concerns regarding toxic air contaminants (TACs), such as diesel particulate matter, benzene, and formaldehyde, can arise from long-term emission sources. However, since the construction phase is temporary and will be regulated under SCAQMD and CARB emission reduction measures, exposure to TACs is not expected to exceed health risk thresholds for sensitive receptors. Additionally, operational emissions are not expected to introduce new or significant sources of TAC exposure beyond current airport activities. Based on SCAQMD air quality thresholds and CARB emission standards, the project is not anticipated to expose sensitive receptors to substantial pollutant concentrations. The temporary nature of construction emissions, coupled with BMPs for dust control and emissions reductions, ensures that air quality impacts remain less than significant.

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

Less than significant. The proposed project at Hawthorne Municipal Airport is not expected to result in emissions that would generate significant odors adversely affecting a substantial number of people. Construction activities may produce temporary odors from diesel-powered equipment, asphalt paving, and other materials, but the emissions will be short-term and localized to the immediate construction area. Once operational, the new hangars will primarily serve as storage for private aircraft and aviation-related activities, which are not known to be significant sources of odor emissions. Aviation fuel and maintenance chemicals will be stored and used in accordance with local, state, and federal regulations, ensuring proper handling

and ventilation to minimize any potential odor impacts. Additionally, the SCAQMD has established rules to regulate nuisance odors (Rule 402), and compliance with the regulations will further reduce the likelihood of adverse odor impacts. Given the factors, the project is not expected to result in odor emissions that would affect a substantial number of people.

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 would not involve elements related to these types of uses. While there is potential for odors to occur, compliance with industry standard odor control practices, SCAQMD Rule 402 (Nuisance), and SCAQMD *Best Available Control Technology Guidelines* would limit potential objectionable odor impacts to a less than significant level.

4.4 Biological Resources

The potential impacts, if any, to biological resources for the proposed project's surrounding environments are provided in **Table 5**.

Table 5: Potential Impacts to Biological Resources

Potential Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☒	☐

Potential Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Discussion

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 Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant. The proposed project involves the demolition of existing structures and the construction of new aviation hangars. The site is located within a densely developed urban area with extensive impervious surfaces, including runways, taxiways, and existing airport infrastructure. Given the highly developed nature of the site, natural habitat is limited, and the potential for direct impacts to special-status species is low. However, certain avian species protected under the Migratory Bird Treaty Act (MBTA) may utilize the airport property for foraging or nesting. Since the project involves demolition and excavation, compliance with the MBTA will ensure that potential impacts to bird species would be less than significant. The MBTA specifically protects migratory birds, their nests, and eggs from harm, disturbance, or destruction, and the project will implement appropriate avoidance measures during construction to ensure compliance.

Additionally, while no aquatic habitat exists within the project footprint, the site is in proximity to riparian corridors that could support species such as the Arroyo chub (Gila orcutti) or the Southern California Steelhead (Oncorhynchus mykiss) in nearby watersheds. Refer to **Exhibit 7** for the biological resource map of the project site. Indirect impacts related to stormwater runoff will be minimized through the use of stormwater management BMPs to prevent sedimentation and water quality degradation in downstream environments.

Based on existing research and data, the project is not expected to have a substantial adverse effect on any candidate, sensitive, or special-status species. Watearth conducted a site visit of the Hawthorne Airport in January 2025, and no wildlife species or habitat was observed. Compliance with California Department of Fish and Wildlife (CDFW) and U.S. Fish and Wildlife Service (USFWS) guidelines, along with minimization measures such as construction timing restrictions and erosion control BMPs, will further ensure protection of any potentially affected wildlife. According to the U.S. Fish & Wildlife Service Information for Planning and Consultation, no critical habitats for candidate, sensitive, or special-status species are within the project limits. No federally designated critical habitat for listed wildlife species is mapped within or adjacent to the project site; therefore, no critical habitat will be affected by the project. By adhering to MBTA compliance and incorporating BMPs for erosion control and stormwater management, the project will reduce any potential impacts on wildlife.

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 Wildlife or U.S. Fish and Wildlife Service?

No Impact. The proposed project is located within a highly urbanized environment and does not contain riparian habitat or other sensitive natural communities as identified in local or regional plans, policies, regulations, or by CDFW or USFWS. The project site is primarily composed of existing airport infrastructure, paved surfaces, and disturbed areas that do not support native vegetation or wildlife habitat. There are no wetlands, streams, or riparian corridors within or adjacent to the project site that would be impacted by construction activities. Additionally, the project does not propose any activities that would result in modifications to a waterway or the removal of protected natural communities.

As part of compliance with state and federal environmental regulations, the project will implement BMPs to prevent soil erosion, sedimentation, and stormwater runoff, ensuring that no indirect impacts occur to offsite natural resources. Based on the absence of riparian habitat or sensitive natural communities within the project footprint, the project will not have a substantial adverse effect on any protected natural community; therefore, no impact is anticipated.

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?

No Impact. The proposed project is located within a highly urbanized setting and does not contain state or federally protected wetlands such as marshes, vernal pools, or coastal wetlands. The project site consists primarily of existing airport infrastructure, paved surfaces, and disturbed areas, with no wetland features or hydrologically connected water bodies present within or adjacent to the development footprint.

A review of the National Wetlands Inventory (NWI) and CDFW wetland maps confirms that the project area does not support jurisdictional wetlands regulated under Section 404 of the Clean Water Act (CWA) by the U.S. Army Corps of Engineers or state wetlands protected under the Porter-Cologne Water Quality Control Act. Additionally, the project does not propose activities such as filling, dredging, or altering hydrology that could impact any offsite wetlands. To ensure compliance with all federal and state wetland protection regulations, the project will incorporate BMPs to prevent stormwater runoff, sedimentation, or indirect impacts to downstream aquatic resources. Based on available data and regulatory guidance, the project will not result in direct or indirect adverse effects on wetlands protected under state or federal law; therefore, no impact is anticipated. Refer to **Exhibit 8** for the wetlands map of the project site.

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. The proposed project is situated in a highly urbanized and developed area, primarily surrounded by industrial, commercial, and residential land uses. The project site is largely paved and disturbed, lacking natural habitat features that would support significant wildlife movement corridors or migratory pathways for fish and terrestrial wildlife. A review of CDFW wildlife connectivity maps, USFWS critical habitat designations, and local conservation plans indicate that the project area is not within a designated wildlife corridor or migratory route. Additionally, there are no significant riparian corridors, streams, or water bodies within or adjacent to the project site that would support migratory fish such as Southern California Steelhead (Oncorhynchus mykiss).

Although certain bird species protected under the MBTA may utilize the surrounding urban tree canopy and existing buildings for nesting, the project site itself lacks significant vegetation or nesting habitat. However, native migratory bird species, such as Cliff Swallows (Petrochelidon pyrrhonota), could potentially use the existing buildings as nesting habitat. To minimize potential impacts to migratory birds, the project will comply with the MBTA, which protects migratory birds, their nests, and eggs from harm, disturbance, or destruction. Compliance with the MBTA will ensure that demolition and construction activities do not result in the unlawful take of protected species. Given the lack of native habitat and hydrological features within the project area, as well as the absence of documented wildlife corridors, the project is not expected to interfere substantially with the movement of native or migratory wildlife species, impede wildlife nursery sites, or disrupt established migration routes. Impacts are less than significant.

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

No Impact. The proposed project is located within a highly urbanized setting with limited natural vegetation and no designated biological resource areas within the project boundaries. The project does not involve the removal of any trees. The project site primarily consists of existing airport infrastructure, paved surfaces, and previously disturbed areas. The proposed construction and demolition activities are not expected to impact any protected native trees, sensitive vegetation, or biological resources. Additionally, the project will comply with all applicable environmental regulations, including those outlined in the City of Hawthorne Municipal Code and any applicable Los Angeles County tree protection guidelines. Since the project does not involve the removal of any significant biological resources, it is not expected to conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The project site is not located within the boundaries of a Habitat Conservation Plan (HCP) or Natural Community Conservation Plan (NCCP). Therefore, the project would not conflict with any adopted NCCP/HCP or other protected areas. Thus, no impact would occur.

4.5 Cultural Resources

The potential impacts, if any, to cultural resources for the proposed project's surrounding environments are provided in **Table 6.**

Table 6: Potential Impacts to Cultural Resources

Potential Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	☐	☒	☐	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☒	☐	☐

Potential Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c. Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

Discussion

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

Less Than Significant with Mitigation Incorporated. The project site consists primarily of existing hangars, paved surfaces, and other airport infrastructure, with no known designated historical resources within its immediate footprint. Under CEQA Guidelines §15064.5, a historical resource includes any structure, site, or object listed in or eligible for listing in the California Register of Historical Resources (CRHR), a local register, or determined to be significant by a lead agency. A review of available records, including California Historical Resources Information System (CHRIS) data and local planning documents, indicates that the structures slated for demolition are not listed or eligible for listing as historical resources.

Although the airport has historical significance due to its past association with aerospace development, the proposed project will not alter any historically significant features or buildings associated with this legacy. Additionally, no archaeological sites or subsurface cultural resources have been previously recorded within the project area. However, because the project area lies within the ancestral territory of the Gabrieleño Band of Mission Indians – Kizh Nation, and AB 52 consultation identified a high likelihood for unrecorded tribal cultural resources to be present, the project will implement mitigation measures TCR-1 through TCR-4 (see Tribal Cultural Resources section). These measures include retaining a Kizh Nation tribal monitor during all ground-disturbing activities, providing cultural sensitivity training, and following Kizh Nation protocols for any inadvertent discoveries. With these measures in place, the proposed project will not cause a substantial adverse change in the significance of a historical resource pursuant to CEQA §15064.5.

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

Less Than Significant with Mitigation Incorporated. Given the extensive disturbance and modification of the land for aviation and industrial purposes, the potential for intact archaeological resources within the project area is considered low. Under CEQA Guidelines §15064.5, an archaeological resource is considered significant if it meets the criteria for listing in the CRHR. A records search through the CHRIS, as well as a review of local planning and environmental documents, indicates that no known significant archaeological resources have been previously recorded within the project area.

However, AB 52 consultation with the Gabrieleño Band of Mission Indians – Kizh Nation identified the project site as being within a highly sensitive cultural landscape with potential for buried tribal cultural resources. In accordance with the consultation record, the project will implement mitigation measures TCR-1 through TCR-4, which require a Kizh Nation tribal monitor during all ground-disturbing activities, cultural sensitivity training, procedures for unanticipated discovery of tribal cultural resources, and coordination with the tribe for treatment of any finds. With implementation of these measures, impacts to archaeological resources would be less than significant.

c. Disturb any human remains, including those interred outside of dedicated cemeteries?

Less Than Significant with Mitigation Incorporated. The project is located within a highly urbanized and previously developed area, where extensive past grading, excavation, and construction activities have significantly altered the landscape. Given the long history of airport-related development at the site, the potential for encountering human remains is considered low.

Nevertheless, AB 52 consultation with the Gabrieleño Band of Mission Indians – Kizh Nation confirmed the need for proactive procedures to protect tribal cultural resources, including human remains. The project will implement mitigation measure TCR-3, which incorporates the requirements of PRC §5097.98 and HSC §7050.5, specifies preservation in place as the preferred treatment, requires confidentiality, and ensures coordination with the Kizh Nation and the NAHC-appointed Most Likely Descendant. With this measure in place, the project is not anticipated to disturb human remains, and impacts would be less than significant.

4.6 Energy

The potential impacts, if any, to energy resources for the proposed project's surrounding environments are provided in **Table 7**.

Table 7: Potential Impacts to Energy Resources

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

Discussion

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

Less than significant. The proposed project is not expected to result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation. During construction, energy use will primarily be associated with heavy equipment, material transport, and worker vehicle trips. The project will implement BMPs to minimize energy consumption, including the use of fuel-efficient or electric construction equipment where feasible, limiting idling times for diesel-powered vehicles, and maintaining equipment in optimal working conditions to improve fuel efficiency. Additionally, construction activities will be conducted in phased stages, reducing unnecessary duplication of energy-intensive tasks.

During operation, the new aviation hangars will incorporate modern energy-efficient designs, including LED lighting, proper insulation, and energy-efficient HVAC systems. The project will comply with the California Green Building Standards Code (CALGreen) and Title 24 energy efficiency requirements, ensuring that energy usage is optimized. Furthermore, the project does

not involve high-energy-demanding industrial or commercial facilities, and no significant increase in energy demand beyond standard aviation facility operations is anticipated. Given the considerations, the project would not result in wasteful, inefficient, or unnecessary energy consumption, and its impact on energy resources would be less than significant.

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less than significant. The proposed project will not conflict with or obstruct any state or local plan for renewable energy or energy efficiency. The project involves the construction of aviation hangars, which are not considered high-energy-consuming facilities. The new structures will be designed in compliance with California's Green Building Standards Code (CALGreen) and Title 24 energy efficiency standards, ensuring that energy use is optimized. Additionally, the project will not interfere with existing renewable energy infrastructure or prevent future renewable energy initiatives within the airport or surrounding area.

During construction, BMPs will be implemented to minimize energy consumption, including the use of fuel-efficient construction equipment, limiting idling times for diesel-powered vehicles, and ensuring that machinery is properly maintained to improve efficiency. Given that the project aligns with state and local energy efficiency goals, does not hinder renewable energy adoption, and complies with California energy efficiency regulations, it would not conflict with or obstruct any state or local renewable energy or energy efficiency plans. Therefore, the impact is less than significant.

4.7 Geology and Soils

The potential impacts, if any, to geology and soils for the proposed project's surrounding environments are provided in **Table 8**.

Table 8: Potential Impacts to Geology and Soils

Potential Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. ii. Strong seismic ground shaking? iii. Seismic-related ground failure, including Liquefaction? iv. Landslides?	☐	☐	☒	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐

Potential Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
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?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

Discussion

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

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

Less than significant. The proposed project site is not located within an Earthquake Fault Zone as designated by the Alquist-Priolo Earthquake Fault Zoning Act of 1972. The site does not lie within a mapped active fault rupture zone. Refer to **Exhibit 9** for the fault line map of the project site.

The Newport-Inglewood Fault Zone (NIFZ), which extends approximately 45 miles from offshore Laguna Beach to the Beverly Hills area, was identified as the closest active fault system to the site. The site is located approximately one mile southwest of the Earthquake Fault Zone for the Potrero fault splay of the NIFZ. Given the distance and the absence of mapped active faults directly beneath the project site, it is determined that seismically induced ground rupture is not anticipated to occur at the proposed project location. Although the project site is near a seismically active region, the risk of direct fault surface rupture at the site is considered low, based on geological mapping, historical fault activity, and regulatory fault zoning maps. The report recommends that standard seismic design measures be incorporated into the structural design to accommodate ground shaking hazards, but no special mitigation measures are required for fault rupture concerns, and impacts are less than significant.

ii. Strong seismic ground shaking?

Less than significant. The project site indicates that significant ground acceleration and shaking may be anticipated due to the site's proximity to the Potrero fault splay of the NIFZ, as well as other active and potentially active faults in the surrounding region. Since all of Southern California is a seismically active region, certain areas, such as those closer to active faults, have a higher probability of experiencing strong ground shaking and elevated ground acceleration.

The NIFZ has been classified as an active fault by the State of California and has historically produced seismic events, including the Long Beach Earthquake of 1933 (Magnitude 6.3). The fault zone extends approximately 45 miles, from offshore near Laguna Beach to Beverly Hills, and is known to generate frequent minor earthquakes in addition to the potential for larger seismic events. According to ASCE/SEI Standard 7-16, the site falls under Site Class D ("stiff soil"), which is a default classification for sites with dense soil or compacted alluvium. The classification was used to determine seismic design coefficients, which are necessary for structural engineering and compliance with the 2022 CBC.

Based on the assessments, the Geotechnical Engineering Investigation conducted by Bay City Geology, Inc. on August 12, 2024, strongly recommends that the proposed structures be designed in compliance with current seismic building standards to minimize potential hazards from strong ground shaking. Refer to **Appendix E** for the geotechnical engineering investigation. Additionally, earthquake insurance and structural reinforcements may be prudent measures to further reduce risk to airport infrastructure. In summary, strong seismic ground shaking is expected to occur at the site due to its regional fault proximity. However, proper engineering design, compliance with building codes, and adherence to seismic design parameters will help ensure structural resilience against future seismic events. Therefore, impacts are less than significant.

iii. Seismic-related ground failure, including Liquefaction?

Less than significant.

Liquefaction occurs when saturated granular soils lose strength due to increased pore water pressure during seismic activity, causing the ground to behave like a liquid, which can lead to ground settlement, foundation instability, and structural damage. According to the California Geological Survey (CGS) *Inglewood Quadrangle Earthquake Zones of Required Investigation Map* (1986, 1999), the project site is not within a designated Liquefaction Hazard Zone. Additionally, data from the Seismic Hazard Zone Report (SHZR 027) for the *Inglewood 7.5-Minute Quadrangle* (1998, 2006) indicates that the historical high groundwater level in the area is approximately 30 feet below the surface. Given the groundwater depth and the dense nature of the late Pleistocene to Holocene-aged alluvial soils underlying the site, the geotechnical investigation concluded that the potential for liquefaction, liquefaction-induced settlement, or seismic dry-sand settlement at the site is very low.

Since the site is located in a flat area, more than 500 feet from the Dominguez Slough Flood Control Channel, with minimal slope gradients, the risk of lateral spreading is also considered very low. Overall, the investigation finds no significant liquefaction hazard at the project site. Due to deep groundwater levels, dense soil composition, and the absence of lateral spreading conditions, no major liquefaction mitigation measures are recommended for the construction of the proposed hangars, and impacts are less than significant. Refer to **Exhibit 10** for the liquefaction map for the project site.

iv. Landslides?

No Impact. According to the California Geological Survey (CGS) *Inglewood Quadrangle Earthquake Zones of Required Investigation Map* (1986, 1999), the project site is not located within a designated earthquake-induced landslide hazard zone. The project area is characterized by flat topography, with no steep slopes, escarpments, or free-face conditions that would pose a risk for landslide activity. Additionally, there is no evidence of ancient or recent bedrock landslides or surficial slope failures within or near the site. Due to these stable geologic conditions and the absence of known landslide hazards, the proposed project would not result in any impact related to landslides. Refer to **Exhibit 11** for the landslide hazard map of the project site.

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

Less than significant. The proposed project will involve grading, excavation, and site preparation activities, which have the potential to cause soil erosion and loss of topsoil. However, the project will implement BMPs to minimize the risks and ensure compliance with local, state, and federal regulations. The site is currently paved and developed, limiting the amount of exposed soil that could be subject to erosion. During construction, temporary erosion control measures such as silt fences and fiber rolls will be implemented to prevent soil displacement. Additionally, the project will comply with the CGP (Order 2022-0057-DWQ), which requires a SWPPP outlining sediment and erosion control measures to control runoff and stabilize disturbed areas. Given the measures, the project is not expected to result in substantial soil erosion or the loss of topsoil.

As part of soil stabilization practices, concrete tarmac removed during demolition will be crushed and reused on-site as a gravel base, which will reduce material hauling needs and contribute to enhanced compaction and erosion control.

Once construction is complete, the project site will be maintained, and additional operational impacts related to soil erosion or loss of topsoil would not occur. Implementation of the SWPPP and associated BMPs would limit impacts related to soil erosion, loss of topsoil, short-term erosion, and runoff to less than significant levels. Refer to **Exhibit 12** for the soil map of the project site.

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. The proposed project is located in a highly developed urban area with existing infrastructure and relatively flat terrain, minimizing the risk of significant geological instability. However, due to the site's location in Los Angeles County, which is known for seismic activity, there is potential for geologic hazards such as liquefaction, subsidence, and lateral spreading, depending on the specific soil conditions. Given the site's existing airport infrastructure, the likelihood of encountering unstable soils is relatively low.

Landslides are unlikely to be a concern for the project, as the airport is situated on relatively flat ground without significant slopes or unstable hillsides. Similarly, the risk of subsidence or settlement is minimal, though any unconsolidated fill or soft clay deposits could require compaction measures or engineered foundations to ensure stability. To ensure the project's long-term stability, standard engineering and construction practices will be implemented, including compliance with the CBC and site-specific geotechnical recommendations; therefore, impacts are less than significant.

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

Less than significant. The Geotechnical Engineering Investigation for the proposed Hangars at Hawthorne Municipal Airport, prepared by Bay City Geology, Inc. on August 12, 2024, indicates that expansive soils are present at the project site and require specific engineering considerations. The onsite earth materials are expected to exhibit a low to medium expansion potential. The cyclic expansion and contraction can lead to cracking pavements, concrete slabs-on-grade, and building foundations, as well as structural issues such as misalignment of doors and windows.

The report recommends that all new foundations, slabs, and hardscapes be designed to accommodate expansive soil conditions in accordance with the 2022 CBC §1808.6. The proposed measures include deepening foundation systems and providing additional reinforcement as designed by the structural engineer. Additionally, site improvements should focus on maintaining uniform moisture conditions around structures, ensuring that soil remains consistently moist but does not experience ponding or excessive water infiltration. Another related concern is hydroconsolidation, which occurs when certain soils collapse upon saturation, leading to settlement. The upper layers of soil at the site are most susceptible to this condition due to potential water infiltration from rainfall or irrigation. However, since groundwater was not encountered in the borings up to 31.5 feet deep, and historical groundwater levels in the area are estimated at 30 feet below grade, the risk of deep soil hydroconsolidation is low.

To further minimize the impact of expansive soils, grading and earthwork should include over-excavation and replacement of unsuitable fill materials. The subgrade will be pre-saturated to a minimum moisture content of 110% of the optimum moisture content (ASTM D1557), extending 24 inches below grade before pouring concrete slabs. Overall, while expansive soils are present at the site, the report concludes that the proposed development can proceed safely as long as the recommended geotechnical measures are implemented. Proper foundation design, site drainage, and moisture control will be critical to minimizing potential soil movement and ensuring the long-term stability of the new hangars at Hawthorne Municipal Airport; therefore, impacts are less than significant.

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. Construction of the proposed project would not include the installation of a new septic system or alternative wastewater disposal systems. No impacts regarding septic tanks or alternative wastewater disposal systems would occur.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than significant. The proposed project is located within a highly urbanized area that has been previously developed and graded for airport operations. Given the existing disturbed nature of the site, the potential for encountering unique paleontological resources or unique geologic features is considered low. The project will involve grading, excavation, and foundation work, which could disturb subsurface materials. However, there are no publicly available geological surveys or existing studies of the region that indicate that the site may contain known fossiliferous formations or significant paleontological resources. The airport and surrounding areas are primarily underlain by alluvial deposits and artificial fill, which are not typically associated with fossil preservation.

To ensure compliance with CEQA Guidelines §15064.5, if fossil remains or other paleontological resources are unexpectedly encountered during construction, work in the immediate area will

be halted, and a qualified paleontologist will be consulted to evaluate the find. If deemed significant, appropriate preservation and documentation measures will be implemented before construction resumes. Given the project's location within a previously developed site and low potential for fossil-bearing formations, the project is not expected to directly or indirectly destroy a unique paleontological resource or geologic feature; therefore, impacts are less than significant.

4.8 Greenhouse Gas Emissions

The potential impacts, if any, of greenhouse gas emissions for the proposed project's surrounding environments are provided in **Table 9**.

Table 9: Potential Impacts to Greenhouse Gas Emissions

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

Discussion

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

Less than significant. The proposed project will generate greenhouse gas (GHG) emissions, both directly and indirectly, primarily during construction activities. However, the emissions are not expected to have a significant impact on the environment. GHG emissions during construction will result from heavy machinery operation, material transportation, and worker vehicle trips. Equipment such as excavators, bulldozers, cranes, concrete mixers, and dump trucks will emit carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). However, the emissions will be temporary and will cease upon project completion. To minimize the impacts, BMPs will be implemented, including using low-emission or electric construction equipment when feasible, reducing equipment idling times, and implementing dust control measures to minimize particulate matter emissions. Once operational, the hangars are not expected to be major sources of GHG emissions. The project does not include high-energy-consuming facilities and will comply with California's energy efficiency standards (Title 24 and CALGreen). As identified in the *2019 Airport Layout Plan Update and Narrative Report*, the hangars are intended to accommodate forecasted growth in based aircraft (from approximately from 112 in 2022 to 123 by 2027) and will not induce new aviation activity beyond what was already anticipated in long-term airport planning.

The project will comply with state and regional GHG reduction goals, including the California Global Warming Solutions Act (AB 32) and Executive Order S-3-05, which focus on the reduction of GHG emissions. The project's emissions will be well below the SCAQMD GHG significance thresholds. Given the short-term nature of construction emissions, and the low GHG footprint of the operational phase, the project will not have a significant impact on climate change. While the project will generate temporary GHG emissions during construction, the implementation of

BMPs, energy-efficient design, and compliance with state regulations will ensure that the impact remains less than significant.

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

Less than significant. The proposed project will not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. The project will be consistent with state and regional climate action policies, including AB 32, Senate Bill 32, and the Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy. The project aligns with California's GHG reduction targets, including the 40% reduction below 1990 levels by 2030 (SB 32). The project will incorporate energy-efficient lighting and compliance with CALGreen (Title 24) building standards.

Additionally, executive order B-55-18 states that California intends to achieve carbon neutrality by 2045. The project's implementation of BMPs, including low-emission construction equipment, limiting idling times, and minimizing energy use, ensures alignment with the long-term goal. The project does not increase regional vehicle miles traveled (VMT) beyond screening thresholds, ensuring consistency with land use and transportation policies to reduce GHG emissions. The project's anticipated GHG emissions are expected to be below regional significance thresholds, given that its primary function is to expand existing aviation storage capacity rather than induce new travel demand. The project will adhere to local energy efficiency and sustainability requirements and will not result in excessive or wasteful energy consumption. Given the project's consistency with state, regional, and local GHG reduction policies, the project will not conflict with any adopted plans or regulations for reducing GHG emissions. Therefore, the impact is considered less than significant.

4.9 Hazards and Hazardous Materials

The potential impacts, if any, from hazards and hazardous materials for the proposed project's surrounding environments are provided in **Table 10**.

Table 10: Potential Impacts from Hazards and Hazardous Materials

Potential Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐

Potential Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☒	☐	☐
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

Discussion

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

Less than significant. The proposed project will involve the transport, use, and disposal of hazardous materials during both the construction and operational phases. However, compliance with federal, state, and local hazardous materials regulations will ensure that risks to the public and the environment remain minimal. During the construction phase, hazardous materials such as diesel fuel, lubricants, solvents, paints, and adhesives will be used for machinery operation, structural assembly, and surface treatments. The handling and disposal of the materials will follow all applicable regulations, including the California Hazardous Waste Control Law (HWCL), Resource Conservation and Recovery Act (RCRA), and California Code of Regulations (CCR) Title 22 – Hazardous Waste Management. Contractors will be required to implement BMPs for spill prevention and hazardous materials handling, ensuring proper containment, storage, and disposal of hazardous waste at permitted facilities.

Once operational, the new aviation hangars will primarily be used for private aircraft storage and maintenance, involving the use and transport of aviation-related chemicals such as fuels, oils, and hydraulic fluids. The materials will be managed under stringent airport safety and environmental regulations. Hazardous materials transport will be conducted by licensed carriers following Department of Transportation (DOT) *Hazardous Materials Regulations (49 CFR Parts 171-180)*. Aviation-related chemicals will be delivered, stored, and disposed of using approved containment systems to prevent accidental spills or leaks. With strict regulatory compliance and proper handling procedures, the project will not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than significant. The proposed project will involve the use, storage, and transport of hazardous materials during both the construction and operational phases. However, strict regulatory compliance and safety protocols will be in place to minimize any risks associated with the release of hazardous materials into the environment. During construction, hazardous materials such as diesel fuel, lubricants, solvents, and paints will be used for heavy machinery operation, structural assembly, and surface treatments. The materials will be stored, handled, and disposed of in compliance with federal, state, and local regulations, including California HWCL, RCRA, CCR Title 22, and BMPs for spill prevention and hazardous material handling. To further reduce risks, hazardous material storage areas will be designated, and emergency spill response procedures will be in place. Contractors will be required to implement stormwater pollution prevention measures and hazardous waste disposal protocols to prevent accidental releases into the surrounding environment. Once operational, the new aircraft hangars will primarily be used for private aircraft storage and maintenance. The handling of aviation-related chemicals, including fuel, hydraulic fluids, and de-icing agents, will be limited and subject to strict safety and spill prevention measures. The airport has existing hazardous material management protocols that align with the FAA, Occupational Safety and Health Administration (OSHA), and DTSC guidelines.

Additionally, any fueling or maintenance activities will follow standard airport safety protocols to prevent accidental releases. Given the stringent regulatory framework, required spill containment measures, and ongoing compliance monitoring, the likelihood of a reasonably foreseeable upset or accident condition leading to a significant release of hazardous materials is low. The implementation of hazardous materials management plans, spill prevention programs, and emergency response protocols ensures that potential hazards to the public and the environment are effectively minimized. With the preventative measures and regulatory compliance strategies in place, the project is not expected to create a significant hazard to the public or the environment through reasonably foreseeable upset or accident conditions involving the release of hazardous materials. Therefore, impacts are less than significant.

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. The project site is located within one-quarter mile of Zela Davis Elementary School. The project's construction and operational activities will involve the use of standard aviation-related materials, including fuels, lubricants, and cleaning agents, which are typically regulated under federal, state, and local hazardous materials regulations.

During construction, the temporary use of hazardous materials such as diesel fuel, paints, and solvents will be required for heavy equipment operation and building activities. However, the materials will be handled, stored, and disposed of in compliance with applicable regulations, minimizing the risk of hazardous emissions affecting nearby schools. The new hangars are not intended to store or handle acutely hazardous substances but may contain limited quantities of aviation-related chemicals such as lubricants and maintenance fluids. The materials will be properly managed in accordance with airport safety protocols and fire code requirements to prevent any potential risks to nearby schools. Given the factors, and with the implementation of standard safety measures and regulatory compliance, the project is not expected to result in significant hazardous emissions or the handling of acutely hazardous materials that would pose a risk to nearby schools. Therefore, impacts are less than significant.

d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less than Significant with Mitigation Incorporated. The Hawthorne Municipal Airport is listed as a hazardous materials site under Government Code § 65962.5 due to historic industrial operations and ongoing environmental remediation efforts. From the 1940s to 2000, Northrop Grumman Corporation operated aircraft manufacturing and chemical milling operations on-site, resulting in contamination by VOCs. DTSC has overseen remedial actions at the site, including soil vapor extraction, groundwater monitoring, and corrective action under RCRA protocols. One key area of concern, the Chem Mill Area, showed contamination extending to groundwater at approximately 50 feet below ground surface. Environmental infrastructure including extraction and monitoring wells remain active to manage contamination. (See **Exhibit 13** for active and inactive hazardous waste facility locations.)

Existing remediation wells within the project footprint—CEW-04B, CEW-05B, and CEW-03B within the footprint of Hangars 42 and 41, as well as additional wells west of Hangar 41 (CEW-01B and CEW-02B)—will remain operational during construction. Two wells within Hangar 42's footprint (CEW-04 and CEW-05) will be converted to monitoring wells with smaller aircraft-rated covers to allow continued semi-annual sampling until they can be properly abandoned, consistent with DTSC requirements. Refer to **Appendix D** for the southwest hangar site layout map and the associated remediation well locations.

Without protective measures, construction could disturb or damage remediation infrastructure and interfere with regulatory oversight, which would constitute a potentially significant impact. With implementation of Mitigation Measure HAZ-1, construction would not interfere with DTSC's remediation program or the protection of public health and the environment. Therefore, impacts related to the site's inclusion on the Cortese List would be less than significant with mitigation incorporated. Refer to **Appendix H** for DTSC confirmation that the construction of the hangars will impede the overall remediation goals in the area, and thus mitigation measures are required.

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

No Impact. The proposed project is not expected to result in a safety hazard or create excessive noise levels that would significantly impact people residing or working in the project area. The project is located within the controlled boundaries of Hawthorne Municipal Airport, an active general aviation facility subject to FAA regulations for operational and safety standards. The project will include the demolition of outdated structures and the construction of new hangars, which will enhance airport operations, aircraft storage, and overall safety by modernizing facilities.

All construction activities will be conducted in accordance with OSHA and FAA safety standards, ensuring that risks related to construction hazards, equipment use, and worker safety are minimized. Security protocols at the airport will remain in place, and access to restricted areas will be limited to authorized personnel, further reducing safety concerns for the surrounding community. The primary source of noise in the project area is existing airport operations, including aircraft takeoffs and landings. The project itself does not introduce new noise-generating activities, as the hangars are being constructed to store private aircraft. Construction noise will be temporary and will occur during standard working hours in compliance with City of Hawthorne noise regulations.

To minimize construction-related noise impacts, the project will implement BMPs to reduce disturbances to nearby residents and businesses. Construction activities will be limited to designated hours to prevent nighttime noise disruptions. The airport is surrounded by a mix of commercial, industrial, and residential areas, with sensitive receptors such as residential neighborhoods to the south and east, and schools within a one-mile radius. However, due to the existing high noise environment from ongoing airport operations, the additional temporary noise from construction is not anticipated to significantly alter the overall noise conditions in the area. Given that construction noise will be temporary and conducted within local noise ordinances, and that the project does not introduce new sources of long-term noise or increased safety risks, the project will not result in significant safety hazards or excessive noise impacts to people residing or working in the project area. Therefore, impacts are less than significant.

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

Less than significant. The proposed project is not expected to impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The project site is located within the controlled and secured boundaries of the airport, where emergency response and evacuation procedures are already well-established and regulated by the FAA. The proposed construction activities, including grading, demolition, and hangar installation, will be confined within designated areas of the airport and will not obstruct major roadways or emergency response routes. The airport maintains multiple access points, including Prairie Avenue, Crenshaw Boulevard, and 120th Street, which will remain open and accessible throughout construction. Additionally, airport emergency access routes and fire lanes will be preserved and clearly marked to ensure continued compliance with Los Angeles County Fire Department requirements.

The project will not introduce new barriers to emergency response or evacuation and will comply with all applicable fire and safety regulations, including California Fire Code (CFC), Los Angeles County Fire Code (Title 32), and National Fire Protection Association (NFPA) standards. Coordination with local emergency service providers, including Los Angeles County Fire Department and airport operations personnel, will ensure that emergency access remains unobstructed and functional throughout all project phases. Given the controlled airport setting, maintenance of emergency access routes, and adherence to emergency response protocols, the project will not impair or interfere with an adopted emergency response or evacuation plan. Therefore, impacts are less than significant.

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

No Impact. The proposed project is not expected to expose people or structures to a significant risk of loss, injury, or death due to wildland fires. The project site is located in a highly urbanized area within the City of Hawthorne, surrounded by commercial, industrial, and residential developments. According to the California Department of Forestry and Fire Protection (CAL FIRE) Fire Hazard Severity Zone (FHSZ) Map, the project site and its immediate surroundings are not designated as part of a Very High Fire Hazard Severity Zone or any other high-risk fire zone. Since the airport is not adjacent to wildland or open space areas, there is no significant wildfire threat. The surrounding land is fully developed with limited vegetation that could contribute to a fire hazard. Additionally, fire prevention and emergency response measures are already in place, as the project will be subject to fire safety regulations enforced by the LACFD.

The risk of fire is further minimized by the project's low fuel load, as the new hangars will be constructed using fire-resistant metal structures with paved surfaces, reducing the presence of combustible materials. The airport already has established fire lanes, hydrants, and emergency

access routes. To further minimize fire-related risks, the project will comply with Title 32, CFC, and NFPA standards for aircraft hangars. Given the urban location, fire safety compliance, and lack of proximity to wildland fire hazards, the proposed development will not expose people or structures to a significant risk of loss, injury, or death involving wildland fires; therefore, no impacts are anticipated.

Mitigation Measures

HAZ-1: Remediation Well Protection, Conversion, and Coordination. Prior to any ground-disturbing activity within 20 feet of an existing remediation or monitoring well, the project applicant shall coordinate with Northrop Grumman, CDM Smith, and DTSC to confirm DTSC's approval of all necessary well conversions, relocations, and abandonments within the hangar footprints. The applicant shall implement DTSC-approved procedures to maintain access to monitoring wells, protect well casings, and avoid damage to associated environmental infrastructure. Protection measures may include temporary surface barriers, protective bollards, and/or conversion of extraction wells to monitoring wells with smaller covers. Any necessary well abandonment shall be conducted by a licensed contractor in accordance with DTSC-approved procedures. DTSC shall confirm that well conversions and abandonments are consistent with the long-term remediation plan and that the overall remediation program is not truncated.

4.10 Hydrology and Water Quality

The potential impacts, if any, to hydrology and water quality for the proposed project's surrounding environments are provided in **Table 11**.

Table 11: Potential Impacts to Hydrology and Water Quality

Potential Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☒	☐	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒

Potential Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i. result in a substantial erosion or siltation on- or off-site. ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv. impede or redirect flood flows?	☐	☐	☒	☐
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☒	☐	☐

Discussion

a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less than Significant with Mitigation Incorporated. The proposed project will comply with all applicable federal, state, and local regulations, including the Clean Water Act (CWA), the NPDES Construction General Permit (CGP; Order 2022-0057-DWQ), and requirements of the Los Angeles Regional Water Quality Control Board (RWQCB). Because the project will disturb more than one acre, coverage under the CGP is required, and a SWPPP will be prepared by a QSD and implemented during construction. The SWPPP will include BMPs such as sediment barriers, silt fencing, soil stabilization, and erosion control to prevent pollutants from entering stormwater runoff. Post-construction BMPs will also be incorporated to avoid long-term degradation of surface water quality.

However, in addition to standard stormwater quality considerations, the project site is subject to ongoing remediation under DTSC oversight due to historic releases of volatile organic compounds (VOCs) to soil and groundwater. DTSC has indicated that construction of the hangars will affect remediation efforts in this area. Some extraction wells will need to be converted to monitoring wells, others will be abandoned and relocated, and potential future expansion of the remediation system may be limited due to tenant access constraints. The City has noted that abandoning or converting remediation wells could potentially truncate DTSC's remediation program, which is designed to protect groundwater quality. With implementation of Mitigation Measure HAZ-1, the project would not truncate DTSC's remediation program or result

in adverse effects to groundwater quality. Therefore, potential impacts related to water quality standards, waste discharge requirements, and groundwater remediation would be less than significant with mitigation incorporated.

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

No Impact. The proposed project is not expected to substantially decrease groundwater supplies or interfere with groundwater recharge, as it is located in a highly urbanized area with existing impervious surface. The project site is situated within the Coastal Plain of Los Angeles Groundwater Basin, specifically the West Coast Subbasin, which is heavily managed and largely dependent on imported water supplies (California Department of Water Resources (DWR) 2025). Refer to **Exhibit 14** for the groundwater map for the project site. The project involves the replacement of existing paved surfaces with new hangars, taxiways, and pavement, which will not significantly alter the area's stormwater infiltration capacity. Stormwater in the area is already diverted through storm drains and does not contribute significantly to direct groundwater recharge. In addition, the project does not involve groundwater pumping for construction or operation.

The project is not within a designated Priority Groundwater Management Area under the Sustainable Groundwater Management Act (SGMA). In addition, the West Coast Subbasin is identified as very low priority under SGMA, meaning there is no required Groundwater Sustainability Plan (DWR 2025). The project will not result in significant impacts to groundwater supplies or recharge. Given the existing impervious conditions and compliance with MS4 stormwater regulations, the project will not impede sustainable groundwater management in the West Coast Subbasin. The project will also comply with the Industrial General Permit (IGP) (Order 2014-0057-DWQ, NPDES CAS000001) for stormwater discharges associated with its ongoing aviation operations. Thus, no impact is anticipated.

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

i. result in a substantial erosion or siltation on- or off-site.

ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

iv. impede or redirect flood flows?

Less than significant. The proposed project involves the removal of existing structures and pavement, along with the construction of new hangars and associated infrastructure. The changes will alter the site's drainage patterns, but the project will incorporate stormwater management measures to minimize potential hydrological impacts and ensure compliance with local and state regulations. During construction, grading, excavation, and earthmoving activities could temporarily increase erosion and sediment transport. However, to minimize the impacts, the project will implement BMPs as required under the CGP (Order 2022-0057-DWQ) and a SWPPP. The measures will include silt fences and fiber rolls to trap sediment, and soil stabilization in disturbed areas. By adhering to the erosion control strategies, the project will effectively prevent substantial siltation on- or off-site.

The project will replace approximately 55,000 square feet of impervious surfaces in total, which has the potential to increase stormwater runoff during each construction phase. Additionally, storm drain system improvements will be made to manage increased flow capacity, and grading modifications will help direct runoff to designated drainage areas. The measures will ensure that the project does not substantially increase the rate of runoff, preventing potential flooding on- or off-site. Construction-phase BMPs, including dust suppression, street sweeping, and material stockpile covering, will also be implemented to prevent contamination of stormwater.

The project site is not located within a 100-year floodplain or near a natural watercourse, reducing the risk of flood-related hazards. However, grading will be conducted in a way that ensures flood flows are not redirected in a manner that could cause adverse impacts. Proper drainage infrastructure will be in place to safely convey runoff into the storm drain system, preventing localized ponding or obstructions that could increase flood risks. By implementing comprehensive stormwater management strategies, erosion control measures, and regulatory compliance, the project is not expected to significantly alter drainage patterns in a way that would cause substantial erosion, flooding, exceedance of stormwater system capacity, or redirected flood flows. Any temporary construction-related impacts will be minimized through BMPs, ensuring that the project does not result in significant hydrological or water quality concerns. Therefore, impacts are less than significant.

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

No Impact. The project is not located in a flood hazard, tsunami, or seiche zone, and therefore does not pose a significant risk of pollutant release due to inundation. Refer to **Exhibit 15** for the tsunami map for the project site. Situated in southwestern Los Angeles County, the project site lies within a highly urbanized, flat terrain, far from major water bodies that could present seiche or tsunami risks. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, the project site falls within Zone X, an area of minimal flood hazard with no 100-year or 500-year floodplain risks. Refer to **Exhibit 16** for the FEMA map of the project site. Additionally, the project is not at risk of seiche hazards, as there are no large, enclosed water bodies nearby that could experience oscillating waves due to seismic activity.

In conclusion, the project is not located within a designated flood, tsunami, or seiche hazard area, and thus does not pose a risk of pollutant release due to inundation. Compliance with stormwater regulations and hazardous materials handling procedures will ensure minimal environmental impact throughout construction and operation. Consequently, there would be no impact.

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

Less than Significant with Mitigation Incorporated. The project is not expected to conflict with or obstruct the implementation of any water quality control plan or sustainable groundwater management plan. The project will comply with applicable state and local regulations designed to protect water resources, including the Los Angeles Regional Water Quality Control Board (RWQCB) Basin Plan and the Sustainable Groundwater Management Act (SGMA). The site is not located within a designated groundwater recharge area, as identified in DWR Bulletin 118, and is not part of a medium- or high-priority groundwater basin requiring a Groundwater Sustainability Plan under SGMA. The project also does not involve significant groundwater extraction or increased impervious cover that would interfere with natural recharge.

However, the site contains active remediation wells (including extraction and monitoring wells) associated with ongoing groundwater cleanup efforts under DTSC oversight. According to DTSC, construction of the hangars will affect remediation infrastructure: some extraction wells will be

converted to monitoring wells, some will be abandoned and relocated, and potential future expansion of the remediation system could be constrained due to tenant access limitations. Without safeguards, these changes could interfere with DTSC's remediation program and indirectly conflict with the objectives of the RWQCB Basin Plan, which requires the protection and restoration of groundwater quality. With implementation of Mitigation Measure HAZ-1, the project would not interfere with DTSC's remediation program or obstruct applicable water quality control and groundwater management plans. Therefore, impacts would be less than significant with mitigation incorporated.

4.11 Land Use and Planning

The potential impacts, if any, to land use and planning for the proposed project's surrounding environments are provided in **Table 12**.

Table 12: Potential Impacts to Land Use and Planning

Potential Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Physically divide an established community?	☐	☐	☐	☒
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Discussion

a. Physically divide an established community?

No Impact. The project includes upgrades to an existing airport and would be completed within the established boundaries of the Hawthorne Municipal Airport property, which is not within a residential land use zone. There are residential land uses in proximity to the airport; however, the community would not be divided temporarily or permanently by project construction or operation (see **Exhibit 17**). The property does not include any public roads or access routes that would be disrupted by the construction or operation of the project. Therefore, there is no impact on physically dividing an established community.

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. The proposed project is consistent with the City of Hawthorne's Airport Master Plan zoning designation, which supports aviation-related development such as aircraft hangars. Although the site contains active groundwater remediation wells regulated by the DTSC, these activities do not conflict with the intended land use. The project has been designed to accommodate the DTSC-regulated remediation program through well protection, conversion, or abandonment in coordination with DTSC, Northrop Grumman, and their contractor. Two extraction wells within the hangar footprint will be converted to monitoring wells with surface-mounted covers to allow continued sampling, and remaining wells will be abandoned in accordance with DTSC protocols. Because these remediation activities are being integrated into project planning and implementation, the project would not conflict with any

land use plan or policy adopted to mitigate environmental effects. Therefore, impacts would be less than significant.

4.12 Mineral Resources

The potential impacts, if any, to mineral resources for the proposed project's surrounding environments are provided in **Table 13**.

Table 13: Potential Impacts to Mineral Resources

Potential Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

Discussion

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?

No Impact. The project site is located within a dense and highly urbanized location. There are no mineral extraction or processing facilities in the vicinity of the project area (see **Exhibit 18**). Therefore, the project would have no impact on the availability of mineral resources regionally or statewide.

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?

No Impact. There are no mineral extraction, processing facilities, or resource recovery sites in the vicinity of the project area. Therefore, the project would have no impact on the availability of locally important mineral resources.

4.13 Noise

The potential impacts, if any, to noise for the proposed project's surrounding environments are provided in **Table 14**.

Table 14: Potential Impacts of Noise

Potential Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b. Generation of excessive ground-borne vibration or ground-borne noise levels?	☐	☐	☒	☐
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

Discussion

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

Less Than Significant. Noise is defined as unwanted sound that interferes with communication, sleep, or daily activities. Noise is typically measured in A-weighted decibels (dBA), which reflect human sensitivity to various frequencies. Community Noise Equivalent Level (CNEL) is used to evaluate 24-hour noise levels, with a 5 dBA penalty applied to evening hours (7:00 p.m. to 10:00 p.m.) and a 10 dBA penalty for nighttime hours (10:00 p.m. to 7:00 a.m.).

Under the City of Hawthorne General Plan Noise Element, CNEL thresholds vary by land use. However, airport-related uses are considered unique and may be compatible with higher CNEL thresholds. The Hawthorne Municipal Airport Noise Compatibility Planning Study, provided in **Table 14.1**, allows for CNEL levels up to 80 dBA for airport-related uses, meaning the uses are evaluated based on community context and compatibility rather than rigid numeric thresholds.

Construction activities are expected to temporarily elevate ambient noise levels between mid-2025 and early 2027. However, the construction activities will be confined to permissible hours established in Hawthorne Municipal Code Section 9.34 (7:00 a.m. to 6:00 p.m. on weekdays and 8:00 a.m. to 5:00 p.m. on Saturdays, with no construction allowed on Sundays or federal holidays). As long as the project complies with the time restrictions, no violation of local noise ordinances will occur.

While the proposed hangars may accommodate additional based aircraft, they are consistent with the growth projections in the *2019 Airport Layout Plan Update and Narrative Report*, which forecasts an increase in based aircraft from about 112 (2022) to 123 (2027). These hangars serve to meet that anticipated demand and are not expected to induce aviation activity beyond what has already been planned and evaluated in the Airport's forecasts. No expansion of runways, taxiways, or airport operations is proposed as part of this project. Therefore, the project would not result in a significant increase in flight operations beyond the forecasted conditions. Few Sensitive receptors, including Zela Davis Elementary School and nearby residences, are located within the 55–65 dB CNEL range based on existing noise contour maps (see **Exhibit 19**). While portions of the zones are nearing thresholds that may be considered "normally incompatible" (Zone C in **Table 14.3**), exceedances related to airport service facilities are considered acceptable per the City's adopted compatibility standards.

Therefore, while temporary construction noise will occur, it will remain within permitted time frames, and operational noise levels will remain consistent with existing airport activities. The project will comply with the applicable General Plan, noise ordinance, and FAA-related standards. The project will comply with the CNEL levels in **Table 14.1** (see below) because the project is related to airport services. A significant impact will also be determined if construction noise occurs at times outside of the permissible time frames, as set forth in **Table 14.2** (see below) from the City's Municipal Code Section 9.34.

In addition to local thresholds, the project has been evaluated under FAA Order 1050.1G. The project does not include any new aircraft operations, changes to flight paths, or modifications that would increase aviation noise levels. As such, it would not result in a 1.5 dB or greater increase in noise exposure within areas already experiencing 65 dB DNL or higher. Therefore, the project would not trigger significance criteria under FAA noise impact thresholds. Overall, construction and operational noise would remain within applicable local and federal standards, and impacts would be less than significant.

Table 14.1: Hawthorne Airport Land Use Compatibility

Hawthorne Airport Land Use Compatibility Table	
	Satisfactory.
	Caution. Review Noise Insulation Needs.
	Avoid Land Use Unless Related to Airport Services.

Land Use Category	Community Noise Exposure					
	55	60	65	70	75	
Residential						
Educational Facilities						
Commercial						
Industrial						
Agriculture						

Hawthorne Airport Land Use Compatibility Table						
Recreation						

Note. Adopted from Hawthorne Municipal Airport Noise Compatibility Planning Study.

Table 14.2: Time Limits for Noise Associated with Construction Activities

Day of Week	Time Frame
Monday-Friday	7:00 a.m. to 6:00 p.m.
Saturday	8:00 a.m. to 5:00 p.m.
Sunday, Federal Holidays	Not allowed

Note. Adopted from City of Hawthorne Municipal Code Section 9.34.060

Table 14.3: Land Use Compatibility Matrix

Land Use Categories		Community Noise Equivalent Level (CNEL)						
Categories	Uses	≤55	60	65	70	75	80>	
Residential	Single Family, Duplex, Multiple Family	A	A	B	B	C	D	D
Residential	Mobile Home	A	A	B	C	C	D	D
Commercial (Regional, District)	Hotel, Motel, Transient Lodging	A	A	B	B	C	C	D
Commercial (Regional, Village, District, Special)	Commercial Retail, Bank, Restaurant, Movie Theatre	A	A	A	A	B	B	C
Commercial Industrial Institutional	Office Building, Research & Development, Professional Offices, City office Building	A	A	A	B	B	C	D
Commercial (Recreation) Institutional (Civic Center)	Amphitheater, Concert Hall, Auditorium, Meeting Hall	B	B	C	C	D	D	D
Commercial (Recreation)	Children's Amusement Park, Mini Golf Course, Go-Cart Track, Equestrian Center, Sports Club	A	A	A	B	B	D	D
Commercial (General, Special) Industrial, Institutional	Auto Service Station, Auto Dealership, Manufacturing, Warehousing, Wholesale, Utilities	A	A	A	A	B	B	B
Institutional (General)	Hospital, Church, Library, School Classroom	A	A	B	C	C	D	D

Land Use Categories		Community Noise Equivalent Level (CNEL)						
Categories	Uses	≤55	60	65	70	75	80>	
Open Space	Parks	A	A	A	B	C	D	D
Open Space	Golf Course, Cemetery, Nature Center, Wildlife Reserve, Wildlife Habitat	A	A	A	A	B	C	C
Agriculture	Agriculture	A	A	A	A	A	A	A

Interpretation
Zone A (Clearly compatible) - Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.
Zone B (Normally compatible) - New construction or development should be undertaken only after detailed analysis of noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice.
Zone C (Normally incompatible) - New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.
Zone D (Clearly incompatible) - New construction or development should generally not be undertaken.

Note. Adopted from the Hawthorne General Plan Noise Element

b. Generation of excessive ground-borne vibration or ground-borne noise levels?

Less than Significant. Ground-borne vibration is typically assessed alongside noise emissions when evaluating construction and operational impacts of a project. Vibration refers to oscillatory motion transmitted through a solid medium such as soil or building materials. Its amplitude is generally measured using peak particle velocity, which is used to assess structural damage potential, or root mean square (RMS) velocity, which is more commonly applied when evaluating human perception of vibration.

The Federal Transit Administration (FTA) provides standardized thresholds for assessing ground-borne vibration (GBV) and ground-borne noise (GBN) impacts in its *Transit Noise and Vibration Impact Assessment Manual* (FTA, 2018). The thresholds are categorized based on land use sensitivity—Category 1 (vibration-sensitive equipment), Category 2 (residences), and Category 3 (institutional uses such as schools and offices). Impact criteria are further classified by the frequency of events: frequent (more than 70 events per day), occasional (30 to 70 events per day), and infrequent (fewer than 30 events per day). While the thresholds are designed for transit-related projects, they are commonly applied to other types of infrastructure projects for CEQA analysis. A finding of significant impact would result from the project if vibration levels exceed the vibration impact criteria set in the FTA Transit Noise and Vibration Impact Assessment Manual (see **Table 14.4** below).

Only Category 2 (residential) and Category 3 (institutional) land uses are located in the vicinity of Hawthorne Municipal Airport, which include nearby homes, schools (such as Zela Davis Elementary), and civic facilities. Project construction would be considered a "frequent event" scenario, with equipment operation (e.g., excavators, loaders, compactors) likely generating over 70 discrete vibration events per day. Operation of the new hangars, however, would involve intermittent aircraft movement and building use, consistent with an "occasional" event profile.

Typical construction equipment generates vibration levels between 58 and 78 vibration decibels (VdB) at 25 feet. Based on FTA estimates, even the use of large equipment such as vibratory rollers would generally not exceed 72 VdB at distances of 50 feet or more — placing most

adjacent sensitive receptors outside the impact radius. Operational impacts are expected to remain below 75 VdB for Category 2 areas and 78 VdB for Category 3, given the absence of continuous heavy machinery or transit-like vibration sources. Therefore, the project is not anticipated to exceed applicable vibration thresholds for either construction or operation, and ground-borne vibration impacts would be less than significant.

Table 14.4: Indoor Ground-Borne Vibration (GBV) and Ground-Borne Noise (GBN) Impact Criteria for General Vibration Assessment

Land Use Category	GBV Impact Levels (VdB re 1 micro-inch / sec)			GBN Impact Levels (dBA re 20 micro Pascals)		
	Frequent Events	Occasional Events	Infrequent Events	Frequent Events	Occasional Events	Infrequent Events
Category 1: Buildings where vibration would interfere with interior operations.	65 VdB*	65 VdB*	65 VdB*	N/A**	N/A**	N/A**
Category 2: Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB	35 dBA	38 dBA	43 dBA
Category 3: Institutional land uses with primarily daytime use.	75 VdB	78 VdB	83 VdB	40 dBA	43 dBA	48 dBA

*This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. For equipment that is more sensitive, a Detailed Vibration Analysis must be performed.

**Vibration-sensitive equipment is generally not sensitive to ground-borne noise; however, the manufacturer's specifications should be reviewed for acoustic and vibration sensitivity.

Note. Adapted from FTA Transit Noise and Vibration Impact Assessment Manual

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

Less than Significant. The project is located within the boundaries of Hawthorne Municipal Airport. Project construction activities will temporarily increase noise levels for those residing or working in the vicinity of the project. However, the noise levels would not be excessive as compared to current airport operation related noise levels. Project operation following construction would not result in a change of noise levels from existing airport operation noise levels. Thus, impacts are less than significant.

4.14 Population and Housing

The potential impacts, if any, on population and housing for the proposed project's surrounding environments are provided in **Table 15**.

Table 15: Potential Impacts on Population and Housing

Potential Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion

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)?

No Impact. The project would not induce substantial unplanned population growth in the direct vicinity of the project site or within the City of Hawthorne as a whole. The project does not propose new homes or businesses and does not extend roads or other regularly used infrastructure that would have a significant impact on population growth.

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

No Impact. The project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. Project construction and operation would take place entirely within the boundary of the Hawthorne Municipal Airport and would not temporarily or permanently displace any local residents.

4.15 Public Services

The potential impacts, if any, on public services for the proposed project's surrounding environments are provided in **Table 16**.

Table 16: Potential Impacts on Public Services

Potential Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. 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, to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☒	☐
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Discussion

a. 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, to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?

Less than Significant. The Los Angeles County Fire Department (LACFD) provides fire, rescue, and Emergency Medical Services (EMS) for the City of Hawthorne. The entrance to the main office of the Hawthorne Municipal Airport is located approximately 100 feet north of LACFD Fire Station 162 at 12151 Crenshaw Boulevard. Project construction and operation would be limited to the boundaries of the Hawthorne Municipal Airport and would not significantly disrupt traffic patterns and emergency fire response routes. Any potential impacts on fire protection services would be from employee ingress and egress from the project site, although access roads for construction would be located at a distance from Fire Station 162, minimizing any impact directly on fire protection services from the station. The proposed hangars will also incorporate fire suppression systems into their design, reducing the potential need for fire protection services on site in the long term. During project construction, the project may increase fire services in the

case of construction related accidents, injuries, or ignitions. However, the impact would be insignificant as BMPs would be followed during the entirety of the construction process. The LACFD service area and facilities would not need to be expanded.

Police protection?

No Impact. The Hawthorne Police Department (HPD) provides law enforcement services to the City of Hawthorne. The HPD station is located at 12501 Hawthorne Boulevard approximately half a mile west of the project site. Project construction and operation would both be limited to the existing boundaries of the Hawthorne Municipal Airport and therefore would not disrupt traffic patterns and law enforcement response routes. Additionally, existing boundaries of the Hawthorne Municipal Airport, enclosed by a wire fence with barbed wire, will prevent illegal trespassing onto the site during project construction and operation. Police protection services and facilities would not need to be expanded.

Schools?

No Impact. The project would not involve the creation of new residential buildings and therefore would not result in greater numbers of school-aged children. Therefore, the Project would have no impact on schools and educational services and would not require any expansion or alteration of services and facilities.

Parks?

No Impact. There are four parks within one mile of Hawthorne Municipal Airport including Hawthorne Memorial Park 0.37 miles south of the Airport, Rowley Park 0.77 miles southeast of the Airport, Center Park 0.79 miles north of the Airport, and Eucalyptus Park 0.97 miles west of the Airport. Project construction and operation would both be limited to the existing boundaries of the Hawthorne Municipal Airport and therefore would not disrupt traffic patterns or park accessibility.

4.16 Recreation

The potential impacts, if any, on recreation for the proposed project's surrounding environments are provided in **Table 17**.

Table 17: Potential Impacts on Recreation

Potential Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. The project would not attract substantial numbers of people to the neighborhood and region to the extent where parks and other recreational facilities experience substantial physical deterioration from additional use.

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?

No Impact. The project does not include recreational facilities or require the construction or expansion of any recreational facilities.

4.17 Transportation

The potential impacts, if any, on transportation for the proposed project's surrounding environments are provided in **Table 18**.

Table 18: Potential Impacts on Transportation

Potential Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☒	☐
b. Conflict or be inconsistent with CEQA Guidelines § 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)?	☐	☐	☐	☒
d. Result in inadequate emergency access?	☐	☐	☐	☒

Discussion

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

Less than significant. The project would not alter land use designations or off-site infrastructure that would contradict the Circulation Element of the City of Hawthorne General Plan. No transit, roadway, bicycle, or pedestrian facilities would be permanently changed or impacted by the project. Any traffic resulting from the project would be related to construction efforts including construction personnel transportation and construction material transport. Concrete mixers and

dump trucks are the only two construction vehicles that would leave the site on a regular basis (about 64 concrete mixer trips, and 42 dump truck trips per week) during the construction phase. Excavators, bulldozers, cranes, loaders, backhoes, compactors, and asphalt pavers would be brought to the site at the beginning of construction, stored on the site, and would not leave the site until the project is concluded. Thus, the project would have a less than significant impact.

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

Less than significant. Section 15064.3 subdivision (b) of the CEQA Guidelines sets the criteria for assessing transportation impacts of a project, by analyzing Vehicle Miles Traveled (VMT), which is the sum of miles traveled by an individual vehicle within a geographic region over a given period. The OPR's *Technical Advisory* guidelines (*OPR*, 2018) include the following main components for assessment of a project's impact on VMT:

- Screening Methodologies – Identification of potential screening thresholds that establish whether the project poses significant VMT transportation impacts.
- Analysis Methodologies – If necessary, recommendations of analysis methodologies for VMT impact analysis.
- Mitigation Memorandum – If necessary, determine types of mitigation that can be considered for VMT mitigation.

The Metropolitan Transportation Commission (2024) define the screening thresholds to determine whether a project has a significant impact under CEQA pursuant to SB 743, and whether a VMT analysis is required. The threshold of significance for a project is 110 trips per day. A VMT assessment was performed, and the project is expected to generate an average of 17 daily trips with a maximum of 35 daily trips, well below the threshold of significance of 110 daily trips. The project would have less than a significant impact, and neither a detailed VMT analysis nor a mitigation memorandum would be required. Refer to **Appendix F** for the VMT memorandum.

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

No Impact. The entirety of the project will take place within the boundaries of the Hawthorne Municipal Airport property and will not affect roadways or intersections. There would be no increase in hazards due to sharp curves, dangerous intersections, or other geometric design features because of the project. No incompatible uses of nearby roadways or intersections would result from the project.

d. Result in inadequate emergency access?

No Impact. The entirety of the project will take place within the boundaries of the Hawthorne Municipal Airport property. No roadways or transportation methods would be impacted, and there would be no obstructions to emergency routes or access to surrounding areas.

4.18 Tribal Cultural Resources

The potential impacts, if any, on tribal cultural resources for the proposed project's surrounding environments are provided in **Table 19**.

Table 19: Potential Impacts on Tribal Cultural Resources

Potential Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	☐	☒	☐	☐
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Discussion

a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

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

Less Than Significant with Mitigation Incorporated. The project is not located within or adjacent to any tribal cultural resource that is formally listed or eligible for listing in the California Register of Historical Resources (CRHR) or in a local register. The nearest listed historical resource in the CRHR is the California SP Hangar One, approximately 2.5 miles northwest of the site at 5701 West Imperial Highway in Los Angeles, and the nearest resource in the Los Angeles County

Register of Historic Districts is the Chester Washington Golf Course, approximately 0.5 mile east of the site at 717 East Baseline Road in West Claremont. Neither resource is tribal in nature, nor are they within an area where the project could cause a substantial adverse change.

However, in accordance with Assembly Bill 52 (AB 52), the City of Hawthorne notified tribes that may have knowledge of or affiliation with the project area. Consultation with the Gabrieleño Band of Mission Indians – Kizh Nation identified the project site as lying within a sensitive cultural landscape with high potential for unrecorded tribal cultural resources. To address this potential, the project will implement Mitigation Measures TCR-1 through TCR-4 (see Tribal Cultural Resources section), which include retaining a qualified Kizh Nation tribal monitor during all ground-disturbing activities, providing cultural sensitivity training, and following tribe-specific protocols for inadvertent discoveries. With implementation of these measures, impacts to listed or eligible tribal cultural resources would be less than significant.

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

Less Than Significant with Mitigation Incorporated. Under PRC § 5024.1(c), a resource may be considered historically significant if it is associated with important events or persons, embodies distinctive characteristics of a type, period, or method of construction, or has the potential to yield important information about prehistory or history. CEQA further requires consideration of the significance of a resource to a California Native American tribe.

Although no tribal cultural resources meeting these criteria have been recorded within the project site boundaries, consultation with the Gabrieleño Band of Mission Indians – Kizh Nation concluded that the project area has a high likelihood of containing buried tribal cultural resources due to its location within ancestral territory and its proximity to documented cultural landscapes and travel corridors. The City, as lead agency, has determined that mitigation is necessary to avoid or substantially lessen potential impacts. Implementation of Mitigation Measures TCR-1 through TCR-4 will ensure that any resources encountered are appropriately identified, evaluated, and protected in coordination with the tribe. With these measures in place, impacts to tribal cultural resources determined significant under PRC § 5024.1(c) would be less than significant.

Mitigation Measures

TCR-1: Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities
Prior to the start of any ground-disturbing activities, the Hawthorne Municipal Airport shall retain a qualified Native American monitor from, or approved by, the Gabrieleño Band of Mission Indians – Kizh Nation. Ground-disturbing activities include, but are not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching. A written monitoring agreement with the Kizh Nation shall be executed and provided to the City of Hawthorne before commencement of any such activities or the issuance of related permits. The tribal monitor shall be present during all ground-disturbing activities and shall maintain daily logs describing construction activities, soil conditions, and any discoveries of potential tribal cultural resources. These logs shall be made available to the City upon written request. Monitoring will continue until either the City confirms in writing that all ground-disturbing activities have concluded or the Kizh Nation confirms in writing that further work no longer has the potential to affect tribal cultural resources.

TCR-2: Unanticipated Discovery of Tribal Cultural Resource Objects (Non-Funerary/Non-Ceremonial)

If any tribal cultural resources are discovered during construction, all work within at least 50 feet of the find shall be halted immediately. The Kizh Nation tribal monitor and/or a Kizh Nation archaeologist shall evaluate the find and determine the appropriate treatment in coordination with the City. All discovered resources will be recovered and curated by the Kizh Nation in a manner and for purposes determined solely by the Tribe, including educational, cultural, and historic preservation uses. Work in the vicinity of the find shall not resume until the tribal monitor confirms that the resource has been appropriately documented, recovered, or otherwise protected in consultation with the City.

TCR-3: Unanticipated Discovery of Human Remains and Associated Funerary or Ceremonial Objects

If human remains or associated funerary or ceremonial objects are encountered during construction, all work in the immediate vicinity shall cease, and the requirements of Public Resources Code section 5097.98 and Health and Safety Code section 7050.5 shall be followed. The location and nature of the discovery shall be kept confidential to prevent further disturbance. The Los Angeles County Coroner shall be notified, and if the remains are determined to be Native American, the Native American Heritage Commission shall be contacted within 24 hours to identify the Most Likely Descendant (MLD). Preservation in place is the preferred method of treatment, and final disposition of the remains and associated objects shall be determined in consultation with the MLD, the City of Hawthorne, and the Kizh Nation, in accordance with applicable laws and the recommendations of the Native American Heritage Commission.

TCR-4: Cultural Sensitivity Training for Construction Personnel

Prior to the commencement of any ground-disturbing or construction activities, all personnel involved in the project, including subcontractors, shall attend a Cultural Sensitivity Training session. The training shall be developed and delivered by a qualified representative of the Gabrieleño Band of Mission Indians – Kizh Nation, in coordination with the City of Hawthorne. The purpose of the training is to inform construction personnel about the cultural significance of the project area, the types of tribal cultural resources that may be encountered, the roles and authorities of the tribal monitor, and the procedures to follow in the event of an unanticipated discovery. The training shall include an overview of the history and cultural heritage of the Kizh Nation and the region, descriptions of tribal cultural resources that may be present, an explanation of Mitigation Measures TCR-1 through TCR-3, clarification of stop-work requirements, a description of the roles and responsibilities of the tribal monitor, archaeologist, contractor, and City staff, and a summary of protocols for communication, confidentiality, and respectful conduct. A sign-in sheet shall be maintained documenting attendance, and the contractor shall ensure that any new personnel arriving after the initial training receive the same instruction before participating in any ground-disturbing activities.

4.19 Utilities and Service Systems

The potential impacts, if any, on utilities and service systems for the proposed project's surrounding environments are provided in **Table 20**.

Table 20: Potential Impacts on Utilities and Service Systems

Potential Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☐	☒
c. Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

Discussion

a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less than significant. The project includes the removal of approximately 55,000 square feet of impervious surface, catch basins, storm drain pipes, and paved valley gutters. The project would replace the 55,000 square feet of impervious surface and introduce an additional 10,000 square feet of new impervious surface to accommodate expanded hangar footprints and associated site improvements such as access roads, parking areas, and taxiways. No outdated underground utilities would be removed. Utility trenching would take place for the installation of new utility lines including storm drain pipes, sanitary sewer pipes, and underground electrical conduit lines.

The project introduces new on-site bathroom facilities within the hangars but would not significantly increase the wastewater output from the site. The project would also include new electricity lines to accommodate the new hangars facilities. No expansion of off-site utility

facilities would be needed as the project would not cause an exceedance in available capacity for water, wastewater, stormwater, electric, natural gas or telecommunications services. See **Exhibit 20** for public utility line locations in vicinity of the project.

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

No Impact. The City of Hawthorne is located within the service area of the West Basin Municipal Water District (WBMWD), a member agency of the Metropolitan Water District of Southern California (MWDSC). California Water Service (Cal Water) operates the City of Hawthorne's water system and is under contract until 2027. Water supply for the City of Hawthorne comes from one groundwater well and purchased surface water from the MWDSC. The project will be constructed and operated in compliance with the WBMWD Water Shortage Contingency Plan as required under the California Water Code. The current water supply meets the water demands of the airport and will be sufficient in meeting the water demands of the project's construction phase and operation during normal and dry years.

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

No Impact. Wastewater from the Hawthorne Municipal Airport is collected by the local sewer system managed by Los Angeles County Sanitation Districts (LACSD). Wastewater treatment is provided by the A.K. Warren Water Resource Facility (formerly known as the Joint Water Pollution Control Plant) located in Carson, California. The project includes the addition of permanent restrooms; however, the construction would not significantly impact the wastewater output of the airport during project operation since the project is not expected to dramatically increase the number of permanent airport employees. Project construction would bring a number of temporary workers to the site. However portable toilets would be provided for their use on site, eliminating any additional temporary stress on wastewater systems. Wastewater from the portable bathroom stations would be collected by a private portable toilet company. Therefore, the project would have no impact on wastewater treatment providers or systems.

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. The project would create some small office spaces and workshops within the hangars that are not expected to generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure during project operation.

During project construction, there would be large amounts of solid waste from demolition, however this would not impact waste management infrastructure as this waste would be managed and transported to Scholl Canyon Landfill privately by the contractor. According to CalRecycle Solid Waste Information System, the Scholl Canyon Landfill permits a maximum of 3,400 tons of solid waste to be added per day, and as of March 1, 2021, the Landfill has 3.5 million cubic yards of remaining capacity. The cease operation date for the Landfill is April 1, 2030, approximately three years following the expected completion of the project (*CalRecycle, 2025*). Therefore, the project's potential to exceed state or local standards, or exceed the capacity of local infrastructure would be a less than significant impact.

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

No Impact. Chapter 8.16, Solid Waste and Recycling, of the City of Hawthorne Code of Ordinances lays forth the City's regulations related to solid waste. The contractor will ensure compliance with this Solid Waste and Recycling Ordinance to ensure proper disposal of solid

waste. There will be no failure to comply with federal, state, or local management and reduction statutes or regulations related to solid waste.

4.20 Wildfire

The potential impacts, if any, on wildfires for the proposed project's surrounding environments are provided in **Table 21.**

Table 21: Potential Impacts of Wildfire

Potential Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Discussion

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

No Impact. The project would not interfere with transportation routes and therefore would not impair an adopted emergency response plan or emergency evacuation plan.

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?

No Impact. The project is in a highly developed urban setting and is not within a CalFire designated fire hazard severity zone. The nearest very high fire hazard severity zone is approximately five miles north of the project site (see **Exhibit 21**). Additionally, the project is located within an airport boundary which is, by nature, flat with no significant slopes or topography. Thus, the project would have no impact on the exposure of project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less than Significant. The project would not require the installation of new roads, fuel breaks, or emergency water sources, which are typically associated with increased fire risk or potential environmental impacts. However, the project includes the removal and replacement of existing utility lines that are primarily beneath paved surfaces and within previously disturbed rights-of-way. The utility improvements would involve temporary ground disturbance but would occur in areas that have been previously developed and do not contain sensitive environmental resources.

BMPs would be implemented during construction to control erosion, sedimentation, and stormwater runoff, ensuring that any potential short-term impacts are minimized. Since the replacement of utility lines would not involve expanding the footprint of the existing infrastructure or introducing new facilities that could increase fire risk, the potential for exacerbating wildfire hazards is negligible. Additionally, ongoing maintenance of the replaced infrastructure is not anticipated to result in long-term adverse environmental impacts, as the lines will remain underground and within existing developed corridors.

Given that the project is limited to replacement activities and does not introduce new infrastructure that could alter fire risk or significantly affect the surrounding environment, the potential for temporary or ongoing impacts is minimal. Therefore, impacts associated with the installation or maintenance of associated infrastructure would be less than significant.

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?

No Impact. The project would be located on a flat paved surface. There are no major streams or sloped vegetated areas of land in the vicinity of the project, and therefore there would be no impact.

4.21 Mandatory Findings of Significance

The mandatory findings of significance, if any, for the proposed project's surrounding environments are provided in **Table 22**.

Table 22: Mandatory Findings of Significance

Potential Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number, or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐

Potential Impacts	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Discussion

a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number, or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less than Significant with Mitigation Incorporated. The proposed project would occur entirely on previously disturbed, developed airport land and would not encroach upon any natural habitat for fish or wildlife species. The project site is located within an active general aviation airport environment and lacks natural vegetation or habitat features that would support sensitive biological communities. As such, the project would have no direct or indirect impacts on fish, wildlife, or plant species. Although the project includes the construction of new aircraft hangars, it is not anticipated to significantly increase the number of flights to or from the airport. As identified in the 2019 Airport Layout Plan Update and Narrative Report, the project supports forecasted growth in based aircraft (from 112 in 2022 to 123 by 2027) and does not induce aviation activity beyond what was previously planned. Therefore, the project would not increase the existing risk to bird populations or other wildlife beyond current conditions associated with ongoing airport operations.

The site has been previously graded and developed; however, because it lies within the ancestral territory of the Gabrieleño Band of Mission Indians – Kizh Nation, AB 52 consultation determined that there is a high potential for unrecorded tribal cultural resources to be present beneath the modern infrastructure. While no ground-disturbing activities are proposed in undisturbed natural areas, subsurface excavation could encounter buried cultural resources or human remains. To avoid or substantially lessen potential impacts to such resources, the project will implement Mitigation Measures TCR-1 through TCR-4, which require the retention of a qualified Kizh Nation tribal monitor during all ground-disturbing activities, cultural sensitivity training, procedures for unanticipated discovery of tribal cultural resources, and coordination with the Kizh Nation and the MLD in the event of discovery of human remains. With these measures in place, the project would not eliminate important examples of California history or prehistory, and impacts would be less than significant.

In addition, the site contains remediation and monitoring wells managed under DTSC oversight. As discussed in Sections 4.9(d) and 4.10(a–e), construction of the hangars will require

coordination with DTSC, Northrop Grumman, and CDM Smith to ensure that well conversion, abandonment, or relocation does not truncate ongoing groundwater remediation efforts. These protections are addressed through Mitigation Measure HAZ-1. With implementation of Mitigation Measure HAZ-1 and Mitigation Measures TCR-1 through TCR-4, the project would not eliminate important examples of California history or prehistory, nor interfere with environmental remediation efforts. Therefore, impacts would be less than significant with mitigation incorporated.

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Less than Significant with Mitigation Incorporated. The proposed project at Hawthorne Municipal Airport would not result in impacts that are cumulatively considerable when viewed in connection with past, present, and probable future projects in the surrounding area. Most potential impacts associated with the project are expected to occur during the construction phase, including temporary increases in noise, air emissions, and vibration from equipment and vehicle operations, as well as minor disruptions to traffic flow and local infrastructure. These impacts will be minimized through the implementation of BMPs and adherence to regulatory requirements, including compliance with the 2022 CGP and SCAQMD Rule 403 for fugitive dust control.

When considered alongside past and ongoing projects at the airport, such as hangar upgrades, maintenance work, and infrastructure improvements, the incremental contribution of this project to cumulative impacts remains limited. Additionally, large-scale regional projects such as the Metro C Line Extension to Torrance and the LAX Automated People Mover are not expected to have cumulative environmental impacts with the Hawthorne Airport Hangars Project due to differences in location, scope, and construction schedules.

However, cumulative impacts must also account for site-specific issues related to hazardous materials remediation and tribal cultural resources. Construction of the new hangars will affect DTSC-managed remediation wells, and without safeguards, could truncate groundwater cleanup efforts. This issue is addressed through Mitigation Measure HAZ-1 (Remediation Well Protection, Conversion, and Coordination). In addition, because the site lies within the ancestral territory of the Gabrieleño Band of Mission Indians – Kizh Nation, ground disturbance could encounter tribal cultural resources or human remains. This potential cumulative impact is addressed through Mitigation Measures TCR-1 through TCR-4 which require tribal monitoring, cultural sensitivity training, discovery procedures, and coordination with the Kizh Nation and the MLD.

With implementation of Mitigation Measure HAZ-1 and Mitigation Measures TCR-1 through TCR-4, the project would not make a cumulatively considerable contribution to environmental impacts when viewed in connection with other projects. Therefore, impacts would be less than significant with mitigation incorporated.

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

Less than Significant with Mitigation Incorporated. The proposed project is not expected to introduce new elements that would directly or indirectly cause substantial adverse effects on human beings. The project primarily involves the construction of new hangars and associated infrastructure improvements at Hawthorne Municipal Airport, which will enhance operational efficiency and safety. During construction, temporary environmental effects such as air quality impacts, noise, and vibration will occur but will be minimized through best management

practices, compliance with SCAQMD Rule 403 for dust control, and adherence to the City of Hawthorne's Municipal Code noise standards.

In addition, construction of the hangars will affect DTSC-managed remediation wells. Without safeguards, well abandonment, conversion, or relocation could truncate ongoing remediation efforts, potentially prolonging or worsening groundwater contamination and creating a public health concern. This issue is addressed through Mitigation Measure HAZ-1, which requires DTSC approval of all well modifications to ensure the groundwater cleanup program continues to protect human health. The project site is also located within an area of high tribal cultural resource sensitivity, and subsurface disturbance could encounter previously unrecorded cultural materials or human remains. Mitigation Measures TCR-1 through TCR-4 require the presence of a qualified Kizh Nation tribal monitor, cultural sensitivity training, procedures for the unanticipated discovery of tribal cultural resources, and compliance with state law regarding human remains, thereby avoiding adverse cultural or social impacts on tribal members and the broader community.

Once operational, the project will improve workplace conditions for airport employees by providing modern, safer facilities that meet current building and safety codes. With compliance with federal, state, and local environmental regulations, and with implementation of Mitigation Measure HAZ-1 and Mitigation Measures TCR-1 through TCR-4, the project would not cause substantial adverse effects on human beings. Therefore, impacts would be less than significant with mitigation incorporated.

5.0 Mitigated Negative Declaration (ND)

The following MND highlights potentially significant impacts, if any, to surrounding environments and any required conditions of approval for the processing of this proposal.

5.1 Introduction

Project Title:

Hawthorne Airport Hangars Development Project

Lead Agency Address:

City of Hawthorne – Airport Division
12101 Crenshaw Boulevard, Suite 300
Hawthorne, CA 90250

Project Sponsor and Address:

City of Hawthorne – Airport Division
12101 Crenshaw Boulevard, Suite 300
Hawthorne, CA 90250

Existing General Plan Designation and Zoning:

Airport Master Plan zoning classification – City of Hawthorne

Project Description:

The proposed project involves the phased demolition of outdated structures and the construction of 13 new aviation hangars at four distinct locations within the boundaries of Hawthorne Municipal Airport. The hangars will accommodate private aircraft and aviation-related businesses, and support aviation operations. The project includes associated

improvements such as new taxiways, parking areas, utilities, grading, stormwater management infrastructure, and erosion control measures.

Location of Project:

The project is located entirely within Hawthorne Municipal Airport, also known as Jack Northrop Field, at 12101 Crenshaw Boulevard, Hawthorne, California 90250.

5.2 Findings

The City of Hawthorne, as the Lead Agency for the Hawthorne Airport Hangars Project, has reviewed the proposed project's environmental effects pursuant to the California Environmental Quality Act. Based on the information and analysis presented in the Initial Study, the City finds that:

- The proposed project would not have a significant effect on the environment.
- All potential environmental impacts are either less than significant or have been reduced to a less than significant level through the incorporation of standard regulatory compliance measures, design features, best management practices, and mitigation measures.
- The project does not trigger any of the conditions that would require preparation of an Environmental Impact Report (EIR) under CEQA Guidelines Section 15064.
- Although the project site is listed pursuant to Government Code § 65962.5 due to historical contamination and existing remediation wells, DTSC has determined that some wells within the hangar footprints must be converted, abandoned, or relocated. To ensure that these activities do not truncate ongoing groundwater cleanup efforts, Mitigation Measure HAZ-1 requires coordination with DTSC, Northrop Grumman, and CDM Smith to confirm that well modifications are protective of long-term remediation goals and human health.
- Because the site lies within the ancestral territory of the Gabrieleño Band of Mission Indians – Kizh Nation, there is a high potential for unrecorded tribal cultural resources beneath modern infrastructure. Mitigation Measures TCR-1 through TCR-4 require cultural sensitivity training, the presence of a tribal monitor during ground-disturbing activities, procedures for unanticipated discoveries, and compliance with state law in the event of human remains, thereby ensuring that potential impacts to tribal cultural resources are reduced to less than significant.
- The project will comply with the Construction General Permit (Order 2022-0057-DWQ) and prepare and implement a SWPPP, ensuring erosion control, sediment containment, and stormwater quality protection during construction.
- The project is consistent with all applicable plans, policies, and regulations adopted to reduce environmental effects, including the General Plan, zoning ordinance, the Air Quality Management Plan (AQMP), and other regional and local standards.
- With implementation of required mitigation, no substantial adverse effects on scenic resources, historical or archaeological resources, biological or cultural resources, or tribal cultural resources are expected.
- Construction and operational noise and vibration levels would remain below established thresholds, particularly for adjacent sensitive land uses such as nearby residential zones and Zela Davis Elementary School.

- The proposed project does not have the potential to significantly degrade environmental quality, reduce wildlife habitats, cause fish or wildlife population declines, eliminate plant or animal communities, or reduce the number or restrict the range of rare or endangered plants or animals.

5.3 Determinations

(To be completed by the Lead Agency)

The environmental factors checked below would be potentially affected by this proposed project, as indicated by the checklist below. Potentially Affected Environmental Factors:		
☐ Aesthetics	☐ Agriculture/Forestry Resources	☐ Air Quality
☐ Biological Resources	☒ Cultural Resources	☐ Energy
☐ Geology/Soils	☐ Greenhouse Gas Emissions	☒ Hazards & Hazardous Materials
☐ Hydrology/Water Quality	☐ Land Use/Planning	☐ Mineral Resources
☐ Noise	☐ Population/Housing	☐ Public Services
☐ Recreation	☐ Transportation	☒ Tribal Cultural Resources
☐ Utilities/Service Systems	☐ Wildfire	☒ Mandatory Findings of Significance

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier Environmental Impact Report (EIR) or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

X _____ X _____

Contact Name

City of Hawthorne

Date

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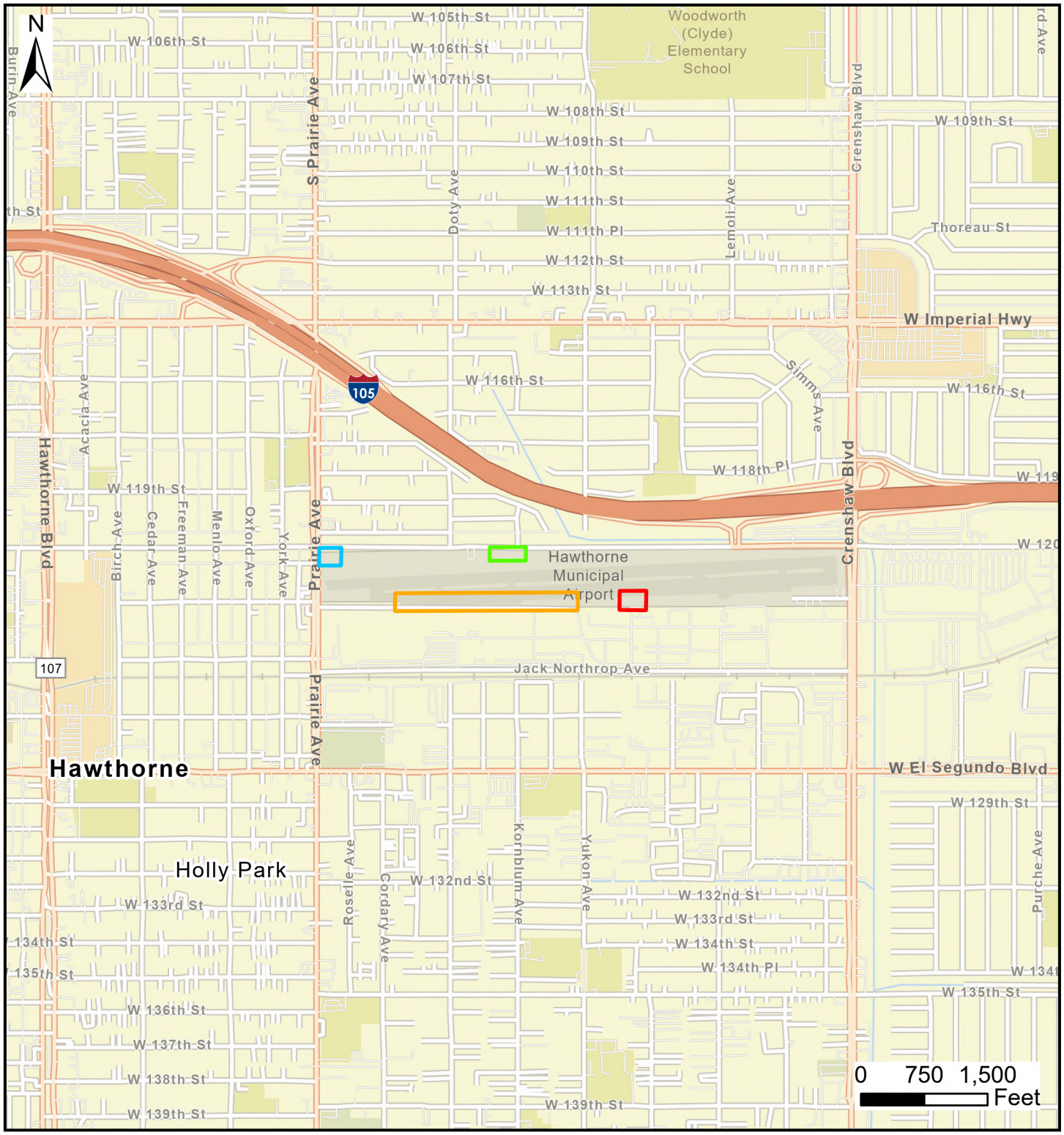
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Exhibits



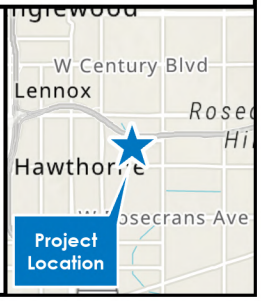
Hawthorne Airport Hangars Project

Exhibit 1 - Site Vicinity

Watearth

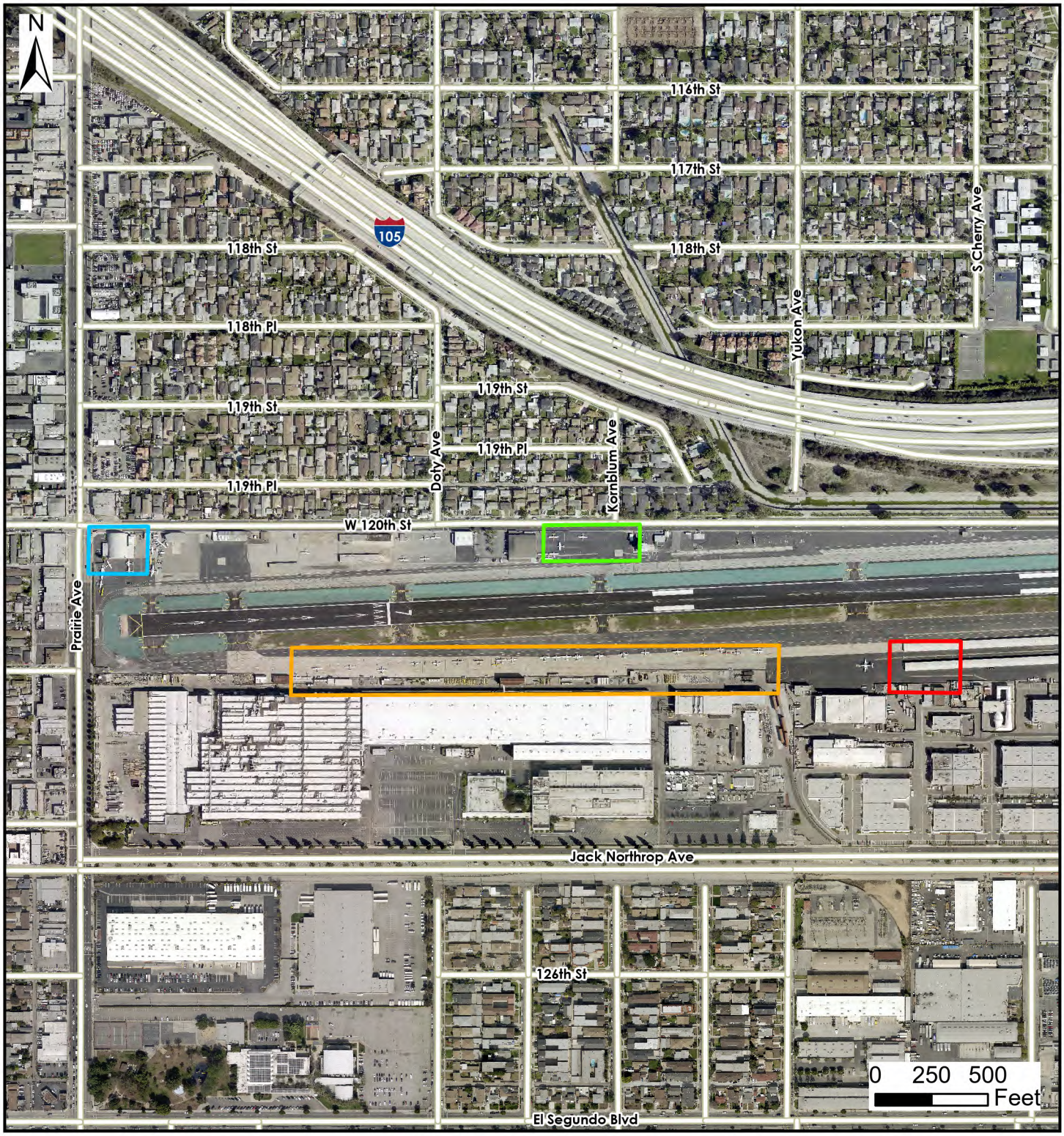
Legend

- Northeast hangar development
- Northwest hangar development
- Southeast hangar development
- Southwest hangar development



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Datum: NAD83, Units: US Feet
Sources: Esri

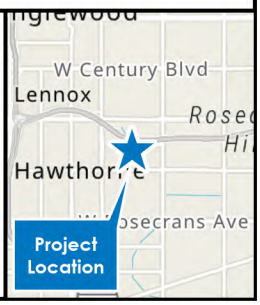


Hawthorne Airport Hangars Project

Exhibit 2 - Aerial Photo

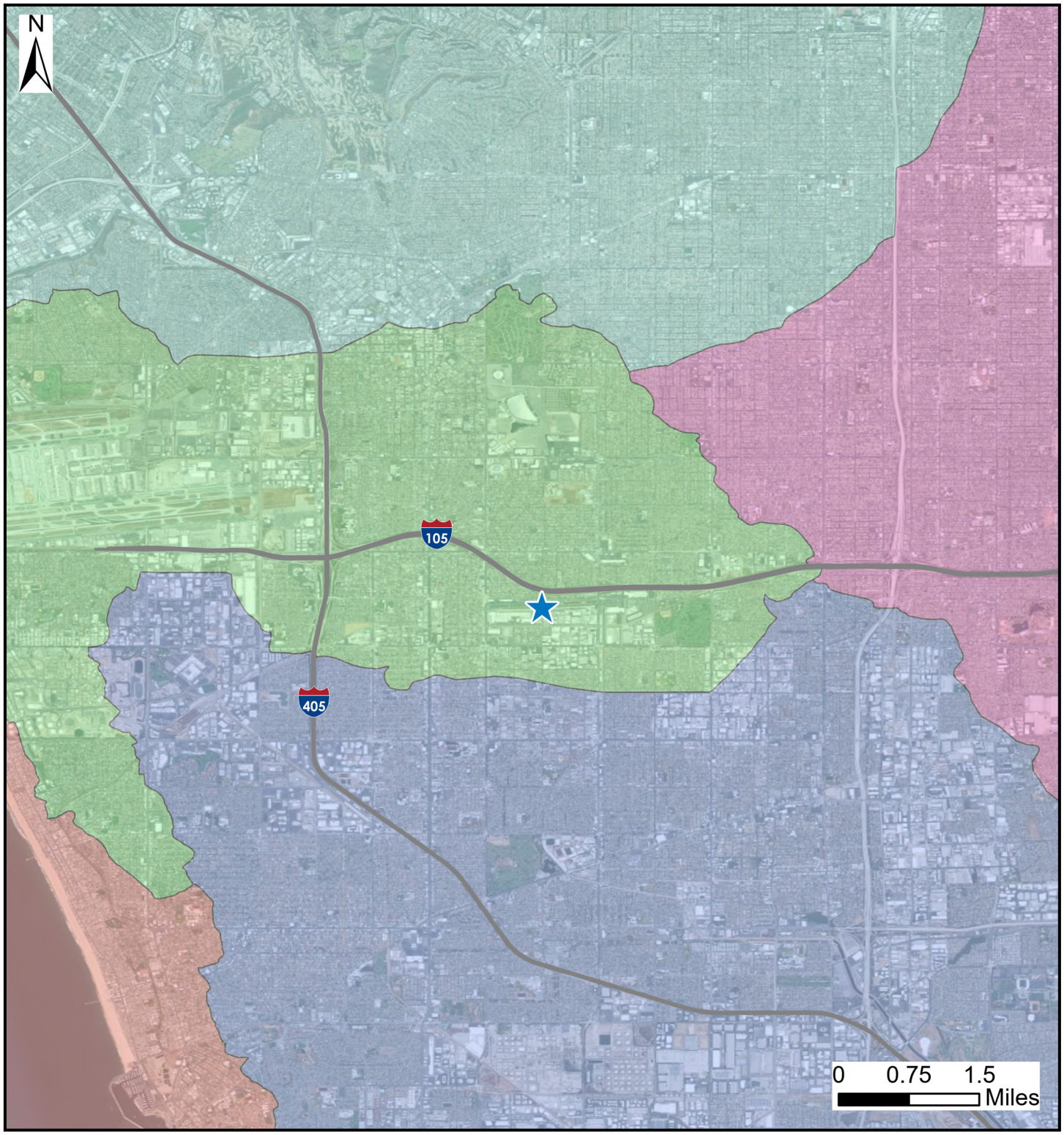
Legend

- Roads
- Northeast hangar development
- Northwest hangar development
- Southeast hangar development
- Southwest hangar development



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Datum: NAD83, Units: US Feet
Sources: Esri, USGS



Hawthorne Airport Hangars Project

Exhibit 3 - HUC-12 Watersheds

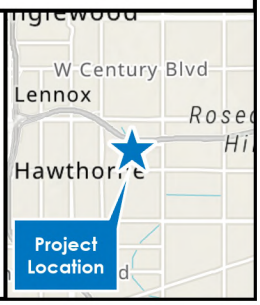
Watearth

Legend

- Project Location
- Highways

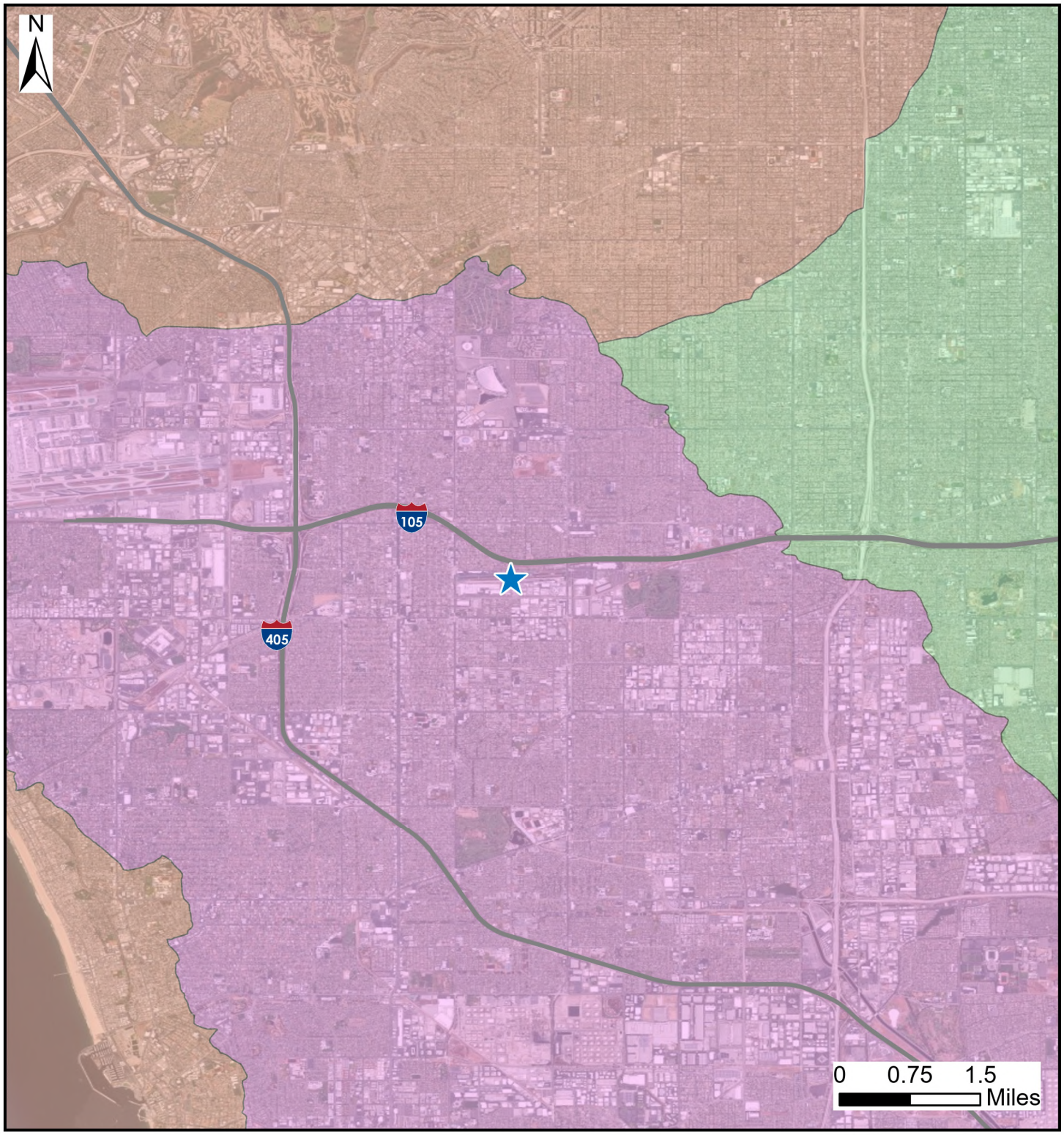
HUC-12 Watersheds

- Ballona Creek
- Compton Creek-Los Angeles River
- Lower Dominguez Channel
- Manhattan Beach-Frontal Santa Monica Bay
- Upper Dominguez Channel



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Datum: NAD83, Units: US Feet
Sources: Esri, USGS



Hawthorne Airport Hangars Project

Exhibit 4 - HUC-8 Watersheds

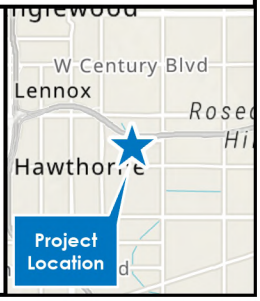
Watearth

Legend

- Project Location
- Highways

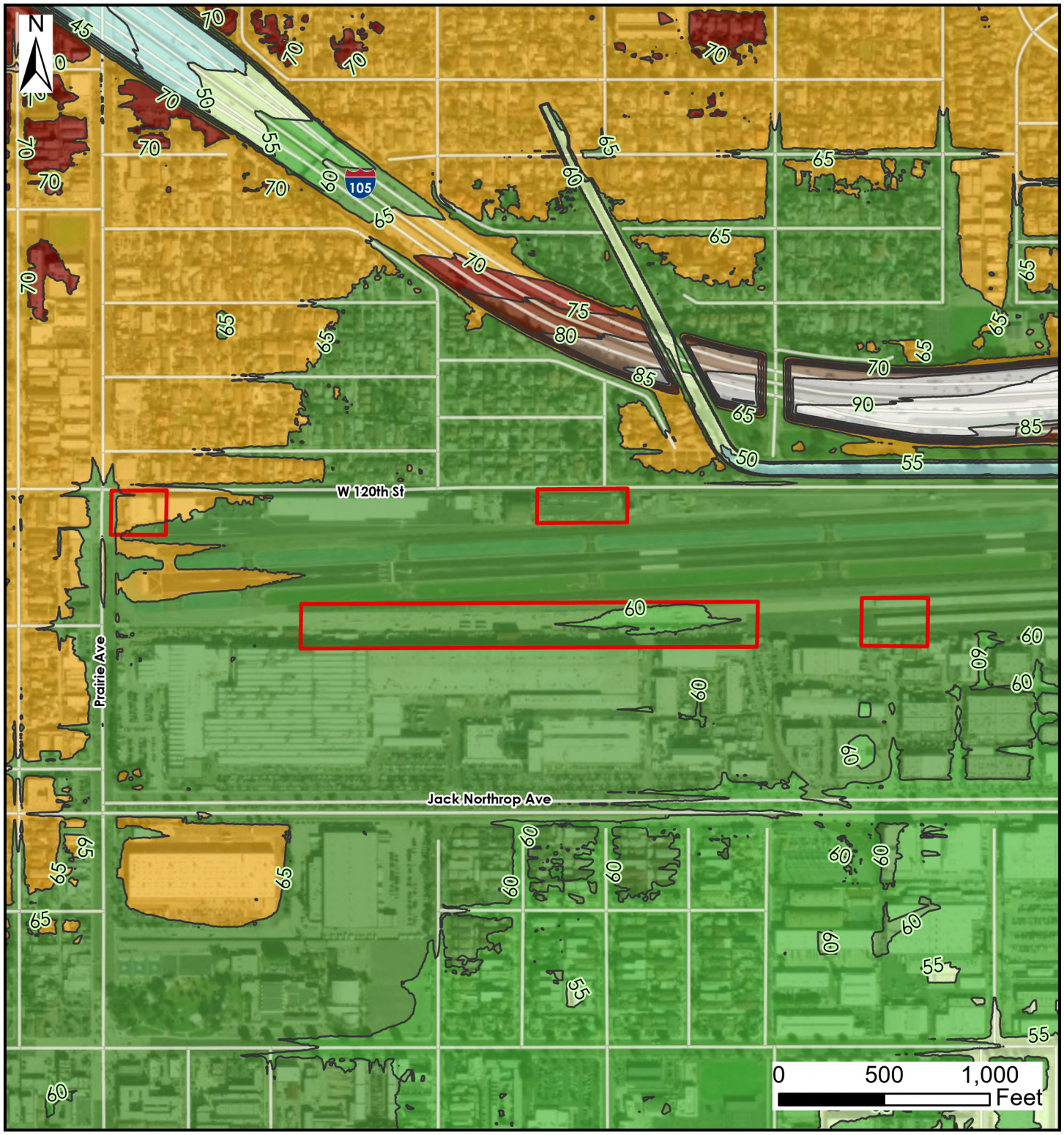
HUC-8 Watersheds

- Los Angeles
- San Gabriel
- Santa Monica Bay



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Datum: NAD83, Units: US Feet
Sources: Esri, USGS



Hawthorne Airport Hangars Project

Exhibit 5 - Topography

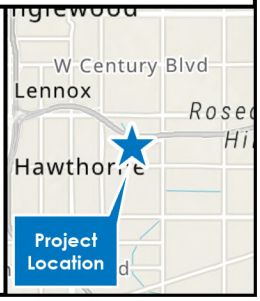
Watearth

Legend

- 5-Foot Contour Line
- Roads
- Project Area

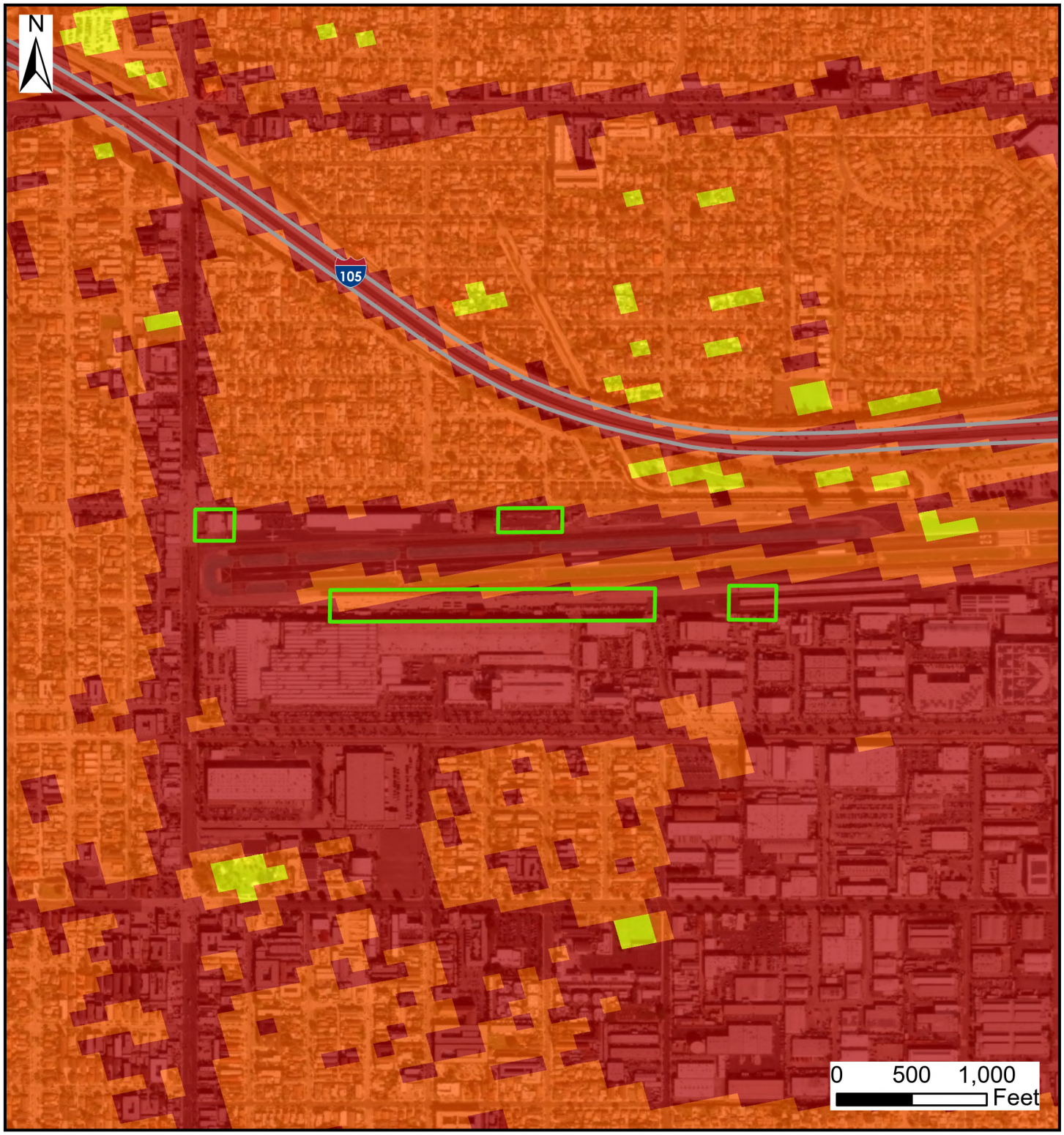
Elevation (Feet)

- ≤ 50
- 50.001 - 55
- 55.001 - 60
- 60.001 - 65
- 65.001 - 70
- 70.001 - 75
- 75.001 - 80
- 80.001 - 85
- 85.001 - 90
- 90.001 - 95



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Datum: NAD83, Units: US Feet
Sources: Esri, USGS



Hawthorne Airport Hangars Project

Exhibit 6 - Land Cover

Watearth

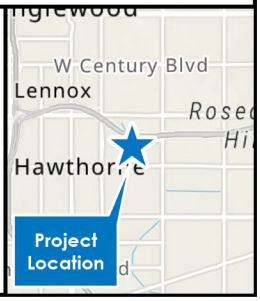
Legend

- Highways
- Project Area

Land Cover

Value

- Developed, Low Intensity
- Developed, Medium Intensity
- Developed, High Intensity



24-151.01
D. Jacobson - April 9, 2025

Datum: NAD83, Units: US Feet
Sources: Esri, NLCD



Hawthorne Airport Hangars Project

Exhibit 7 - Biological Resources

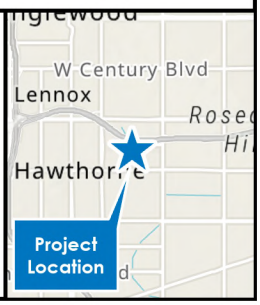
Watearth

Legend

- Project Location
- Highways

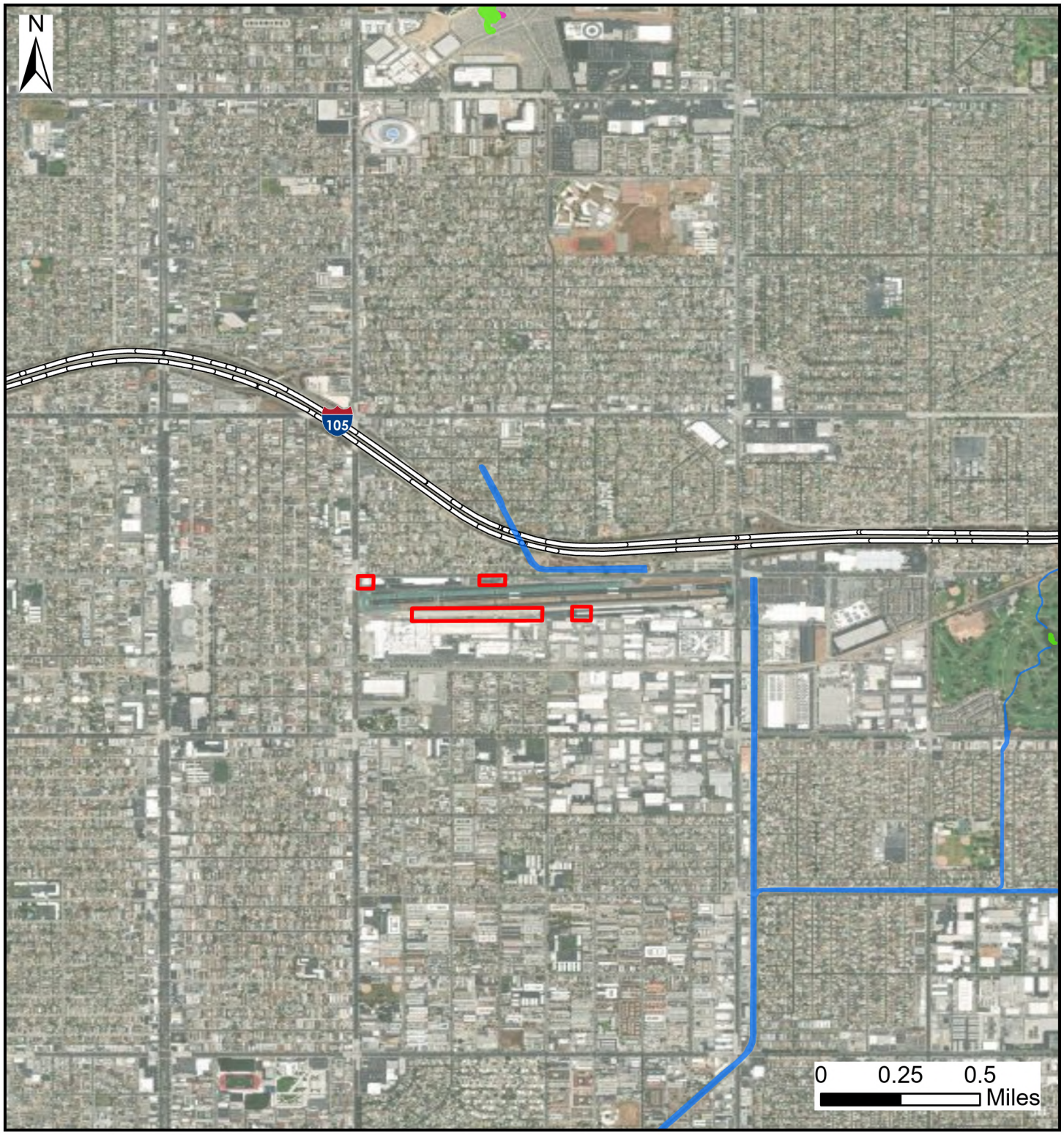
Critical Habitat Species

- Coastal California gnatcatcher
- Western Snowy Plover



24-151.01
D. Jacobson - April 9, 2025

Datum: NAD83, Units: US Feet
Sources: Esri, USFWS



Hawthorne Airport Hangars Project

Exhibit 8 - Wetlands

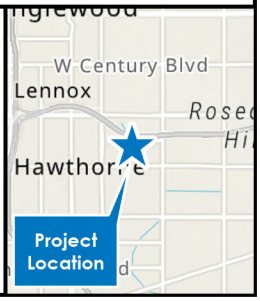
Watearth

Legend

- Highways
- Project Area

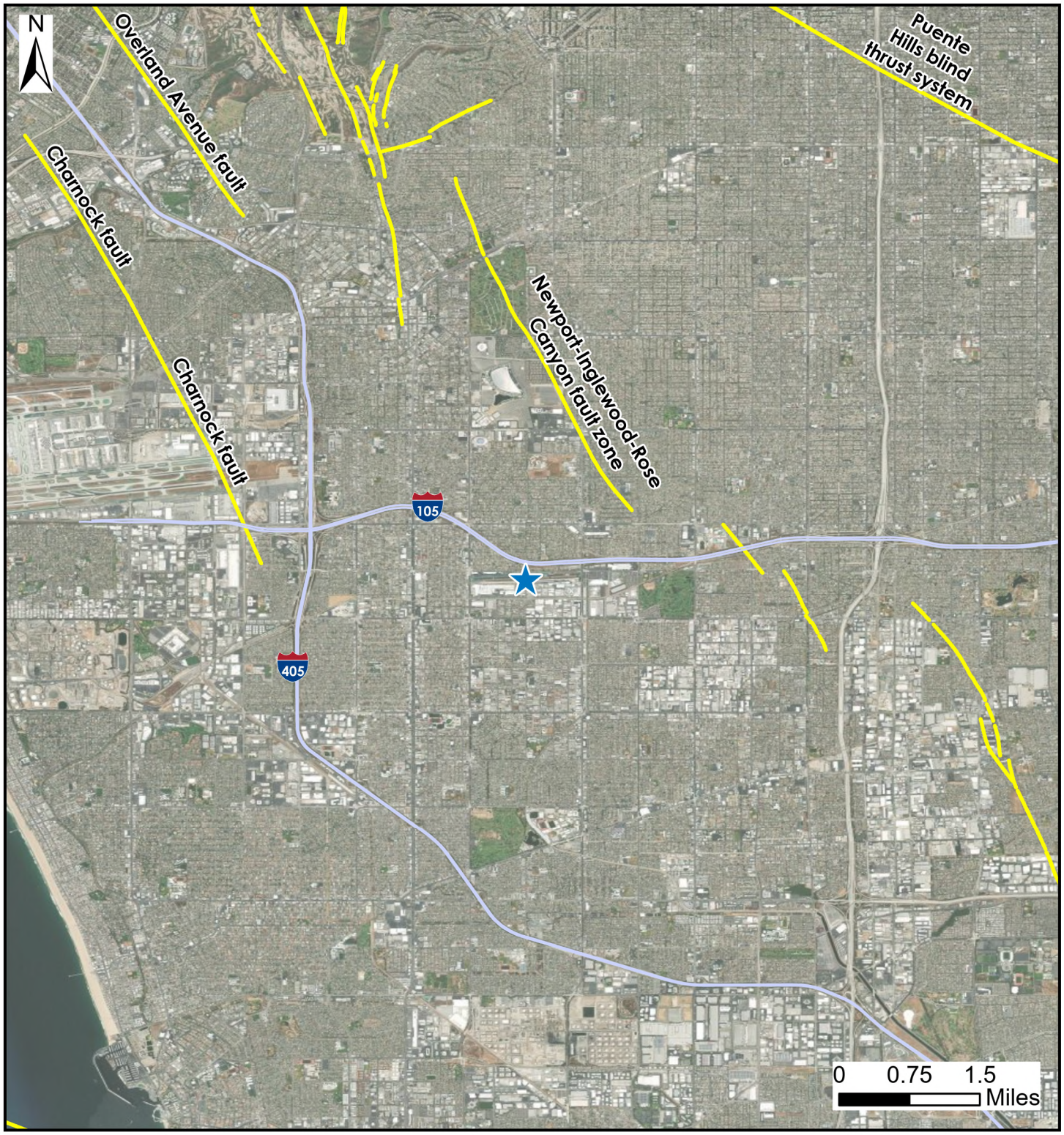
Wetland Type

- Freshwater Forested/ Shrub Wetland
- Freshwater Pond
- Riverine



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D. Jacobson - February 3, 2025

Datum: NAD83, Units: US Feet
Sources: Esri, USFWS



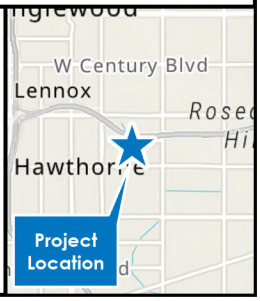
Hawthorne Airport Hangars Project

Exhibit 9 - Fault Lines

Watearth

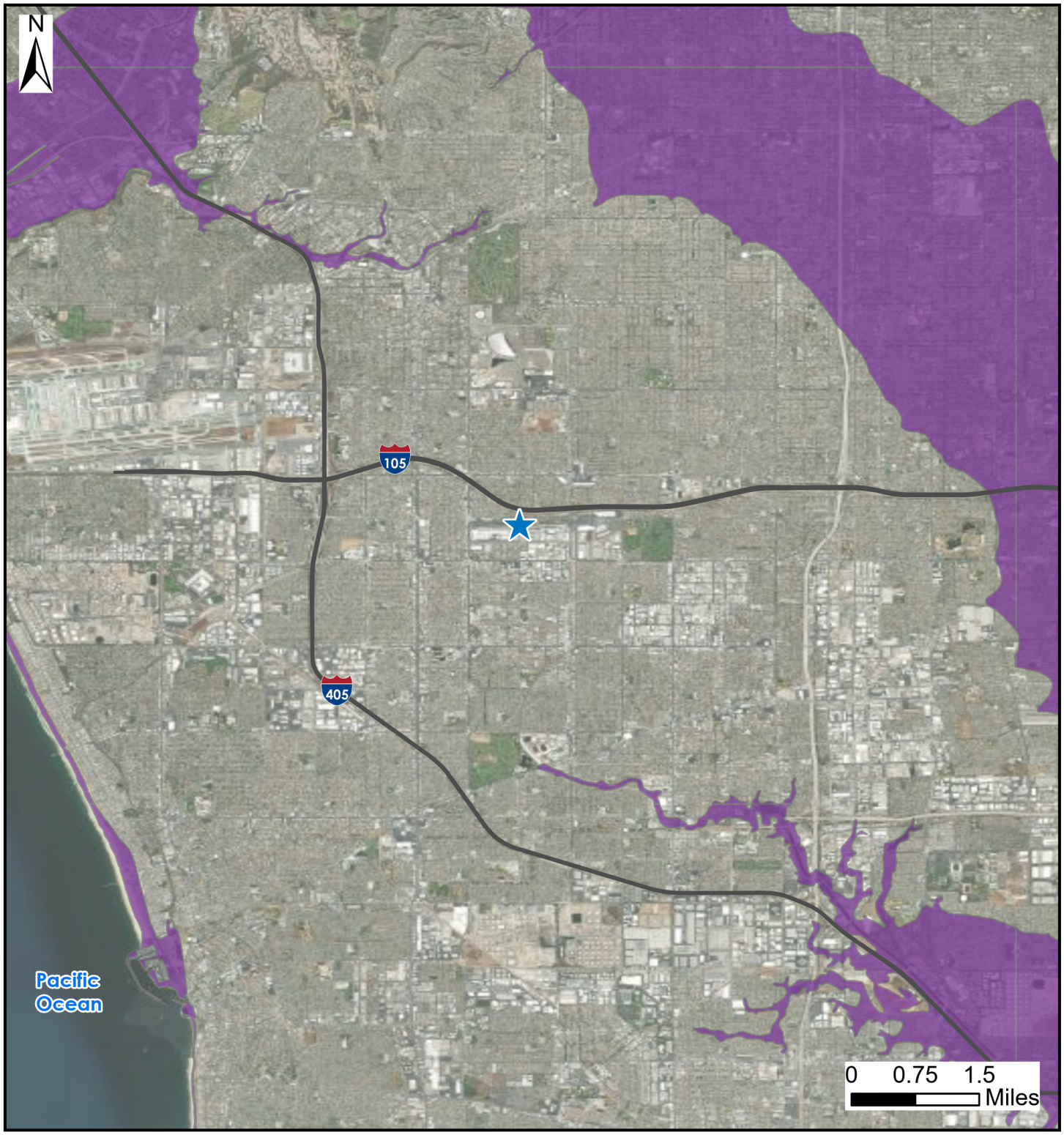
Legend

- Project Location
- Highways
- Fault Lines



24-151.01
D. Jacobson - February 3, 2025

Datum: NAD83, Units: US Feet
Sources: Esri, USGS



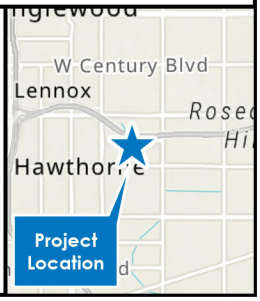
Hawthorne Airport Hangars Project

Exhibit 10 - Liquefaction Hazard Zones

Watearth

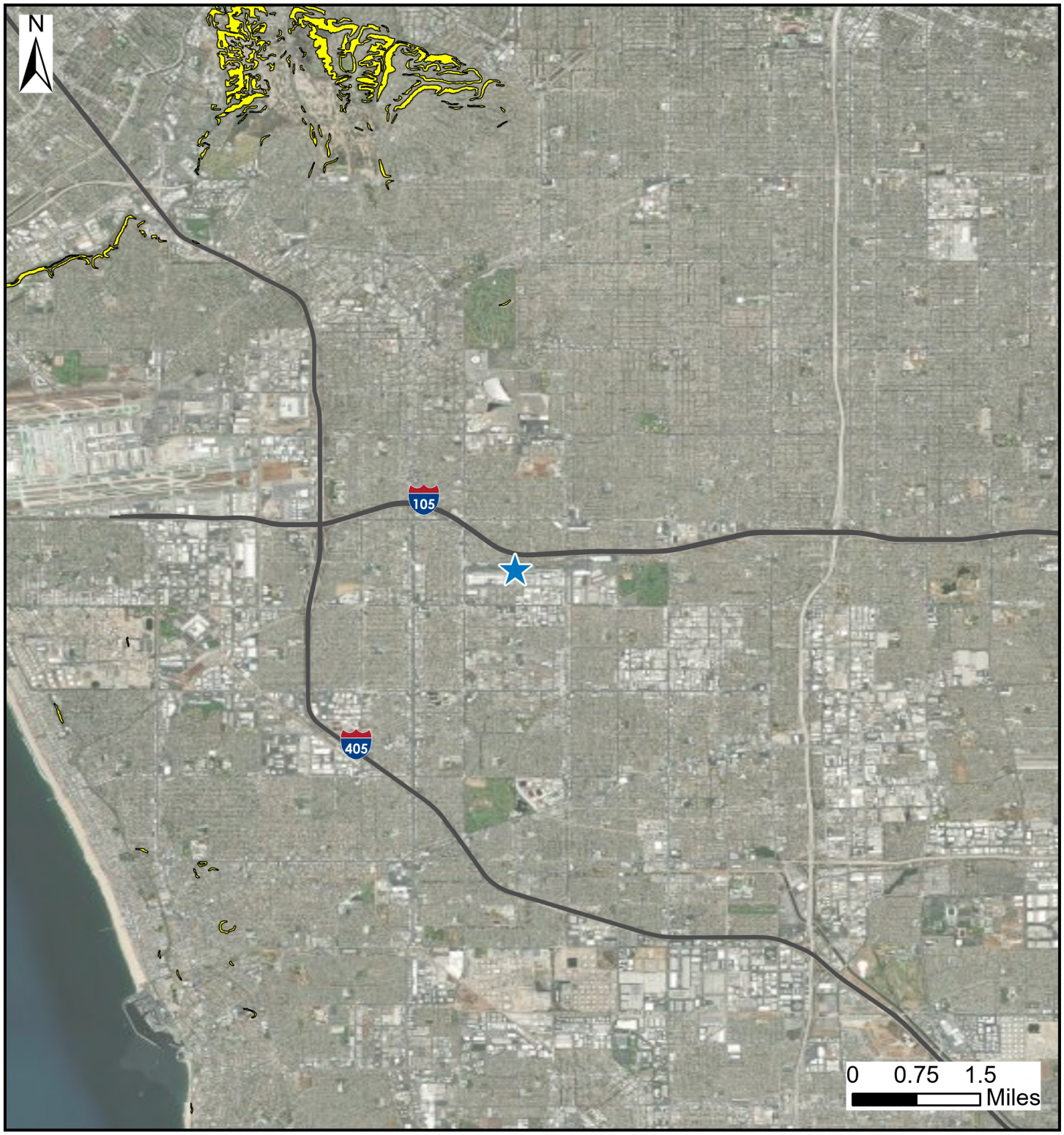
Legend

- Project Location
- Highways
- Liquefaction Hazard Zones



24-151.01
D. Jacobson - February 3, 2025

Datum: NAD83, Units: US Feet
Sources: Esri, USGS, CA State Geoportal



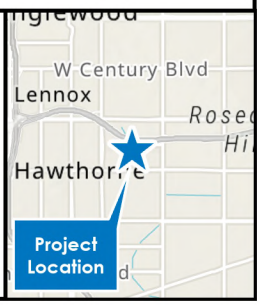
Hawthorne Airport Hangars Project

Exhibit 11 - Landslide Hazard Zones

Watearth

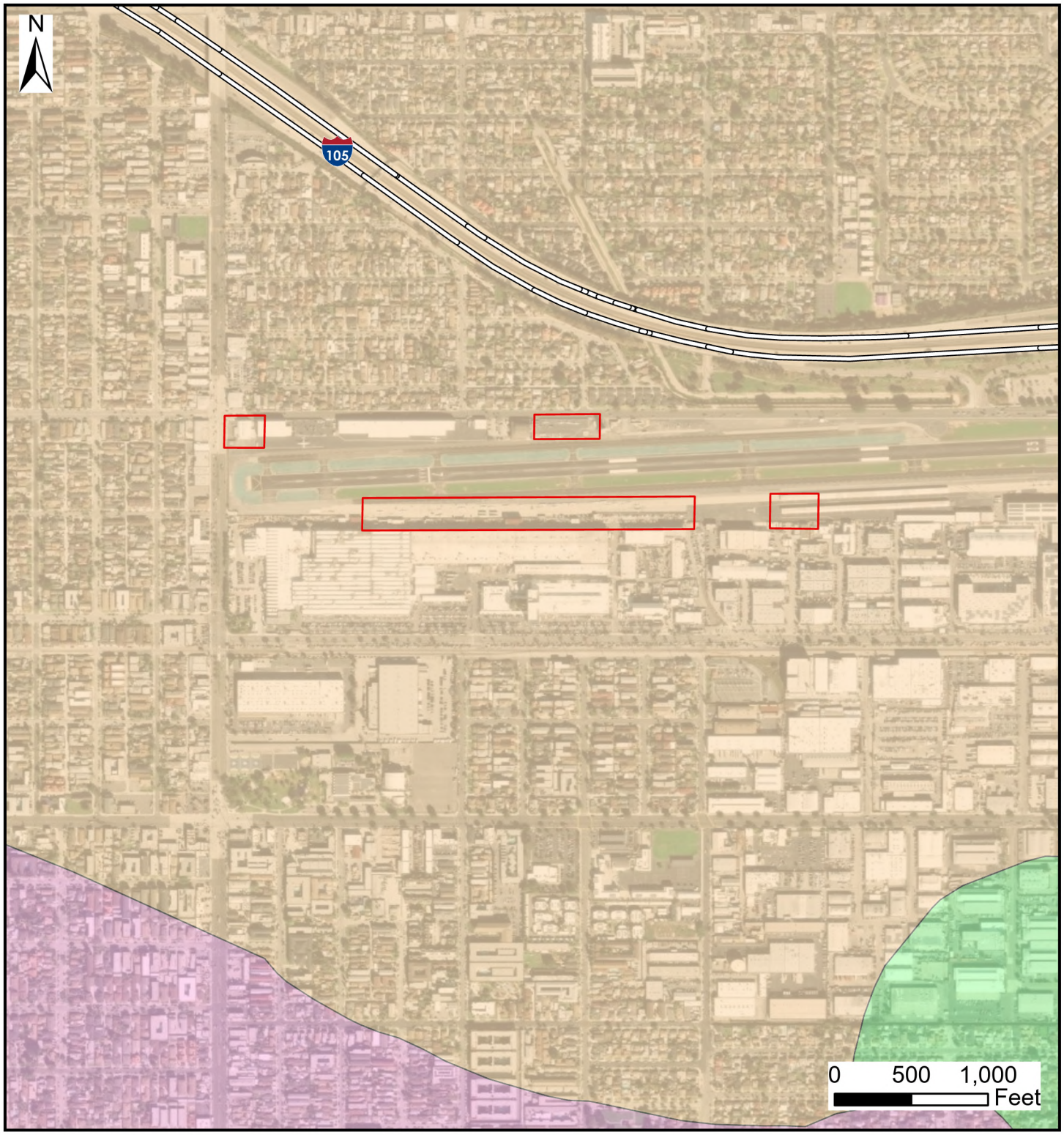
Legend

- Project Location
- Highways
- Landslide Hazard Zones



24-151.01
D. Jacobson - February 3, 2025

Datum: NAD83, Units: US Feet
Sources: Esri, USGS, CA State Geoportal



Hawthorne Airport Hangars Project

Exhibit 12 - Soils

Watearth

Legend

- Highways
- Project Area

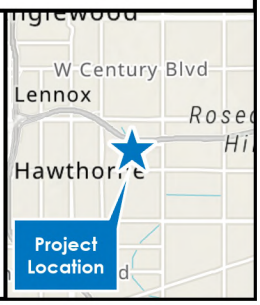
USDA Soil Groups

- 1013
- 1014
- 1130

1013 - Urban land-Centinela-Typic Xerorthents, fine substratum complex, 0 to 2 percent slopes

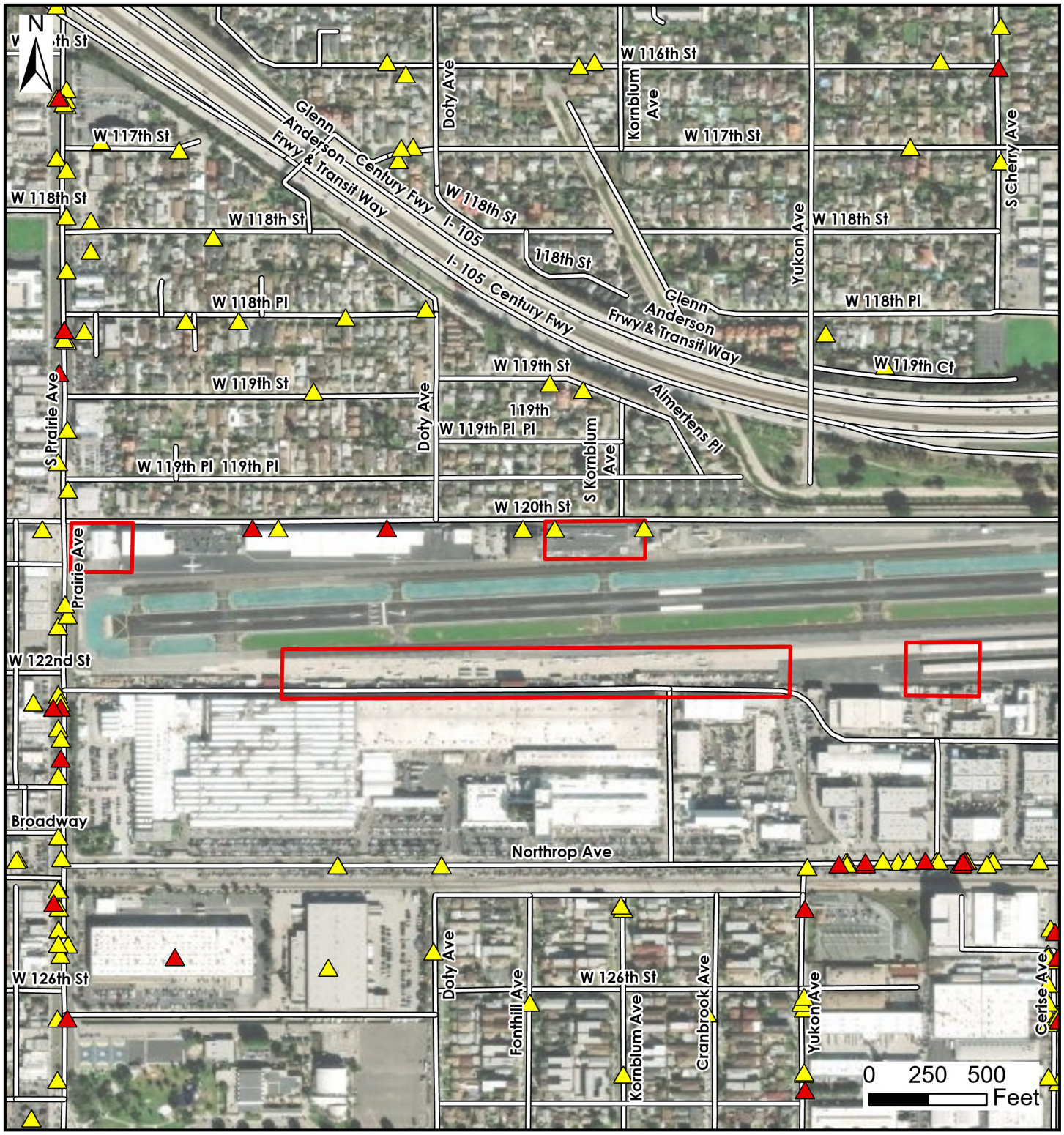
1014 - Urban land-Aquic Xerorthents, fine substratum-Cropley complex, 0 to 5 percent slopes

1130 - Urban land-Windfetch-Typic Haploxerolls complex, 0 to 2 percent slopes



24-151.01
D. Jacobson - February 3, 2025

Datum: NAD83, Units: US Feet
Sources: Esri, USDA



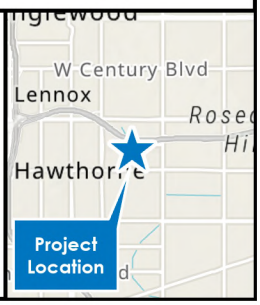
Hawthorne Airport Hangars Project

Exhibit 13 - Hazardous Materials

Watearth

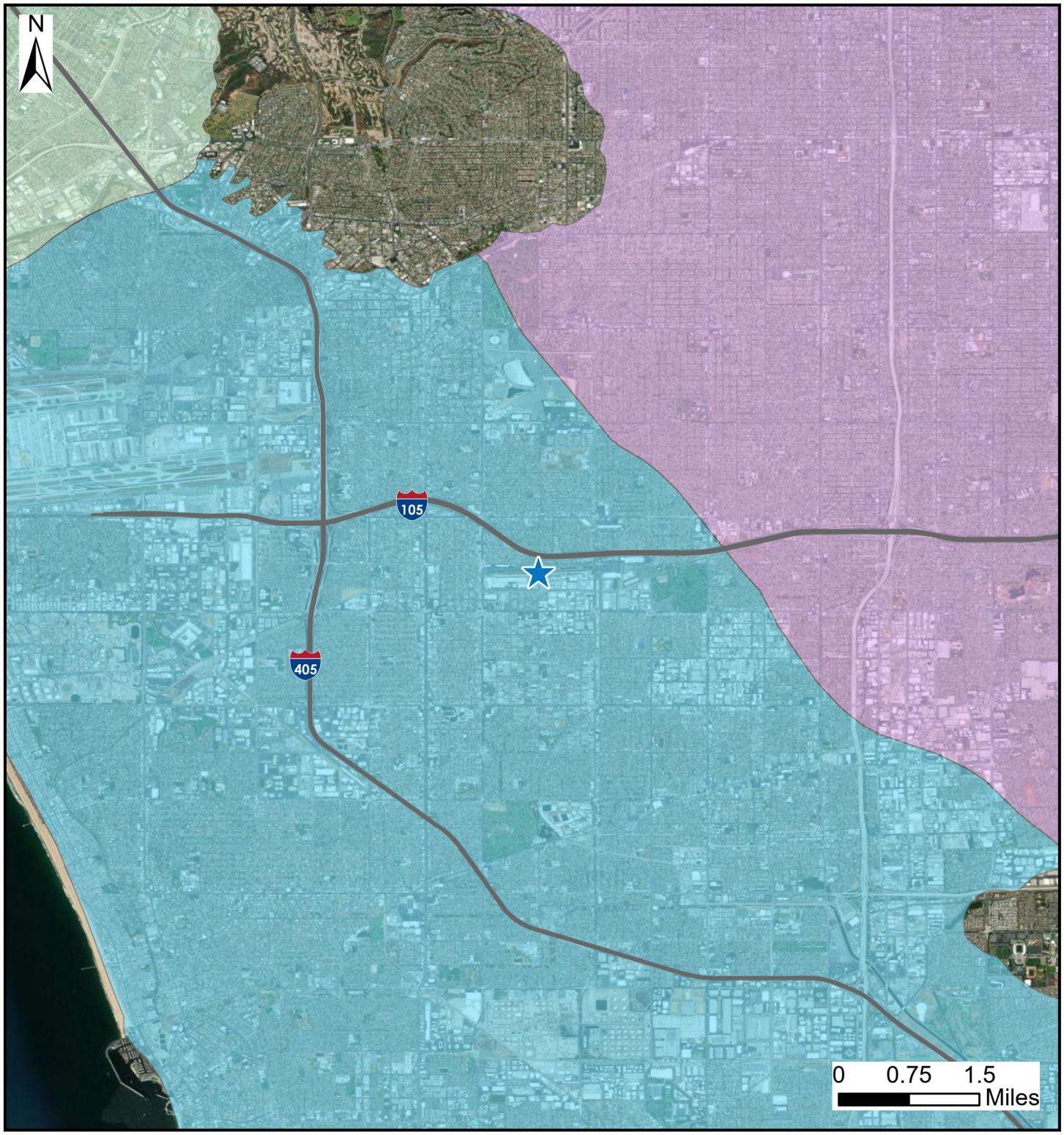
Legend

- Active Hazardous Waste Facilities
- Inactive Hazardous Waste Facilities
- Roads
- Project Area



24-151.01
D. Jacobson - April 9, 2025

Datum: NAD83, Units: US Feet
Sources: Esri, CA Department of Toxic Substance Control



Hawthorne Airport Hangars Project

Exhibit 14 - Groundwater Basins

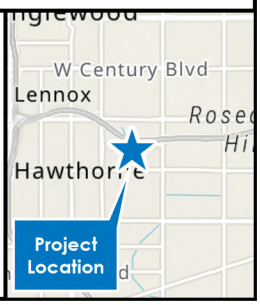
Watearth

Legend

- Project Location
- Highways

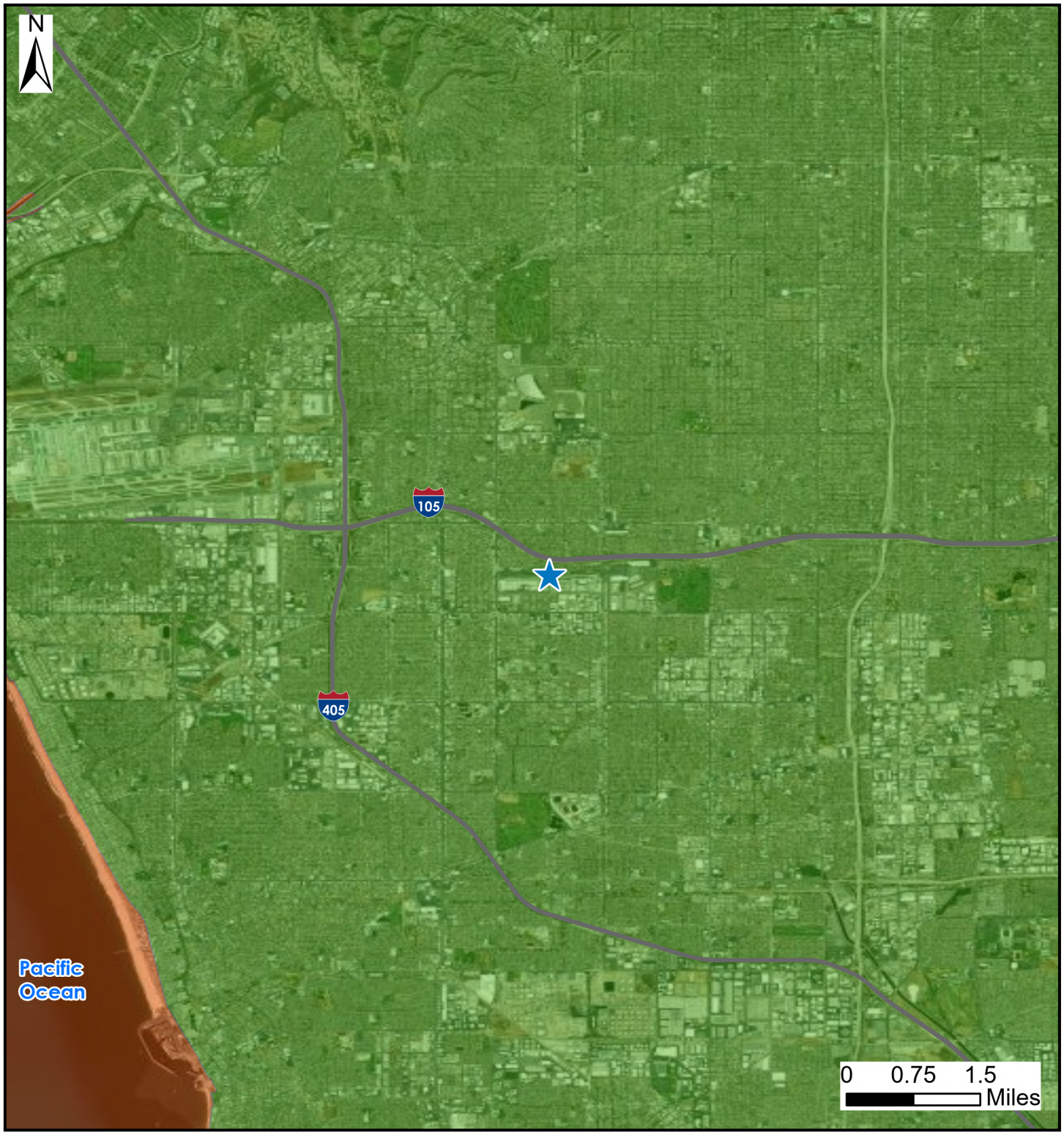
Groundwater Basins

- CENTRAL BASIN
- SANTA MONICA BASIN
- WEST COAST BASIN



24-151.01
D. Jacobson - February 4, 2025

Datum: NAD83, Units: US Feet
Sources: Esri, LA County



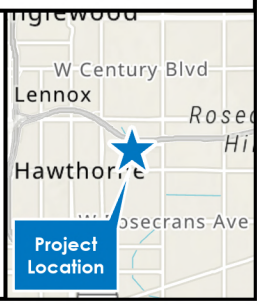
Hawthorne Airport Hangars Project

Exhibit 15 - Tsunami Hazard Area

Watearth

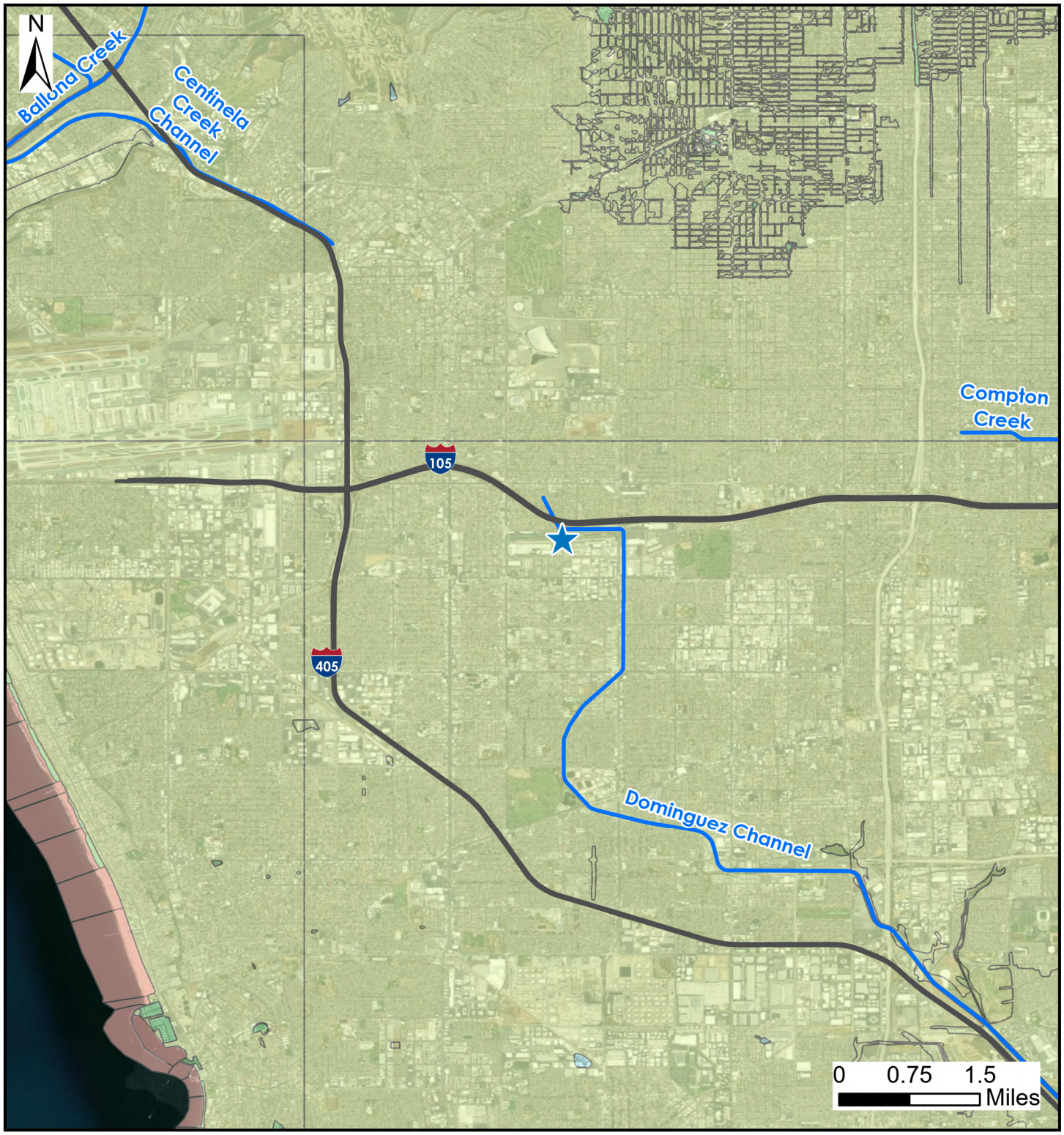
Legend

- Project Location
- Highways
- No, Outside Hazard Area
- Yes, Tsunami Hazard Area



24-151.01
D. Jacobson - February 4, 2025

Datum: NAD83, Units: US Feet
Sources: Esri, CA Department of Conservation



Hawthorne Airport Hangars Project

Exhibit 16 - FEMA Flood Zones

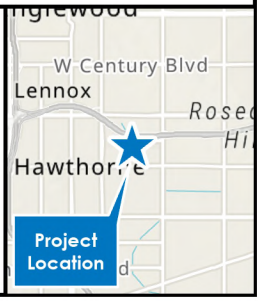
Watearth

Legend

- Project Location
- Highways
- Rivers and Creeks

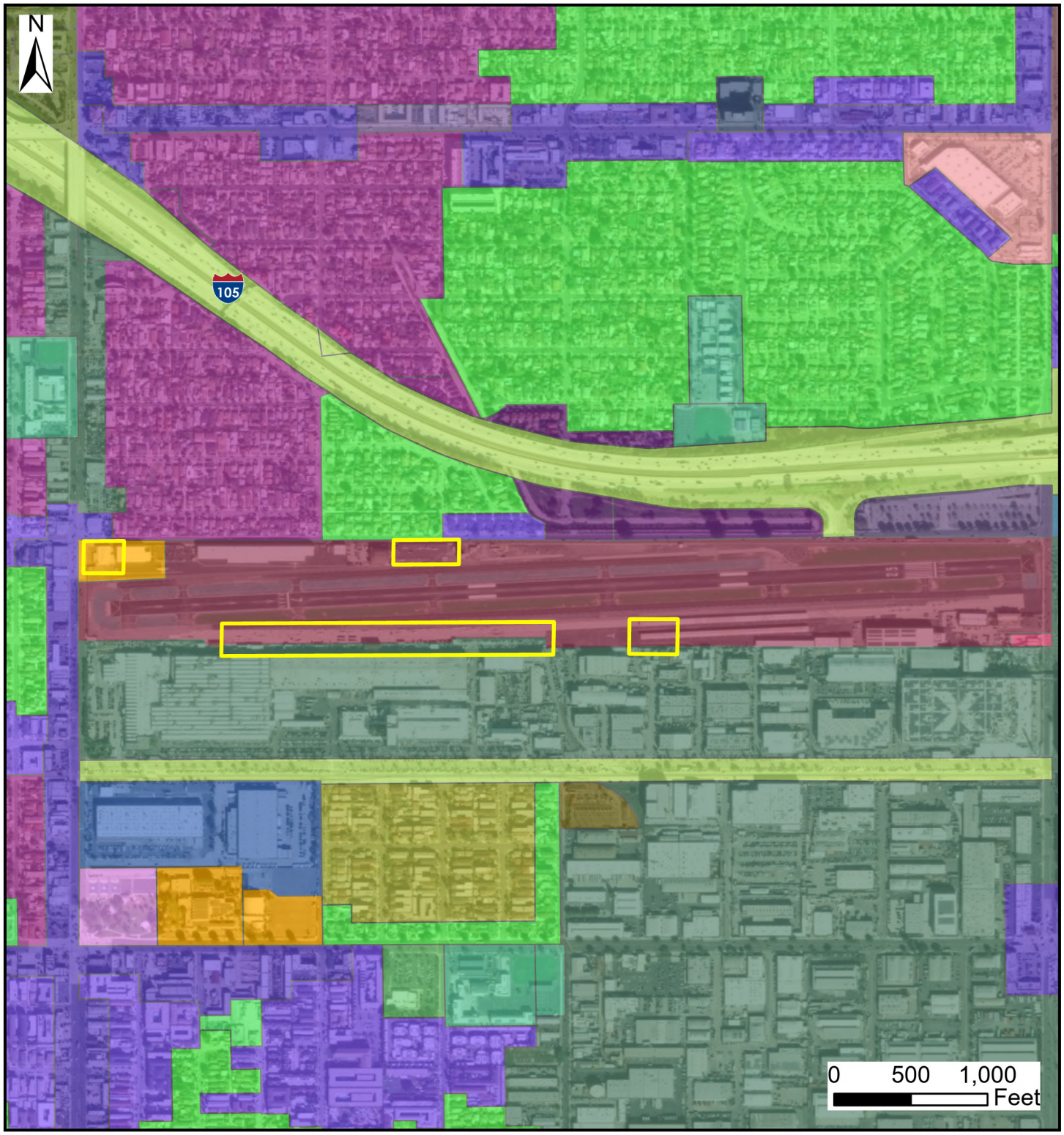
FEMA Flood Zone

- A
- AE
- AH
- VE
- X



24-151.01
D. Jacobson - April 9, 2025

Datum: NAD83, Units: US Feet
Sources: Esri, FEMA, USGS



Hawthorne Airport Hangars Project

Exhibit 17 - Land Use

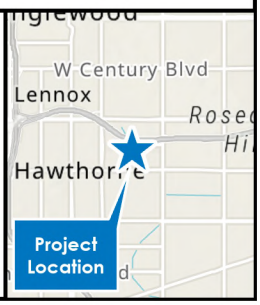
Watearth

Legend

- Project Area

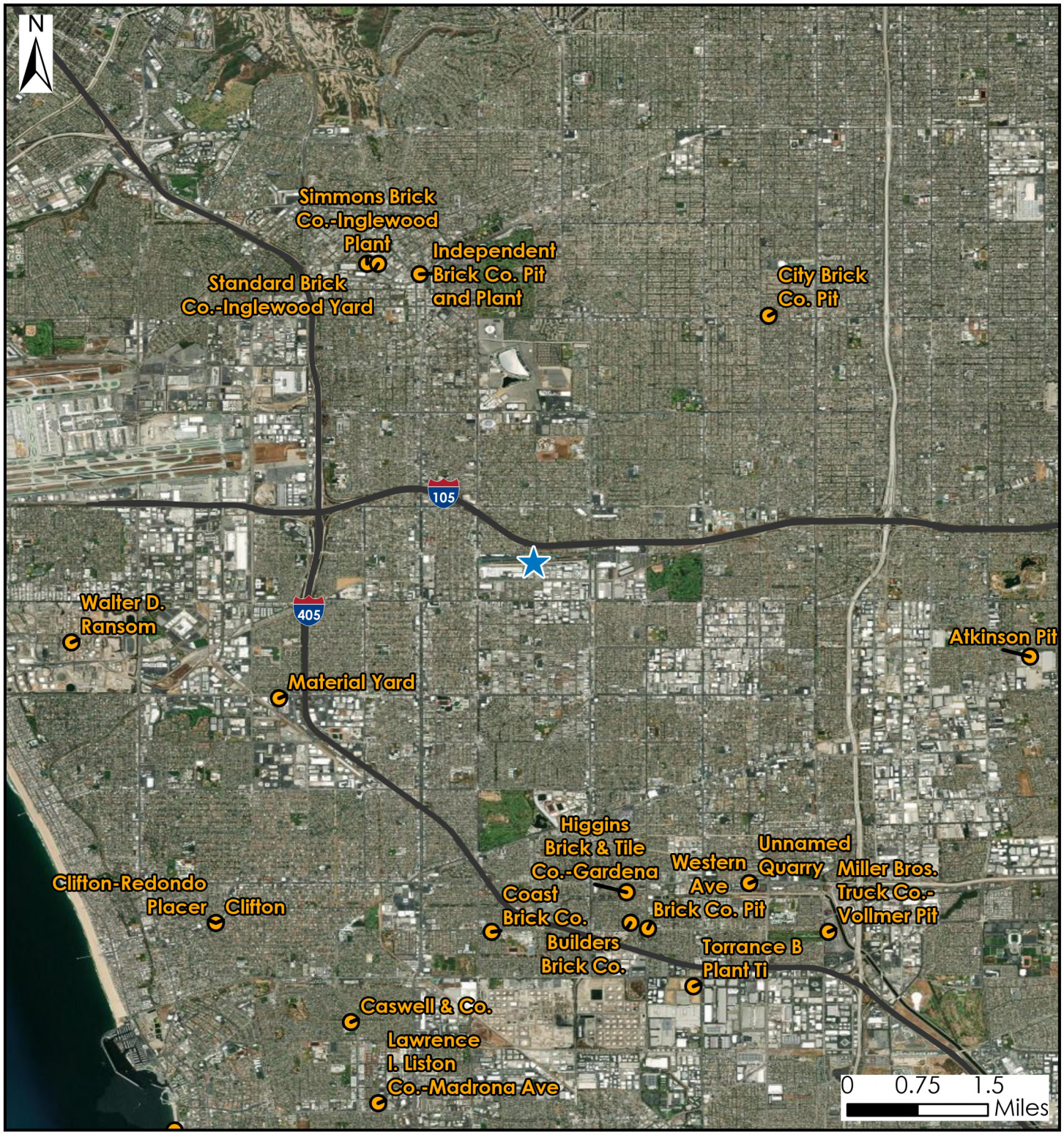
Land Use

- Airports
- Developed Local Parks and Recreation
- Electrical Power Facilities
- Elementary Schools
- Fire Stations
- Government Offices
- High-Density Single Family Residential
- High-Rise Major Office Use
- Hotels and Motels
- Low-Rise Apartments, Condominiums, and Townho
- Manufacturing, Assembly, and Industrial Servi
- Mixed Multi-Family Residential
- Mixed Residential
- Mixed Transportation
- Mixed Urban
- Modern Strip Development
- Older Strip Development
- Open Storage
- Other Public Facilities
- Park-and-Ride Lots
- Religious Facilities
- Retail Centers (Non-Strip With Contiguous Int
- Vacant Undifferentiated
- Wholesaling and Warehousing



24-151.01
D. Jacobson - February 5, 2025

Datum: NAD83, Units: US Feet
Sources: Esri, LA County



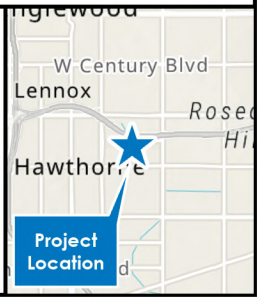
Hawthorne Airport Hangars Project

Exhibit 18 - Mineral Resources

Watearth

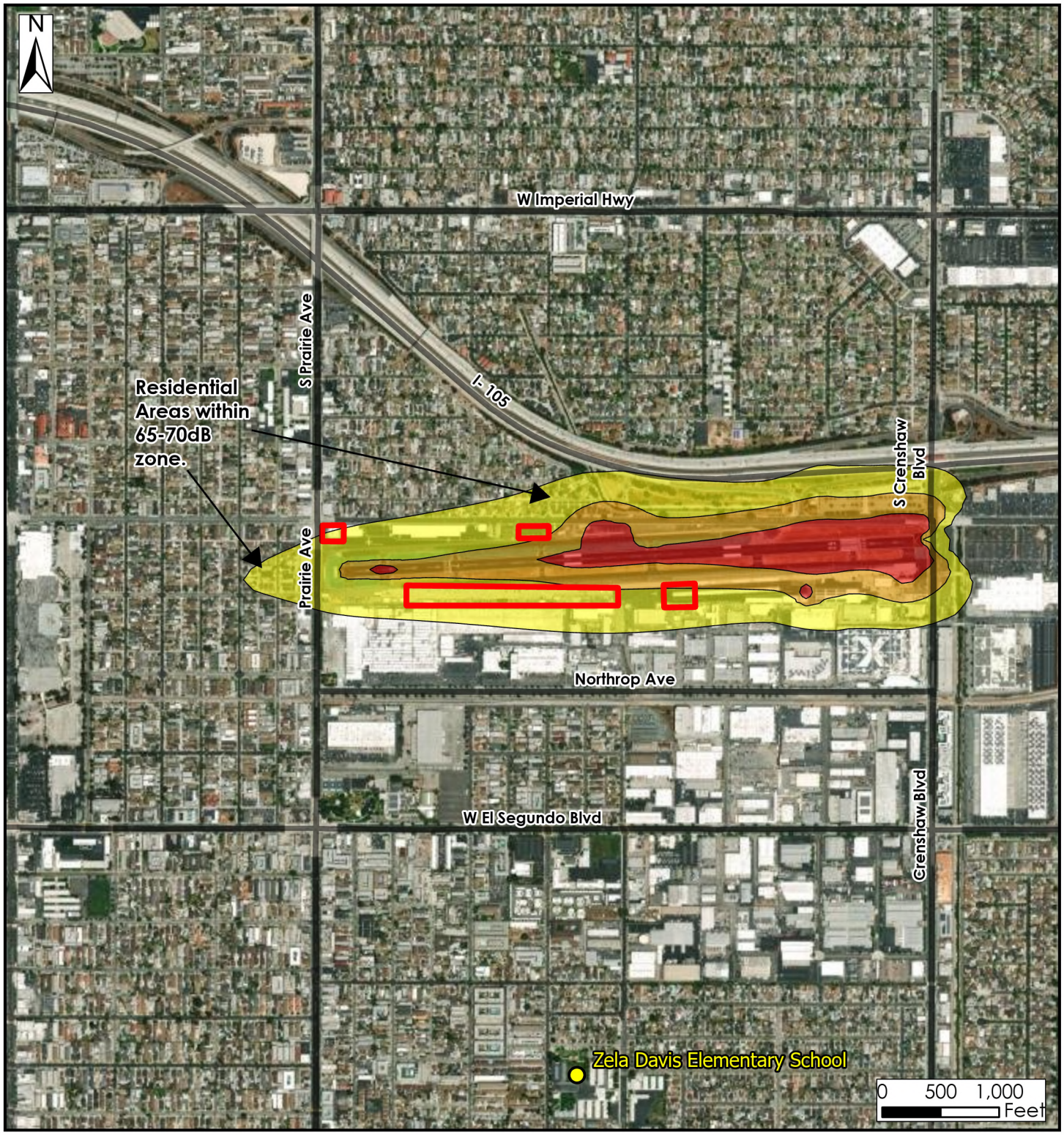
Legend

- Project Location
- Mineral Resources
- Highways



24-151.01
D. Jacobson - April 9, 2025

Datum: NAD83, Units: US Feet
Sources: Esri, LA County, CA State Geoportal



Hawthorne Airport Hangars Project

Exhibit 19 - Noise Pollution

Watearth

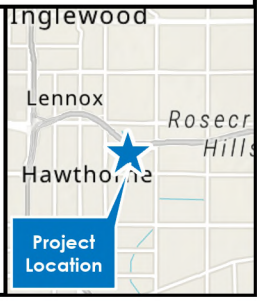
Legend

- Zela Davis Elementary School
- Roads
- Project Area

Airport Noise Contours (CNEL dB)

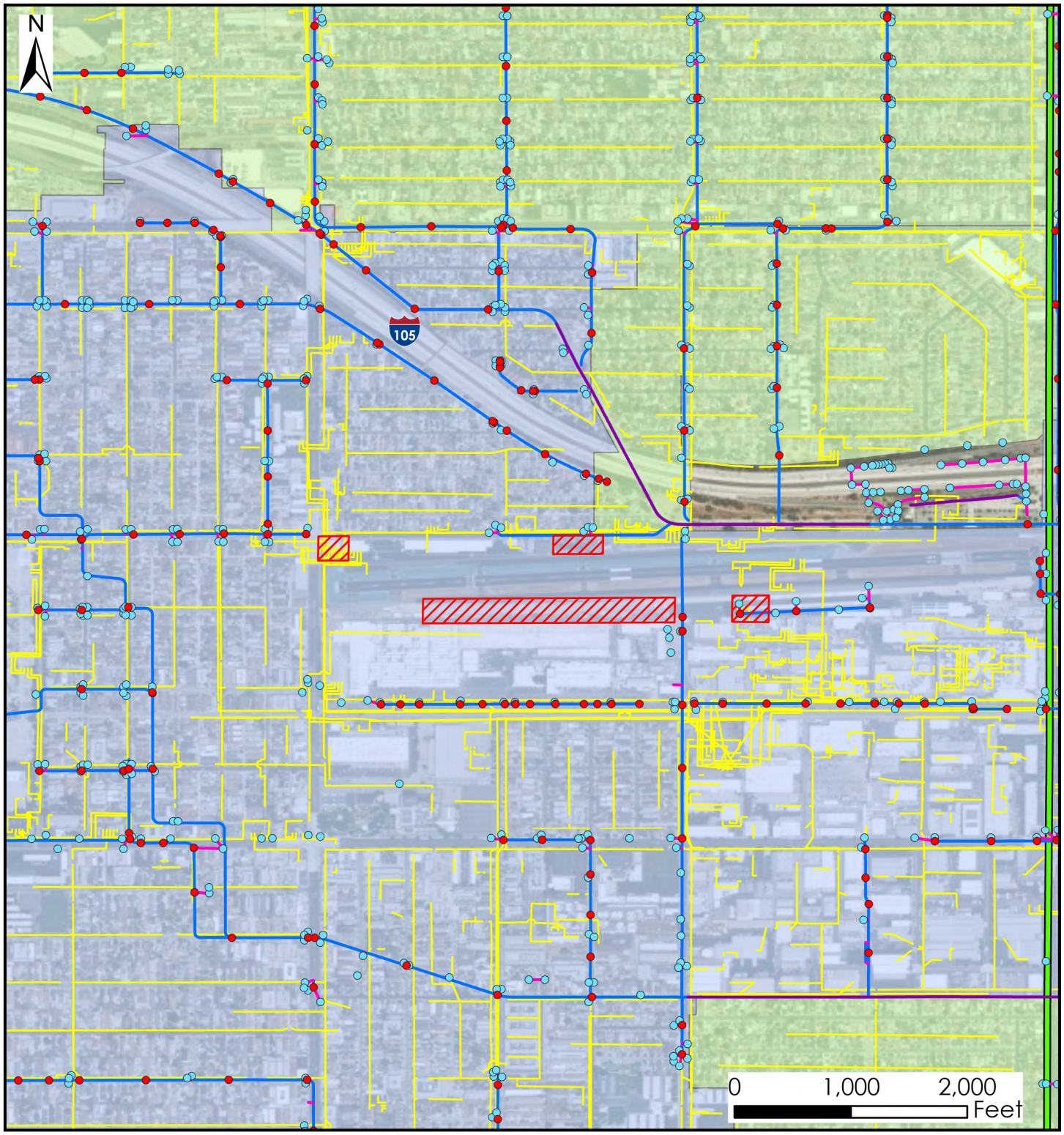
- 65
- 70
- 75

Note:
Community Noise Equivalent Level (CNEL) is a 24-hour weighted average noise level, measured in decibels (dB).



24-151.0
D. Jacobson - July 29, 2025

Datum: NAD83, Units: US Feet
Sources: Esri, LA County



Hawthorne Airport Hangars Project

Exhibit 20 - Utilities

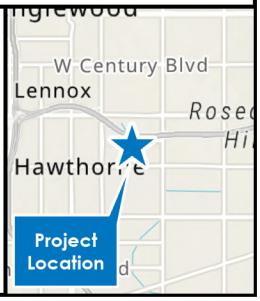
Watearth

Legend

- Catch Basin
- Maintenance Hole
- Electric Distribution Circuits
- Storm Gravity Main
- Storm Lateral Line
- Storm Open Channel
- Natural Gas Pipelines
- Project Area

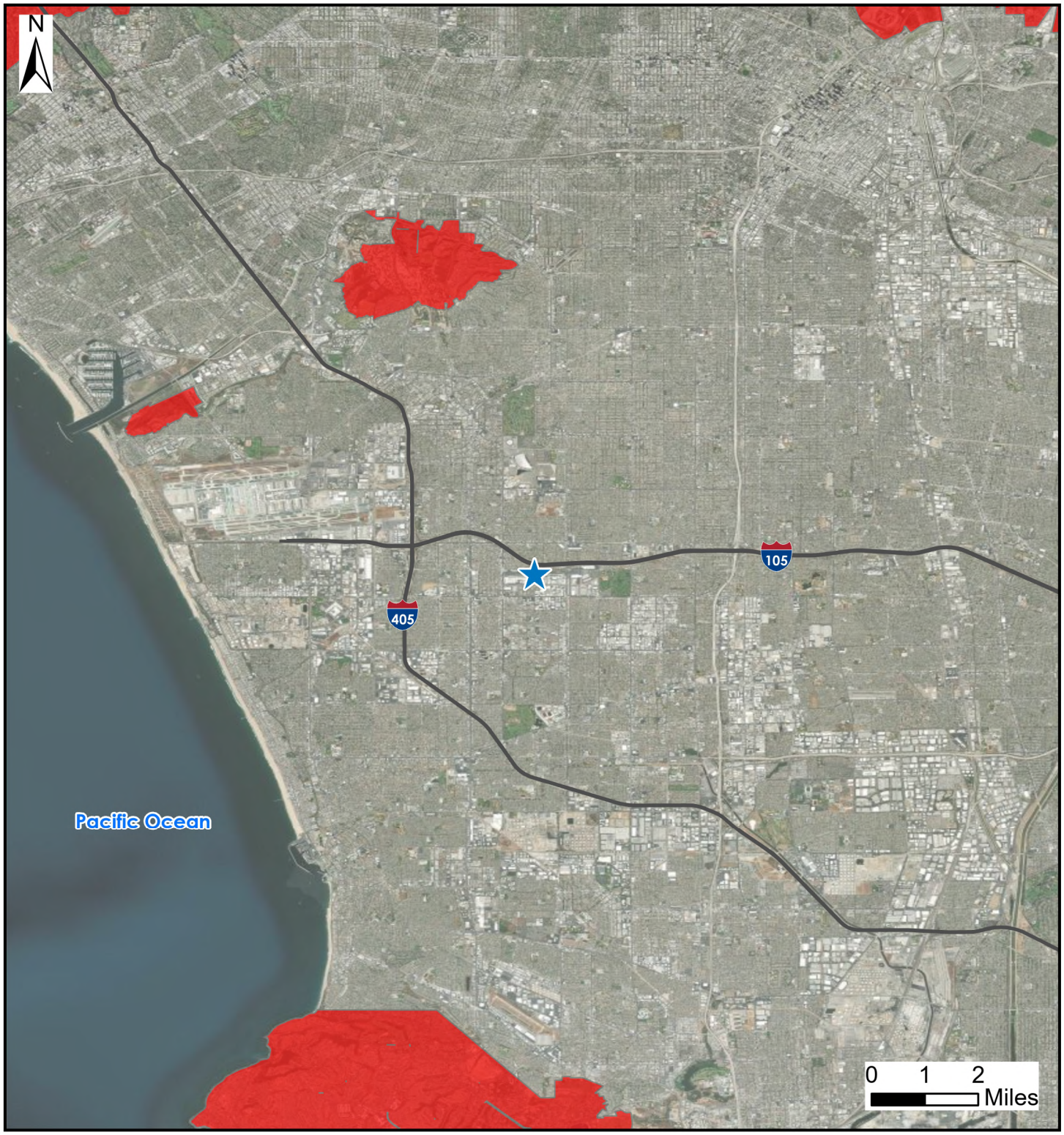
Drinking Water System Regulating District

- DISTRICT 15 - METROPOLITAN
- DISTRICT 22 - ANGELES



24-151.01
D. Jacobson - March 12, 2025

Datum: NAD83, Units: US Feet
Sources: Esri, SWRCB, SoCal Edison, CA Energy Commission, LA County



Hawthorne Airport Hangars Project

Exhibit 21 - Fire Hazard Severity Zones

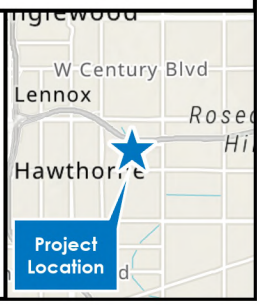
Watearth

Legend

- Project Location
- Roads

Fire Hazard Severity Zone in Local Responsibility Area (LRA)

- Very High



24-151.01
D. Jacobson - February 6, 2025

Datum: NAD83, Units: US Feet
Sources: Esri, CalFire

Appendix A

Site Visit Photo Log

Photo Log

Hawthorne Airport – CEQA

Photo 1:



Current fenceline boundary to the right – Space X to the right of fence

Photo 2:



Area of proposed southwest hangar development. Facing east.

Photo 3:



Looking at aircraft within airport – fencline to the right – runway to the left

Photo 4:



Area of proposed southwest hangar development. Facing west.

Photo 5:



Area of proposed southeast hangar development. Facing southwest.

Photo 6:



Area of proposed southeast hangar development. Facing south.

Photo 7:



Proposed southeast hangar development location. Facing south towards Manufacturing and industrial zone beyond fence.

Photo 8:



Proposed southeast hangar development location. Facing northwest towards two long parallel hangars.

Photo Log

Hawthorne Airport – CEQA

Photo 9:



Area of proposed southeast hangar development. Facing southeast.

Photo 10:



Area of proposed southwest hangar development. Facing southwest.

Photo 11:



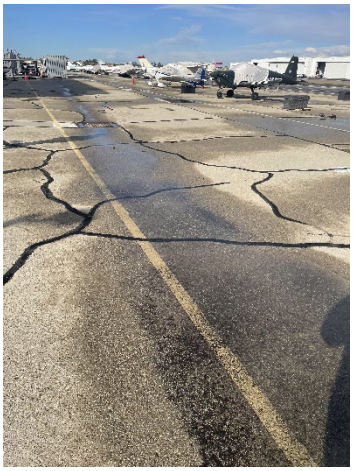
Catch basin.

Photo 12:



Catch basin within proposed area for proposed southwest hangar development. Facing east.

Photo 13:



Proposed area for southwest hangar development. Facing west.

Photo 14:



Proposed area for southeast hangar development. Facing east.

Photo 15:



Eastern edge of proposed southwest hangar development location. Facing south.

Photo 16:



Proposed southwest hangar development location. Facing west.

Photo 17:



Proposed southwest hangar development location. Facing west.

Photo 18:



Fenceline – looking toward Spapce facilities over fence

Photo 19:



Runway to the right, current fenceline to the left

Photo 20:



Car parking area within proposed southwest hangar development area. Facing east.

Photo 21:



Car parking area within proposed southwest hangar development area. Facing south.

Photo 22:



Center of proposed southwest hangar development area. Facing southwest.

Photo 23:



Proposed northwest hangar development area. Facing south.

Photo 24:



Proposed northwest hangar development area. Facing north towards Universal Hydrogen.

Photo 25:



Proposed northwest hangar development area. Facing northeast.

Photo 26:



Proposed northwest hangar development area. Facing west.

Photo 27:



Proposed northwest hangar development area. Facing southwest.

Photo 28:



Fire hydrant within proposed northwest hangar development area. Facing north.

Photo 29:



Utility box near proposed northwest hangar development area and W 120th St.

Photo 30:



Proposed northwest hangar development area. Facing west towards Universal Hydrogen.

Photo 31:



Proposed northwest hangar development area. Facing SW, Universal Hydrogen on right.

Photo 32:



Proposed northwest hangar development area. Facing North towards Universal Hydrogen.

Photo 33:



Proposed northeast hangar development area. Facing west.

Photo 34:



Proposed northeast hangar development area. Facing northwest.

Photo 35:



Proposed northeast hangar development location. Facing north.

Photo 36:



Proposed northeast hangar development location. Facing north.

Photo 37:



Existing hangar on northern portion of airport. Facing east.

Photo 38:



Air traffic control tower on northern portion of airport. Facing east.

Photo 39:



Catch basin within proposed northeast hangar development area. Facing southwest.

Photo 40:



Proposed northeast hangar development area. Facing east.

Photo 41:



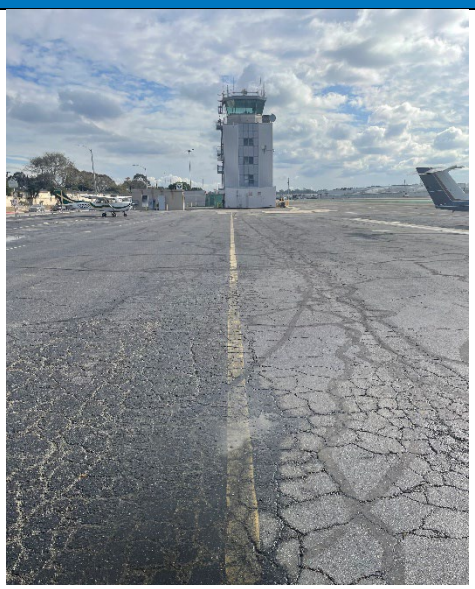
Proposed northeast hangar development area. Facing east.

Photo 42:



Utility cover.

Photo 43:



Proposed northeast hangar development area. Facing east towards air traffic control tower.

Appendix B

Tribal Notification Letters and Consultation

Letter for Tribal Consultation

Proposed Hawthorne Municipal Airport Hangar Development Project

April 7, 2025

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393
Covina, CA 91723

Dear Mr. Andrew Salas,

Hawthorne Municipal Airport (Jack Northrop Field) is proposing the Hawthorne Municipal Airport Hangar Development Project, which aims to enhance aviation operations by constructing 13 new hangars across four designated locations within the airport. The project is designed to increase storage capacity for private aircraft, improve operational efficiency, and support the airport's long-term growth. The hangars will be distributed throughout the airport, with seven in the southwest section, one in the southeast section, four in the northeast section, and one in the northwest section.

To accommodate the new hangars, six existing buildings totaling 18,000 square feet will be demolished, including two outdated hangars and four non-aviation storage buildings. In addition to these demolitions, the project will also remove approximately 55,000 square feet of impervious surfaces, including concrete pads, asphalt pavement, outdated utilities, and storm drain systems. The demolition process will involve the removal of 91,400 square feet of concrete pavement up to six inches thick, 68,335 square feet of asphalt paving up to four inches thick, 23 light poles and foundations, and various site infrastructure elements such as curbs, bollards, chain-link fencing, and stormwater features.

The newly constructed hangars will vary in size, ranging from 2,500 to 25,300 square feet. Each hangar will be purpose-built to accommodate private aircraft, small jets, and aviation-related equipment, incorporating fire suppression systems, modern lighting, and energy-efficient designs. Some hangars will also include office spaces and small workshops for aviation-related businesses. While the hangars will not serve as hazardous material storage facilities, standard aviation-related chemicals such as lubricants and cleaning agents will be handled in compliance with all environmental and safety regulations.

Construction activities for the hangars are scheduled to begin in June 2025. The project will be constructed in multiple phases, with completion expected by the end of 2028. The initial phase will focus on the demolition of existing structures, site preparation, and grading at all four locations. Following this, the seven southwest hangars will be constructed first due to their larger capacity and immediate operational need. The next phase will involve the construction of the four northeast hangars and the single northwest hangar, including access roads and landscaping improvements. The final phase will include the construction of the southeast hangar, as well as taxiway connections and parking areas. A variety of heavy machinery and equipment will be used throughout the project, including excavators, bulldozers, cranes, concrete mixers, dump trucks, loaders, backhoes, compactors, and asphalt pavers. These vehicles will support grading, demolition, material transport, site preparation, and taxiway construction.

Existing remediation wells on-site—CEW-04B, CEW-05B, and CEW-06B within the footprint of Hangar 42, as well as additional remediation wells located within Hangar 41—will remain in

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place and operational throughout construction to support ongoing site remediation efforts. These wells, classified as EISB B Horizon extraction wells, are part of the Enhanced In-Situ Bioremediation (EISB) system. Coordination will be maintained with Advanced Air and project stakeholders to ensure continued accessibility to all wells during construction, including the protection or rerouting of any associated conveyance piping or infrastructure as needed. Preferably, two of these wells (CEW-06 and CEW-04 or CEW-05) will be converted to monitoring wells, featuring smaller surface aircraft-rated covers of 8 to 12 inches in diameter, by the end of April 2026 or early May 2026. These converted wells would remain accessible for semi-annual sampling, subject to approval by the Department of Toxic Substances Control. This plan is contingent on the ability to abandon the wells in the future without the use of a drill rig. All three wells will be properly abandoned prior to the completion of the hangar. Northrop Grumman and CDM Smith will work with Advanced Air to coordinate and maintain access to all wells during construction and ensure protection of the wells located within the footprint of both Hangars 41 and 42 during construction.

To minimize air and water pollution, temporary soil erosion and sediment control measures will be installed before construction begins and maintained until all disturbed areas are stabilized. Best Management Practices will be implemented to ensure proper stormwater management and environmental protection. Quality assurance testing for grading and soil compaction will be conducted by the project owner, with any deficiencies corrected at the contractor's expense. The project will also comply with local, state, and federal environmental regulations, ensuring that construction activities adhere to strict pollution prevention.

Pavement construction for access roads, hangar aprons, and taxiway connections will involve the removal and replacement of existing pavement, application of emulsified asphalt tack coats, and strict adherence to joint offset requirements to maintain structural integrity. Any irregular or defective longitudinal joints will be cut and corrected before additional paving layers are applied. The geotechnical design for hangar foundations will be based on subsurface investigations and laboratory testing. Soil borings will be advanced to a depth of 10 feet, following ASTM standards, and all soils will be classified using the Unified Soil Classification System. Logs of pavement cores will be prepared, detailing thickness, material composition, and structural characteristics to ensure long-term foundation stability.

Given the project's location and potential for ground-disturbing activities, we recognize the importance of engaging with your office early in the planning process. We respectfully request your input regarding cultural, historical, or archaeological resources that may be present within the project site. To ensure compliance with Assembly Bill 52 (PRC Section 21074) and other applicable regulations, we kindly request the opportunity to meet with your team to discuss any concerns and establish appropriate mitigation measures if necessary. We are available to provide project maps, environmental documents, and technical details and would appreciate the opportunity to discuss your concerns. Please let us know a convenient time for a consultation meeting.

We are reaching out to your organization as well as other tribal entities for this project, including:

Cahuilla Band of Indians
Address: 52701 CA Highway 371, Anza, CA 92539
Phone: (951) 763-2808
Website: https://cahuilla-nsn.gov/

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Gabrielino/Tongva Nation of the Greater Los Angeles Basin
Address: 106 ½ Judge John Aiso St #231, Los Angeles, CA 90012
Phone: (951) 807-0479
Website: http://www.gabrielino-tongva.com

Gabrielino Tongva Indians of California Tribal Council
Address: P.O. Box 490, Bellflower, CA 92581
Phone: (562) 761-6417
Website: N/A

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Address: P.O. Box 693, San Gabriel, CA 91778
Phone: (626) 286-1262
Website: https://www.gabrieleno-nsn.us/

Gabrielino-Tongva Tribe
Address: 23454 Vanowen Street, West Hills, CA 91307
Phone: (310) 403-6048
Website: https://gabrielinotribe.org/

Santa Rosa Band of Cahuilla Indians
Address: P.O. Box 391820, Anza, CA 92539
Phone: (951) 659-2700
Website: https://santarosa-nsn.gov/

Soboba Band of Luiseno Indians
Address: P.O. Box 487, San Jacinto, CA 92581
Phone: (951) 663-5279
Website: https://www.soboba-nsn.gov/

Lead Agency Contact: Guido Fernandez
Airport Division
City of Hawthorne
Hawthorne Municipal Airport
12101 Crenshaw Blvd. Ste. 300
Hawthorne, CA 90250
(310) 349-1636
gfernandez@cityofhawthorne.org818.551.2022

Project Sponsor's Name and Address: Donny Sandusky
12101 Crenshaw Blvd., Suite 100
Hawthorne, CA 90250
Office: (310) 644-3344 Ext. 710
Cell: (310) 334-9736
Fax: (310) 644-9344

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Letter for Tribal Consultation

Proposed Hawthorne Municipal Airport Hangar Development Project

CEQA Consultant: Jennifer J. Walker - Watearth Inc.,
3371 Glendale Blvd, Ste 101
Los Angeles, CA 90039
jwalker@watearth.com
510.529.5552

Sincerely,



Jennifer J. Walker PE, D.WRE, ENV SP, CFM, QSD, LEED AP BD+C President, **Watearth**

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Letter for Tribal Consultation

Proposed Hawthorne Municipal Airport Hangar Development Project

April 2, 2025

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693
San Gabriel, CA 91778

Dear Mr. Anthony Morales,

Hawthorne Municipal Airport (Jack Northrop Field) is proposing the Hawthorne Municipal Airport Hangar Development Project, which aims to enhance aviation operations by constructing 13 new hangars across four designated locations within the airport. The project is designed to increase storage capacity for private aircraft, improve operational efficiency, and support the airport's long-term growth. The hangars will be distributed throughout the airport, with seven in the southwest section, one in the southeast section, four in the northeast section, and one in the northwest section.

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Address: P.O. Box 393, Covina, CA 91723
Phone: (626) 926-4131
Website: https://gabrielenoindians.org/

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Address: 23454 Vanowen Street, West Hills, CA 91307
Phone: (310) 403-6048
Website: https://gabrielinotribe.org/

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Phone: (562) 761-6417
Website: N/A

Santa Rosa Band of Cahuilla Indians
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Website: https://santarosa-nsn.gov/

Soboba Band of Luiseno Indians
Address: P.O. Box 487, San Jacinto, CA 92581
Phone: (951) 663-5279
Website: https://www.soboba-nsn.gov/

Lead Agency Contact: Guido Fernandez
Airport Division
City of Hawthorne
Hawthorne Municipal Airport
12101 Crenshaw Blvd. Ste. 300
Hawthorne, CA 90250
(310) 349-1636
gfernandez@cityofhawthorne.org818.551.2022

Project Sponsor's Name and Address: Donny Sandusky
12101 Crenshaw Blvd., Suite 100
Hawthorne, CA 90250
Office: (310) 644-3344 Ext. 710
Cell: (310) 334-9736
Fax: (310) 644-9344

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Letter for Tribal Consultation

Proposed Hawthorne Municipal Airport Hangar Development Project

CEQA Consultant: Jennifer J. Walker - Watearth Inc.,
3371 Glendale Blvd, Ste 101
Los Angeles, CA 90039
jwalker@watearth.com
510.529.5552

Sincerely,



Jennifer J. Walker PE, D.WRE, ENV SP, CFM, QSD, LEED AP BD+C President, **Watearth**

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Letter for Tribal Consultation

Proposed Hawthorne Municipal Airport Hangar Development Project

April 2, 2025

Gabrielino Tongva Indians of California Tribal Council
Robert Dorame, Chairperson
P.O. Box 490
Bellflower, CA 90707

Dear Mr. Robert Dorame,

Hawthorne Municipal Airport (Jack Northrop Field) is proposing the Hawthorne Municipal Airport Hangar Development Project, which aims to enhance aviation operations by constructing 13 new hangars across four designated locations within the airport. The project is designed to increase storage capacity for private aircraft, improve operational efficiency, and support the airport's long-term growth. The hangars will be distributed throughout the airport, with seven in the southwest section, one in the southeast section, four in the northeast section, and one in the northwest section.

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Letter for Tribal Consultation

Proposed Hawthorne Municipal Airport Hangar Development Project

CEQA Consultant: Jennifer J. Walker - Watearth Inc.,
3371 Glendale Blvd, Ste 101
Los Angeles, CA 90039
jwalker@watearth.com
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Sincerely,



Jennifer J. Walker PE, D.WRE, ENV SP, CFM, QSD, LEED AP BD+C President, **Watearth**

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Letter for Tribal Consultation

Proposed Hawthorne Municipal Airport Hangar Development Project

April 2, 2025

Gabrielino-Tongva Tribe
Charles Alvarez, Chairperson
23454 Vanowen Street
West Hills, CA, 91307

Dear Mr. Charles Alvarez,

Hawthorne Municipal Airport (Jack Northrop Field) is proposing the Hawthorne Municipal Airport Hangar Development Project, which aims to enhance aviation operations by constructing 13 new hangars across four designated locations within the airport. The project is designed to increase storage capacity for private aircraft, improve operational efficiency, and support the airport's long-term growth. The hangars will be distributed throughout the airport, with seven in the southwest section, one in the southeast section, four in the northeast section, and one in the northwest section.

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Letter for Tribal Consultation

Proposed Hawthorne Municipal Airport Hangar Development Project

CEQA Consultant: Jennifer J. Walker - Watearth Inc.,
3371 Glendale Blvd, Ste 101
Los Angeles, CA 90039
jwalker@watearth.com
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Sincerely,



Jennifer J. Walker PE, D.WRE, ENV SP, CFM, QSD, LEED AP BD+C President, **Watearth**

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Letter for Tribal Consultation

Proposed Hawthorne Municipal Airport Hangar Development Project

April 2, 2025

Cahuilla Band of Indians
Erica Schenk, Chairperson
52701 CA Highway 371
Anza, CA, 92539

Dear Ms. Erica Schenk,

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Letter for Tribal Consultation

Proposed Hawthorne Municipal Airport Hangar Development Project

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Los Angeles, CA 90039
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Letter for Tribal Consultation

Proposed Hawthorne Municipal Airport Hangar Development Project

April 2, 2025

Santa Rosa Band of Cahuilla Indians
Steven Estrada, Tribal Chairman
P.O. Box 391820
Anza, CA, 92539

Dear Mr. Steven Estrada,

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510.529.5552

Sincerely,



Jennifer J. Walker PE, D.WRE, ENV SP, CFM, QSD, LEED AP BD+C President, **Watearth**

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Letter for Tribal Consultation

Proposed Hawthorne Municipal Airport Hangar Development Project

April 2, 2025

Soboba Band of Luiseno Indians
Joseph Ontiveros, Tribal Historic Preservation Officer
P.O. Box 487
San Jacinto, CA, 92581

Dear Mr. Joseph Ontiveros,

Hawthorne Municipal Airport (Jack Northrop Field) is proposing the Hawthorne Municipal Airport Hangar Development Project, which aims to enhance aviation operations by constructing 13 new hangars across four designated locations within the airport. The project is designed to increase storage capacity for private aircraft, improve operational efficiency, and support the airport's long-term growth. The hangars will be distributed throughout the airport, with seven in the southwest section, one in the southeast section, four in the northeast section, and one in the northwest section.

To accommodate the new hangars, six existing buildings totaling 18,000 square feet will be demolished, including two outdated hangars and four non-aviation storage buildings. In addition to these demolitions, the project will also remove approximately 55,000 square feet of impervious surfaces, including concrete pads, asphalt pavement, outdated utilities, and storm drain systems. The demolition process will involve the removal of 91,400 square feet of concrete pavement up to six inches thick, 68,335 square feet of asphalt paving up to four inches thick, 23 light poles and foundations, and various site infrastructure elements such as curbs, bollards, chain-link fencing, and stormwater features.

The newly constructed hangars will vary in size, ranging from 2,500 to 25,300 square feet. Each hangar will be purpose-built to accommodate private aircraft, small jets, and aviation-related equipment, incorporating fire suppression systems, modern lighting, and energy-efficient designs. Some hangars will also include office spaces and small workshops for aviation-related businesses. While the hangars will not serve as hazardous material storage facilities, standard aviation-related chemicals such as lubricants and cleaning agents will be handled in compliance with all environmental and safety regulations.

Construction activities for the hangars are scheduled to begin in June 2025. The project will be constructed in multiple phases, with completion expected by the end of 2028. The initial phase will focus on the demolition of existing structures, site preparation, and grading at all four locations. Following this, the seven southwest hangars will be constructed first due to their larger capacity and immediate operational need. The next phase will involve the construction of the four northeast hangars and the single northwest hangar, including access roads and landscaping improvements. The final phase will include the construction of the southeast hangar, as well as taxiway connections and parking areas. A variety of heavy machinery and equipment will be used throughout the project, including excavators, bulldozers, cranes, concrete mixers, dump trucks, loaders, backhoes, compactors, and asphalt pavers. These vehicles will support grading, demolition, material transport, site preparation, and taxiway construction.

Existing remediation wells on-site—CEW-04B, CEW-05B, and CEW-06B within the footprint of Hangar 42, as well as additional remediation wells located within Hangar 41—will remain in

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place and operational throughout construction to support ongoing site remediation efforts. These wells, classified as EISB B Horizon extraction wells, are part of the Enhanced In-Situ Bioremediation (EISB) system. Coordination will be maintained with Advanced Air and project stakeholders to ensure continued accessibility to all wells during construction, including the protection or rerouting of any associated conveyance piping or infrastructure as needed. Preferably, two of these wells (CEW-06 and CEW-04 or CEW-05) will be converted to monitoring wells, featuring smaller surface aircraft-rated covers of 8 to 12 inches in diameter, by the end of April 2026 or early May 2026. These converted wells would remain accessible for semi-annual sampling, subject to approval by the Department of Toxic Substances Control. This plan is contingent on the ability to abandon the wells in the future without the use of a drill rig. All three wells will be properly abandoned prior to the completion of the hangar. Northrop Grumman and CDM Smith will work with Advanced Air to coordinate and maintain access to all wells during construction and ensure protection of the wells located within the footprint of both Hangars 41 and 42 during construction.

To minimize air and water pollution, temporary soil erosion and sediment control measures will be installed before construction begins and maintained until all disturbed areas are stabilized. Best Management Practices will be implemented to ensure proper stormwater management and environmental protection. Quality assurance testing for grading and soil compaction will be conducted by the project owner, with any deficiencies corrected at the contractor's expense. The project will also comply with local, state, and federal environmental regulations, ensuring that construction activities adhere to strict pollution prevention.

Pavement construction for access roads, hangar aprons, and taxiway connections will involve the removal and replacement of existing pavement, application of emulsified asphalt tack coats, and strict adherence to joint offset requirements to maintain structural integrity. Any irregular or defective longitudinal joints will be cut and corrected before additional paving layers are applied. The geotechnical design for hangar foundations will be based on subsurface investigations and laboratory testing. Soil borings will be advanced to a depth of 10 feet, following ASTM standards, and all soils will be classified using the Unified Soil Classification System. Logs of pavement cores will be prepared, detailing thickness, material composition, and structural characteristics to ensure long-term foundation stability.

Given the project's location and potential for ground-disturbing activities, we recognize the importance of engaging with your office early in the planning process. We respectfully request your input regarding cultural, historical, or archaeological resources that may be present within the project site. To ensure compliance with Assembly Bill 52 (PRC Section 21074) and other applicable regulations, we kindly request the opportunity to meet with your team to discuss any concerns and establish appropriate mitigation measures if necessary. We are available to provide project maps, environmental documents, and technical details and would appreciate the opportunity to discuss your concerns. Please let us know a convenient time for a consultation meeting.

We are reaching out to your organization as well as other tribal entities for this project, including:

Cahuilla Band of Indians
Address: 52701 CA Highway 371, Anza, CA 92539
Phone: (951) 763-2808
Website: https://cahuilla-nsn.gov/

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Gabrielino/Tongva Nation of the Greater Los Angeles Basin
Address: 106 ½ Judge John Aiso St #231, Los Angeles, CA 90012
Phone: (951) 807-0479
Website: http://www.gabrielino-tongva.com

Gabrielino-Tongva Tribe
Address: 23454 Vanowen Street, West Hills, CA 91307
Phone: (310) 403-6048
Website: https://gabrielinotribe.org/

Gabrieleño Band of Mission Indians – Kizh Nation
Address: P.O. Box 393, Covina, CA 91723
Phone: (626) 926-4131
Website: https://gabrielenoindians.org/

Gabrielino Tongva Indians of California Tribal Council
Address: P.O. Box 490, Bellflower, CA 92581
Phone: (562) 761-6417
Website: N/A

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Address: P.O. Box 693, San Gabriel, CA 91778
Phone: (626) 286-1262
Website: https://www.gabrieleno-nsn.us/

Santa Rosa Band of Cahuilla Indians
Address: P.O. Box 391820, Anza, CA 92539
Phone: (951) 659-2700
Website: https://santarosa-nsn.gov/

Lead Agency Contact: Guido Fernandez
Airport Division
City of Hawthorne
Hawthorne Municipal Airport
12101 Crenshaw Blvd. Ste. 300
Hawthorne, CA 90250
(310) 349-1636
gfernandez@cityofhawthorne.org818.551.2022

Project Sponsor's Name and Address: Donny Sandusky
12101 Crenshaw Blvd., Suite 100
Hawthorne, CA 90250
Office: (310) 644-3344 Ext. 710
Cell: (310) 334-9736
Fax: (310) 644-9344

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Letter for Tribal Consultation

Proposed Hawthorne Municipal Airport Hangar Development Project

CEQA Consultant: Jennifer J. Walker - Watearth Inc.,
3371 Glendale Blvd, Ste 101
Los Angeles, CA 90039
jwalker@watearth.com
510.529.5552

Sincerely,



Jennifer J. Walker PE, D.WRE, ENV SP, CFM, QSD, LEED AP BD+C President, **Watearth**

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Letter for Tribal Consultation

Proposed Hawthorne Municipal Airport Hangar Development Project

April 2, 2025

Gabrielino/Tongva Nation
Sandonne Goad, Chairperson
106 ½ Judge John Aiso St., #231
Los Angeles, CA 90012

Dear Ms. Sandonne Goad,

Hawthorne Municipal Airport (Jack Northrop Field) is proposing the Hawthorne Municipal Airport Hangar Development Project, which aims to enhance aviation operations by constructing 13 new hangars across four designated locations within the airport. The project is designed to increase storage capacity for private aircraft, improve operational efficiency, and support the airport's long-term growth. The hangars will be distributed throughout the airport, with seven in the southwest section, one in the southeast section, four in the northeast section, and one in the northwest section.

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Cahuilla Band of Indians
Address: 52701 CA Highway 371, Anza, CA 92539
Phone: (951) 763-2808
Website: https://cahuilla-nsn.gov/

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Gabrieleño Band of Mission Indians – Kizh Nation
Address: P.O. Box 393, Covina, CA 91723
Phone: (626) 926-4131
Website: https://gabrielenoindians.org/

Gabrielino Tongva Indians of California Tribal Council
Address: P.O. Box 490, Bellflower, CA 92581
Phone: (562) 761-6417
Website: N/A

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Address: P.O. Box 693, San Gabriel, CA 91778
Phone: (626) 286-1262
Website: https://www.gabrieleno-nsn.us/

Gabrielino-Tongva Tribe
Address: 23454 Vanowen Street, West Hills, CA 91307
Phone: (310) 403-6048
Website: https://gabrielinotribe.org/

Santa Rosa Band of Cahuilla Indians
Address: P.O. Box 391820, Anza, CA 92539
Phone: (951) 659-2700
Website: https://santarosa-nsn.gov/

Soboba Band of Luiseno Indians
Address: P.O. Box 487, San Jacinto, CA 92581
Phone: (951) 663-5279
Website: https://www.soboba-nsn.gov/

Lead Agency Contact: Guido Fernandez
Airport Division
City of Hawthorne
Hawthorne Municipal Airport
12101 Crenshaw Blvd. Ste. 300
Hawthorne, CA 90250
(310) 349-1636
gfernandez@cityofhawthorne.org818.551.2022

Project Sponsor's Name and Address: Donny Sandusky
12101 Crenshaw Blvd., Suite 100
Hawthorne, CA 90250
Office: (310) 644-3344 Ext. 710
Cell: (310) 334-9736
Fax: (310) 644-9344

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Letter for Tribal Consultation

Proposed Hawthorne Municipal Airport Hangar Development Project

CEQA Consultant: Jennifer J. Walker - Watearth Inc.,
3371 Glendale Blvd, Ste 101
Los Angeles, CA 90039
jwalker@watearth.com
510.529.5552

Sincerely,



Jennifer J. Walker PE, D.WRE, ENV SP, CFM, QSD, LEED AP BD+C President, **Watearth**

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GABRIELEÑO BAND OF MISSION INDIANS - KIZH NATION
Historically known as The San Gabriel Band of Mission Indians recognized by the State of California as the aboriginal tribe of the Los Angeles basin

Tuesday, July 8, 2025

Guido Fernandez
Airport Manager
Hawthorne Municipal Airport
12101 Crenshaw Blvd. Ste. 300
Hawthorne, CA 90250
(310) 349-1636
gfernandez@cityofhawthorne.org

Subject: Formal Request for Government-to-Government Consultation – **Hawthorne Municipal Airport Hangar Development Project**

Dear Guido Fernandez,

On behalf of the Gabrieleno Band of Mission Indians Kizh Nation, I am formally requesting government-to-government consultation with the City of Los Angeles pursuant to Assembly Bill 52 (AB 52) and the California Environmental Quality Act (CEQA) regarding the proposed *Hawthorne Municipal Airport Hangar Development Project.* Our tribe has ancestral and cultural ties to this area, and we are concerned that the project may impact Tribal Cultural Resources (TCRs) within our traditional territory.

Under AB 52, lead agencies are required to engage in meaningful government-to-government consultation with our tribe who is ancestrally and culturally affiliated with the project area when the project undergoes CEQA review, in accordance with the law.

We request that formal consultation be initiated within the required timeframe, and we are prepared to meet at your earliest convenience. Please confirm receipt of this request and provide available dates for an initial consultation meeting.

For scheduling or further discussion, please contact me at gabrielenoindians@gmail.com or (844) 390 - 0787. We appreciate your commitment to ensuring compliance with AB 52 and protecting the cultural heritage of our tribal community. ***Please Note: AB 52, "consultation" shall have the same meaning as provided in SB 18 (Govt. Code Section 65352.4).***

Best regards,

Hereditary Chief Andrew Salas
Gabrieleño Band of Mission Indians–Kizh Nation

Andrew Salas, Chairman | Nadine Salas, Vice-Chairman | Dr. Christina Swindall Martinez, Secretary
Mike Jesus Lemos, Treasurer I | Samantha Lemos, Treasurer II | Richard Gradias, Chairman of the council of Elders

GABRIELEÑO BAND OF MISSION INDIANS - KIZH NATION
Historically known as The San Gabriel Band of Mission Indians recognized by the State of California as the aboriginal tribe of the Los Angeles basin

Thursday, July 17, 2025

Guido Fernandez
Airport Manager
City of Hawthorne
12101 Crenshaw Blvd. Ste. 300
Hawthorne, CA 90250
GFernandez@cityofhawthorne.org

Subject: Tribal Cultural Resource Consultation – Historical and Substantial Evidence for Proposed Hawthorne Municipal Airport Hangar Development Project

Dear Guido Fernandez,

On behalf of the Gabrieleño Band of Mission Indians – Kizh Nation, the undersigned submits this formal response regarding the proposed project in the vicinity of Hawthorne Municipal Airport. This area lies within our documented ancestral territory and demands a thorough cultural resource sensitivity assessment pursuant to AB52 and CEQA requirements.

The project location falls within the sovereign and cultural landscape of the Kizh Nation, the original inhabitants of the Los Angeles Basin. Long before European colonization, this area was home to complex and thriving Kizh settlements, ceremonial landscapes, and environmental stewardship practices. The Kizh (historically referred to as "Gabrieleno" by Spanish colonists) have occupied these lands for thousands of years — a fact supported by linguistic, ethnographic, archaeological, and oral traditional records.

The Kizh people built semi-permanent villages, crafted tule reed dwellings and watercraft, and maintained a reciprocal relationship with the land. Their ecological knowledge shaped land management, seasonal gathering, and sustainable harvesting methods throughout the region. The Hawthorne area specifically, situated along flat alluvial plains and adjacent to natural watercourses, was a highly suitable location for permanent habitation, gathering, and travel.

Village Location, Natural Resources, and Lifeways

Near the project area stood the ancestral Kizh village of *Sa'angna*, one of the major settlements situated near the Inglewood area. *Sa'angna*, along with nearby villages such as *Waachnga* and *'Ongoovanga*, formed a network of interdependent communities linked by trade, family ties, and ceremonial traditions. The region was abundant in natural resources. Waterways such as **Centinela Creek**, **Dominguez Slough**, and their now-altered tributaries once coursed through the landscape, providing fresh water, tule reeds, fish, amphibians, and migratory waterfowl.

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Acorns, chia, wildflowers, and medicinal plants grew along these riparian corridors, while coastal breezes brought seasonal predictability to the climate. These waterways were not only central to sustenance — they were also sacred, serving as cultural boundaries and spiritual conduits for the Kizh people.

This region also lay along a portion of the **ancient Salt Trail**, a significant Indigenous trade route connecting *Yaangna* (the central village near today's El Pueblo de Los Ángeles) to the Pacific coastline and the sacred bluffs of Palos Verdes. The trail passed through what is now Hawthorne, Lawndale, and El Segundo, used for generations by the Kizh people to transport sea salt, dried fish, abalone, olivella shell beads, asphaltum, and ceremonial items inland. The Salt Trail was not simply a utilitarian path — it was a spiritual and economic artery, deeply embedded in Kizh cosmology and kinship traditions.

The presence of this trail and its convergence with vital natural waterways underscores the cultural richness of this landscape. Although the surface may today appear urbanized, the soil beneath holds the potential for immense archaeological and cultural significance.

Spanish History and Land Grant Overlays

With the arrival of Spanish colonizers in the late 1700s, the Kizh were violently displaced from their land and lifeways. The construction of **Mission San Gabriel (1771)** marked the beginning of systematic efforts to absorb Indigenous populations into the mission system. The Kizh people were enslaved, converted under duress, and forced to abandon their ancestral villages. The coastal region around present-day Hawthorne was directly affected by the expanding reach of the mission system.

In the post-colonial era, this same region became part of the **Mexican land grant system**. Specifically, the **Rancho Sausal Redondo** was granted in 1837 to Antonio Ygnacio Ávila and encompassed the present-day cities of Hawthorne, El Segundo, Lawndale, and parts of Manhattan Beach. These ranchos were built directly atop ancestral Kizh homelands — erasing native land tenure in the eyes of colonial governments but never severing the Kizh people's ties to place.

The forced transition from mission to rancho further disrupted Kizh territory, but the village memory, place names, and traditional boundaries remain intact in our oral and genealogical histories.

Archaeological Context and Sensitivity

Archaeological evidence across the greater Los Angeles Basin — and particularly in neighboring areas such as El Segundo, Inglewood, and LAX — supports the presence of prehistoric cultural resources including habitation sites, shell middens, cremation pits, lithic scatters, mortars, and human burials. For example, excavations during infrastructure expansion at LAX in the 1980s revealed culturally rich and intact archaeological deposits less than two miles from the current project area.

Due to the shallow sediment layers and low development depths in the region, subsurface materials may remain undisturbed beneath modern infrastructure. This is especially true along ancient travel corridors and near former riparian zones — exactly where this project is situated. Therefore, any excavation, grading, or trenching activity near Hawthorne Airport carries a *high likelihood* of intersecting unrecorded tribal cultural resources, including ancestral remains and funerary items protected under CEQA and the Public Resources Code.

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Recommended Protective Measures

Given the historical, cultural, and archaeological significance of the Hawthorne Airport region and its deep-rooted connection to the Kizh Nation, we respectfully request the following protective measures:

1. **Tribal Monitoring** – A certified Kizh Nation tribal monitor must be onsite during all ground-disturbing activities, including grading, excavation, boring, trenching, and soil testing.
2. **Cultural Sensitivity Training** – Pre-construction training must be provided to all project personnel by the Kizh Nation, detailing the importance of the site and appropriate procedures for inadvertent discoveries.
3. **Implementation of Kizh Nation Mitigation Measures –** In order to safeguard any tribal cultural resources that may be encountered during ground-disturbing activities, we respectfully request that the City of Hawthorne adopt and incorporate the Kizh Nation's specific mitigation measures.

These measures have been meticulously developed to reflect our Tribe's unique historical, cultural, and ancestral relationship to the land and are essential to upholding the integrity of our sacred sites. Their implementation is also critical for ensuring compliance with AB 52 consultation obligations and cultural resource protection standards under CEQA.

The Gabrieleño Band of Mission Indians – Kizh Nation remains committed to working collaboratively with your agency and all project stakeholders to protect and preserve our tribal cultural heritage. We are not a consulting party by invitation — we are the original people of this land and demand that our sovereignty and history be recognized accordingly.

Please consider this letter a formal request for consultation under AB 52 and a statement of the required mitigation measures that must be implemented. We look forward to ensuring that any development in this culturally sensitive area proceeds with the respect, oversight, and protections that our history demands.

Respectfully,

Hereditary Chief Andrew Salas
Gabrieleño Band of Mission Indians–Kizh Nation

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GABRIELEÑO BAND OF MISSION INDIANS - KIZH NATION
California State Recognized Aboriginal Tribe of the Los Angeles Basin
(Historically known as the Gabrieleño Tribal Council - San Gabriel Band of Mission Indians)

Hawthorne Municipal Airport Hangar Development Project

GABRIELENO BAND OF MISSION INDIANS – KIZH NATION - PROPOSED TCR MITIGATION MEASURES

TCR-1: Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities

A. The project applicant/lead agency shall retain a Native American Monitor from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation. The monitor shall be retained prior to the commencement of any "ground-disturbing activity" for the subject project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). "Ground-disturbing activity" shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching.
B. A copy of the executed monitoring agreement shall be submitted to the lead agency prior to the earlier of the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity.
C. The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or "TCR"), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the project applicant/lead agency upon written request to the Tribe.
D. On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Kizh from a designated point of contact for the project applicant/lead agency that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh to the project applicant/lead agency that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact Kizh TCRs.

TCR-2: Unanticipated Discovery of Tribal Cultural Resource Objects (Non-Funerary/Non-Ceremonial)

A. Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the Kizh monitor and/or Kizh archaeologist. The Kizh will recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate, in the Tribe's sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural and/or historic purposes.

TCR-3: Unanticipated Discovery of Human Remains and Associated Funerary or Ceremonial Objects

A. Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute.
B. If Native American human remains and/or grave goods are discovered or recognized on the project site, then Public Resource Code 5097.9 as well as Health and Safety Code Section 7050.5 shall be followed.
C. Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2).
D. Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods.
E. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.

PLEASE NOTE THE FOLLOWING:

Any/all revisions to the Kizh's proposed TCR mitigations set forth above must be requested in writing, and not more than ten (30) calendar days from the date that we consulted on the subject Project so that we can conclude consultation. Requested revisions shall be delivered to the Kizh via email at admin@gabrielenoindians.org, and in a Word document, redline format. Please include as the email subject: "REQUEST FOR MITIGATION REVISIONS," and identify the project name and location/address. If revisions are not requested within 10 calendar days of consultation, the Kizh's proposed mitigations are presumed accepted as proposed (i.e., as set forth above). The laws preserving the confidentiality of Native

The laws preserving the confidentiality of Native
American documents and records prohibits the inclusion of any information about the location of Native American artifacts, sites, sacred lands, or any other information that is exempt from public disclosure pursuant to the Public Records Act. (Cal. Code Regs. § 15120(d) Rocklin (2011) 197 Cal.App.4th 200, at p. 220. Please be advised that these protective mitigation measures are property of the KIZH Nation Tribal government and no other entity or Tribal government nor should they be utilized for any other Tribal government or entity and are protected under the AB52 confidentiality act

Thank you for your anticipated cooperation.

Lee Vella

From: Caceres, David <dcaceres@cityofhawthorne.org>
Sent: Friday, November 21, 2025 4:32 PM
To: gabrielenoindians@gmail.com
Cc: kara@grant-law.net
Subject: FW: RE: Resend -- Fw: Hawthorne Airport - Kizh Nation

Dear Sir:

I am following up with my email below.

City staff reviewed your letter, dated July 17, 2025, and compared the requested mitigation measures with those measures identified in the City's MND. Specifically, we found that you requested "cultural sensitivity training" that was not included in the City's MND; as a result, the City is now going to modify the proposed mitigation measures to include such training.

We hope that the above now addresses all of your concerns. If not, please respond by midday on Tuesday, November 25, 2025. If the City does not hear from you, it will conclude that that consultation has concluded pursuant to Public Resources Code Sec. 21080.3.2(b)(2).

Yours,

David

From: Caceres, David
Sent: Tuesday, November 18, 2025 1:55 PM
To: 'gabrielenoindians@gmail.com' <gabrielenoindians@gmail.com>
Cc: 'Dizike.SoCalNewswire@post.com' <Dizike.SoCalNewswire@post.com>; kara@grant-law.net
Subject: FW: RE: Resend -- Fw: Hawthorne Airport - Kizh Nation

Dear Sir:

My name is David Caceres, and I currently serve as the Interim City Attorney for the City of Hawthorne ("City").

In the past few days, I have attempted to contact your legal counsel, but to no avail. (She's copied on this email.)

I am writing to you now in response to news articles written by Ms. Dizike. Please know that the City (as Lead Agency) remains committed to ensuring that the mitigation measures previously requested by Ms. Grant are in fact accomplished. To the best of my knowledge, they are now set forth within the City's MND, which is set for a public hearing on December 9, 2025.

To the extent that you disagree with any of the above, please do not hesitate to let me know. I will endeavor to remedy your concerns.

Yours,

David

From: Dizike.SoCalNewswire@post.com <Dizike.SoCalNewswire@post.com>
Sent: Tuesday, November 18, 2025 8:25 AM
To: Caceres, David <dcaceres@cityofhawthorne.org>
Subject: Re: RE: Resend -- Fw: Hawthorne Airport - Kizh Nation

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Good morning David.

Hmm. I hope Kara's health is ok. You might try reaching out to Andrew Salas, the Hereditary Chief for the Kizh Nation. I spoke with both Andrew and Kara for the feautre. Andrew is the party that issued the July 8 and July 17 letters included in the MND.

Andrew Salas - Phone: (626)926-4131 / Email: gabrielenoindians@gmail.com

My best,

Cind Dizike
Investigative Journalist | Feature Writer
SoCalNewswire -delivers original news features & press releases directly to local journalists and media outlets for publication.
Dizike.SoCalNewswire@post.com | (818)389-3141 | Editors: SocalNewswire@post.com

Sent: Monday, November 17, 2025 at 2:49 PM
From: "Caceres, David" <dcaceres@cityofhawthorne.org>
To: "Dizike.SoCalNewswire@post.com" <Dizike.SoCalNewswire@post.com>
Subject: RE: Resend -- Fw: Hawthorne Airport - Kizh Nation

Hi Cind,

Happy Monday!

I just wanted you to know that I've made two attempts to Chief Salas' legal counsel and I have not heard back from her.

Yours,

David

From: Dizike.SoCalNewswire@post.com <Dizike.SoCalNewswire@post.com>
Sent: Friday, November 14, 2025 7:57 PM
To: Caceres, David <dcaceres@cityofhawthorne.org>; kara@grant-law.net
Subject: Resend -- Fw: Hawthorne Airport - Kizh Nation

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Second send. David - I sent to *.com* instead of *.org*. Sorry!!

Hi David and Kara.

David, it was a pleasure speaking with you today.

Kara, David Caceras is the City of Hawthorne's (interim) City Attorney. He would like to speak with you and help resolve any concerns the Kizh Nation may have over the Hawthorne Airport project. His cell is (424)337-3038.

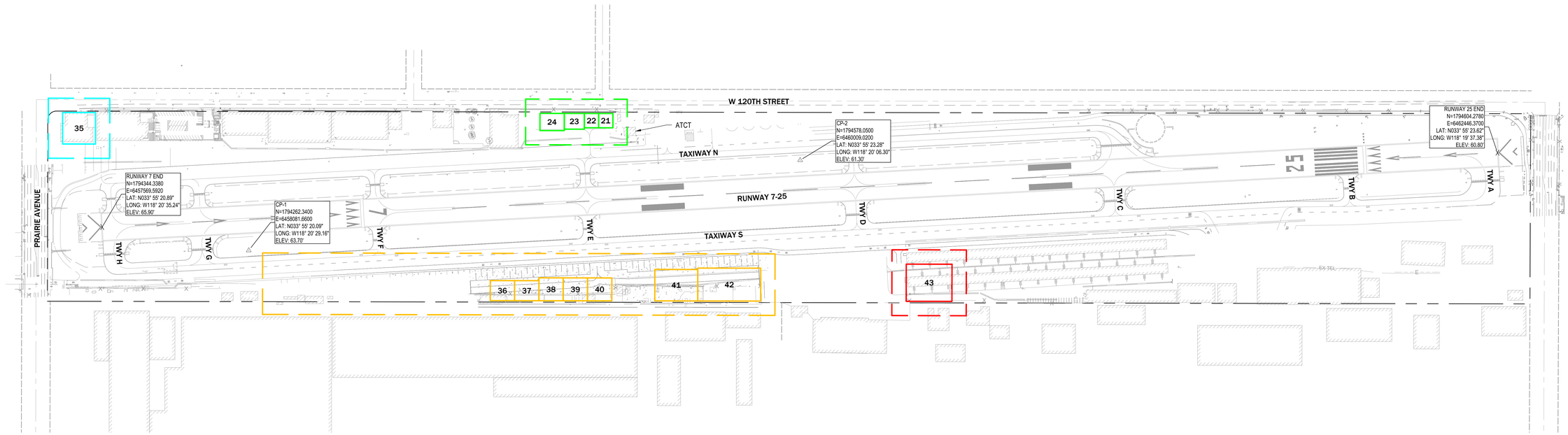
David, attached please find the email issued from the airport manager dated July 29, 2025 that Hereditary Chief Andrew Salas requested I include in this communication. Mr. Salas emphasized that the letter conveys the city/airport *"will not be retaining a tribal monitor to oversee teh project."*

I've also attached my copy of the feautre that was released. The newswire distributes to all major (and small) regional publications, as well as individual editors and journalists. Typically, we see a mix of outlets that either run the story verbatim or adapt it with attribution to their own outlet — both practices are permitted. Pickup can occur immediately or be delayed by several days or weeks, depending on the topic, its time sensitivity, and the editorial discretion of each publication.

May you both have a wonderful weekend!

Cind Dizike
Investigative Journalist | Feature Writer
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Appendix C
Civil Design Plans



GENERAL NOTES

GENERAL CONSTRUCTION NOTES

1. THESE DRAWINGS HAVE BEEN PREPARED, IN PART, BASED UPON RECORD DRAWINGS AND/OR CAD FILES FURNISHED BY OTHERS. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, THOSE UTILIZING THE INFORMATION ON THESE DRAWINGS ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY PURPOSE.
2. EXISTING UTILITIES WERE TAKEN FROM PLANS OF RECORD. THEY HAVE BEEN SHOWN TO THE EXTENT KNOWN AND ARE OFFERED IN GOOD FAITH SOLELY FOR INFORMATIONAL PURPOSES. THEY MAY NOT REFLECT ACTUAL LOCATIONS AND MAY NOT BE INCLUSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION.
3. THE ACTUAL LOCATION AND ELEVATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
4. IN THE EVENT OF DAMAGE TO EXISTING UTILITIES OR CABLES, THE ENGINEER AND OWNER SHALL BE NOTIFIED IMMEDIATELY.
5. THE CONTRACTOR SHALL REPAIR ALL DAMAGE TO UTILITIES OR CABLES, AS DIRECTED BY THE ENGINEER, IMMEDIATELY AND AT THE CONTRACTOR'S EXPENSE.
6. ALL AREAS DISTURBED AS A RESULT OF THE CONTRACTOR'S STAGING AND CONSTRUCTION OPERATIONS SHALL BE RESTORED EQUAL TO OR BETTER THAN ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
7. ALL DIRT, DUST, STONES AND LOOSE DEBRIS SHALL BE CONTINUOUSLY REMOVED FROM ALL PAVED SURFACES DURING THIS CONTRACT.
8. THIS CONTRACT DOES NOT ALLOW FOR PRICE INCREASES DUE TO ESCALATION IN COST OF UNIT BID ITEMS. THE CONTRACTOR SHALL TAKE THIS INTO CONSIDERATION WHEN PREPARING UNIT PRICES FOR BID.
9. THE OWNER RESERVES THE RIGHT TO ELIMINATE ANY ITEMS OF THE CONTRACT AND PERFORM THESE ITEMS WITH ITS FORCES AND MATERIALS. IT IS ESTIMATED THAT UP TO 8% OF THE PROJECT MAY BE COMPLETED BY THE OWNER. THE ITEMS TO BE COMPLETED BY THE OWNER WILL BE SPECIFIED PRIOR TO AWARD.
10. THE OWNER RESERVES THE RIGHT TO SALVAGE FENCE MATERIALS. THE MATERIAL TO BE SALVAGED IS IDENTIFIED IN THE SPECIFICATION. SALVAGED MATERIAL SHALL BE STOCKPILED AT A LOCATION DESIGNATED BY THE OWNER IN GOOD CONDITION.ALL OTHER FENCE MATERIAL SHALL BE SPOILED OFF AIRPORT PROPERTY AT A PROPER DISPOSAL SITE SELECTED BY THE CONTRACTOR.

GRADING AND EXCAVATION NOTES

11. QUALITY ASSURANCE TESTS WILL BE MADE BY AND AT THE EXPENSE OF THE OWNER, UNLESS OTHERWISE NOTED. THE COST OF ALL FAILING TESTS SHALL BE BORNE BY THE CONTRACTOR.
12. THE EXACT LOCATIONS AND DIMENSIONS OF PAVEMENT TO BE RECONSTRUCTED SHALL BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION.
13. ALL SPOIL SHALL BE DISPOSED OF OFF-SITE AT THE CONTRACTORS EXPENSE.
14. THE COMBINATION OF SILT/CLAY SOILS AND HIGH NATURAL MOISTURE CONTENTS CREATE THE POTENTIAL FOR LOSS OF STRENGTH UNDER REPETITIVE LOADINGS OR VIBRATION. THE CONTRACTOR SHOULD TAKE THESE FACTORS INTO CONSIDERATION WHEN SELECTING EQUIPMENT, METHODS AND MEANS FOR CONSTRUCTION OF THIS PROJECT, AS WELL AS HAULING EQUIPMENT THAT WILL OPERATE IN THE AREA THROUGHOUT CONSTRUCTION.ANY DAMAGE TO THE SUBGRADE CONDITION AS A RESULT OF CONSTRUCTION OPERATIONS SHALL BE RESTORED TO EQUAL OR BETTER THAN ORIGINAL CONDITION, AS DIRECTED BY THE ENGINEER AND ALL AT THE CONTRACTOR'S EXPENSE.
15. TEMPORARY AIR AND WATER POLLUTION, SOIL EROSION AND SILTATION CONTROL WORK PERFORMED FOR PROTECTION OF CONSTRUCTION AREAS OUTSIDE THE CONSTRUCTION LIMITS, SUCH AS BORROW AREAS AND WASTE AREAS, HAUL ROADS, EQUIPMENT AND MATERIAL STORAGE SITES, AND TEMPORARY PLANT SITES, WILL NOT BE MEASURED AND PAID FOR DIRECTLY BUT SHALL BE CONSIDERED AS A SUBSIDIARY OBLIGATION OF THE CONTRACTOR.
16. ALL SOIL EROSION AND SEDIMENT CONTROL DEVICES AND MATERIALS SHALL BE IN PLACE PRIOR TO BEGINNING EARTHWORK OPERATIONS AND SHALL BE MAINTAINED UNTIL THE NEW SLOPES ARE STABILIZED WITH SEEDING AND/OR SLOPE PROTECTION.

SURVEY NOTES

17. ALL ELEVATIONS REFER TO NAVD 88 VERTICAL DATUM. COORDINATES REFER NAD 83 HORIZONTAL DATUM.
18. THE TOPOGRAPHIC FEATURES SHOWN HEREON WERE COMPILED FROM FIELD SURVEY PERFORMED BY GGI DATED AUGUST 25 2024.

PAVING NOTES

19. THE CONTRACTOR'S ATTENTION IS DIRECTED TO ITEM P-101 "PREPARATION/REMOVAL OF EXISTING PAVMEMENTS" AS IT RELATES TO FILLING JOINTS AND CRACKS IN EXISTING PAVEMENT. A MIXTURE OF EMULSIFIED ASPHALT AND SAND IS REQUIRED TO FILL JOINTS AND CRACKS IN EXISTING PAVEMENT. ITEM P-605,"JOINT SEALING FILLER" WILL NOT BE ALLOWED.
20. EMULSIFIED ASPHALT TACK COAT, ITEM P-603, SHALL BE APPLIED PRIOR TO PLACING EACH LIFT OF PAVEMENT, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
21. TRANSVERSE JOINTS IN ONE COURSE SHALL BE OFFSET BY AT LEAST 10 FEET (3 M) FROM TRANSVERSE JOINTS IN THE PREVIOUS COURSE. TRANSVERSE JOINTS IN ADJACENT LANES SHALL BE OFFSET A MINIMUM OF 10 FEET (3 M).
22. THE LONGITUDINAL JOINT IN ONE COURSE SHALL OFFSET THE LONGITUDINAL JOINT IN THE COURSE IMMEDIATELY BELOW BY AT LEAST ONE FOOT (30 CM); HOWEVER, THE JOINT IN THE SURFACE TOP COURSE SHALL BE AT THE CENTERLINE OF CROWNED PAVEMENTS.
23. PROPOSED BITUMINOUS SURFACE COURSE TO BE INSTALLED IN PAVEMENT RECONSTRUCTION AREAS, SHALL BE SUBJECTED TO THE SAME MATERIAL ACCEPTANCE CRITERIA AS THE ASPHALT LEVELING COURSE.
24. LONGITUDINAL JOINTS WHICH HAVE BEEN LEFT EXPOSED FOR MORE THAN FOUR (4) HOURS; THE SURFACE TEMPERATURE HAS COOLED TO LESS THAN 175°F (80°C); OR ARE IRREGULAR, DAMAGED, UNCOMPACTED OR OTHERWISE DEFECTIVE SHALL BE CUT BACK WITH A CUTTING WHEEL OR PAVEMENT SAW A MAXIMUM OF 3 INCHES (75 MM) TO EXPOSE A CLEAN, SOUND, UNIFORM VERTICAL SURFACE FOR THE FULL DEPTH OF THE COURSE. ALL CUTBACK MATERIAL AND ANY LAITANCE PRODUCED FROM CUTTING JOINTS SHALL BE REMOVED FROM THE PROJECT. ASPHALT TACK COAT IN ACCORDANCE WITH P-603 SHALL BE APPLIED TO THE CLEAN, DRY JOINT PRIOR TO PLACING ANY ADDITIONAL FRESH ASPHALT AGAINST THE JOINT. THE COST OF THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE ASPHALT.

MARKING NOTES

25. REMOVAL OF EXISTING MARKINGS SHALL BE IN ACCORDANCE WITH ITEM P-101.

GEOTECHNICAL NOTES

26. BORINGS SHALL BE ADVANCED TO A CONTINUOUS DEPTH OF 10 FEET IN ACCORDANCE WITH ASTM D-1586.
27. LABORATORY COMPACTION TESTS SHALL BE PERFORMED IN ACCORDANCE WITH ASTM D-1557.
28. ALL SOILS SHALL BE CLASSIFIED ACCORDING TO THE UNIFIED SOIL CLASSIFICATION SYSTEM IN ADDITION TO VISUAL SOIL DESCRIPTIONS.
29. THE LABORATORY SHALL PROVIDE LOGS OF PAVEMENT CORES TO INCLUDE THICKNESS, MIX TYPE, AGGREGATE TYPE, MAXIMUM AGGREGATE SIZE, ETC.

LEGEND

- SOUTHWEST HANGAR DEVELOPMENT
- SOUTHEAST HANGAR DEVELOPMENT
- NORTHWEST HANGAR DEVELOPMENT
- NORTHEAST HANGAR DEVELOPMENT
- BUILDING RESTRICTION LINE
- TAXIWAY OBJECT FREE AREA
- FIRE WATER PIPE
- CHAIN LINK FENCE
- ELECTRICAL PULLBOX OR STRUCTURE
- AREA LIGHT POLE
- STORM DRAIN CATCH BASIN
- FIRE HYDRANT
- WATER VALVE
- BOLLARD OR POST
- AIRCRAFT TIE-DOWN ANCHOR
- STORM DRAIN INLET PROTECTION
- SHEET FLOW ARROW
- GRAVEL BAG BARRIER PROTECTION
- STORM DRAIN PIPE
- SANITARY SEWER PIPE
- UNDERGROUND ELECTRICAL CONDUIT
- STORM DRAIN CATCH BASIN
- ASPHALT PAVEMENT REMOVAL
- CONCRETE PAVEMENT REMOVAL
- BUILDING AND FOUNDATION REMOVAL
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE PAVEMENT

150 0 150 300FT.
150'

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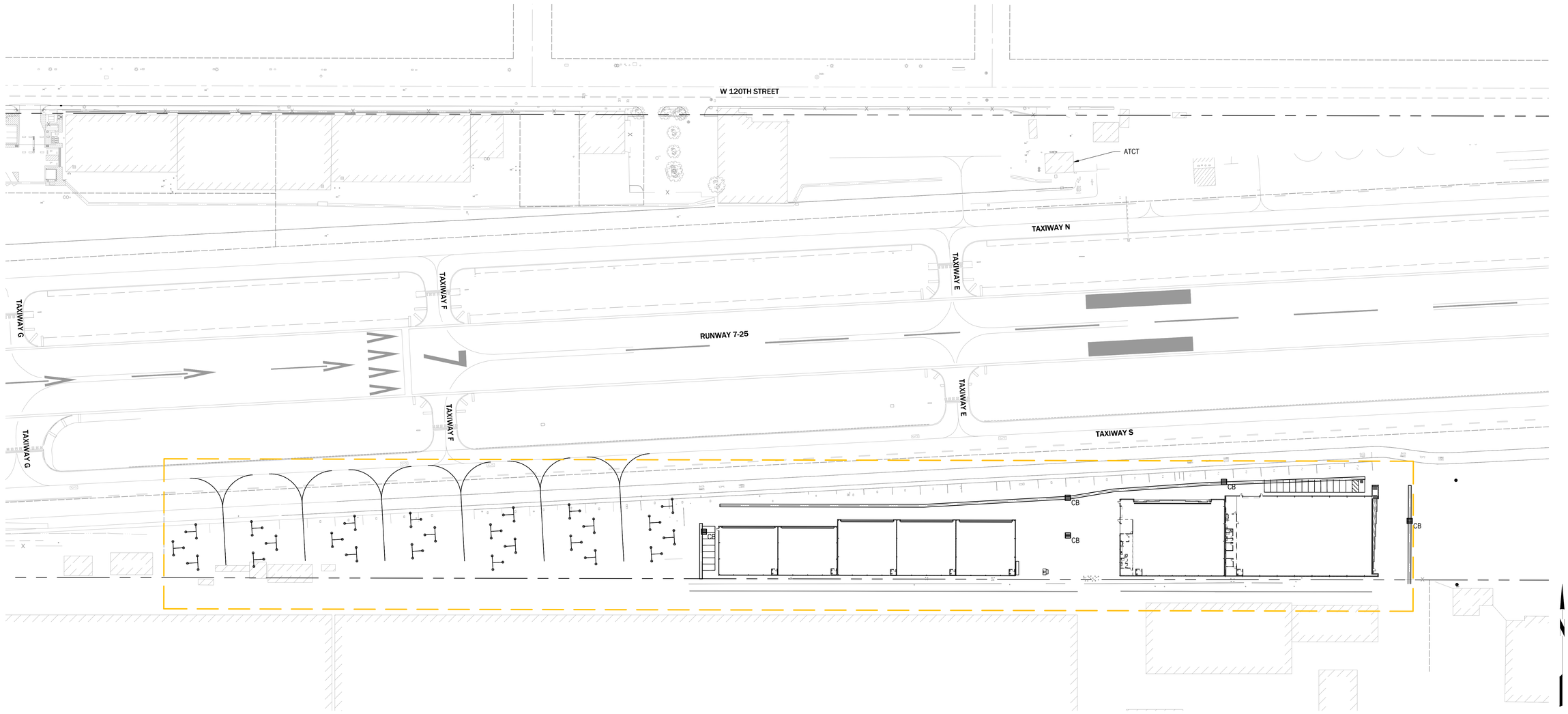
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OVERALL PROJECT GENERAL PLAN

GI101

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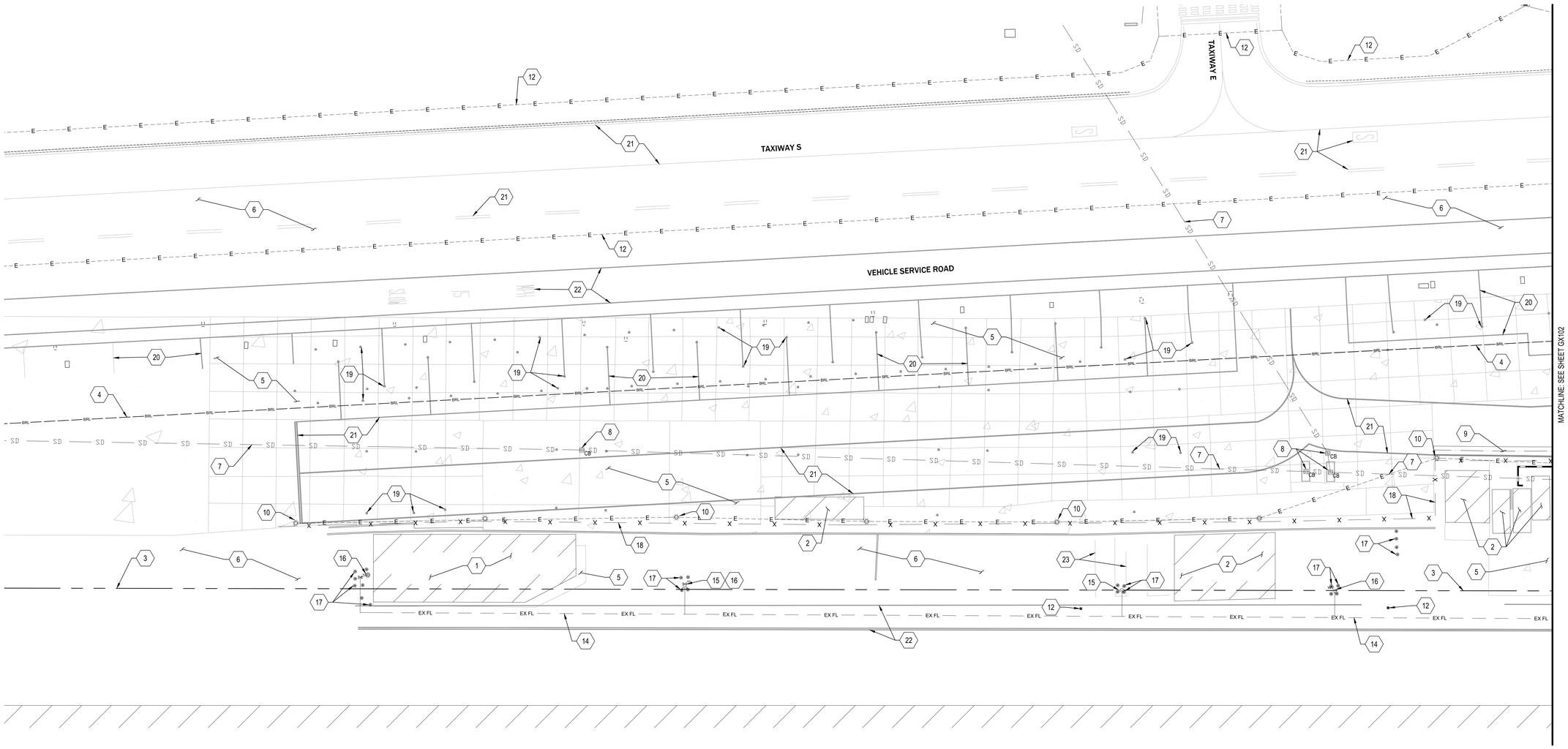
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SOUTHWEST SITEPLAN

GI102

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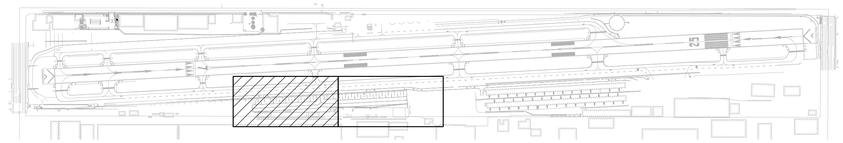
LEGEND

- BUILDING RESTRICTION LINE
- TAXIWAY OBJECT FREE AREA
- STORM DRAIN PIPE
- SANITARY SEWER PIPE
- UNDERGROUND ELECTRICAL CONDUIT
- FIRE WATER PIPE
- CHAIN LINK FENCE
- ELECTRICAL PULLBOX OR STRUCTURE
- AREA LIGHT POLE
- STORM DRAIN CATCH BASIN
- FIRE HYDRANT
- WATER VALVE
- BOLLARD OR POST
- AIRCRAFT TIE-DOWN ANCHOR

KEYED NOTES

1. HANGAR BUILDING
2. STORAGE BUILDING OR STRUCTURE
3. AIRFIELD PROPERTY LINE
4. BUILDING RESTRICTION LINE
5. CONCRETE PAVEMENT
6. ASPHALT PAVEMENT
7. STORM DRAIN PIPE
8. STORM DRAIN CATCH BASIN
9. CONCRETE VALLEY GUTTER
10. OVERHEAD AREA LIGHT POLE, (TYP.)
11. UNDERGROUND ELECTRICAL CONDUIT
12. ELECTRICAL PULLBOX OR STRUCTURE, (TYP.)
13. SANITARY SEWER PIPE
14. FIRE WATER PIPE
15. FIRE HYDRANT
16. WATER VALVE OR STRUCTURE
17. PROTECTIVE BOLLARD OR POST, (TYP.)
18. CHAIN LINK FENCE
19. AIRCRAFT TIE-DOWN ANCHOR, (TYP.)
20. TIE-DOWN MARKINGS, (TYP.)
21. TAXIWAY MARKINGS
22. ACCESS ROAD MARKINGS

20 0 20 40FT.
20'



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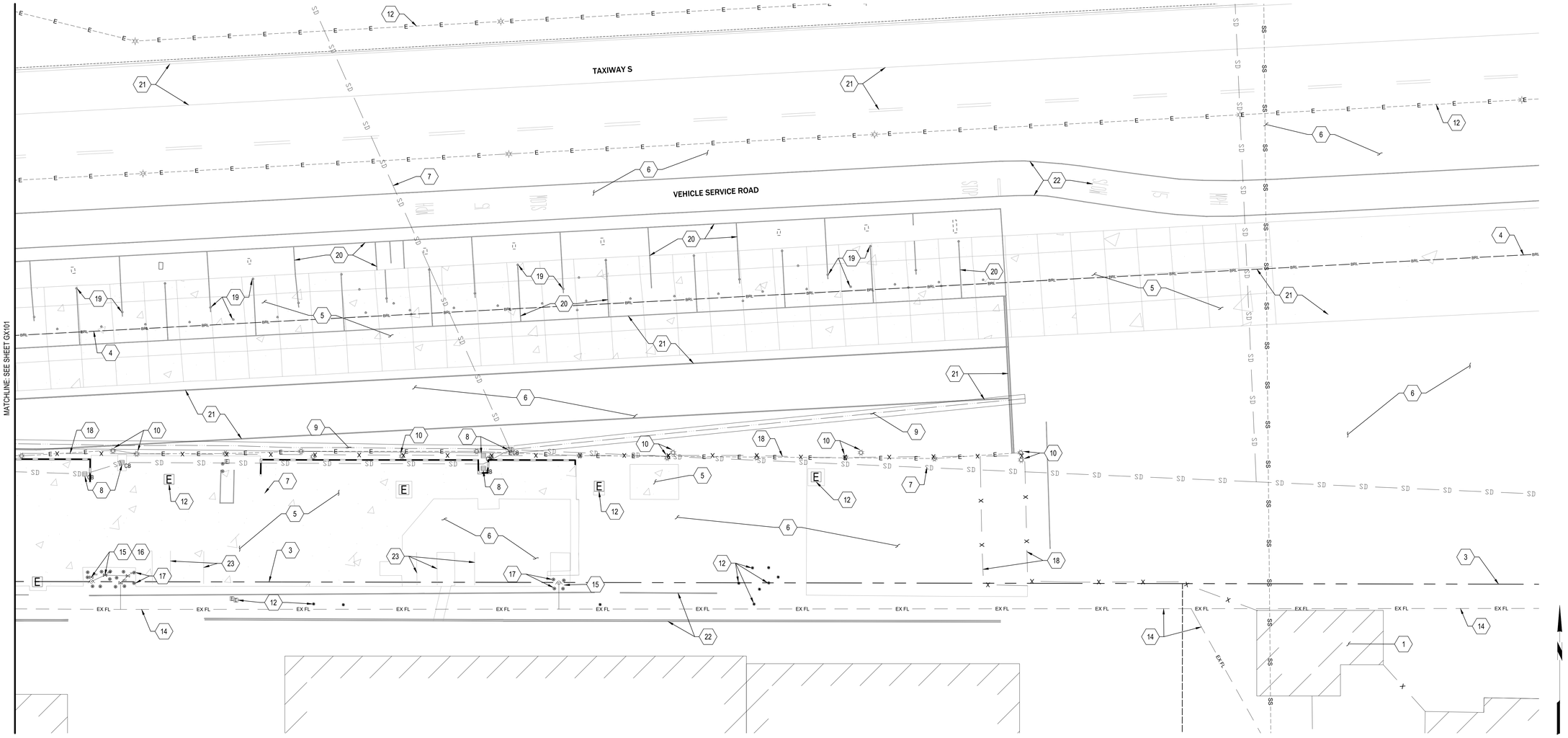
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EXISTING CONDITIONS PLAN

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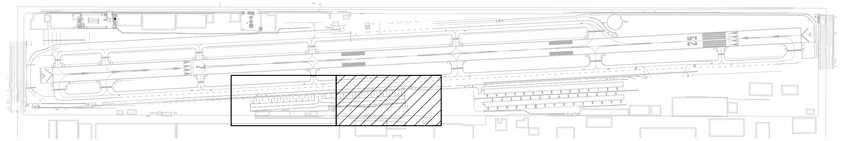


LEGEND

BRL	BUILDING RESTRICTION LINE
TOFA	TAXIWAY OBJECT FREE AREA
SD	STORM DRAIN PIPE
SS	SANITARY SEWER PIPE
E	UNDERGROUND ELECTRICAL CONDUIT
EX FL	FIRE WATER PIPE
X	CHAIN LINK FENCE
E	ELECTRICAL PULLBOX OR STRUCTURE
	AREA LIGHT POLE
CB	STORM DRAIN CATCH BASIN
	FIRE HYDRANT
	WATER VALVE
	BOLLARD OR POST
	AIRCRAFT TIE-DOWN ANCHOR

KEYED NOTES

1. HANGAR BUILDING
3. AIRFIELD PROPERTY LINE
4. BUILDING RESTRICTION LINE
5. CONCRETE PAVEMENT
6. ASPHALT PAVEMENT
7. STORM DRAIN PIPE
8. STORM DRAIN CATCH BASIN
9. CONCRETE VALLEY GUTTER
10. OVERHEAD AREA LIGHT POLE, (TYP.)
11. UNDERGROUND ELECTRICAL CONDUIT
12. ELECTRICAL PULLBOX OR STRUCTURE, (TYP.)
13. SANITARY SEWER PIPE
14. FIRE WATER PIPE
15. FIRE HYDRANT
16. WATER VALVE OR STRUCTURE
17. PROTECTIVE BOLLARD OR POST, (TYP.)
18. CHAIN LINK FENCE
19. AIRCRAFT TIE-DOWN ANCHOR, (TYP.)
20. TIE-DOWN MARKINGS, (TYP.)
21. TAXIWAY MARKINGS
22. ACCESS ROAD MARKINGS



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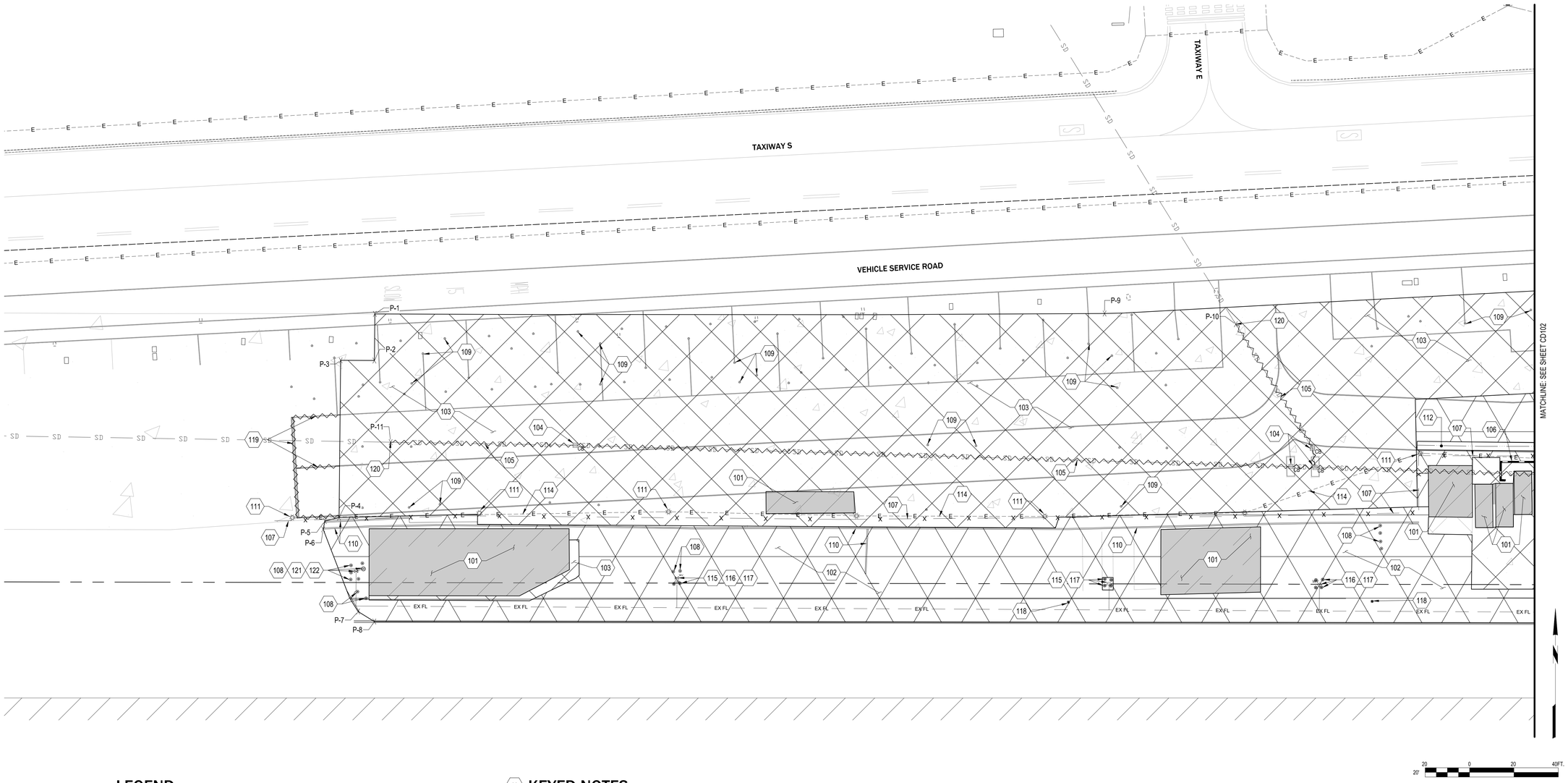
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EXISTING CONDITIONS PLAN

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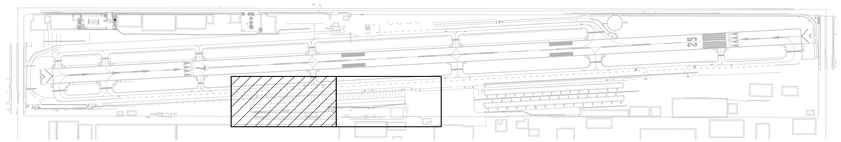
LEGEND

- ASPHALT PAVEMENT REMOVAL
- CONCRETE PAVEMENT REMOVAL
- BUILDING AND FOUNDATION REMOVAL

KEYED NOTES

101. REMOVE BUILDING AND FOUNDATION, ITEM P-640.
102. REMOVE ASPHALT PAVEMENT, ITEM P-152.
103. REMOVE CONCRETEC PAVEMENT, ITEM P-152.
104. REMOVE CATCH BASIN.
105. REMOVE STORM DRAIN PIPE.
107. REMOVE CHAIN LINK FENCE.
108. REMOVE BOLLARD OR POST, (TYP.).
109. REMOVE AIRCRAFT TIE-DOWNS ANCHORS, (TYP.).
110. REMOVE CONCRETE CURB.
111. REMOVE AREA LIGHT POLE, (TYP.).
112. REMOVE CONCRETE VALLEY GUTTER.
114. REMOVE ELECTRICAL CONDUIT AND CONDUCTORS.
115. FIRE HYDRANT TO REMAIN, PROTECT IN PLACE.
116. DOMESTIC WATER VALVE TO REMAIN, PROTECT IN PLACE.
117. BOLARD OR POST TO REMAIN, PROTECT IN PLACE.
118. ELECTRICAL STRUCTURE TO REMAIN, PROTECT IN PLACE.
119. OBLITERATE APRON MARKINGS OUTSIDE OF PAVEMENT REMOVAL.
120. CAP EXISTING STORM DRAIN PIPE
121. REMOVE DOMESTIC WATER METER
122. REMOVE DOMESTIC WATER VALVE, CAP PIPE AT VALVLE

POINT TABLE		
POINT #	NORTHING	EASTING
1	1794203.09	6458893.04
2	1794182.10	6458892.83
3	1794182.17	6458877.62
4	1794111.33	6458876.91
5	1794109.78	6458870.49
6	1794106.04	6458869.73
7	1794068.99	6458885.48
8	1794064.45	6458892.80
9	1794203.26	6459222.03
10	1794198.43	6459281.18
11	1794145.28	6458900.15



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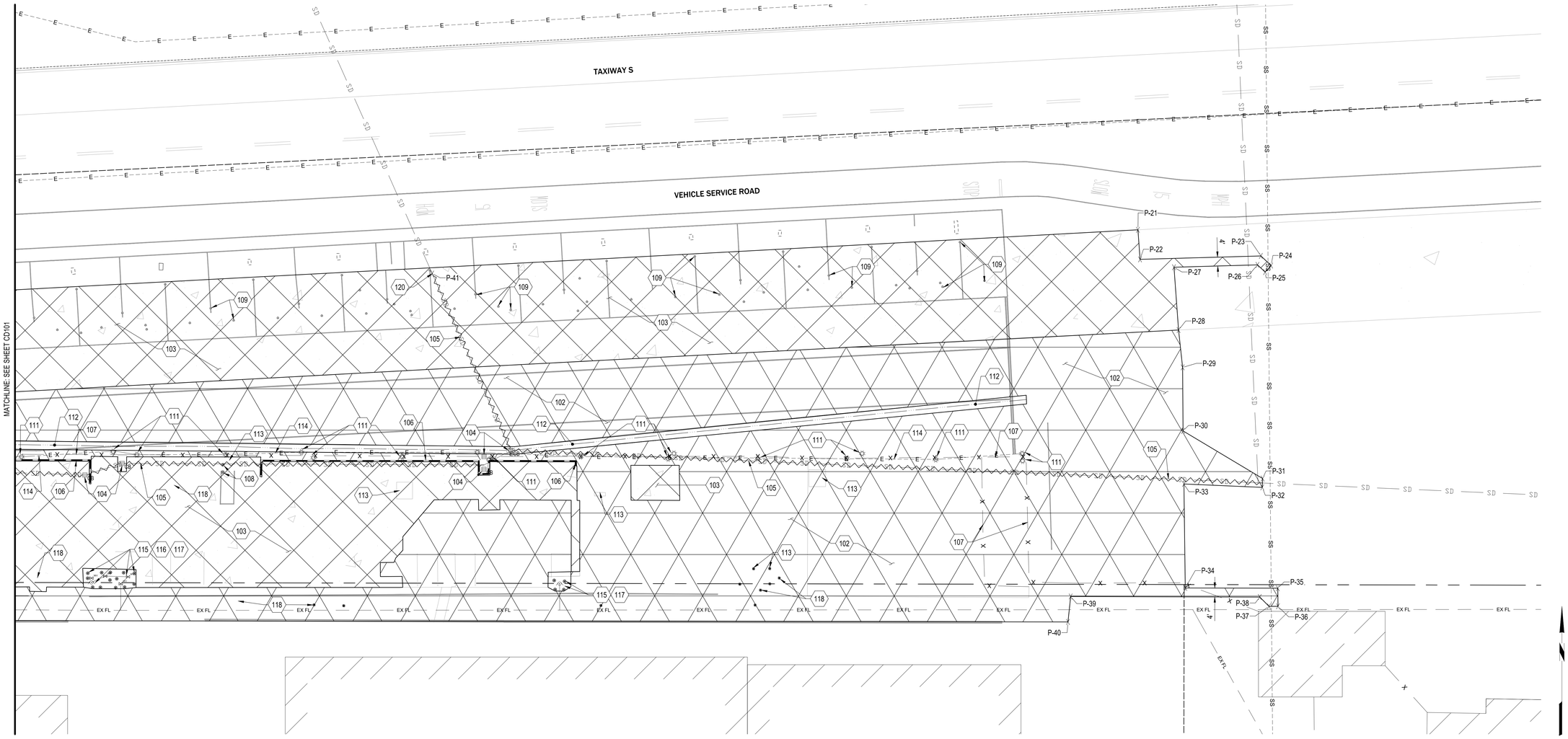
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LEGEND

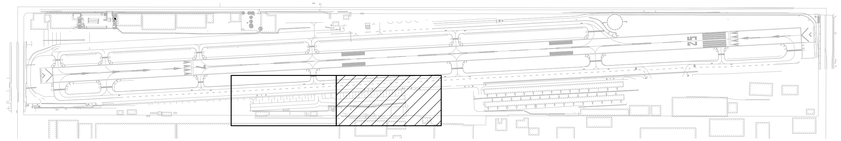
- ASPHALT PAVEMENT REMOVAL
- CONCRETE PAVEMENT REMOVAL
- BUILDING AND FOUNDATION REMOVAL

KEYED NOTES

102. REMOVE ASPHALT PAVEMENT, ITEM P-152.
103. REMOVE CONCRETEC PAVEMENT, ITEM P-152.
104. REMOVE CATCH BASIN.
105. REMOVE STORM DRAIN PIPE.
106. REMOVE ONE FOOT CONCRETE WALL, (TYP.).
107. REMOVE CHAIN LINK FENCE.
108. REMOVE BOLLARD OR POST, (TYP.).
109. REMOVE AIRCRAFT TIE-DOWNS ANCHORS, (TYP.).
111. REMOVE AREA LIGHT POLE, (TYP.).
112. REMOVE CONCRETE VALLEY GUTTER.
113. REMOVE ELECTRICAL STRUCTURE.
114. REMOVE ELECTRICAL CONDUIT AND CONDUCTORS.
115. FIRE HYDRANT TO REMAIN, PROTECT IN PLACE.
116. DOMESTIC WATER VALVE TO REMAIN, PROTECT IN PLACE.
117. BOLARD OR POST TO REMAIN, PROTECT IN PLACE.
118. ELECTRICAL STRUCTURE TO REMAIN, PROTECT IN PLACE.
120. CAP EXISTING STORM DRAIN PIPE

POINT TABLE		
POINT #	NORTHING	EASTING
21	1794240.60	6459923.59
22	1794227.23	6459924.55
23	1794228.78	6459979.17
24	1794224.43	6459983.82
25	1794221.51	6459981.08
26	1794224.73	6459977.64
27	1794223.67	6459939.88
28	1794195.27	6459941.97
29	1794178.38	6459943.80
30	1794149.65	6459944.00
31	1794128.09	6459979.96

POINT TABLE		
POINT #	NORTHING	EASTING
32	1794124.10	6459979.79
33	1794125.63	6459944.39
34	1794078.61	6459945.00
35	1794078.50	6459986.84
36	1794070.32	6459986.91
37	1794070.28	6459982.85
38	1794074.52	6459978.68
39	1794074.75	6459893.19
40	1794063.24	6459891.96
41	1794220.83	6459604.54



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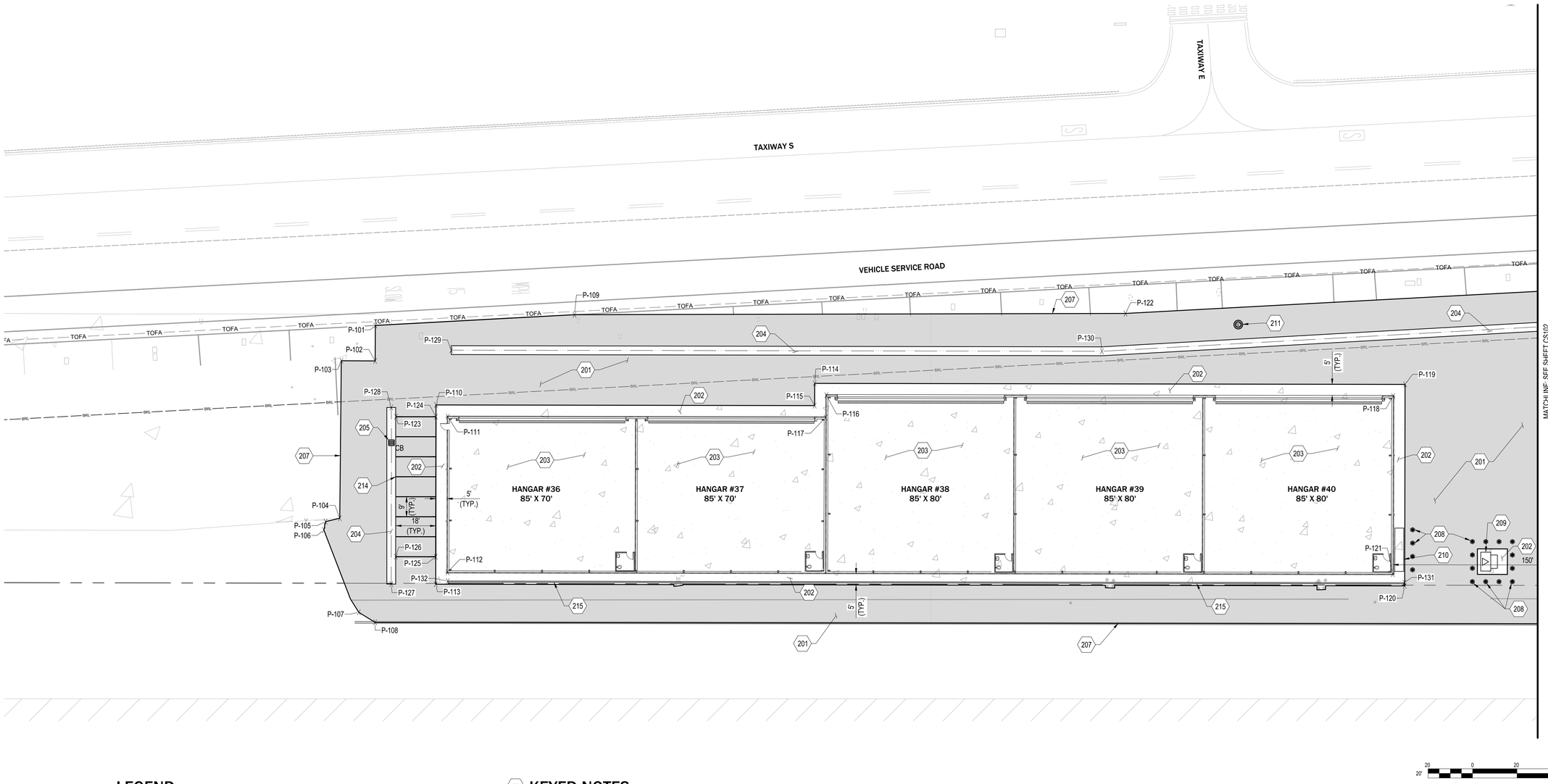
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LEGEND

PROPOSED ASPHALT PAVEMENT

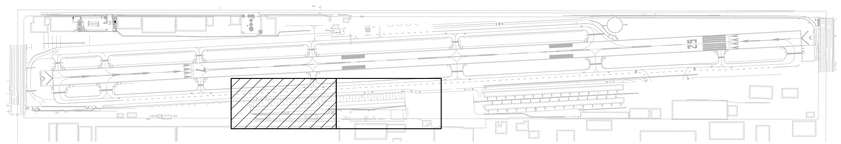
PROPOSED CONCRETE PAVEMENT

KEYED NOTES

201. ASPHALT PAVEMENT, PER DETAIL A4/B4, SHEET CG103
202. CONCRETE PAVEMENT, PER ACHITECTURAL PLANS
203. CONCRETE HANGAR FOUNDATION PER ACHITECTURAL PLANS
204. CONCRETE VALLEY GUTTER, PER GREENBOOK STANDARD PLANS DETAIL 122
205. STORM DRAIN CATCH BASIN, PER GRADING AND DRAINAGE PLANS
206. TRENCH DRAIN, PER ACHITECTURAL PLANS
207. MEET EXISTING PAVEMENT
208. PROTECTIVE 6" BOLLARD (TYP.), PER DETAIL C1, SHEET CG103
209. ELECTRICAL TRANSFORMER PER ELECTRICAL PLANS
210. ELECTRICAL SWITCH GEAR PER ELECTRICAL PLANS
211. STORM DRAIN MAN HOLE, PER GRADING AND DRAINAGE PLANS
214. INSTALL WHITE, 4" PAVEMENT MARKINGS (TYP.), PER CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
215. 6" CONCRETE CURB, PER GREENBOOK STANDARD PLANS DETAIL A87A

POINT TABLE		
POINT #	NORTHING	EASTING
101	1794198.09	6458892.94
102	1794182.10	6458892.83
103	1794182.17	6458877.62
104	1794111.33	6458876.91
105	1794109.78	6458870.49
106	1794106.04	6458869.73
107	1794068.99	6458885.48
108	1794064.45	6458892.80
109	1794202.90	6458982.52
110	1794162.31	6458920.21
111	1794156.97	6458925.53
112	1794086.97	6458925.40
113	1794081.65	6458920.06
114	1794172.01	6459090.56
115	1794162.01	6459090.54
116	1794166.67	6459095.88

POINT TABLE		
POINT #	NORTHING	EASTING
117	1794156.67	6459095.53
118	1794166.22	6459350.88
119	1794171.54	6459356.22
120	1794080.87	6459356.06
121	1794086.22	6459350.74
122	1794203.47	6459230.42
123	1794157.01	6458902.20
124	1794156.98	6458920.20
125	1794093.98	6458920.08
126	1794094.01	6458902.08
127	1794081.68	6458900.06
128	1794161.19	6458900.09
129	1794186.97	6458927.08
130	1794186.45	6459219.81
131	1794082.27	6459355.96
132	1794083.04	6458925.50



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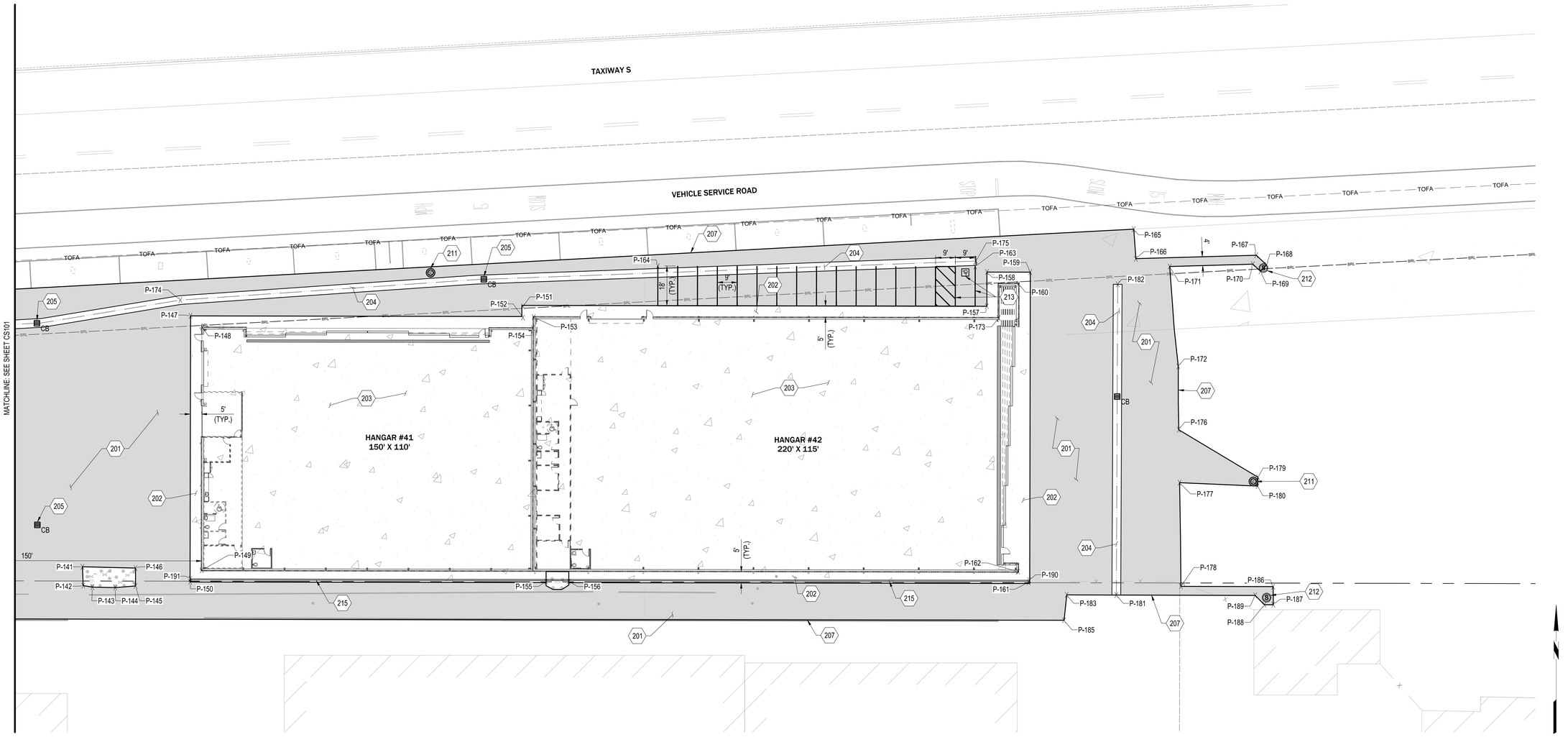
Scale

SITE PLAN

CS101

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LEGEND

PROPOSED ASPHALT PAVEMENT

PROPOSED CONCRETE PAVEMENT

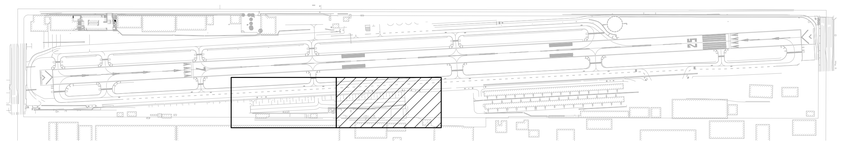
KEYED NOTES

201. ASPHALT PAVEMENT, PER DETAIL A4/B4, SHEET CG103
202. CONCRETE PAVEMENT, PER ACHITECTURAL PLANS
203. CONCRETE HANGAR FOUNDATION PER ACHITECTURAL PLANS
204. CONCRETE VALLEY GUTTER, PER GREENBOOK STANDARD PLANS DETAIL 122
205. STORM DRAIN CATCH BASIN, PER GRADING AND DRAINAGE PLANS
206. TRENCH DRAIN, PER ACHITECTURAL PLANS
207. MEET EXISTING PAVEMENT
211. STORM DRAIN MAN HOLE, PER GRADING AND DRAINAGE PLANS
212. SANITARY SEWER MANHOLE, PER WET UTILIY PLANS
213. ADA HANDICAP PARKING, SIGNS AND SYMBOLS PER CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
214. INSTALL WHITE, 4" PAVEMENT MARKINGS (TYP.), PER CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
215. 6" CONCRETE CURB, PER GREENBOOK STANDARD PLANS DETAIL A87A

POINT TABLE		
POINT #	NORTHING	EASTING
141	1794087.50	6459446.55
142	1794078.96	6459446.89
143	1794078.27	6459451.04
144	1794078.06	6459461.43
145	1794078.82	6459470.66
146	1794086.92	6459470.65
147	1794201.29	6459495.61
148	1794195.95	6459500.93
149	1794085.95	6459500.74
150	1794080.63	6459495.39
151	1794205.53	6459646.45
152	1794200.52	6459646.44
153	1794200.68	6459651.27
154	1794195.68	6459650.93
155	1794080.84	6459656.92
156	1794080.82	6459667.23
157	1794205.65	6459856.95

POINT TABLE		
POINT #	NORTHING	EASTING
158	1794221.15	6459856.98
159	1794221.11	6459876.64
160	1794215.79	6459871.30
161	1794080.45	6459875.91
162	1794085.29	6459871.07
163	1794223.66	6459851.65
164	1794223.92	6459707.65
165	1794240.60	6459923.59
166	1794227.23	6459924.55
167	1794228.78	6459979.17
168	1794224.43	6459983.82
169	1794221.51	6459981.08
170	1794224.73	6459977.64
171	1794223.67	6459939.88
172	1794178.38	6459943.80
173	1794200.31	6459862.27
174	1794208.47	6459490.95

POINT TABLE		
POINT #	NORTHING	EASTING
175	1794226.16	6459851.99
176	1794149.65	6459944.00
177	1794125.63	6459944.39
178	1794078.61	6459945.00
179	1794128.09	6459979.96
180	1794124.10	6459979.79
181	1794074.69	6459915.69
182	1794215.60	6459916.30
183	1794074.75	6459893.19
185	1794063.24	6459891.96
186	1794078.50	6459986.84
187	1794070.32	6459986.91
188	1794070.28	6459982.85
189	1794074.52	6459978.68
190	1794081.35	6459876.19
191	1794082.02	6459495.50



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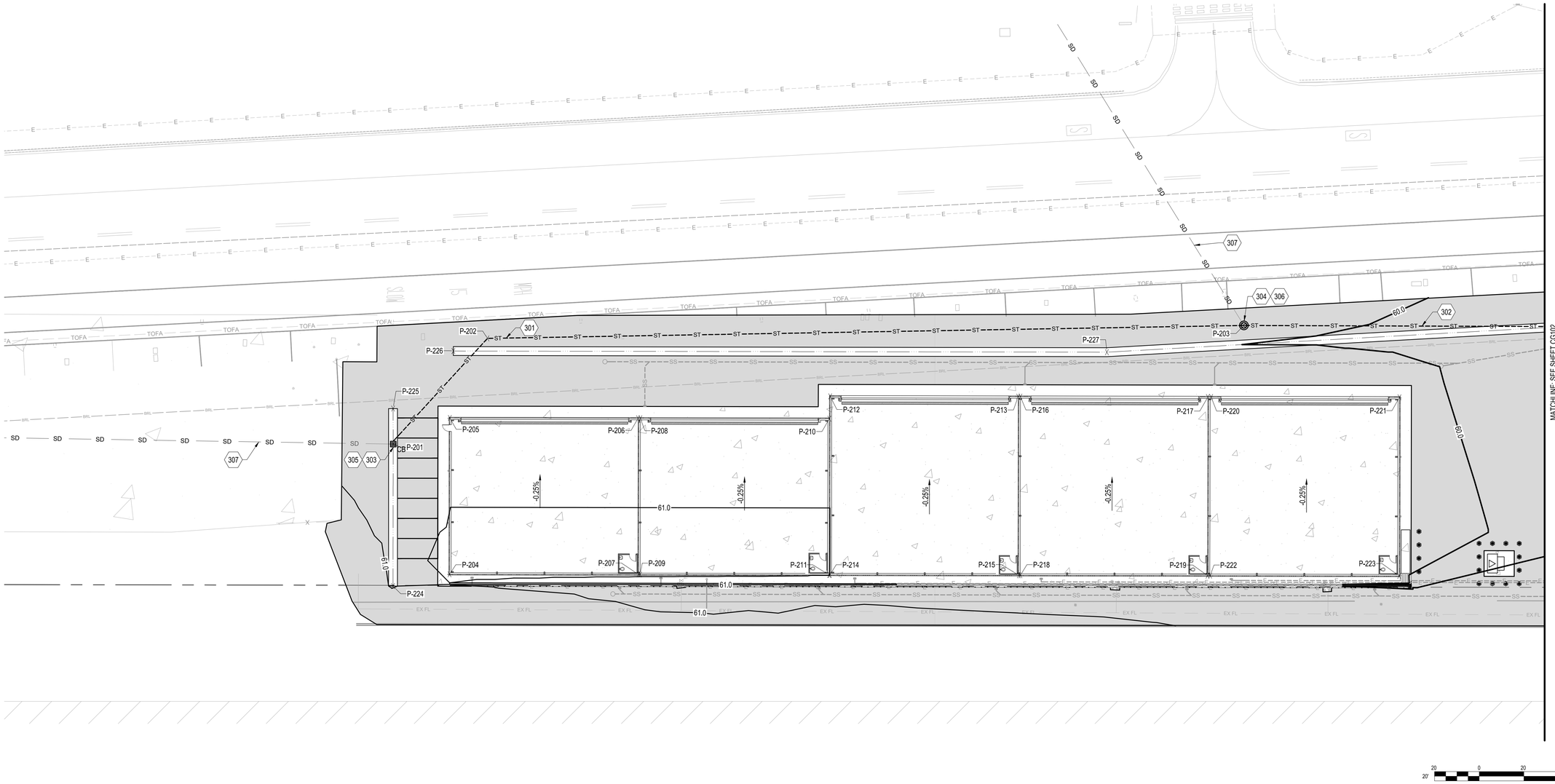
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SITE PLAN

CS102

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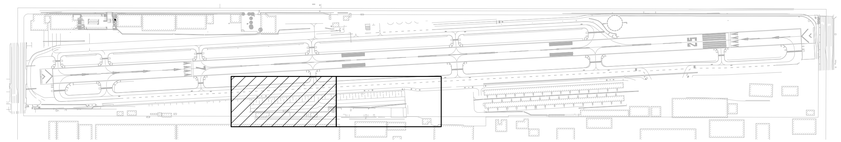
20 0 20 40FT.
20'

KEYED NOTES

301. INSTALL 12" STORM DRAIN PIPE
302. INSTALL 18" STORM DRAIN PIPE
303. INSTALL 4' X 4' STORM DRAIN CATCH BASIN
304. INSTALL STORM DRAIN MAN HOLE
305. CONNECT NEW STORM DRAIN CATCH BASIN TO EXISTING STORM DRAIN PIPE
306. CONNECT NEW STORM DRAIN MAN HOLE TO EXISTING STORM DRAIN PIPE
307. EXISTING STORM DRAIN PIPE TO REMAIN, PROTECT IN PLACE

POINT TABLE			
POINT NO.	NORTHING	EASTING	ELEV.
201	1794145.28	6458900.15	60.45'
202	1794192.63	6458942.36	60.77'
203	1794198.43	6459281.18	60.10'
204	1794086.97	6458925.40	61.07'
205	1794156.97	6458925.53	60.90'
206	1794156.82	6459009.82	60.90'
207	1794086.82	6459010.07	61.07'
208	1794156.82	6459010.85	60.90'
209	1794086.82	6459010.74	61.07'
210	1794156.67	6459095.53	60.90'
211	1794086.67	6459095.40	61.07'
212	1794166.67	6459095.88	60.40'
213	1794166.52	6459180.09	60.40'
214	1794086.67	6459095.74	60.60'

POINT TABLE			
POINT NO.	NORTHING	EASTING	ELEV.
215	1794086.52	6459180.40	60.60'
216	1794166.52	6459181.08	60.40'
217	1794166.37	6459265.04	60.40'
218	1794086.52	6459181.07	60.60'
219	1794086.37	6459264.90	60.60'
220	1794166.37	6459266.51	60.20'
221	1794166.22	6459350.88	60.20'
222	1794086.37	6459266.07	60.40'
223	1794086.22	6459350.74	60.40'
224	1794081.68	6458900.06	60.95'
225	1794161.19	6458900.09	60.55'
226	1794186.97	6458927.08	60.70'
227	1794186.45	6459219.81	60.09'



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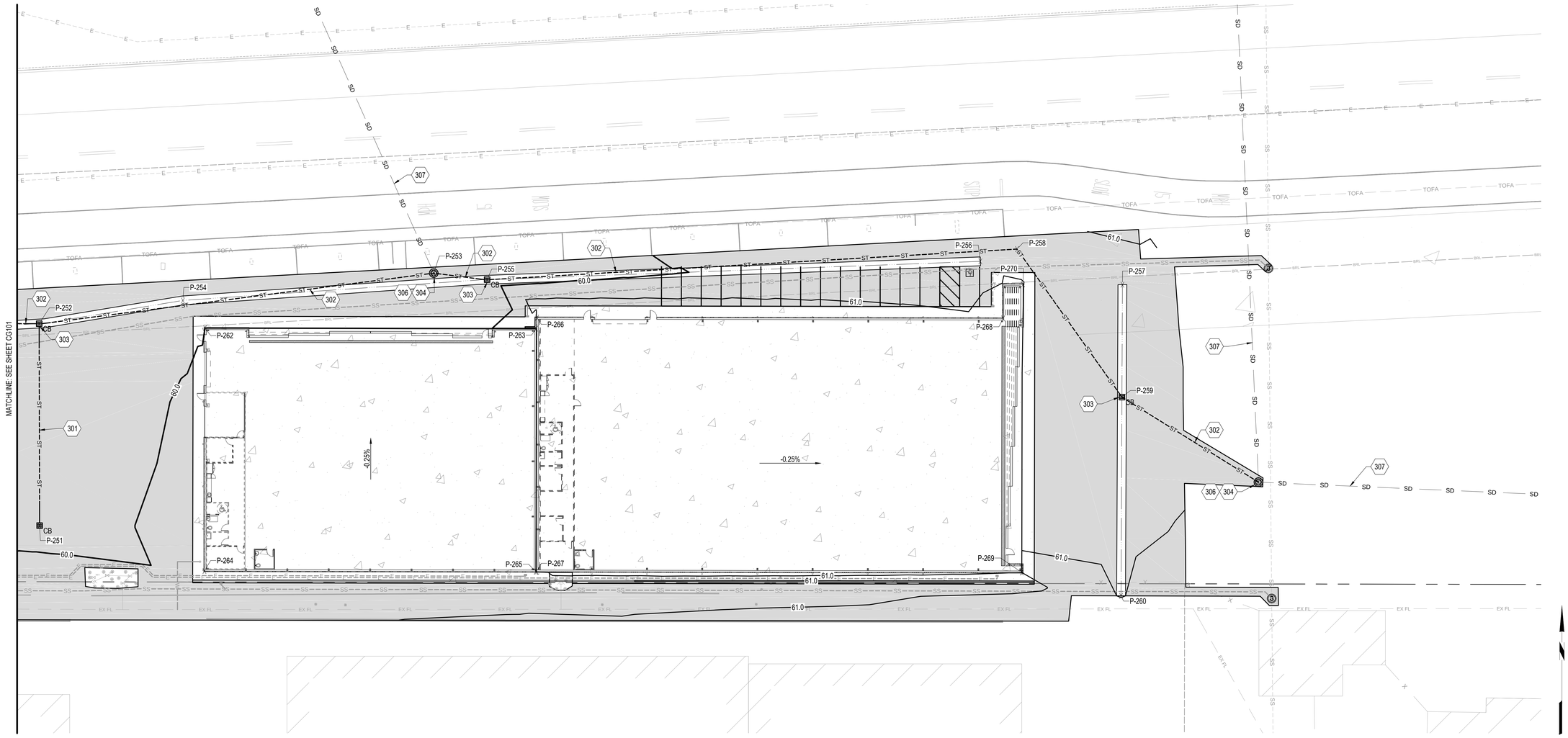
Scale

GRADING AND DRAINAGE PLAN

CG101

Sheet No.

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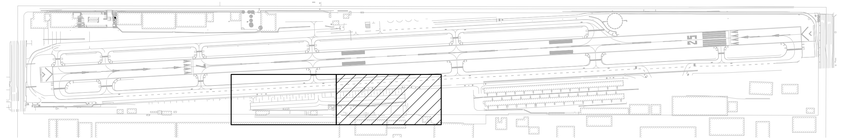


KEYED NOTES

301. INSTALL 12" STORM DRAIN PIPE
302. INSTALL 18" STORM DRAIN PIPE
303. INSTALL 4' X 4' STORM DRAIN CATCH BASIN
304. INSTALL STORM DRAIN MAN HOLE
306. CONNECT NEW STORM DRAIN MAN HOLE TO EXISTING STORM DRAIN PIPE
307. EXISTING STORM DRAIN PIPE TO REMAIN, PROTECT IN PLACE

POINT TABLE		
POINT NO.	NORTHING	EASTING
251	1,794,106.51	6,459,426.10
252	1,794,197.93	6,459,425.90
253	1,794,220.83	6,459,604.54
254	1,794,208.47	6,459,490.95
255	1,794,217.89	6,459,628.70
256	1,794,226.16	6,459,851.99
257	1,794,215.60	6,459,916.30
258	1,794,231.72	6,459,868.58
259	1,794,164.69	6,459,916.08
260	1,794,074.69	6,459,915.69

POINT TABLE		
POINT NO.	NORTHING	EASTING
262	1,794,195.95	6,459,500.93
263	1,794,195.68	6,459,650.88
264	1,794,085.95	6,459,500.74
265	1,794,085.68	6,459,650.69
266	1,794,200.68	6,459,651.27
267	1,794,085.68	6,459,651.07
268	1,794,200.31	6,459,862.27
269	1,794,085.29	6,459,870.74
270	1,794,215.79	6,459,871.30



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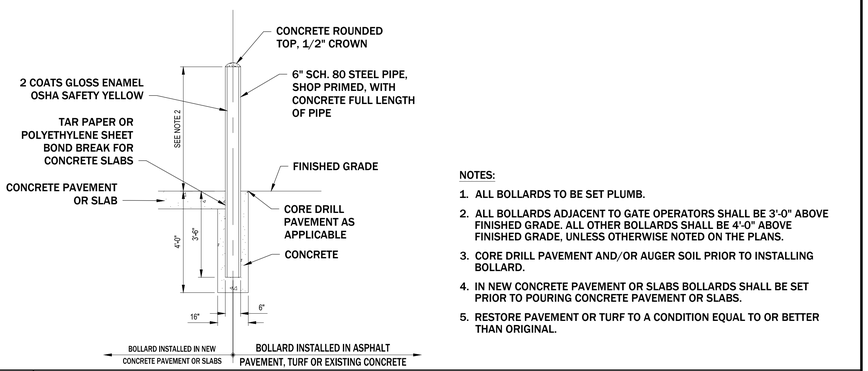
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GRADING AND DRAINAGE PLAN

CG102

Sheet No.

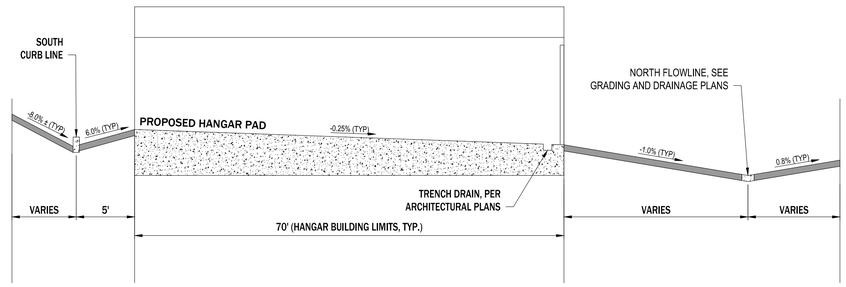
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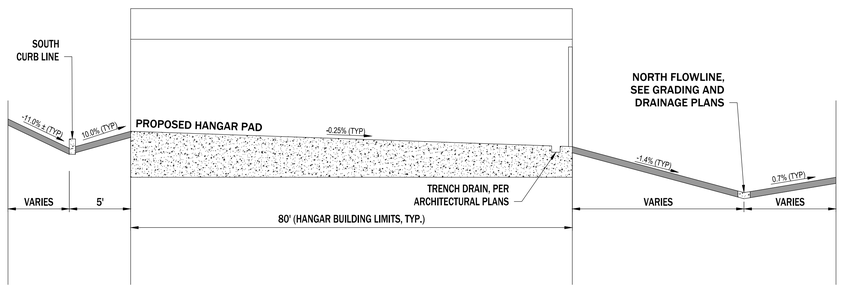
NOTES:

1. ALL BOLLARDS TO BE SET PLUMB.
2. ALL BOLLARDS ADJACENT TO GATE OPERATORS SHALL BE 3'-0" ABOVE FINISHED GRADE. ALL OTHER BOLLARDS SHALL BE 4'-0" ABOVE FINISHED GRADE, UNLESS OTHERWISE NOTED ON THE PLANS.
3. CORE DRILL PAVEMENT AND/OR AUGER SOIL PRIOR TO INSTALLING BOLLARD.
4. IN NEW CONCRETE PAVEMENT OR SLABS BOLLARDS SHALL BE SET PRIOR TO POURING CONCRETE PAVEMENT OR SLABS.
5. RESTORE PAVEMENT OR TURF TO A CONDITION EQUAL TO OR BETTER THAN ORIGINAL.

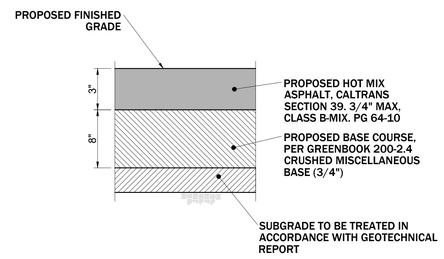
C1 TYPICAL BOLLARD DETAIL
SCALE: NOT TO SCALE



B1 HANGARS 36 AND 37 TYPICAL SECTION
SCALE: NOT TO SCALE



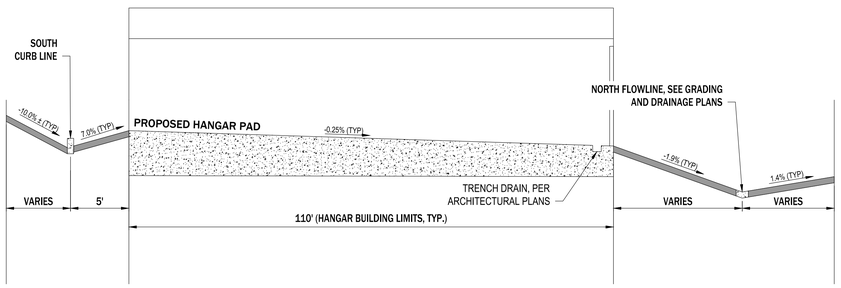
B3 HANGARS 38, 39, AND 40 TYPICAL SECTION
SCALE: NOT TO SCALE



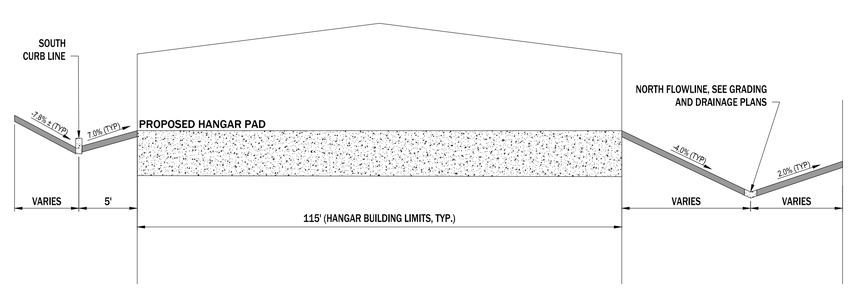
NOTES:

1. SECTION PER GEOTECHNICAL REPORT
2. HANGAR OWNER HAS RESPONSIBILITY FOR ANY FUTURE PAVEMENT FAILURE REPAIR OR RECONSTRUCTION.

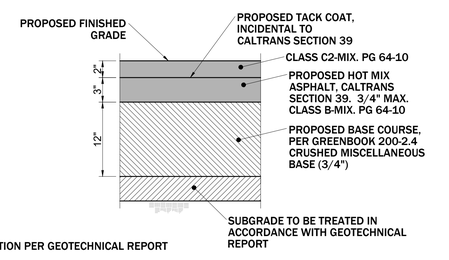
B4 TYPICAL PARKING AREA ASPHALT PAVEMENT DETAIL
NOT TO SCALE



A1 HANGAR 41 TYPICAL SECTION
SCALE: NOT TO SCALE



A3 HANGAR 42 TYPICAL SECTION
SCALE: NOT TO SCALE



NOTES:

1. SECTION PER GEOTECHNICAL REPORT
2. HANGAR OWNER HAS RESPONSIBILITY FOR ANY FUTURE PAVEMENT FAILURE REPAIR OR RECONSTRUCTION.

A4 TYPICAL ACCESS LANE AND APRON ASPHALT PAVEMENT DETAIL
NOT TO SCALE

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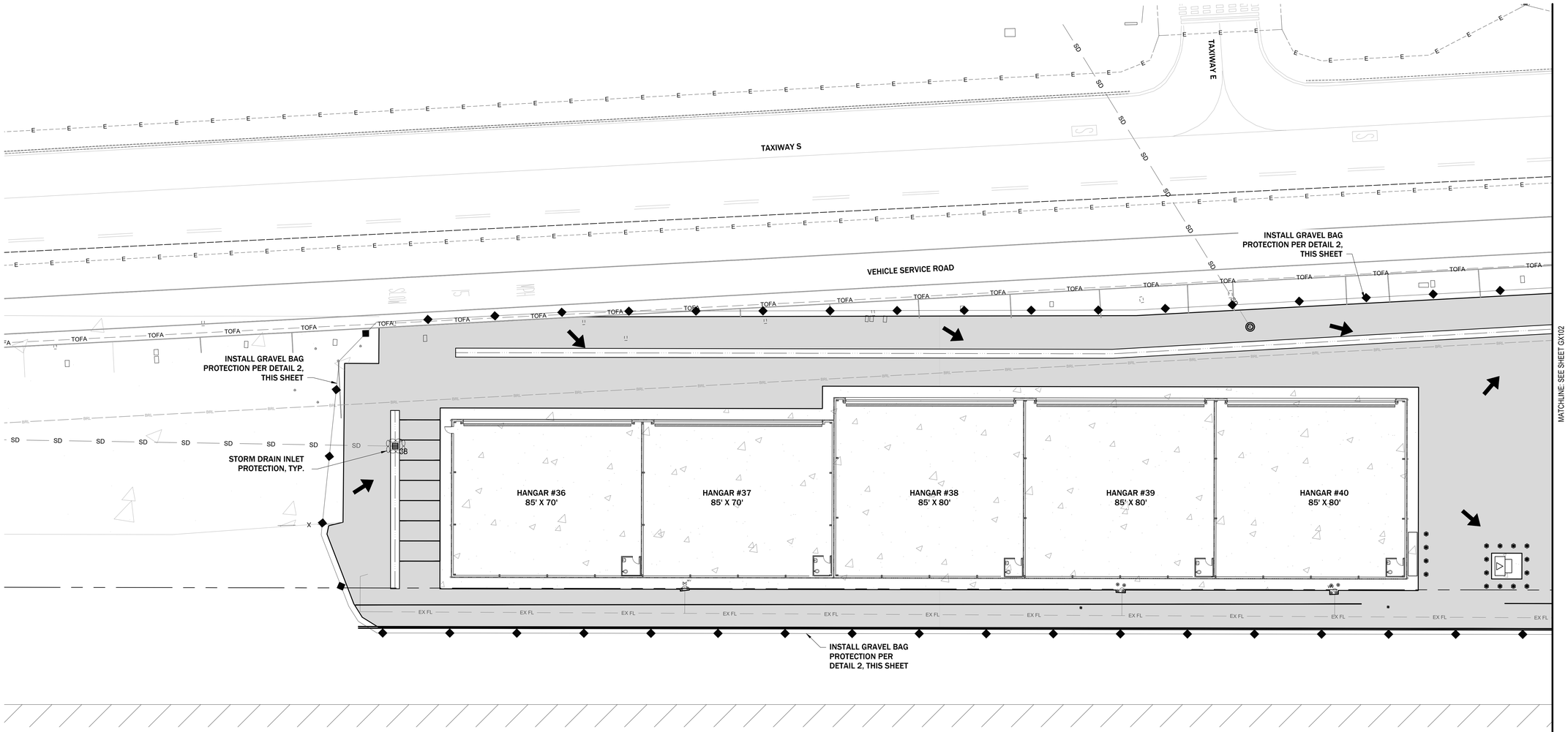
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TYPICAL SECTIONS

CG103

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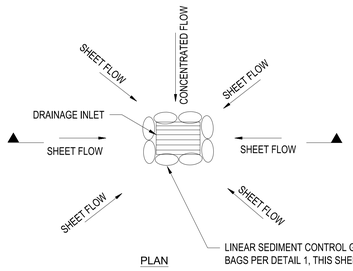


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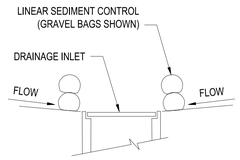
STORM DRAIN INLET PROTECTION

SHEET FLOW ARROW

GRAVEL BAG BARRIER PROTECTION



PLAN

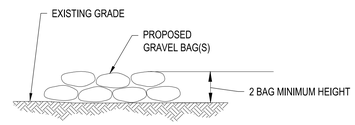


PROFILE

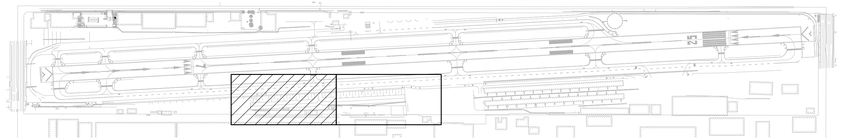
NOTES:

1. NO LOOSE MATERIAL SHALL BE LEFT BEHIND.

1 STORM DRAIN INLET PROTECTION DETAIL
NOT TO SCALE



2 PERIMETER CONTROL GRAVEL BAG BARRIER
NOT TO SCALE



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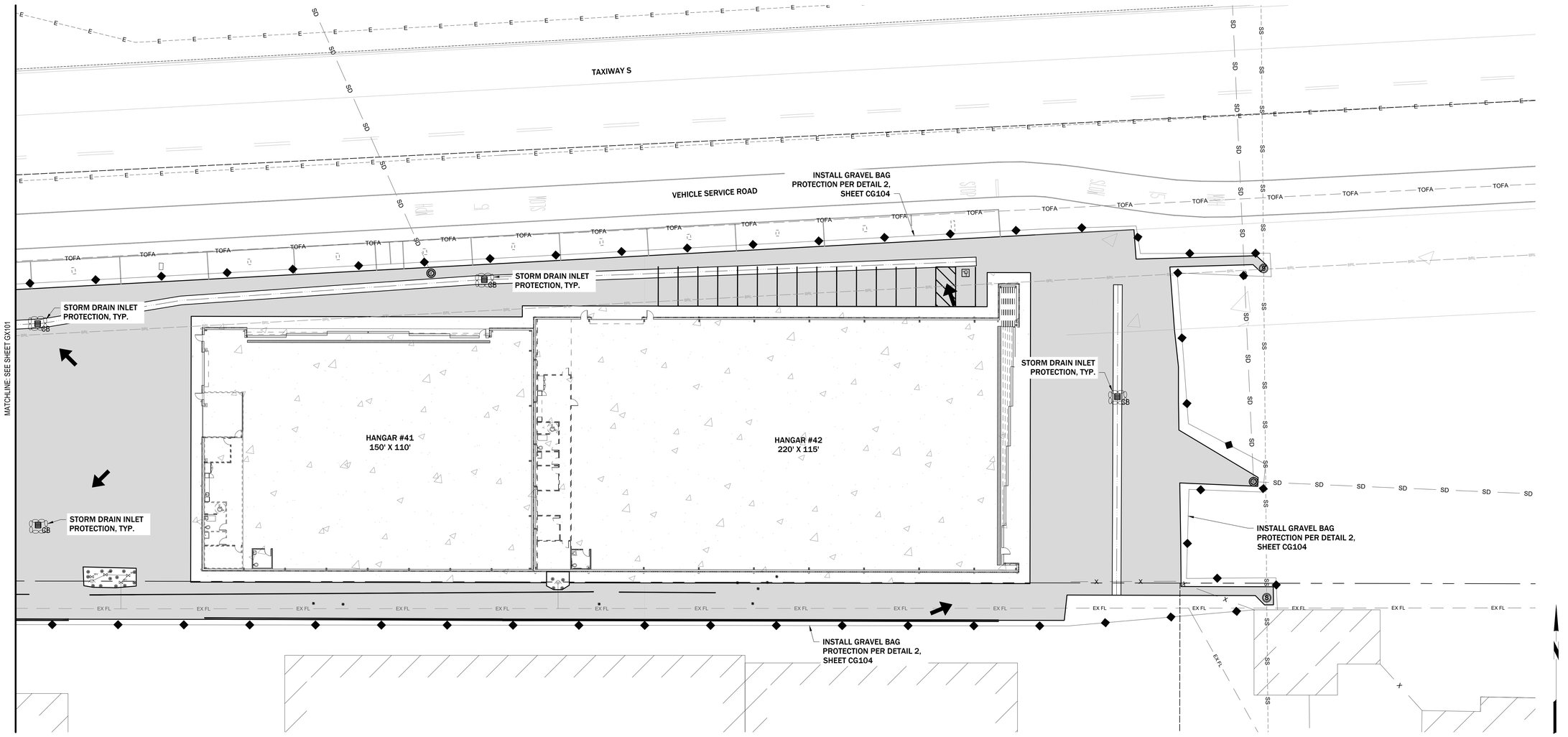
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EROSION CONTROL PLAN

CG104

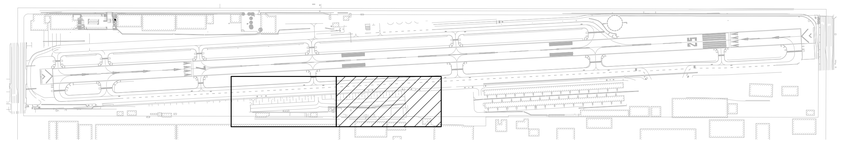
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LEGEND

- STORM DRAIN INLET PROTECTION
- SHEET FLOW ARROW
- GRAVEL BAG BARRIER PROTECTION



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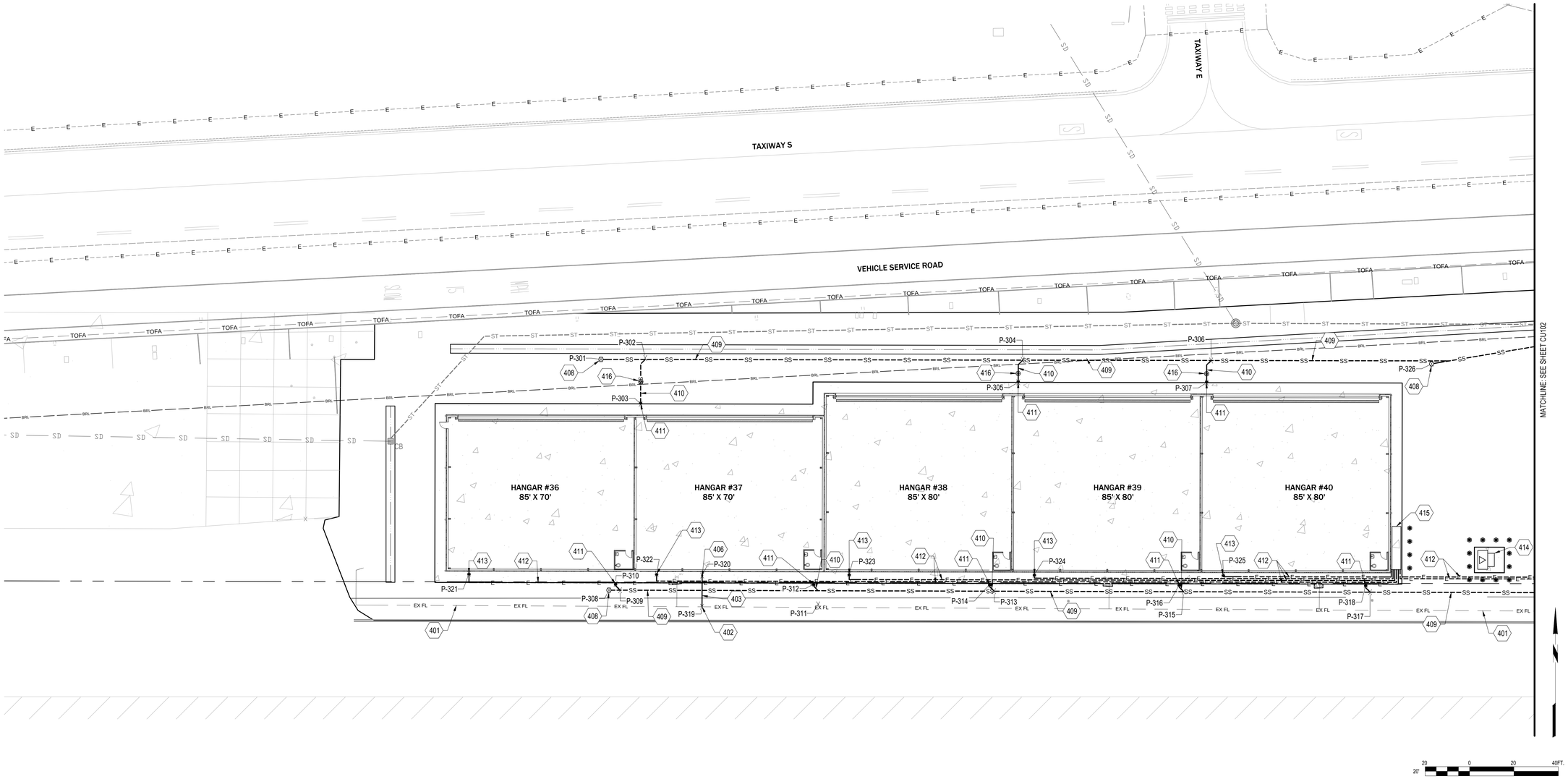
Scale

EROSION CONTROL PLAN

CG105

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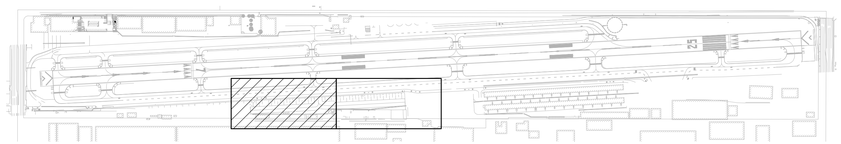


KEYED NOTES

401. EXISTING WATER LINE TO REMAIN, PROTECT IN PLACE
402. TIE INTO EXISTING WATER LINE
403. INSTALL 2" DOMESTIC WATER LINE
404. INSTALL WATER VALVE PER GREENBOOK STANDARD PLAN 521
405. INSTALL DOMESTIC WATER METER PER WATER COMPANY STANDARD PLANS
406. DOMESTIC WATER LINE POINT OF CONNECTION TO BUILDING
408. INSTALL SEWER CLEANOUT PER GREENBOOK STANDARD PLAN 204
409. INSTALL 6" SEWER PIPE
410. INSTALL 4" SEWER LATERAL
411. CONNECT SEWER LATERAL TO BUILDING
412. ELECTRICAL CONDUIT PER ELECTRICAL PLANS
413. CONNECT ELECTRICAL CONDUIT TO BUILDING
414. ELECTRICAL TRANSFORMER PER ELECTRICAL PLANS
415. ELECTRICAL SWITCH GEAR PER ELECTRICAL PLANS
416. INSTALL 24" DIAMETER JENSEN DEFLECTIVE SEPARATOR, MODEL JDS48-2418 OR APROVED EQUAL

POINT TABLE		
POINT #	NORTHING	EASTING
301	1794182.18	6458994.99
302	1794182.78	6459014.91
303	1794162.15	6459012.87
304	1794182.00	6459185.12
305	1794171.85	6459183.10
306	1794181.69	6459270.07
307	1794171.70	6459268.06
308	1794078.15	6458998.58
309	1794078.14	6459003.58
310	1794081.00	6459001.58
311	1794071.72	6459092.88
312	1794080.84	6459090.89
313	1794077.69	6459172.22

POINT TABLE		
POINT #	NORTHING	EASTING
314	1794080.70	6459170.22
315	1794077.46	6459257.66
316	1794080.55	6459255.67
317	1794077.23	6459341.73
318	1794080.40	6459339.74
319	1794070.65	6459040.54
320	1794084.73	6459040.61
321	1794085.62	6458935.47
322	1794085.47	6459020.07
323	1794085.31	6459106.90
324	1794085.17	6459190.40
325	1794085.02	6459275.57
326	1794180.18	6459369.48



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Project No.

395 PARK PLACE LLC

Revisions

NOT FOR CONSTRUCTION

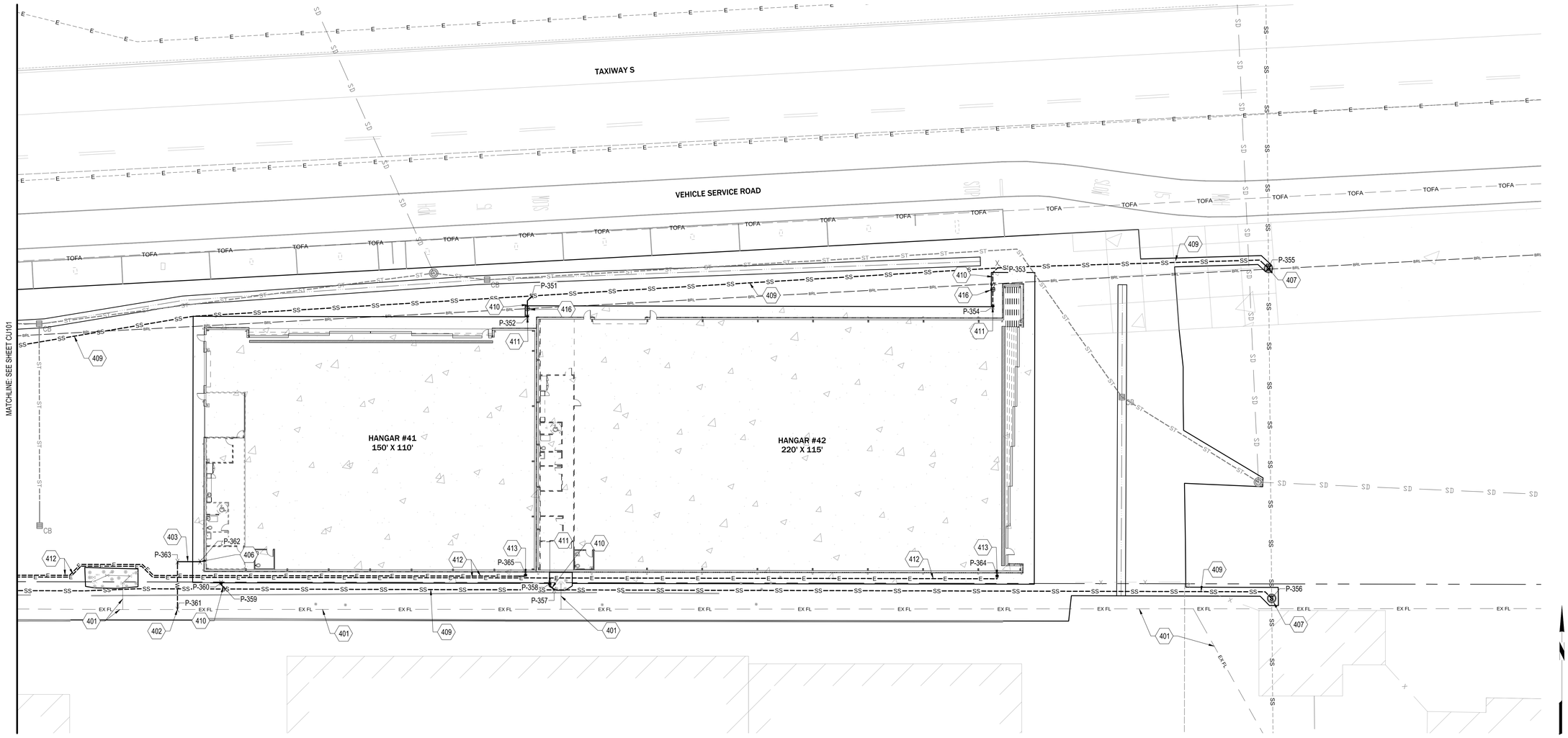
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WET UTILITY PLAN

CU101

Sheet No.

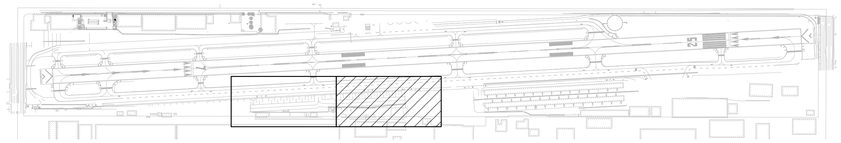
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KEYED NOTES

401. EXISTING WATER LINE TO REMAIN, PROTECT IN PLACE
402. TIE INTO EXISTING WATER LINE
403. INSTALL 2" DOMESTIC WATER LINE
404. INSTALL WATER VALVE PER GREENBOOK STANDARD PLAN 521
405. INSTALL DOMESTIC WATER METER PER WATER COMPANY STANDARD PLANS
406. DOMESTIC WATER LINE POINT OF CONNECTION TO BUILDING
407. TIE INTO EXISTING SEWER LINE, INSTALL SEWER MANHOLE PER GREENBOOK STANDARD PLAN 200
408. INSTALL SEWER CLEANOUT PER GREENBOOK STANDARD PLAN 204
409. INSTALL 6" SEWER PIPE
410. INSTALL 4" SEWER LATERAL
411. CONNECT SEWER LATERAL TO BUILDING
412. ELECTRICAL CONDUIT PER ELECTRICAL PLANS
413. CONNECT ELECTRICAL CONDUIT TO BUILDING
416. INSTALL 24" DIAMETER JENSEN DEFLECTIVE SEPARATOR, MODEL JDS48-2418 OR APROVED EQUAL

POINT TABLE		
POINT #	NORTHING	EASTING
351	1794210.38	6459648.96
352	1794201.02	6459646.94
353	1794225.35	6459859.65
354	1794205.65	6459857.62
355	1794222.97	6459982.45
356	1794073.51	6459983.88
357	1794077.38	6459659.06
358	1794080.34	6459657.06
359	1794077.78	6459510.22
360	1794080.60	6459508.22
361	1794068.49	6459488.51
362	1794090.16	6459498.74
363	1794090.15	6459488.50
364	1794083.98	6459859.57
365	1794084.36	6459646.07



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Scale

WET UTILITY PLAN

CU102

Sheet No.

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Appendix D

Remediation Well Locations

Legend

- Hawthorne WoC Site Boundary
- Property Boundary
- Southwest Hangars
- Existing A2 Horizon Monitoring Well
- Existing B Horizon Monitoring Well
- Existing C Horizon Monitoring Well
- EISB A/B Confining Unit Monitoring Well
- EISB A/B Confining Unit/B Horizon Injection Well
- EISB B Horizon Extraction Well
- EISB B Horizon Monitoring Well
- Sub-slab Sample Location

(3) Proposed
85' x 80' Hangars

(1) Proposed
150' x 110' Hangar

(1) Proposed
220' x 115' Hangar

36 37 38 39 40 41 42

P1MW-12B

(2) Proposed
85' x 70' Hangars

CMW-09

CMW-01

CEW-02B

CEW-01B

CEW-03B

CEW-04B

CEW-05B

CEW-06B

CMW-03B

CMW-02

CMW-21B

CMW-03

CMW-03C

CMW-18AB

CMW-12

CMW-14B

CMW-14A

CMW-17AB

CIW-04AB

CIW-04B

CMW-06

CIW-03AB

CIW-03B

CMW-15A

CMW-15C

CMW-16AB

CMW-15B

CIW-02AB

CIW-02B

Notes:
1. All hangars set 5 feet from airport property line.
2. All hangar doors shall open to the runway, except Hangar 42 which shall open to the east.

Hangar Sizes:
21 - 22 50' X 50'
23 70' X 55'
24 85' X 60'
35 115' X 110'
36 - 37 85' X 70'
38 - 40 85' X 80'
41 150' X 110'
42 220' X 115'

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

CDM Smith

75 0 75
Feet

Proposed New Construction Hangar Project
Former East Complex
Facility, West Parcel
Hawthorne, California

Figure 1
Chem Mill Site Layout

Appendix E

Geotechnical Engineering Investigation

Bay City Geology, Inc.

GEOTECHNICAL ENGINEERING INVESTIGATION

PROPOSED AIRPLANE HANGARS

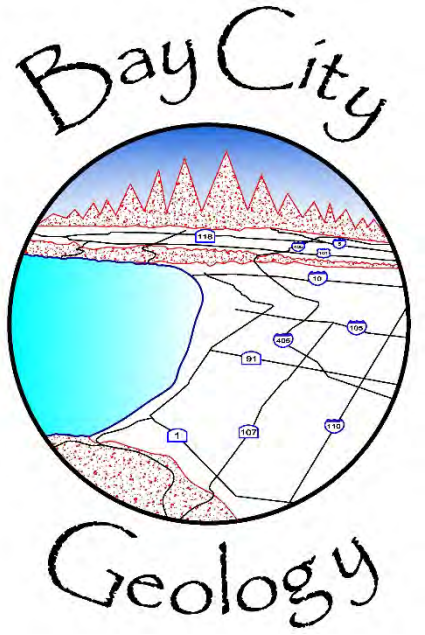
HAWTHORNE MUNICIPAL AIRPORT
12101 Crenshaw Boulevard
Hawthorne, California 90250

for

395 Park Place LLC
12101 Crenshaw Boulevard, Suite 100
Hawthorne, CA 90250

Project 1528-3

August 12, 2024



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Bay City Geology, Inc.

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August 12, 2024 Project 1528-3

395 Park Place LLC
12101 Crenshaw Blvd., Suite 100
Hawthorne, CA 90250

Subject: **GEOTECHNICAL ENGINEERING INVESTIGATION**
Proposed Airplane Hangars
HAWTHORNE MUNICIPAL AIRPORT
12101 Crenshaw Boulevard
Hawthorne, California

Ladies/Gentlemen:

Bay City Geology, Inc. is pleased to submit this geotechnical engineering report to provide recommendations for the proposed airplane hangars.

Based on this investigation, it is our opinion that the proposed construction is feasible from a geotechnical engineering standpoint provided the recommendations contained herein are incorporated into the project design plans and specifications. This report should be reviewed in detail prior to proceeding further with the planned development. When final plans for the site development become available, or if the proposed construction is revised, the plans should be forwarded to this office for review and comment.

The scope of this investigation is limited to the project areas as depicted on the Plot Maps enclosed herein. This report is not a comprehensive evaluation of the entire property and may not contain sufficient information for other than the intended use. Prior to use by others, Bay City Geology, Inc., should be consulted to determine if additional work is required. If the project is delayed more than one year, this office should be contacted to verify current site conditions and prepare an update report.

We appreciate the opportunity of serving you on this project. If you have any questions pertaining to our report, or if we can be of further service, please do not hesitate to contact us. This report may not be copied. If you wish additional copies, you may order them from this office.

Respectfully submitted,
BAY CITY GEOLOGY, INC.





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Principal Geologist
President/Owner
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GEOTECHNICAL ENGINEERING INVESTIGATION
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INTRODUCTION

This report details the results of a limited Geotechnical Engineering Investigation on several portions of the Hawthorne Municipal Airport property. The purpose of this investigation has been to ascertain the subsurface conditions pertaining to the design and construction of the proposed airplane hangars. Review of the project included reconnaissance mapping, description of encountered earth materials, determining soil structure, obtaining representative earth material samples, performing soils laboratory testing of the obtained earth material samples, performing geotechnical engineering analyses, and preparation of this report. Findings, conclusions, and appropriate recommendations are included herein.

SCOPE

The scope of this investigation includes the following:

- Review of preliminary plans provided by the client.
- Review of ten (10) exploration borings. Exploration borings were backfilled with the excavated materials and provided with a bentonite seal and asphalt patch.
- Preparation of the enclosed Plot Maps (see Appendix I).
- Sampling of representative earth materials, performing soils laboratory testing and geotechnical engineering analyses (see Appendix II).
- Review of reference materials and available public reports at the City of Hawthorne, Department of Building & Safety (see Appendix V).
- Presentation of findings, conclusions, and recommendations for the proposed project.

The Plot Maps for the proposed project were prepared from data available online, (from the NavigateLA website and/or LA County GIS website) and utilized as base maps for this investigation. The Plot Maps consist of five (5) sheets, an overview sheet plotted to a scale of one-inch equals one-hundred-sixty feet, (1" = 160'), and four (4) specific area sheets plotted at scales of either one-inch equals thirty feet, (1" = 30'), or one-inch equals fifty feet, (1" = 50').

The scope of this investigation is limited to the project areas explored as depicted on the enclosed Plot Maps. This report is not a comprehensive evaluation of the entire property. This report has not been prepared for use by other parties or for other purposes and may not contain sufficient information for other than the intended use. Prior to use by others, Bay City Geology, Inc., should be consulted to determine if additional work is required. If the project is delayed more than one year, this office should be contacted to verify current site conditions and prepare an update report.

PROPOSED DEVELOPMENT

It is our understanding that the proposed development will consist of designing and constructing four (4) new one-story airplane hangars located at four (4) separate locations on the Hawthorne Municipal Airport property. Two (2) of the proposed new airplane hangar locations are planned to be located south of the airport runway and two (2) of the proposed new airplane hangar locations are planned to be located north of the airport runway, (see enclosed Plot Maps in Appendix I).

Grading and earthwork for the proposed development should be anticipated to consist of conventional removal and re-compaction methods to create engineered building pads for support of the proposed airplane hangars and paving. Final building plans have not been prepared and await the conclusions and recommendations of this investigation.

SITE DESCRIPTION

Location and Description

The proposed project areas, *e. g.* the proposed four (4) new airplane hangar locations within the Hawthorne Municipal Airport property, are essentially flat-lying and are occupied by existing airplane hangars and/or office buildings at several locations, and/or by asphalt or concrete paving. Access to the project areas is via the airport vehicular access driveways from Crenshaw Boulevard (see Location Map). Details of the proposed project areas are depicted on the enclosed Location Map and Plot Maps in Appendix I.

Drainage

Surface water at the project sites consists of direct precipitation onto the Hawthorne Municipal Airport property. Principally, surface water onsite drains as sheet flow to low-lying areas, into concrete swale drains, and/or to area drains, which are located throughout the airport property.

Groundwater

No active surface groundwater seeps or springs were observed within the project areas on the Hawthorne Municipal Airport property. The subsurface exploration did not encounter groundwater to a depth of (31.5) feet below adjacent site grades. The historic high groundwater level for the proposed project sites was obtained from review of the California Division of Mines and Geology (CDMG) *Seismic Hazard Zone Report (SHZR 027) for the Inglewood 7.5-Minute Quadrangle* (1998, 2006). Review of this report indicates that the historically highest groundwater level in the vicinity of the proposed project sites is on the order of (30) feet below site grades. Seasonal fluctuations of groundwater levels may occur by varying amounts of rainfall, irrigation and recharge. Groundwater is not anticipated to pose a problem to the proposed development.

SUMMARY OF FINDINGS

Previous Work

Recent geotechnical reports covering portions of the Hawthorne Municipal Airport property were previously prepared by this firm and/or were provided to this office by the client. The available geotechnical reports were reviewed prior to beginning work on this project and are referenced herein, below:

Soils Engineering Investigation, Proposed Two Hangars & 2-Story Office Building, Jet Center Los Angeles, Hawthorne Airport, 12101 Crenshaw Boulevard, Hawthorne, 90250, (BCG JN1528), by Bay City Geology, Inc., and dated May 27, 2014.

The referenced Bay City Geology, Inc. (BGG) geotechnical report dated May 27, 2014, was prepared for the development of two (2) proposed airplane hangars and a proposed two-story office building, which were to be located on the Hawthorne Municipal Airport property, approximately (520) feet west of Crenshaw Boulevard and (530) feet south of 120th Street. The BCG subsurface exploration included advancing four (4) hollow-stem auger borings to a maximum depth of (30.5) feet below adjacent site grades and obtaining representative earth material samples for subsequent soils laboratory testing and engineering analyses. The BCG exploration borings encountered asphalt and concrete paving overlying native alluvial soils consisting of interlaced layers of sandy clay, sandy silt, silty- and clayey sands, and poorly graded sands. The BCG report provided recommendations to support the proposed airplane hangars and office building on conventional foundations bearing into the native alluvial soils underlying the proposed development area. Lastly, it is this office's understanding that the proposed airplane hangars and office building were constructed circa 2015 – 2016.

Geotechnical Investigation, Hawthorne Municipal Airport North Side Development, 12101 Crenshaw Boulevard #1, Hawthorne, California, (SCST No. 160502P4, Report No.1), by SCST, Inc., and dated December 23, 2016.

The referenced SCST, Inc. (SCST) geotechnical report dated December 23, 2016, was prepared for the proposed development of an approximately triangular shaped project area in the northwest corner of the Hawthorne Municipal Airport property. The proposed project area extends approximately (1,285) feet eastward along 120th Street and approximately (230) feet southward along Prairie Avenue from the southeast corner of the intersection of 120th Street and Prairie Avenue. The proposed project area was anticipated to be developed with pre-engineered and/or prefabricated metal buildings. The SCST subsurface exploration included advancing five (5) hollow-stem auger borings to a maximum depth of (20.5) feet below adjacent site grades and obtaining representative earth material samples for subsequent soils laboratory testing and engineering analyses. The SCST exploration borings encountered asphalt paving and base course materials overlying native alluvial soils consisting of interlaced layers of lean clay, sandy clay, clayey sand, and poorly graded sand. The SCST report provided recommendations for subgrade preparation with remedial grading and importing of low expansivity earth fill materials for construction of a new engineered, compacted fill building pad to support the proposed development. The SCST report also provided recommendations to support the proposed pre-engineered and/or prefabricated metal buildings on shallow conventional foundations bearing into the recommended properly placed engineered, compacted fill building pad materials. Lastly it is this office's understanding that the proposed development of the northwest corner of the Hawthorne Municipal Airport property has occurred, and the proposed pre-engineered and/or prefabricated metal buildings were constructed circa 2017 – 2018.

Stratigraphy

The site is underlain by non-marine sedimentary soils of Pleistocene time which are covered by anthropogenic artificial fill materials. The earth materials encountered on the subject property are briefly described below. Approximate depths and more detailed descriptions are given in the enclosed Exploration Logs (see Appendix I).

Artificial Fill (Af)

Undocumented, anthropogenic artificial fill materials were encountered within seven (7) of the hollow-stem auger boring explorations and were observed to vary in thicknesses from about (2.0) to (4.0) feet. The existing artificial fill materials were presumably placed during original and/or previous development of the Hawthorne Municipal Airport property. The existing fill materials generally consist of silty- to sandy clay and clayey sand that is dark- to light-brown, mottled, and firm to dense.

Quaternary Alluvium (Qyf)

Younger alluvial fan deposits are weathered bedrock materials, (AKA- soils), that have eroded from natural ascending slopes and accumulated in generally flat-lying areas, such as distal alluvial fans and/or alluvial plains. The onsite alluvial soils consist of interlaced layers of sandy clay, clayey- and silty sand, and poorly graded sand, with trace to some gravels, that are light- to medium brown, yellowish-, orange-, and/or olive-brown, and stiff to dense.

Seismicity & Seismic Hazards

There are several active and/or potentially active faults within Southern California. Any future movement on these faults could possibly affect structures in the built environment due to seismic induced ground shaking, acceleration, and/or rupture. The time, location, magnitude, amount of fault displacement, and shaking duration of an earthquake cannot be accurately predicted.

Ground motion caused by an earthquake is likely to occur at the site during the lifetime of the development due to the proximity of several active and potentially active faults. The American Society of Civil Engineers (ASCE) Structural Engineering Institute (SEI) in conjunction with the United States Geological Survey (USGS) have developed the most recent *ASCE/SEI Standard 7-16 - Minimum Design Loads and Associated Criteria for Buildings and Other Structures: Provisions and Commentary* (2017) and maintain the *ASCE 7 Hazards Tool*, (https://asce7hazardtool.online/), website and search engine for the prediction of peak and design-level earthquake ground motions. The earthquake induced ground motions anticipated for the subject site, as determined from the *ASCE 7 Hazards Tool* website search engine output, are provided in Appendix III. Generally, on a regional scale, quantitative predictions of ground motion values are linked to peak acceleration and repeatable acceleration, which is a response to earthquake magnitudes relative to the fault distance from the subject property.

This seismic evaluation is designed to provide the client with current, rational, and believable seismic data that could affect the property during the lifetime of the proposed improvements. The minimum design acceleration for a project is determined from the *ASCE 7 Hazards Tool* website search engine. It is recommended that the structural design of the proposed project be based on current design acceleration practices of similar projects in the area.

Newport - Inglewood Fault Zone & Seismic Surface Rupture Hazard
The Newport - Inglewood Fault Zone (NIFZ) consists of several fault strands that overlap and/or extend from offshore by Laguna Beach to either merge with or be truncated by the Malibu Coast - Santa Monica - Hollywood – Raymond Fault System near Beverly Hills. The NIFZ has a length of about (45) miles. It is the source of the "Long Beach Earthquake;" which occurred on March 10, 1933, with a magnitude of M6.3. Numerous small earthquakes have occurred in historic time along and near the fault zone. The NIFZ is easily observed by an alignment of hills and mesas including Cheviot Hills, Baldwin Hills, Rosecrans Hills, Dominguez Hills, Signal Hill, Reservoir Hill, Alamitos Heights, Landing Hill, Bolsa Chica Mesa, and Newport Mesa.

In November 1985, the State of California classified the Newport - Inglewood Fault Zone (NIFZ) as an active fault, and delineated the NIFZ with an Earthquake Fault Zone, in accordance with the Alquist-Priolo ("AP") Earthquake Fault Zoning Act of 1972. The proposed project sites are located approximately (1)-mile southwest of the Earthquake Fault Zone for the Potrero fault splay of the NIFZ, as delineated on the California Geological Survey (CGS) *Inglewood Quadrangle (EZRIM) Earthquake Zones of Required Investigation Map*, (1986, 1999). Thus, seismically induced ground rupture is not anticipated to occur at the proposed project sites from earthquake movement on the NIFZ.

Seismic Ground Acceleration and Shaking Hazards
Significant ground acceleration and shaking should be anticipated to occur at the proposed project sites due to the close proximities of the sites to the Potrero fault splay of the Newport - Inglewood Fault Zone (NIFZ) and to other active and/or potentially active faults within the local area. Generally, all of southern California is located in a seismically active region and some areas have a higher potential for seismic damage than other areas. The nearer a property is to an active fault, then a greater probability for significant ground shaking and higher ground acceleration should be anticipated. Thus, earthquake insurance and building code upgrades are suggested.

Earthquake Induced Landslide Hazard
The State of California has prepared Seismic Hazard Evaluation reports to regionally map areas of potential increased risk of permanent ground displacement based on historic occurrence of landslide movement, local topographic expression, and geological and geotechnical subsurface conditions. The maps may not identify all areas that have potential for earthquake-induced landsliding, strong ground shaking, or other

earthquake-related geologic hazards. The proposed project sites are not located within an earthquake-induced landslide hazard zone, as delineated on the California Geological Survey (CGS) *Inglewood Quadrangle (EZRIM) Earthquake Zones of Required Investigation Map,* (1986, 1999), (Plate 3).

Additionally, ancient and/or recent bedrock landslides were not observed within the proposed project sites. Also, recent surficial slope failures or slumps were not observed within the proposed project sites.

Liquefaction & Seismically Induced Settlement Hazards

Liquefaction is a process by which sediments below the water table temporarily lose strength and behave as a viscous liquid rather than a solid. The types of sediments most susceptible are clay-free deposits of sand and silts; gravel only occasionally liquefies. The actions in the soil which produce liquefaction are as follows: seismic waves, primarily shear waves, passing through saturated granular layers, distort the granular structure, and cause loosely packed groups of particles to collapse. The pore-water pressure between grains increases, if drainage cannot occur. If the pore-water pressure rises to a level approaching the weight of the overlying soil, the granular soil layer temporarily behaves as a viscous liquid rather than a solid.

In the liquefied condition, soil may deform with little shear resistance; deformations large enough to cause damage to buildings and other structures are called ground failures. The ease with which a soil can be liquefied depends primarily on the looseness of the material, the depth, thickness, and areal extent of the liquefied layer, the ground slope, and the distribution of loads applied by buildings and other structures.

The State of California has prepared Seismic Hazard Zone Reports and Maps to regionally map areas where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacement. The maps may not identify all areas that have potential for liquefaction, strong ground shaking, or other earthquake-related geologic hazards.

The proposed project sites are not located within a Liquefaction Hazard Zone as designated on the California Geological Survey (CGS) *Inglewood Quadrangle (EZRIM) Earthquake Zones of Required Investigation Map,* (1986, 1999), (Plate 3). The historic high groundwater level was obtained from review of the California Division of Mines and Geology (CDMG) *Seismic Hazard Zone Report (SHZR 027) for the Inglewood 7.5-Minute Quadrangle* (1998, 2006). Review of this report indicates that the historically highest groundwater level in the vicinity of the proposed project sites is on the order of (30) feet below site grades, (Plate 4). Additionally, review of the CGS *Geologic Map of the Long Beach 30' x 60' Quadrangle* (2016) and the Dibblee *Geologic Map of the Venice and Inglewood Quadrangles, Los Angeles County, California* (2007), (Plate 2), indicates that the proposed project sites are underlain by late Pleistocene to Holocene aged alluvial soils (Qyf). Therefore, due to the age, density and consistency of the earth materials underlying the project sites, it is the opinion of this firm that the potential for liquefaction, liquefaction settlement, and/or seismically induced dry-sand settlement to occur at the proposed project sites is very low.

Lateral Spreading Hazard

The proposed project sites are located within a region which is generally is flat-lying with regional gradients of approximately >50H – >100H:1V, (horizontal to vertical). Additionally, the proposed project areas on the Hawthorne Municipal Airport property are located more than (500) feet to the south and/or west of the Dominguez Slough Flood Control Channel, (AKA – the Dominguez Channel). The Dominguez Channel provides drainage outflow for the Los Angeles Harbor Watershed Area, which comprises much of the southern Los Angeles Basin.

The Dominguez Channel consists of an approximately (20)-foot deep engineered, concrete-lined drainage channel that is primarily fed by paved surface drains and buried storm drains. The upper reaches of the

Dominguez Channel begin just south of 116th Street in the City of Hawthorne and the channel flows through communities of El Camino Village, Gardena, Alondra Park, Torrance, Harbor Gateway, Carson, and Wilmington, and empties into the East Basin of the Port of Los Angeles, in San Pedro Bay on the Pacific Ocean.

The proposed project sites on the Hawthorne Municipal Airport property are located considerably far away from any free-face slopes and more than (500) feet from the walls of the Dominguez Channel. Therefore, it is the opinion of this firm that the potential for lateral spreading to occur at the proposed project sites is very low.

Lurching & Surface Manifestation Hazards
The potential for lurching, surface manifestations, and disruption to existing topography from seismic shaking can occur almost anywhere in Southern California. Proper maintenance of properties can mitigate some of the potential for these types of manifestations, but the potential cannot be completely eliminated.

Tsunami Hazard
The largest and closest body of water to the project sites is the Pacific Ocean, which is approximately (4.75) miles west-southwest of the proposed project sites. Properties along the coast area have a potential hazard from tsunami. Tsunamis are sea waves generally produced by earthquakes. A tsunami wave can travel for thousands of miles at high speeds, exceeding (400) miles per hour. Little data exists to evaluate the potential for a local tsunami generated off the coast of southern California. Historically, two tsunamis have been generated off the coast of southern California. The 1812 Santa Barbara Earthquake was reported to generate (10) to (12) feet high sea waves at Gaviota. The 1927 Point Arguello Earthquake produced sea waves to (6) feet. The 1964 Alaskan Earthquake produced sea waves of less than (4) feet in the Los Angeles Harbor.

The lower threshold seismic event for tsunami development is considered to be a magnitude 6.5 earthquake. The nearby Newport - Inglewood Fault Zone (NIFZ) and other active and/or potentially active faults, (both onshore and offshore), within the local southern California area are considered capable of producing an earthquake of magnitude M6.5, (or greater), and conceivably are capable of producing a sea wave. However, the sea floor topography in the Santa Monica Bay, San Pedro Channel, and Santa Barbara Channel, and the Channel Islands minimize the risk of a large tsunami affecting the coast in the Greater Los Angeles area. The proposed project sites are not located within a Tsunami Hazard Area as delineated on the California Geological Survey (CGS) *Tsunami Hazard Area Map of Los Angeles County*, (2021). Due to the distance from the Pacific Ocean of (4.75) miles, and the elevation of the site at approximately (60) feet above sea level, it is the opinion of this firm that the potential for tsunami inundation to affect the proposed project sites is very low.

Seiche Hazard
Seiches are standing waves with low-energy that form in bodies of water such as lakes, reservoirs, rivers harbors, and bays. The Hawthorne Municipal Airport property is located approximately (11) miles north-northwest of the Los Angeles Harbor. Thus, the proposed project sites are considerably far away from the noted water body types. Therefore, due to the considerable distance of the proposed project sites from any significant water bodies, it is the opinion of this firm that the potential for seiche and seich-related adverse conditions to occur at the proposed project sites is very low.

Ground Subsidence Hazard
Ground subsidence is the gradual settling, or the sudden sinking / collapsing, of the ground surface caused either by natural geologic phenomena or processes or anthropic activities. Natural geologic phenomena or processes which can cause ground subsidence include: the extrusion of underground fluids, (*e. g.* groundwater from artesian aquifers and/or petroleum from natural oil seeps), natural consolidation of soils,

meting of permafrost, and/or the dissolution of underground minerals, (*e. g.* sinkholes, caves, and karst topography). Anthropogenic causes of ground subsidence include: underground mining of mineral resources, the removal of underground petroleum and/or natural gas deposits, (*e. g.* drilling for and pumping of petroleum and/or natural gas reservoirs), and/or the removal of groundwater resources from underground aquifers and/or reservoirs.

The proposed project sites on the Hawthorne Municipal Airport property are not located in an area of known ground subsidence associated with either natural geologic phenomena or anthropogenic withdrawal of underground groundwater resources and/or petroleum or natural gas reservoirs. Therefore, it is the opinion of this firm that the potential for ground subsidence to occur at the proposed project sites is very low.

CONCLUSIONS

1. Based on the results of this investigation and a thorough review of the proposed development, as discussed, the project is suitable for the intended use providing the following recommendations are incorporated into the design and subsequent construction of the project. Also, the development must be performed in an acceptable manner conforming to the Building Code requirements of the controlling governing agency.
2. Based on the California Geological Survey (CGS) *Inglewood Quadrangle (EZRIM) Earthquake Zones of Required Investigation Map,* (1986, 1999), (Plate 3), the proposed project sites are not located within a Liquefaction Hazard Zone. Additionally, the proposed project sites are underlain by late Pleistocene to Holocene aged alluvial soils (Qyf). Therefore, due to the age, density and consistency of the earth materials underlying the project sites, it is the opinion of this firm that the potential for liquefaction, liquefaction settlement, and/or seismically induced dry-sand settlement to occur at the proposed project sites is very low.
3. The SITE CLASS for the proposed development based upon available geotechnical data and the most recent *ASCE/SEI Standard 7-16* (2017) is the "Site Class D – Stiff Soil." Additional seismic design values are listed in Appendix III.
4. Based upon field observations, laboratory testing and analysis, the alluvial soils (Qyf) encountered in the exploration borings and underlying the proposed project sites should possess sufficient strength to support the proposed development, including any new engineered, compacted fill materials placed for support of the proposed airplane hangars.

RECOMMENDATIONS

Specific Recommendations

1. Anthropogenic artificial fill materials (Af) have been observed to blanket portions of the proposed project sites with varying thicknesses ranging from about (2.0) to (4.0) feet. The existing fill materials (Af) are not considered suitable for support of new engineered, compacted fill materials, foundations, concrete slabs-on-grade, concrete hardscape, and/or concrete or asphalt paving.
2. Grading and earthwork should be utilized to create a new uniform building pad areas for support of the proposed airplane hangars at each of the proposed project sites on the Hawthorne Municipal Airport property. The proposed airplane hangars should be supported on shallow conventional foundations. As an alternative to conventional foundations, the proposed airplane hangars may be supported on mat foundations.

   The recommended conventional foundations and/or mat foundations for the proposed development shall bear entirely into the recommended properly placed engineered, compacted fill materials. Also,

the recommended conventional foundations and/or mat foundations shall be designed as provided in the foundation design recommendations section(s) of this report, (below).

Additionally, potentially expansive soils have been observed to occupy the proposed project areas on the Hawthorne Municipal Airport property. All new foundations as well as concrete slabs-on-grade, concrete hardscape, and concrete paving shall be designed for an expansive soil condition.

3. Grading and earthwork to create new uniform building pad areas, at each of the proposed project sites on the Hawthorne Municipal Airport property, should include removals of any unsuitable existing fill materials (Af) to expose the firm to dense underlying alluvial soils (Qyf). The excavated earth materials generated from the grading excavations should be replaced as properly placed engineered, compacted fill materials.

   All grading over-excavations to create new building pad areas should extend laterally at least (3) feet beyond the proposed airplane hangar building-lines. Also, grading over-excavation removals should extend to a minimum depth of at least (3) feet below the bases of the proposed airplane hangar foundations. Typically, grading over-excavation removals should be anticipated to be approximately (5) feet in depth below existing site grades and/or (5) feet below the proposed project finished grades.

4. Importing of earth fill materials should also be anticipated for the recommended grading and earthwork to create new uniform building pad areas for the proposed development. Imported earth fill materials must be approved by the project soils engineer prior to being placed as engineered, compacted fill. Imported earth materials should consist of largely granular soils with the following earth material parameters:

   Select Import Earth Fill Material Parameters

   - USCS Soil Type (SM), as approved by the project soils engineer
   - Angle of Internal Friction "ϕ" = 30 degrees
   - Cohesive Strength "c" = 300 pounds per square foot
   - Soil Wet Density "γ" = 120 pounds per cubic foot
   - Expansive Index "EI" = LOW (20-50)

5. All grading and earthwork for the proposed development shall be performed as outlined in the Grading & Earthwork section of the enclosed Appendix IV – General Recommendations. Also, all grading and earthwork for the proposed development should be performed in accordance with the current local building code, all requirements of the local governmental reviewing agency, and/or any applicable regulations/requirements of the Federal Aviation Administration.

   Additionally, numerous utility lines, such as electrical lines, telecommunication lines, water lines, sewer lines, and/or aviation fuel tanks and lines, should be anticipated to be encountered during grading in multiple and various locations at each of the proposed project sites on the Hawthorne Municipal Airport property. Special care should be taken during grading to properly locate and delineate any existing utility lines within the proposed project sites. Also, proper methods and procedures shall be implemented to protect and/or abandon any such utility lines.

6. **The undersigned engineering geologist and soils engineer shall review and approve, with signatures and stamps, the detailed grading and building plans PRIOR to issuance of any building and/or grading permits to verify that the plans include the recommendations provided herein**.

7. **All foundation excavations shall be observed and verified by the project engineering geologist and/or soils engineer during construction prior to placing any reinforcing steel and pouring concrete.** The required excavation observations are intended to verify conformance of the excavations with the recommendations provided herein, with the design structural engineering plans, with the current Building Code, and with the specific requirements of the local (and/or federal) governmental reviewing agency(ies).

8. **Prior to beginning any site grading, removals, and/or excavations for grading and/or foundations (a) project pre-grading / pre-construction meeting(s) should be held at the proposed project sites.** The project pre-grading / pre-construction meeting(s) should be attended by the project engineering geologist and/or project soils engineer and by representatives of the property owner(s), the project architect, the project structural engineer, the project civil engineer, the general contractor and/or the grading contractor, by the local building department official/inspector and, (as necessary), by representatives of the Hawthorne Municipal Airport and/or the Federal Aviation Administration.
9. The property owner(s) shall maintain the proposed project sites as outlined in the Drainage and Maintenance section of Appendix IV – General Recommendations.

Foundation Design

The proposed development is anticipated to include constructing four (4) new one-story airplane hangars located at four (4) separate locations on the Hawthorne Municipal Airport property. Two (2) of the proposed new airplane hangars are planned to be located south of the airport runway and two (2) of the proposed new airplane hangars are planned to be located north of the airport runway, (see enclosed Plot Maps in Appendix I).

The proposed airplane hangars should be supported on shallow conventional foundations. As an alternative to conventional foundations, the proposed airplane hangars may be supported on mat foundations.

The recommended conventional foundations and/or mat foundations for the proposed development shall bear entirely into the recommended properly placed engineered, compacted fill materials. Also, the recommended conventional foundations and/or mat foundations shall be designed as provided herein, (below).

Conventional Foundations

The proposed new airplane hangars should be supported on shallow conventional foundations bearing into the recommended new properly placed engineered, compacted fill materials. Conventional foundations should consist of either continuous footings and/or pad footings and grade beams, (or other suitable structural members). The minimum conventional foundation design recommendations are given as follows:

- *Allowable Bearing Pressures:*
  - Strip Footings — 1,500 pounds per square foot
  - Column Footings — 2,000 pounds per square foot
  - Maximum Allowable — 3,000 pounds per square foot
- *Allowable Bearing Pressure Increases:*
  - For Additional Footing Width — 150 pounds per square foot, per foot
  - For Additional Footing Depth — 300 pounds per square foot, per foot
- *Minimum Footing Widths:*
  - Strip Footings — 12 inches
  - Column Footings — 24 inches (square)
- *Minimum Footing Embedment Depths:*
  - Strip Footings — 24 inches
  - Column Footings — 24 inches

- All foundation embedment depths shall be measured into the recommended bearing material, below the lowest adjacent grade.

❖ *Lateral Resistance Parameters:*

➢ Coefficient of Friction	0.28
➢ Passive Earth Resistance (acting as a fluid)	250 pounds per square foot, per foot
➢ Maximum Passive Earth Pressure	3,000 pounds per square foot

- Lateral loads may be resisted by friction acting at the base of the footings and/or by passive resistance within the recommended bearing material.

The foundation bearing values provided above are for the total of dead and frequently applied live loads and include a Factor-of-Safety of at least (3). These bearing values may be increased by a factor of (⅓) for temporary loads, such as, wind and seismic forces. The bearing values given above are net bearing values; the weight of concrete below grade may be neglected.

When combining passive earth pressure and friction for lateral resistance, the passive earth pressure component should be reduced by one-third. The coefficient of friction should be applied to dead load forces only.

All continuous footings shall be reinforced with a minimum of (4) #(4) bars, two placed near the top and two near the bottom. Reinforcing recommendations are minimums and may be revised by the project structural engineer.

All foundation excavations are required to be observed by the project soils engineer and/or project engineering geologist. Footing depths will be measured from the lowest adjacent grade of recommended bearing material. Footing depths will not be measured from any proposed elevations or grades. Any foundation excavations that are not the recommended depth into the recommended bearing material will not be acceptable to this office.

Mat Foundations

As an alternative to conventional foundations, the proposed airplane hangars may be supported on mat foundations bearing entirely into the recommended properly placed engineered, compacted fill materials. Additionally, the recommended mat foundations shall be designed to withstand the anticipated static settlement potentials. The final design of the recommended mat foundations shall be provided by the project structural engineer. The geotechnical mat foundation design recommendations are given as follows:

❖ *Mat Foundation Design Parameters:*

➢ Soil Subgrade Reaction Modulus:	54 kips per cubic foot
➢ Minimum Mat Foundation Thickness:	15 inches
➢ Allowable Average Bearing Pressure:	1,500 pounds per square foot
➢ Maximum Allowable Bearing Pressure: *(for point loads under mat foundation)*	3,000 pounds per square foot

Increases in the mat foundation allowable bearing pressure, for support of point loads under the mat, are allowable up to the maximum allowable bearing pressure. Additionally, given the recommended minimum mat thickness of (15) inches, the project structural engineer should consider including design measures to ensure that the recommended mat foundation behave as a mat under structural loading and not as a thickened membrane. Suggested design measures include:

- Utilizing reinforced steps located at critical structural loading points, such as load-bearing internal walls or at a division wall between compartments or occupations,
- Utilizing reinforced ribs in the mat to increase mat stiffness and structural support, and/or
- Increasing the mat thickness and reinforcing, especially under areas of critical structural loading.

❖ *Lateral Resistance Parameters:*

➢ Coefficient of Friction	0.28
➢ Passive Earth Resistance (acting as a fluid)	250 pounds per square foot, per foot
➢ Maximum Passive Earth Pressure	3,000 pounds per square foot

➢ Lateral loads may be resisted by friction acting at the base of the mat foundation and/or by passive resistance within the recommended bearing material.

The mat foundation allowable average bearing value provided above is for the total of dead and frequently applied live loads and includes a Factor-of-Safety of at least (3). The bearing value may be increased by a factor of (⅓) for temporary loads, such as, wind and seismic forces.

When combining passive earth pressure and friction for lateral resistance, the passive earth pressure component should be reduced by one-third. The coefficient of friction should be applied to dead load forces only.

The recommended Modulus of Subgrade Reaction value may be scaled using the empirical relations proposed by Terzaghi (1955), and as provided in Naval Facilities Engineering Command, Design Manual 7.02 (1986), given as:

$k_s = (k_1) * [(B+B_1)/(2B)]^2$
(for square footings)

$k_{s,rect.} = (k_s) * [1+(B/2L)]/(1.50)]$
(for rectangular footings)

Where:
'k_1' is the Subgrade Reaction Modulus for a (12)-inch test plate,
'B_1' is the test plate width, typically (12) inches square,
'B' is the foundation width,
'L' is the foundation length, and
'k_s' is the scaled Subgrade Reaction Modulus *(for square footings)*

All foundation excavation and embedment depths will be measured from the lowest adjacent grade of recommended bearing material. Foundation depths will not be measured from any proposed elevations or grades. Any foundation excavations that are not the recommended depth into the recommended bearing material will not be acceptable to this office.

Foundation Static Settlement

Foundation loads for the proposed development are anticipated to be light to moderate. The alluvial soils (Qyf) underlying the proposed project sites as well as the recommended properly placed engineered, compacted fill materials should be anticipated to be firm to dense and competent. Therefore, significant static settlement of the recommended conventional and/or mat foundations is not anticipated for the expected foundation loading conditions.

Conservatively, static settlement of the proposed development should be anticipated to occur. Static settlement on the order of (½) to (¾)-inches between walls or piers, within (20) feet or less, of each other, and under similar loading conditions, is considered normal. Total static settlement on the order of less than (1)-inch should be anticipated.

Expansive Soils

Our experience and soils laboratory testing indicates that the onsite earth materials should be anticipated to exhibit a LOW to MEDIUM expansion potential. As such, all new foundations and new hardscape shall be designed for an expansive soil condition, in accordance with 2022 California Building Code (CBC) §1808.6 *et seq*.

Expansive soils can be a problem, as variation in moisture content will cause a volume change in the soil. Expansive soils heave when moisture is introduced and contract as they dry. During inclement weather and/or excessive landscape watering, moisture infiltrates the soil and causes the soil to heave (expansion). When drying occurs the soils will shrink (contraction). Repeated cycles of expansion and contraction of soils can cause pavement, concrete slabs on grade and foundations to crack. This movement can also result in misalignment of doors and windows. To reduce the effect of expansive soils, foundation systems are usually deepened and/or provided with additional reinforcement design by the structural engineer.

Planning of site improvements should take into consideration maintaining uniform moisture conditions around structures. Soils should be kept moist, but water should not be allowed to pond. These designs are intended to reduce, but will not eliminate, deflection and cracking and do not guarantee or warrant that cracking will not occur.

Hydroconsolidation

Hydroconsolidation is settlement of soils that collapse when they become saturated. The hydroconsolidation potential of the earth materials underlying the proposed project sites is greatest for the upper soils due to the possibility of potential saturation from rainfall and/or site irrigation. The amount of hydroconsolidation settlement of the upper soils can be reduced by proper maintenance of the subject site. Plumbing lines should be maintained in leak-free condition, landscape watering should be kept to a minimum to reduce infiltration of moisture to the deeper soils, and site drainage should be maintained as outlined in the Drainage and Maintenance section of Appendix IV – General Recommendations.

Hydroconsolidation can occur in deeper soils due to elevated groundwater levels. However, groundwater was not encountered in the exploration borings to a maximum depth of (31.5) feet below adjacent site grades. Additionally, the historic high groundwater level for the proposed project sites was obtained from review of the California Division of Mines and Geology (CDMG) *Seismic Hazard Zone Report (SHZR 027) for the Inglewood 7.5-Minute Quadrangle* (1998, 2006). Review of this report indicates that the historically highest groundwater level in the vicinity of the proposed project sites is on the order of (30) feet below site grades. Based upon the depth to the historic groundwater level in the vicinity of the proposed project sites, hydroconsolidation of the deeper soils should not pose any significant hazard at the subject site.

Site Drainage

Proper surface drainage is critical to the future performance of the project. Saturation of a soil can cause it to lose internal shear strength and increase its compressibility, resulting in a change in the designed engineering properties. Proper site drainage should be maintained at all times.

All site drainage should be collected and transferred to the street, or an approved drainage facility in non-erosive drainage devices. The proposed development should be provided with roof drainage. Discharge from downspouts, roof drains and scuppers should not be permitted on unprotected soils within (5) feet of any building perimeter. Drainage should not be allowed to pond anywhere on the site, and especially not against any foundation or retaining wall. Drainage should not be allowed to flow uncontrolled over any descending slope. Planters located within wall backfill and/or near foundations should be sealed to prevent moisture intrusion into the subgrade earth materials.

Temporary Excavations

Temporary excavations for the proposed development should be anticipated to include grading over-excavations for construction of the recommended engineered, compacted fill building pad areas at the proposed project sites on the Hawthorne Municipal Airport property. Conventional excavation equipment may be used to make the anticipated grading over-excavations.

Excavations should be anticipated to encounter unsuitable existing fill materials (Af) overlying firm to dense, competent alluvial soils (Qyf). All temporary excavations should be observed and verified by the project soils engineer and/or project engineering geologist during construction so that modifications can be made if variations in the earth materials occur.

All excavations should be stabilized within (30) days of initial excavation. If this time is exceeded, the project soils engineer must be notified, and modifications, such as shoring or slope trimming may be required. Water should not be allowed to pond on top of, or at the toe of, the excavations, nor to flow toward them. All excavations should be protected from inclement weather. Excavations should be kept moist, not saturated, to reduce the potential for raveling and sloughing during construction. No vehicular surcharge should be allowed **within (5) feet** of any excavation.

Vertical Excavations

The alluvial soils (Qyf) and/or existing fill materials (Af) are considered suitable for vertical excavations up to (5) feet in height. Vertical excavations greater than (5) feet in height should be trimmed and laid-back at a maximum gradient of 1H:1V, (horizontal to vertical), for the full height of the excavation.

Grading Over-excavations

Grading and earthwork over-excavations necessary to construct the proposed new building pad areas may be performed utilizing the A-B-C Slot Cutting Method. The planned grading over-excavations are not anticipated to exceed (5) feet in height and may be located within (5) feet of adjacent structures, neighboring properties, and/or public rights-of-way.

The A-B-C Slot-Cutting Method employs the use of the earth as a buttress and allows the excavation to proceed in phases. The slots are all cut to a maximum width of (8) feet and using an alternating A-B-C sequence.

The initial excavation is made at a slope of 1H:1V (horizontal to vertical). Then the “A” slots are excavated, with a maximum width of (8) feet, leaving the "B" and "C" slots to buttress the excavation. The "A" slots are then backfilled with the recommended engineered, compacted fill materials. The same procedure is used to excavate and recompact the "B" slots, and then, lastly, the "C" slots.

Earthwork, Bulking, & Compaction Shrinkage

The temporary excavations for the proposed development should be anticipated to encounter unsuitable existing fill materials (Af) overlying firm to dense, competent alluvial soils (Qyf). The “Ease of Excavation” (or “Diggability Index”) of the onsite earth materials may be anticipated to be “Medium (‘M’).” A “Bulking,” (or “Swell”), factor of approximately (20%) may be utilized in earthwork calculations.

Compaction "Shrinkage" results when a volume of loose earth materials at one density and is placed and compacted to a higher density. A shrinkage factor of approximately (5%) to (15%) should be anticipated when placing the excavated on-site earth materials as new select engineered backfill materials with an average of (92%) relative compaction.

Slabs-on-Grade & Hardscape

Concrete conventional slabs-on-grade and/or outdoor concrete flatwork should be a minimum of (4) inches in thickness. Slabs-on-grade should be reinforced with a minimum of (#4) reinforcing bars, placed at (16) inches on center each way. Conventional slabs-on-grade and concrete flatwork may be supported directly upon the firm to dense, competent alluvial soils (Qyf) and/or upon the recommended properly placed engineered, compacted fill materials and should be underlain by (4) inches of crusher-run base mechanically compacted into place.

Grading and earthwork for subgrade preparation and slab support should include the following:

- Any unsuitable existing fill materials (Af) within the footprint of any proposed interior floor-slab and/or any exterior slab areas should be over-excavated and removed to expose firm to dense, competent alluvial soils (Qyf). The minimum over-excavation for placement of engineered compacted fill materials shall be (24) inches.

- The bottom of the over-excavation should be observed by the project soils engineer and/or engineering geologist.

- The bottom of the over-excavation should be scarified about (6) inches, moisture conditioned, and compacted.

- Engineered fill should be placed in loose lifts of about (4) to (6) inches in thickness and compacted.

- Engineered fill should be moisture controlled to be within (3) percent of the optimum moisture content.

- Engineered fill should be compacted to a minimum of (90) percent of the Modified Proctor Maximum Dry Density, per the latest edition of ASTM D 1557.

- Engineered fill should be tested for compaction with a minimum frequency of at every (2) vertical feet or (500) cubic yards of fill placed, whichever is MORE restrictive.

- Engineered fill should be surface tested for compaction at the proposed subgrade elevation.

- The project soils engineer and/or engineering geologist should be contacted to provide periodic observation of the grading operation and perform compaction testing of the engineered compacted fill placed.

- The project soils engineer and/or engineering geologist should prepare a final report detailing the grading and earthwork performed, placement and testing of the engineered compacted fill, and providing the as-built condition of the project area with respect to engineering geology.

Foundation excavation spoils should either be removed from the slab areas or compacted into place by mechanical means and tested for compaction.

For interior slabs and/or slabs where moisture control is required, a vapor retarder with a minimum thickness of (15)-mil should be placed below the concrete slab. The vapor retarder should conform to ASTM E1745 Class A with water vapor transmission rate <0.01 perms and should be installed in accordance with ASTM E1643. The structural engineer should provide design considerations such as reinforcement to offset potential increase in curling stresses in the slab.

Slabs, walkways, and decking are likely to crack as a result of shrinkage and curing processes of concrete. Typical concrete shrinkage can result in cracks and gaps along control joints and where slabs connect with structures. Slabs should be provided with proper control joints in an effort to control the location of the cracking. The gaps will require periodic caulking to limit infiltration of moisture.

Provisions for cracks should be incorporated into the design and construction of the foundation system, slabs and proposed floor coverings. Concrete slabs should have sufficient control joints spaced at a maximum of approximately (8) feet. Slabs-on-grade should be quartered or saw cut slabs to mitigate cracking and be isolated from the stem wall footing. Exterior slabs planned adjacent to descending slopes or planter areas should be provided with a thickened edge. The thickened edge should be a minimum of (12) inches wide and (24) inches deep and two #(4) bars.

Movement of slabs adjacent to structures can be mitigated by doweling slabs to perimeter footings. Doweling should consist of (#4) bars bent around exterior footing reinforcement. Dowels should be extended at least (2) feet into planned exterior slabs. Doweling should be spaced consistent with the reinforcement schedule for the slab. With doweling, (⅜) inch minimum thickness expansion joint material should be provided. Where expansion joint material is provided, it should be held down about (⅜) inch below the surface. The expansion joints should be finished with a color matched, flowing, flexible sealer (e.g., pool deck compound) sanded to add mortar-like texture. As an option to doweling, an architectural separation could be provided between the main structures and abutting appurtenant improvements.

These recommendations are considered as minimums unless superseded by the project structural engineer.

The on-site earth materials are anticipated to exhibit a LOW to MEDIUM expansion potential. Thus, in accordance with 2022 California Building Code (CBC) §1808.6.4, prior to pouring conventional slabs-on-grade, the existing slab sub-grade earth materials should be pre-saturated to a minimum moisture content of (110) percent of the optimum moisture content, per the latest edition of ASTM D1557. Pre-saturation of the slab sub-grade earth materials shall extend to a minimum depth of (24) inches below grade.

For exterior areas, (*e. g.* walkway areas and/or driveway areas), hardscape may consist of flexible paving, including asphaltic concrete (A/C) pavement and/or flexible and permeable paving stones. Flexible paving may be cast over properly placed engineered, compacted fill materials. Also, flexible paving should be anticipated to encounter and flexible paving sections should be designed for an expansive soil condition. Grading and earthwork, as outlined above with a minimum (24)-inch over-excavation, should be utilized for preparation of subgrade soils for support of new flexible paving.

Additionally, the property owner(s) should be aware that the complete removal of all existing fill materials in the planned areas of new flexible paving is not required. However, flexible pavement constructed over existing fill materials will most likely have a shorter design life and increased maintenance costs. Also, if necessary, a Request for Modification, (or "RFM"), of the local Building Code to allow placement of new engineered, compacted fill over competent native soil and/or existing fill materials should be submitted along with this geotechnical report.

Concrete Mix Design

Our experience indicates that the earth materials at the site contain negligible to positive levels of sulfates and should be categorized as sulfate exposure class: S1. Thus, a concrete mix design including Type II Portland cement is recommended for the project. Also, a low permeability concrete is recommended to be utilized at the site to limit moisture transmission through slabs and foundations. For this purpose, the water/cement (*w/cm*) ratio to be used at the site should be limited to (0.45). Limited use, (subject to approval of mix designs), of a water reducing agent may be included to increase workability.

The concrete should be properly cured to minimize the risk of shrinkage cracking. The building code dictates at least (7) days of moist curing for the concrete. Two to three weeks is preferred to minimize cracking. One-inch hard rock mixes should be provided. Pea gravel mixes are specifically not recommended, but pea gravel mixes could be utilized for relatively non-critical improvements, (*e. g.* flatwork), and other improvements provided the mix designs consider limiting shrinkage.

Contractors / other designers should take care in all aspects of designing mixes, detailing, placing, finishing, and curing concrete. The mix designers and contractor are advised to consider all available steps to reduce cracking. The use of shrinkage compensating cement or fiber reinforcing should be considered. Concrete mix designs proposed by the concrete contractor should be considered for use in the proposed development and should be subject to review by the project civil / structural engineer.

Pavement Design

Prior to placing new paving for the proposed project areas, all unsuitable existing fill materials (Af) should be removed down to expose the firm to dense, competent alluvial soils (Qyf), anticipated to be encountered at a minimum depth of (24) inches below existing site grades. The bottom excavation should be observed by the project soils engineer and/or project engineering geologist. At the discretion of the project soils engineer and/or project engineering geologist, the bottom excavation may be deepened further than the minimum (24) inches to achieve exposure of competent earth materials.

The bottom excavation should be scarified to a depth of (12) inches, moistened as required to obtain optimum moisture content, and recompacted to a **minimum of (95)-percent of the modified Proctor maximum dry density**, as determined by the most recent version of ASTM D1557. The property owner should be aware that removal of all existing fill materials in the area of new paving is not required, however, pavement constructed in this manner will most likely have a shorter design life and increased maintenance costs.

Asphalt/Concrete (A/C) Pavement

Preliminary Asphalt/Concrete (A/C) pavement sections are provided below for the assumed Traffic Indices of 5.0, 7.0, and 9.0 to be utilized in pavement design for the proposed development. These sections are based on the resistance ("R") values determined from the soils laboratory testing performed, (see Appendix II, below).

These A/C pavement recommendations should be confirmed with additional resistance ("R") value testing of representative near-surface soils at the completion of grading and after underground utilities have been installed and backfilled. Final A/C pavement section designs shall be selected by the project civil engineer based upon the projected design traffic index(ices).

The following minimum A/C pavement sections are recommended:

Proposed NE & NW Hangars - A/C Pavement Section Recommendations			
Service Type	Traffic Index (TI)	A/C Pavement Course Thickness (inches)	Aggregate Base Course Thickness (inches)
Light Traffic Loads: Passenger Cars	5.0	6	6
Moderate Traffic Loads: Passenger Cars, Trucks & Buses	7.0	6	12
Heavy Traffic Loads: Passenger Cars, Trucks & Buses, Trash Trucks	9.0	10	12

Proposed SE & SW Hangars - A/C Pavement Section Recommendations			
Service Type	Traffic Index (TI)	A/C Pavement Course Thickness (inches)	Aggregate Base Course Thickness (inches)
Light Traffic Loads: Passenger Cars	5.0	4	4
Moderate Traffic Loads: Passenger Cars, Trucks & Buses	7.0	6	8
Heavy Traffic Loads: Passenger Cars, Trucks & Buses, Trash Trucks	9.0	8	10

Portland Cement Concrete (PCC) Pavement
Preliminary minimum Portland Cement Concrete (PCC) pavement sections are provided below for Traffic Indices of 5.0, 7.0, and 9.0 to be utilized in pavement design for the proposed development. These sections are based on the resistance ("R") values determined from the soils laboratory testing performed, (see Appendix II, below).

These PCC pavement recommendations should be confirmed with additional resistance ("R") value testing of representative near-surface soils at the completion of grading and after underground utilities have been installed and backfilled. Final PCC pavement section designs shall be selected by the project civil engineer based upon the projected design traffic index(ices).

The following minimum PCC pavement sections are recommended:

All Proposed Hangars - PCC Pavement Section Recommendations			
Service Type	Traffic Index (TI)	PCC Pavement Thickness (inches)	Aggregate Base Course Thickness (inches)
Light Traffic Loads: Passenger Cars	5.0	6	6
Moderate Traffic Loads: Passenger Cars, Trucks & Buses	7.0	9	6
Heavy Traffic Loads: Passenger Cars, Trucks & Buses, Trash Trucks	9.0	12	6

The recommended PCC pavement sections consisting of thicknesses presented above shall be placed over a minimum of (12) inches of properly compacted subgrade earth materials. The concrete should have a minimum compressive strength of (3,500) pounds per square inch at the time the pavement is subjected to traffic loads. To reduce, (but not eliminate), the potential for cracking, paving should provide control joints at regular intervals not exceeding (14) feet in each direction to a depth of (⅓) of the concrete thickness. Contraction and construction joints should include a joint filler/sealer to prevent migration of water into the subgrade earth materials. The type of joint sealer and filler material should be specified by the pavement designer and should be maintained throughout the life of the pavement. Dowels are recommended at joints to reduce potential offsets. The above section does not include steel reinforcement. Steel reinforcement, typically consisting of (#3) rebars placed at (24) inches on-center each way, may be added to reduce the potential for cracking.

The PCC pavement section thicknesses provided are minimum thicknesses. Increasing the thickness of any or all of the above layers will reduce the likelihood of the pavement experiencing distress during its service lifetime. The above recommendations are based on the assumption that proper maintenance and irrigation of the areas adjacent to the roadway will occur through the design life of the pavement. Failure to maintain a proper maintenance and/or irrigation program may jeopardize the integrity of the PCC pavement.

Aggregate Base Course
Aggregate base should be compacted to a to a minimum of (95)-percent of the modified Proctor maximum dry density, as determined by the most recent version of ASTM D1557. Base materials utilized should be a CALTRANS Class II Aggregate Base, and/or conform with Sections 200-2.2 or 200-2.4 of the *Standard Specifications for Public Works Construction*, (Green Book), current edition.

The performance of pavement is highly dependent upon providing positive surface drainage away from the edges. Ponding of water on or adjacent to pavement can result in saturation of the subgrade materials and subsequent pavement distress. If planter islands are planned, the perimeter curb should extend a minimum of (12) inches below the bottom of the aggregate base.

REVIEWS

Plan Review and Plan Notes
The final grading, building, and/or structural plans shall be reviewed and approved by the consultants to ensure that all recommendations are incorporated into the design or shown as notes on the plan.

The final plans should reflect the following:

1. This Geotechnical Engineering Investigation by Bay City Geology, Inc. is a part of the plans.
2. Plans must be reviewed and signed by the project engineering geologist and soils engineer.
3. The project engineering geologist and soils engineer must review all grading.
4. The project engineering geologist and soils engineer shall review all foundation excavations prior to placing steel and concrete.

Construction Review

Onsite reviews will be required to verify all geotechnical work. It is required that all footing excavations, seepage pits, and grading be reviewed by this office. This office should be notified at least **two working days** in advance of any field reviews so that staff personnel may be made available.

The property owner should take an active role in project safety by assigning responsibility and authority to individuals qualified in appropriate construction safety principles and practices. Generally, site safety should be assigned to the general contractor or construction manager that is in control of the site and has the required expertise, which includes but not limited to construction means, methods and safety precautions.

LIMITATIONS

General
Findings, conclusions and recommendations contained in this report are based upon the surface mapping, subsurface exploration, data analyses, and specific information as described and past experience. Earth materials and conditions immediately adjacent to, or beneath those observed may have different characteristics, such as, earth type, physical properties and strength. Therefore, no representations are made as to the nature, quality, or extent of latent earth materials. Site conditions can and do change from those that were first envisioned. During construction, if subsurface conditions differ from those encountered in the described exploration, this office should be advised immediately so that appropriate action can be taken.

The scope of this investigation is limited to the project area explored as depicted on the enclosed Plot Map. This report is not a comprehensive evaluation of the entire property. This report has not been prepared for use by other parties or for other purposes and may not contain sufficient information for other than the intended use. Prior to use by others, Bay City Geology, Inc. should be consulted to determine if additional work is required. If the project is delayed more than one year, this office should be contacted to verify current site conditions and prepare an update report.

Findings, conclusions and recommendations presented herein are based on experience and background. Therefore, findings, conclusions and recommendations are professional opinions and are not meant to indicate a control of nature.

Potentially expansive soils were encountered on the subject property. Design for foundations, slabs on grade, and retaining walls have been provided to mitigate this soil condition. These designs do not guarantee or warrant that cracking will not occur.

This limited report provides information regarding the geologic findings on the subject property. It is not designed to provide a guarantee that the site will be free of hazards in the future, such as, landslides, slippage, differential settlement, debris flows, seepage, concentrated drainage or flooding. Hillside properties are subject to hazards, which are not found with flatland properties. It may not be possible to eliminate all hazards, but property owners must maintain their property and improve deficiencies.

CONSTRUCTION NOTICE

Construction can be difficult. Recommendations contained herein are based upon surface reconnaissance and subsurface explorations deemed suitable for the scope of the project.

It is this Corporation's aim to advise you through this report of the general site conditions, suitability for construction, and overall stability. It must be understood that the opinions are based upon testing, analysis, and interpretation thereof.

Quantities for foundation concrete and steel may be estimated, based on the findings provided in this report. However, you must be aware that depths and magnitudes will most-likely vary between the explorations provided in this report.

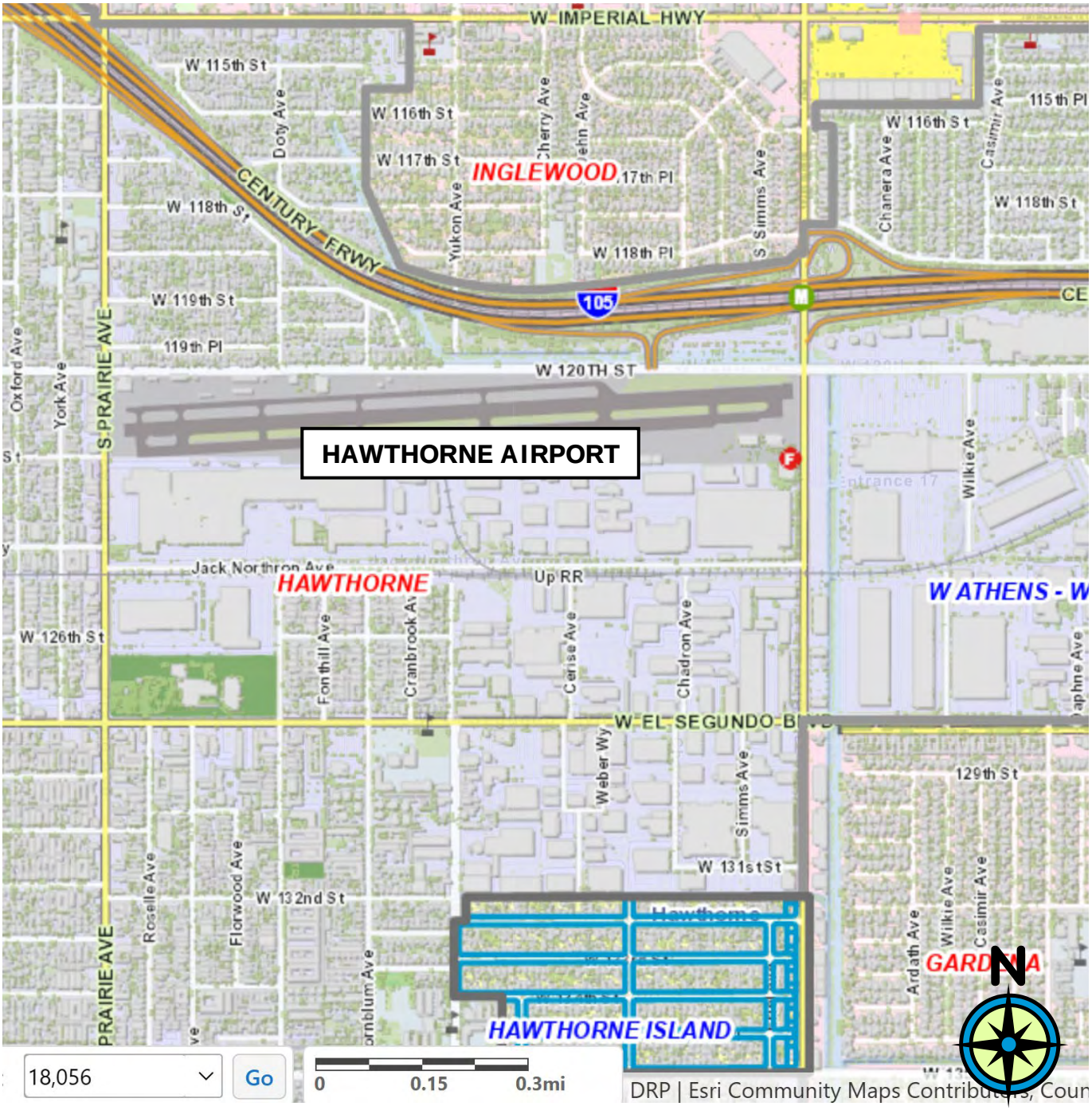
APPENDIX I

Location Maps

Plot Maps

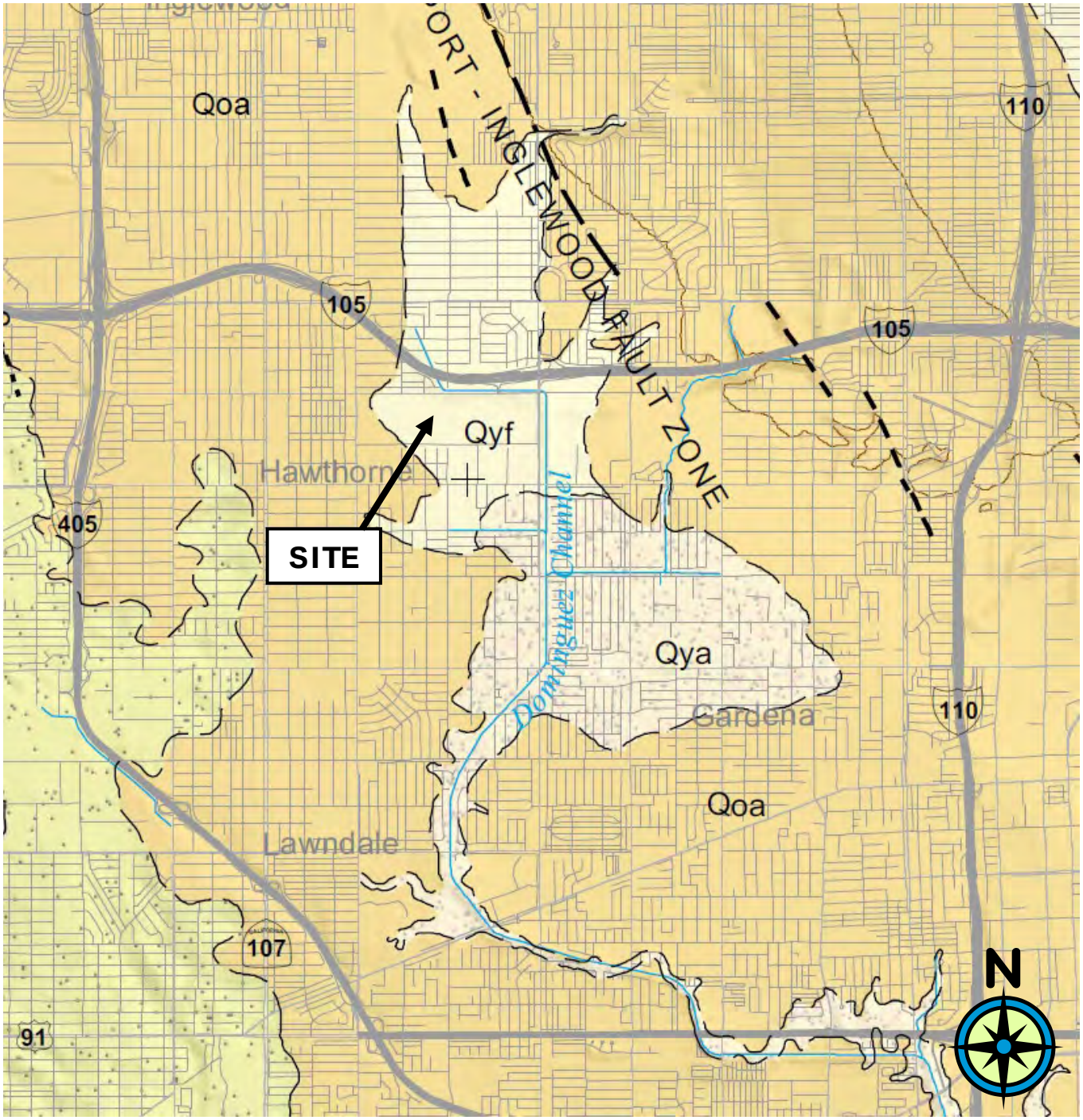
Field Exploration Summary
Boring Logs 5 through 14

LOCATION



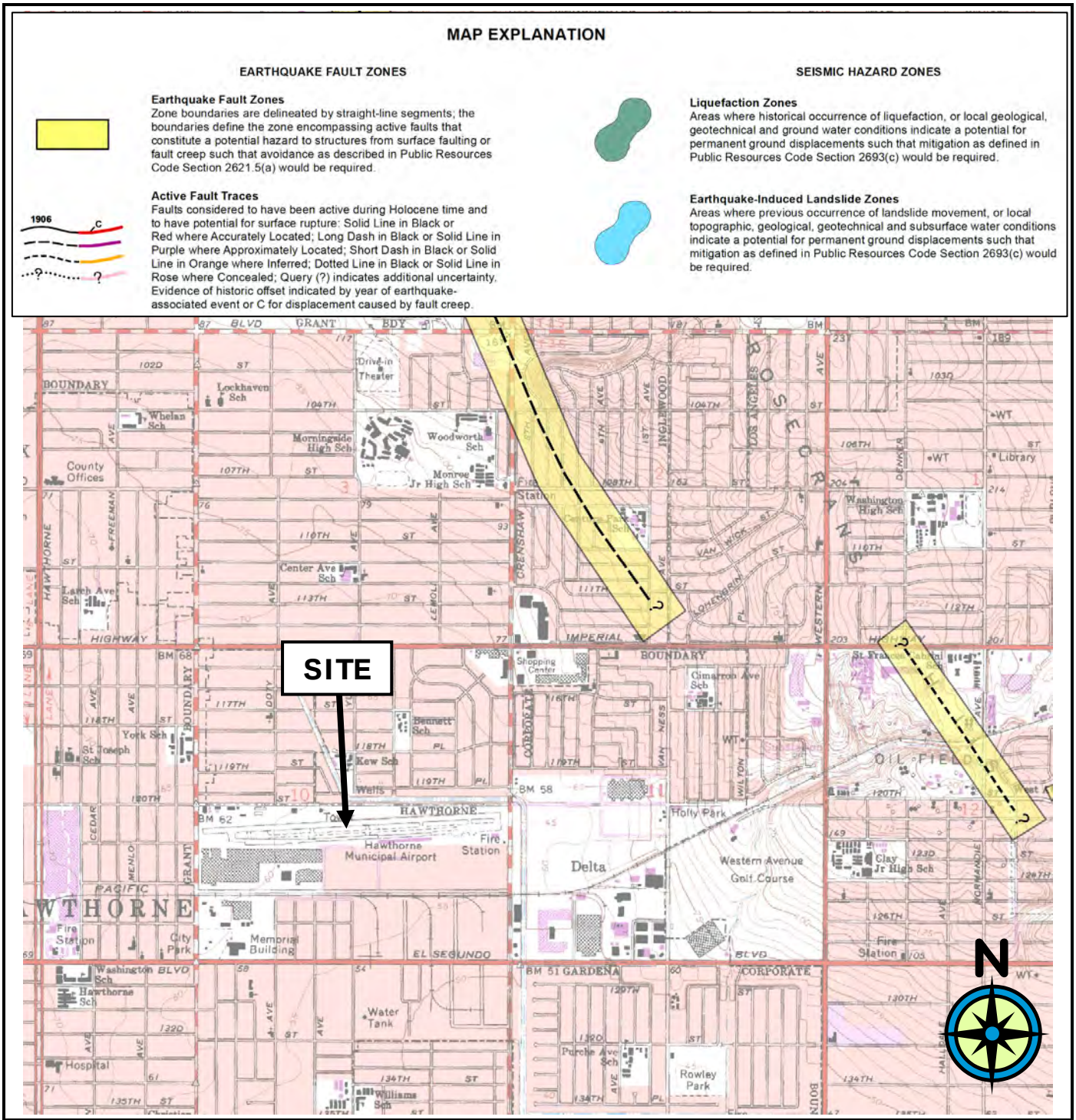
Reference:	LA County GIS
Project Address:	12101 Crenshaw Boulevard Hawthorne, California Plate 1

REGIONAL GEOLOGY MAP



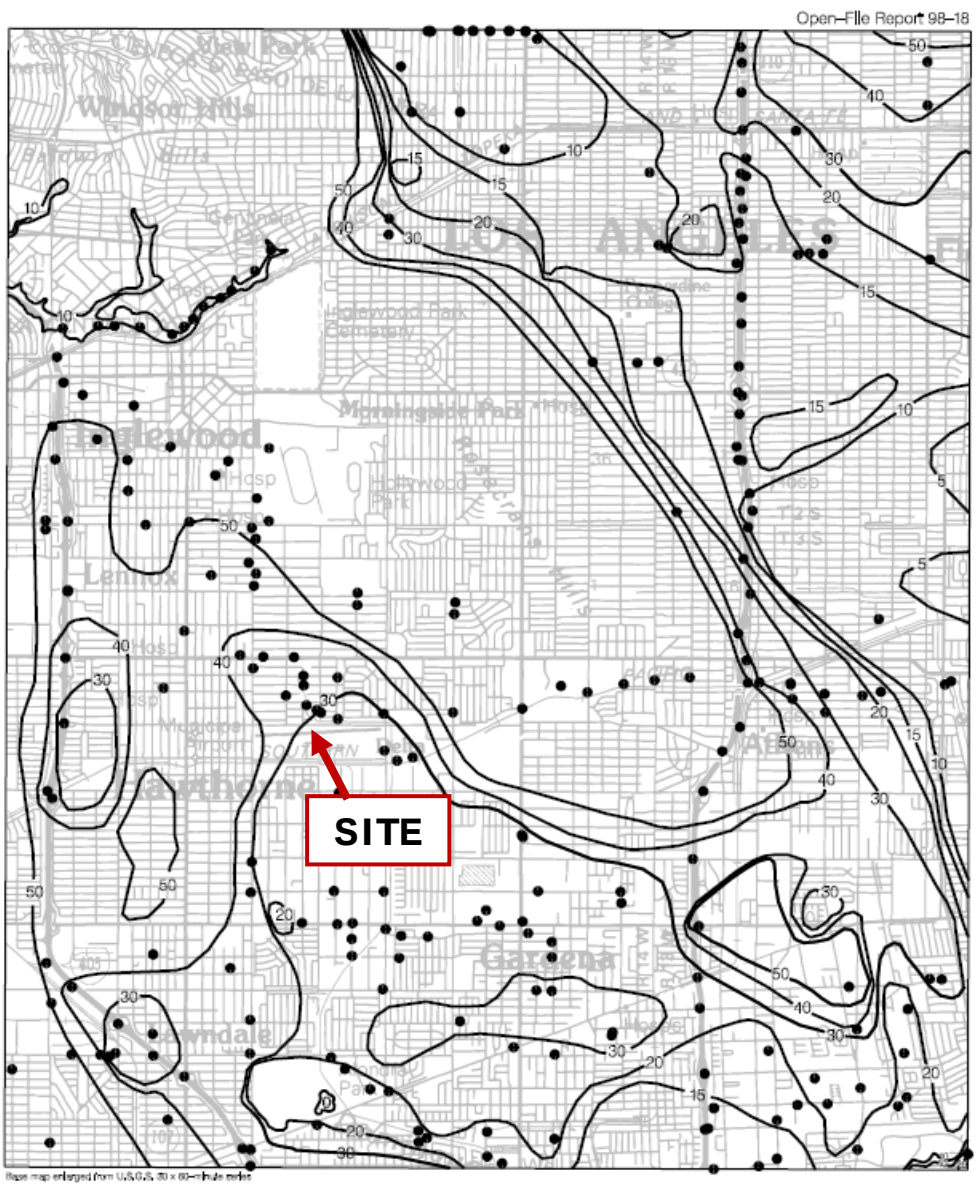
Reference:	Geologic Map of the Long Beach 30'x60' Quadrangle	1"=~4000'
Project Address:	12101 Crenshaw Boulevard Hawthorne, California	Plate 2

SEISMIC HAZARD MAP

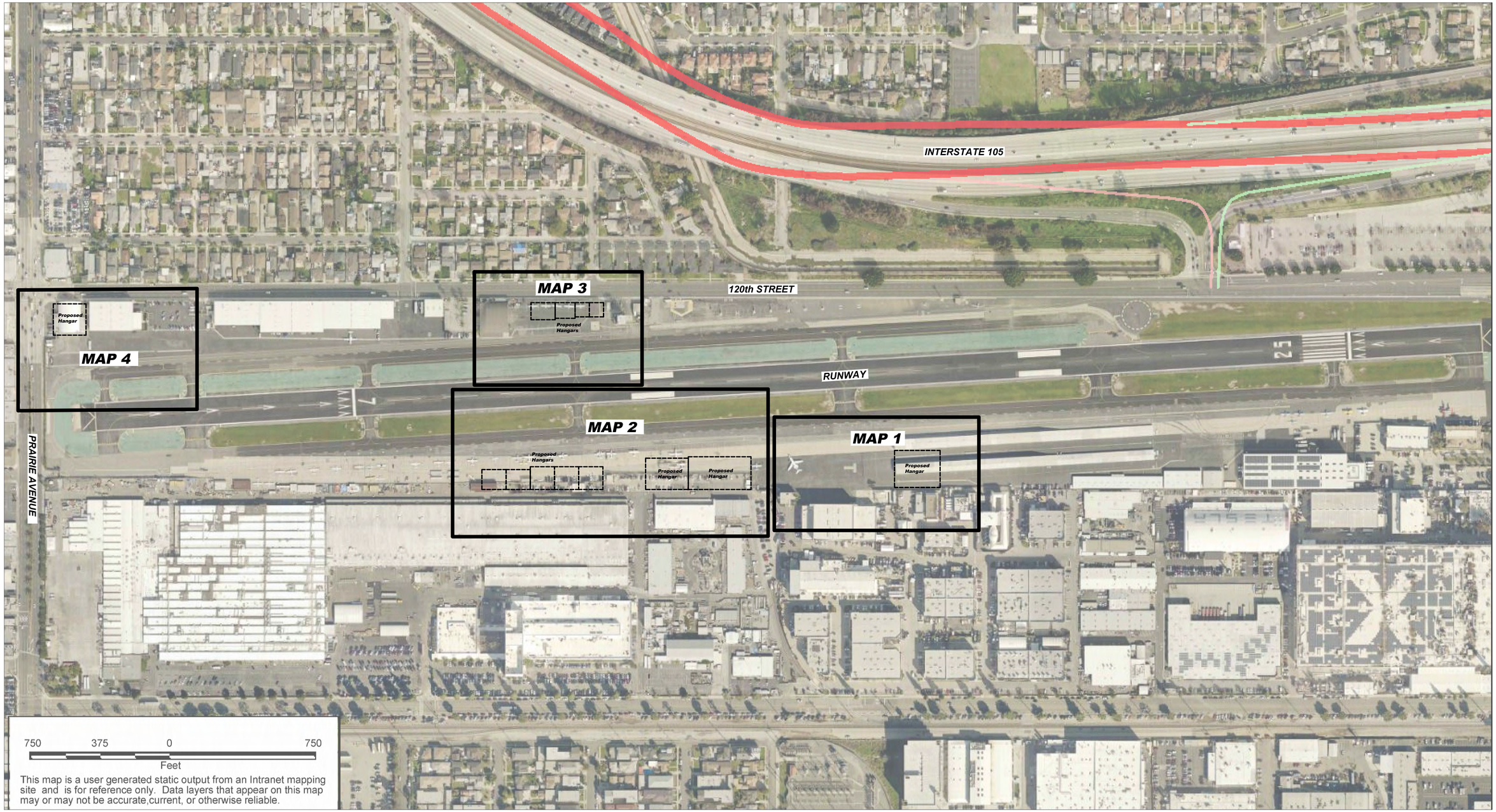


Reference:	State of California EZRIM of the Inglewood Quadrangle	1"=~2000'
Project Address:	12101 Crenshaw Boulevard Hawthorne, California	Plate 3

HISTORIC HIGH GROUNDWATER



Reference:	State of California Seismic Hazard Report of the Inglewood Quadrangle
Project Address:	12101 Crenshaw Boulevard Hawthorne, California Plate 4



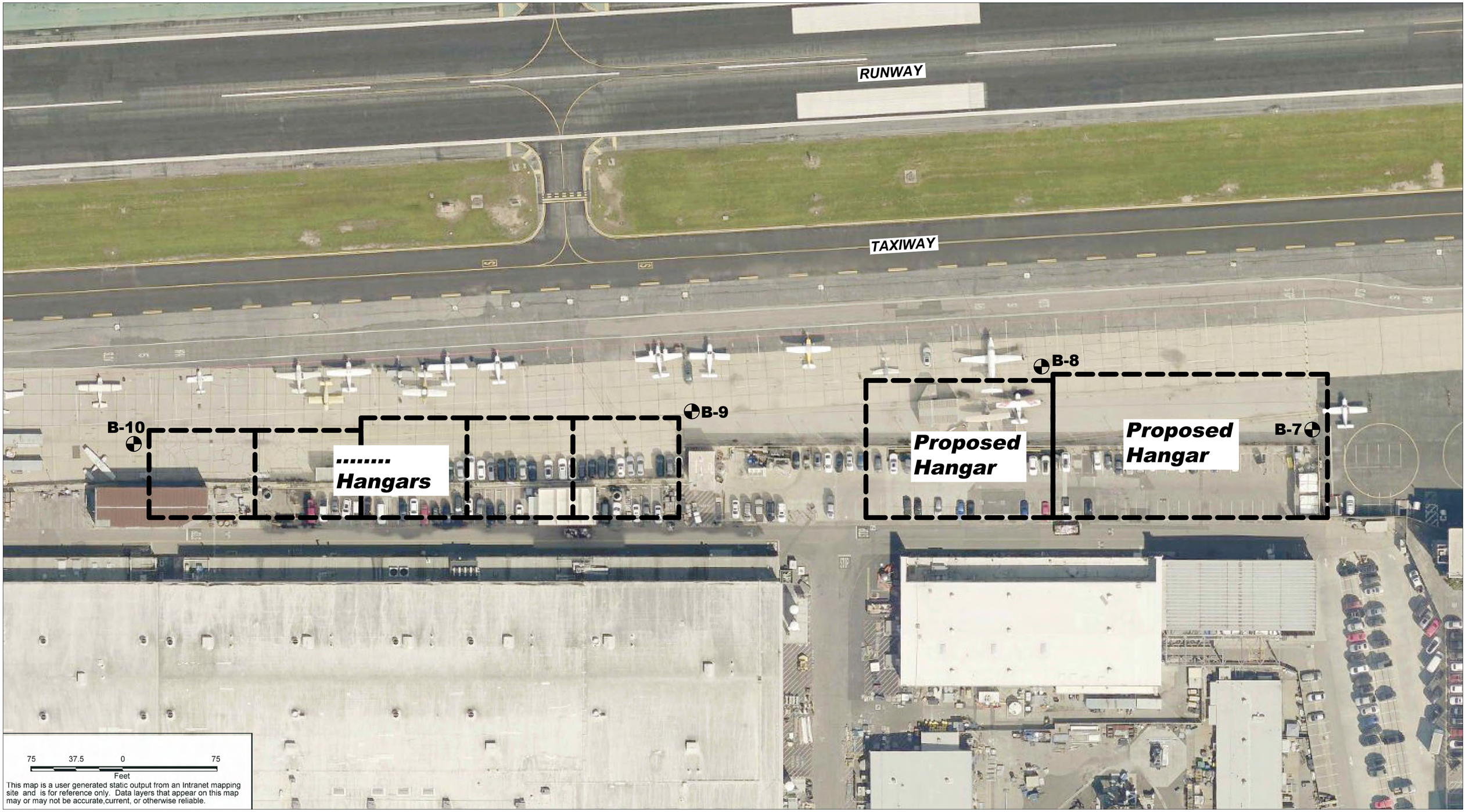
Bay City Geology, Inc.

Plot Map Overview	
Explanation	
B-6	Location of Borings
Scale 1"=160'	
August, 2024	Project Number: 1528-3
Project Address:	12101 Crenshaw Boulevard Hawthorne, California



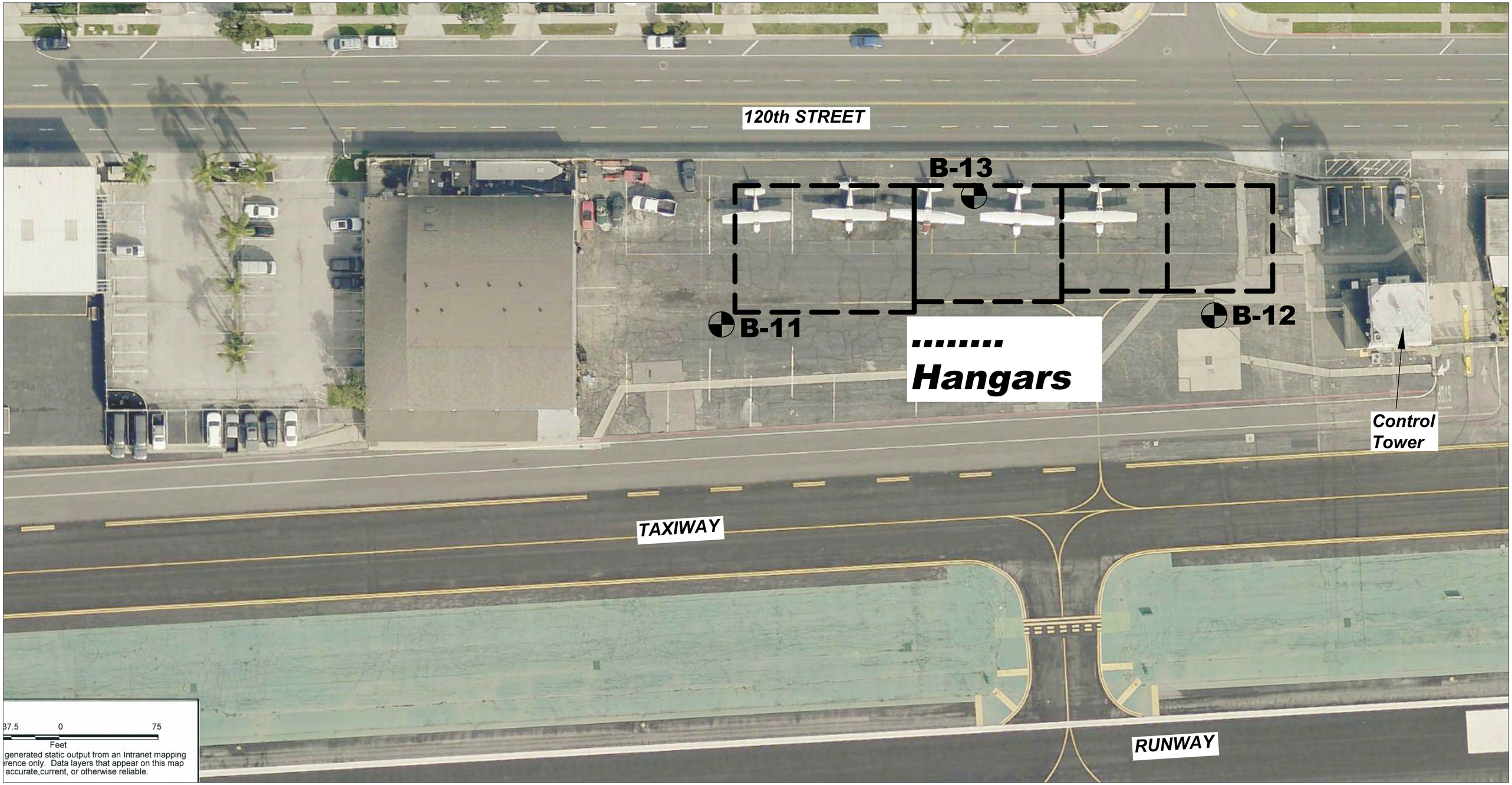
Bay City Geology, Inc.

Plot Map 1 Explanation	
B-6 ◓	Location of Borings
Scale 1"=30'	
August, 2024	Project Number: 1528-3
Project Address:	12101 Crenshaw Boulevard Hawthorne, California



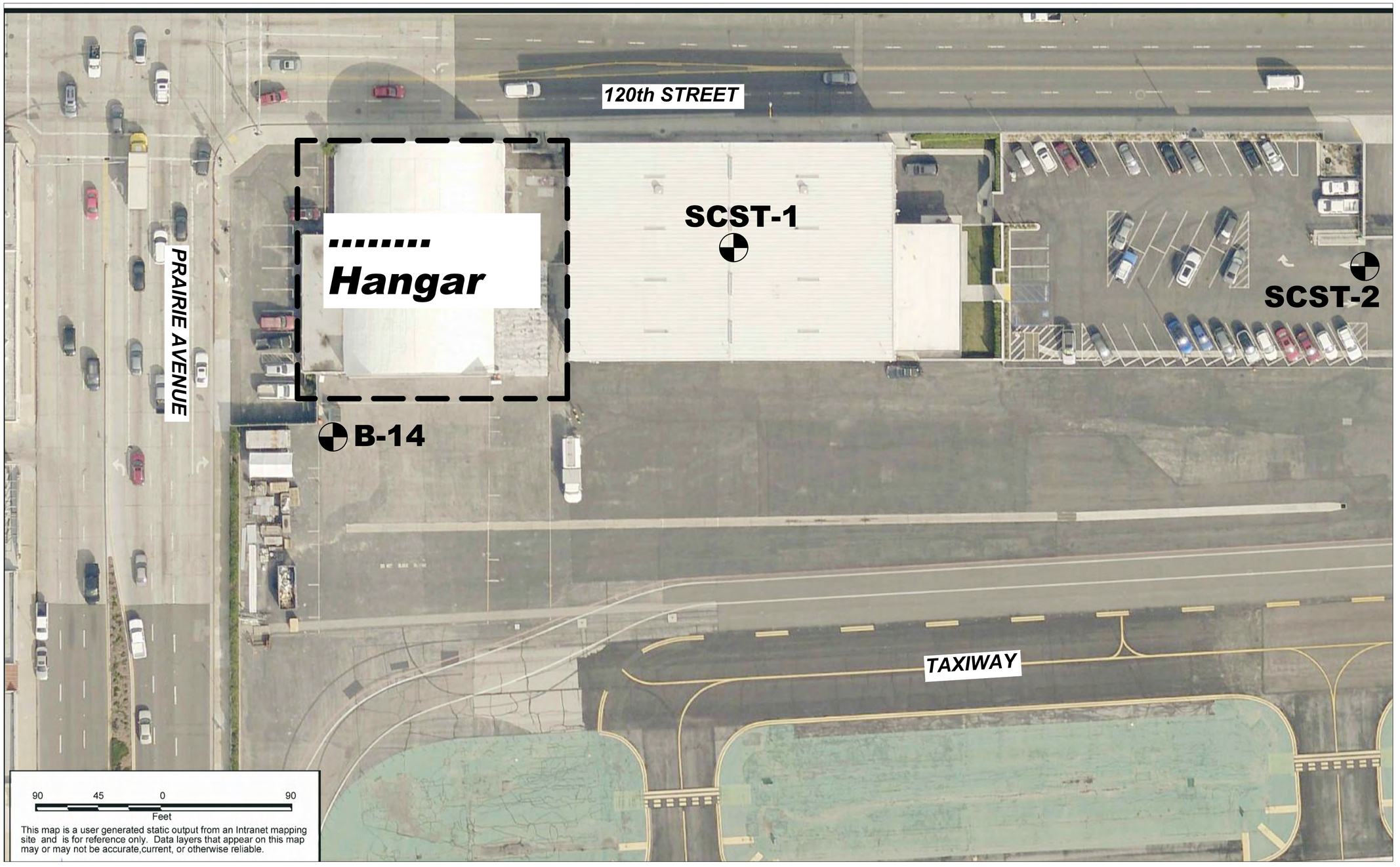
Bay City Geology, Inc.

Plot Map 2 Explanation	
B-10	Location of Borings
Scale 1"=50'	
August, 2024	Project Number: 1528-3
Project Address:	12101 Crenshaw Boulevard Hawthorne, California



Bay City Geology, Inc.

Plot Map 3 Explanation	
B-12 ◔	Location of Borings
Scale 1"=30'	
August, 2024	Project Number: 1528-3
Project Address:	12101 Crenshaw Boulevard Hawthorne, California



Bay City Geology, Inc.

Plot Map 4

Explanation

B-14	Location of Boring by Bay City Geology (2024)
SCST-2	Location of Borings by SCST Engineering (2016)
Scale 1"=30'	
August, 2024	Project Number: 1528-3
Project Address:	12101 Crenshaw Boulevard Hawthorne, California

Field Exploration Summary

A field exploration of the site was conducted on July 10 & 11, 2024. The geotechnical conditions were mapped by a representative of this office, (refer to Plot Map & Exploration Logs). Subsurface exploration was performed by a truck-mounted conventional (8)-inch hollow-stem auger drill rig and included advancing ten (10) hollow-stem auger borings. The borings were advanced to a maximum depth of (31.5) feet below adjacent site grades. The Plot Maps in Appendix I depict the locations of the subsurface explorations. The explorations were logged by the project engineering geologist using both visual and tactile methods.

Hollow-Stem Auger Boring
Representative samples of the onsite earth materials were obtained from the hollow-stem auger borings. Modified California ring samples were obtained within the borings through the use of a (12)-inch long, brass ring lined, steel split-spoon sampler with successive blows of a (140) pound, auto-trip hammer dropped (30) inches. The sampled earth materials are retained within the brass rings, which are (2½) inches in diameter and (1) inch in height.

Standard Penetration Test (SPT) samples, (if taken), were obtained within the explorations through the use of an (18)-inch long, (2)-inch diameter, split-spoon SPT sampler. Earth material samples were obtained and SPT testing was performed in accordance with ASTM D1586.

Bulk samples of the upper approximately (5) feet of onsite earth materials were obtained from the hollow-stem auger boring cuttings by manually collecting the cuttings with a shovel. The earth material samples were transported to the laboratory in moisture tight containers. Depths of the obtained earth material samples are indicated on the Exploration Logs.


2.5" Ring Sample


SPT Sample

Unified Soil Classification System (from ASTM D 2487)

Major Classification Group	Sub-Groups		Classification Symbol	Description
Coarse Grained Soils More than 50% retained on the No. 4 sieve	**Gravels** 50% or more of coarse fraction retained on the No. 4 sieve	Clean Gravels	GW	Well-graded gravels and gravel-sand mixtures, little or no fines
			GP	Poorly graded gravels and gravel-sand mixtures, little or no fines
		Gravels with Fines	GM	Silty gravels, gravel-sand-silt mixtures
			GC	Clayey gravels, gravel-sand-clay mixtures
	Sands 50% or more of coarse fraction passes the No. 4 sieve	Clean Sands	SW	Well-graded sands and gravelly sands, little or no fines
			SP	Poorly graded sands and gravelly sands, little or no fines
		Sands with Fines	SM	Silty sands, sand-silt mixtures
			SC	Clayey sands, sand-clay mixtures
Fine Grained Soils More than 50% passes the No. 200 sieve	**Silts and Clays** Liquid Limit 50% or less		ML	Inorganic silts, very fine sands, rock four, silty or clayey fine sands
			CL	Inorganic clays of low to medium plasticity, gravelly/sandy/silty/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 sands or silts, elastic silts
			CH	Inorganic clays of high plasticity, fat clays
			OH	Organic clays of medium to high plasticity
Highly Organic Soils			PT	Peat, muck, and other highly organic soils

Prefix: G = Gravel, S = Sand, M = Silt, C = Clay, O = Organic
Suffix: W = Well Graded, P = Poorly Graded, M = Silty, L = Clay, LL < 50%, H = Clay, LL > 50%

BORING: B-5

Page 1 of 1

Project Address: *12101 Crenshaw Blvd.*	Project Number: *1528*
Logged By: *J. Miller*	Date Drilled: *07/11/24*
Drilling Method: *8" Hollow Stem Auger*	Ground Surface Elevation: ~60'

Total Depth 26.5' - No Groundwater

Moisture %	Dry Density PCF	Sample Type	Blow Count (total lower 12" of 18" run)	Soil Classification	Graphic Symbol	Depth in Feet	DESCRIPTION
							2.5" Ring Sample
						0	Ground Surface
				HAND AUGER			0.0 - 3.0" ASPHALT 3.0" - 6.0" BASE (sand and gravel)
							0.5' - 26.5' QUATERNARY ALLUVIUM; Qyf
9	123		11	SM			@3.0' (SM) silty sand, medium-brown, slightly moist, dense, trace clay.
9	127		38			5	@5.0' (SM) silty sand, medium-brown, slightly moist, dense, fine-to medium-grained, minor clay.
8	129		29				@7.5' (SC) clayey sand, medium-brown, slightly moist, dense, fine-to medium-grained, trace gravels.
8	126		34	SC		10	@10.0' (SC) clayey sand, medium-brown, slightly moist, dense, fine-to medium-grained, trace gravels.
7	116		30	SP			@12.5' (SP) silty sand to sand, light-brown, slightly moist, dense, fine-grained, medium-gray sandy clay in sample shoe.
13	122		55	SC		15	@15.0' (SC) clayey sand, medium-brown to orange-brown, mottled, slightly moist, dense.
12	107		46	CL		20	@20.0' (CL) sandy clay, medium olive-brown, slightly moist, stiff.
13	119		39	SM		25	@25.0' (SM) silty sand, medium olive-brown, slightly moist, dense, fine-grained.
						30	

BORING: B-6

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Project Address: *12101 Crenshaw Blvd.*	Project Number: *1528*
Logged By: *J. Miller*	Date Drilled: *07/11/24*
Drilling Method: *8" Hollow Stem Auger*	Ground Surface Elevation: ~60'

Total Depth 21.5' - No Groundwater

Moisture %	Dry Density PCF	Sample Type	Blow Count (total lower 12" of 18" run)	Soil Classification	Graphic Symbol	Depth in Feet	DESCRIPTION
							2.5" Ring Sample
							Ground Surface
				HAND AUGER		0	0.0 - 4.0" ASPHALT
							4.0" - 14.0" BASE (sand and gravel)
							14" - 21.5' QUATERNARY ALLUVIUM; Qyf
				CL			
14	119	X	41			5	@5.0' (CL) sandy clay, medium-brown, slightly moist, stiff.
11	127	X	55				@7.5' (CL) sandy clay, medium-brown, slightly moist, stiff, fine- to medium-grained.
13	121	X	60			10	@10.0' (CL) sandy clay, medium-brown, slightly moist, stiff.
13	123	X	77			15	@15.0' (SC) clayey sand, medium-brown, slightly moist, dense, fine-grained.
				SC			
31	90	X	31	ML		20	@20.0' (ML) clayey silt, yellow-brown, slightly moist, firm.
						25	
						30	

BORING: B-7

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Project Address: *12101 Crenshaw Blvd.*	Project Number: *1528*
Logged By: *J. Miller*	Date Drilled: *07/11/24*
Drilling Method: *8" Hollow Stem Auger*	Ground Surface Elevation: ~60'

Total Depth 21.5' - No Groundwater

Moisture %	Dry Density PCF	Sample Type	Blow Count (total lower 12" of 18" run)	Soil Classification	Graphic Symbol	Depth in Feet
				HAND AUGER		0
13	122	⊠	41	SC		5
14	120	⊠	55			
12	124	⊠	60	CL		10
14	118	⊠	77			15
11	105	⊠	31	SM		20
						25
						30

DESCRIPTION

⊠ 2.5" Ring Sample

Ground Surface

0.0 - 4.0" ASPHALT

4.0" - 6.0" BASE (sand and gravel)

0.5' - 21.5' QUATERNARY ALLUVIUM; Qyf

@1.0' (SC) clayey sand, medium-brown, medium-dense.
@4.0' increase in density.
@5.0' (SC) clayey sand, medium-brown, slightly moist, dense, fine-grained.

@7.5' (CL) sandy clay, medium-brown, slightly moist, stiff.

@10.0' (CL) sandy clay, medium-brown, slightly moist, stiff.

@15.0' (SM) sandy silt, medium-brown, slightly moist, firm.

@20.0' (SM) silty sand to very fine-grained sand, light yellowish-brown, slightly moist, dense.

BORING: B-8

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Project Address: *12101 Crenshaw Blvd.*	Project Number: *1528*
Logged By: *J. Miller*	Date Drilled: *07/11/24*
Drilling Method: *8" Hollow Stem Auger*	Ground Surface Elevation: ~60'

Total Depth 24' - No Groundwater

Moisture %	Dry Density PCF	Sample Type	Blow Count (total lower 12" of 18" run)	Soil Classification	Graphic Symbol	Depth in Feet	DESCRIPTION (2.5" Ring Sample)
						0	Ground Surface
				HAND AUGER			0.0 - 3.0" ASPHALT (no base)
							3.0" - 4.0' FILL; Af,
							@3.0' silty clay to clayey sand, medium- to dark-brown, slightly moist, medium dense to dense, mottled, asphalt debris.
12	123	X	21				
						5	**4.0 - 24.0' QUATERNARY ALLUVIUM; Qyf**
11	127	X	30				@5.0' (CL) sandy clay, medium-brown, slightly moist, firm.
14	120	X	66				@7.5' (CL) sandy clay, medium-brown, slightly moist, hard.
						10	
				CL			
15	116	X	49				@12.5' (CL) sandy clay, medium-brown, slightly moist, hard.
						15	
13	112	X	38				@17.5' (SM) silty sand to very fine-grained sand, light yellowish-brown, slightly moist, dense.
				SM		20	
12	115	X	48				@22.5' (SM) silty sand, olive-brown, slightly moist, dense, very fine-grained.
						25	
						30	

BORING: B-9

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Project Address: *12101 Crenshaw Blvd.*	Project Number: *1528*
Logged By: *J. Miller*	Date Drilled: *07/11/24*
Drilling Method: *8" Hollow Stem Auger*	Ground Surface Elevation: ~60'

Total Depth 26.5' - No Groundwater

Moisture %	Dry Density PCF	Sample Type	Blow Count (total lower 12" of 18" run)	Soil Classification	Graphic Symbol	Depth in Feet
				HAND AUGER		0
12	123	■	49	CL		5
13	123	■	34	SC		
13	122	■	53			10
		■				
15	116	■	41	SM		15
7	121	■	48	SC		20
21	107	■	46	CL		25
						30

■ 2.5" Ring Sample

DESCRIPTION

Ground Surface

0.0 - 3.0" ASPHALT (no base)

3.0" - 3.0' FILL; Af

silty clay to clayey sand, medium- to dark-brown, slightly moist, medium dense to dense, mottled, asphalt debris.

3.0 - 26.5' QUATERNARY ALLUVIUM; Qyf

@5.0' (CL) sandy clay, medium-brown, slightly moist, hard.

@7.5' (SC) clayey sand, medium-brown, slightly moist, dense, fine-to medium-grained.

@10.0' (SC) clayey sand, medium-brown, slightly moist, dense, fine-to medium-grained.

@15.0' (SM) silty sand, medium-brown, slightly moist, very fine-grained, dense.

@20.0' (SC) clayey sand, olive-brown, slightly moist, dense, very fine-grained.

@25.0' (SM) sandy clay, olive-brown, slightly moist, firm.

BORING: B-10

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Project Address: *12101 Crenshaw Blvd.*	Project Number: *1528*
Logged By: *J. Miller*	Date Drilled: *07/11/24*
Drilling Method: *8" Hollow Stem Auger*	Ground Surface Elevation: ~60'

Total Depth 21.5' - No Groundwater

Moisture %	Dry Density PCF	Sample Type	Blow Count (total / lower 12" of 18" run)	Soil Classification	Graphic Symbol	Depth in Feet	DESCRIPTION
							2.5" Ring Sample
							Ground Surface
				HAND AUGER		0	0.0 - 5.0" CONCRETE 5" - 7" BASE (sand & gravel) **7" - 3.5' FILL; Af,** silty clay, dark- to light-brown, mottled, slightly moist, medium dense.
14	120	■	55	CL		5	**3.5 - 21.5' QUATERNARY ALLUVIUM; Qyf** @5.0' (CL) sandy clay, medium-brown, slightly moist, hard.
15	117	■	32	SM		10	@10.0' (SM) silty sand, medium-brown, slightly moist, dense.
4	105	■	45	SP		15	@15.0' (SP) sand, light-brown, slightly moist, dense, fine-grained.
11	112	■	35			20	@20.0' (SP) sand, light-brown, slightly moist, dense, fine-grained.
						25	
						30	

BORING: B-11

Page 1 of 1

Project Address: *12101 Crenshaw Blvd.*	Project Number: *1528*
Logged By: *J. Miller*	Date Drilled: *07/12/24*
Drilling Method: *8" Hollow Stem Auger*	Ground Surface Elevation: ~60'

Total Depth 31.5' - No Groundwater

Moisture %	Dry Density PCF	Sample Type	Blow Count (total lower 12" of 18" run)	Soil Classification	Graphic Symbol	Depth in Feet	DESCRIPTION
							2.5" Ring Sample
							Ground Surface
				HAND AUGER		0	0.0 - 5.0" ASPHALT 5" - 12" BASE (sand & gravel) **1.0 - 3.5' FILL; Af,** silty clay, dark- to reddish-brown, mottled, slightly moist, firm.
16	115	X	44				
13	122	X	84	CL		5	**3.5 - 31.5' QUATERNARY ALLUVIUM; Qyf** @5.0' (SM) sandy clay, medium-brown, slightly moist, hard.
14	120	X	67				@7.5' (SM) silty sand, medium-brown, slightly moist, dense, fine-grained.
13	119	X	39	SM		10	@10.0' (SM) silty sand, yellowish-brown, slightly moist, dense, fine-grained.
17	111	X	59				@12.5' (SM) silty sand, yellowish-brown, slightly moist, dense, fine-grained.
14	114	X	78			15	@15.0' (SP) silty sand to very fine-grained sand, olive-brown, slightly moist, very dense.
6	112	X	34	SP		20	@20.0' (SP) silty sand to very fine-grained sand, olive-brown to olive-gray, slightly moist, dense.
25	94	X	46			25	@25.0' (SP) silty sand to very fine-grained sand, olive-brown to olive-gray, slightly moist, dense, trace carbonates.
13	124	X	92			30	@30.0' (SP) silty sand to very fine-grained sand, olive-brown to olive-gray, slightly moist, very dense.

BORING: B-12

Page 1 of 1

Project Address: *12101 Crenshaw Blvd.*	Project Number: *1528*
Logged By: *J. Miller*	Date Drilled: *07/12/24*
Drilling Method: *8" Hollow Stem Auger*	Ground Surface Elevation: ~60'

Total Depth 21.5' - No Groundwater

Moisture %	Dry Density PCF	Sample Type	Blow Count (total lower 12" of 18" run)	Soil Classification	Graphic Symbol	Depth in Feet	DESCRIPTION
							2.5" Ring Sample
						0	Ground Surface
				HAND AUGER			0.0 - 8.0" ASPHALT 8" - 12" BASE (sand & gravel) **1.0 - 4.0' FILL; Af,** clayey silt, reddish-brown to medium-brown and orange-brown, mottled, slightly moist, moderately firm.
							4.0 - 21.5' QUATERNARY ALLUVIUM; Qyf
13	119	X	40	SC		5	@5.0' (SC) clayey sand, medium-brown, slightly moist, dense.
13	112	X	57				@7.5' (SC) clayey sand, medium-brown, slightly moist, dense.
15	118	X	55			10	@10.0' (SC) clayey sand, medium-brown, slightly moist, dense.
9	106	X	54	SP		15	@15.0' (SP) silty sand to very fine-grained sand, olive-brown, slightly moist, very dense.
8	104	X	49			20	@20.0' (SP) silty sand to very fine-grained sand, olive-brown to olive-gray, slightly moist, dense.
						25	
						30	

BORING: B-13

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Project Address: *12101 Crenshaw Blvd.*	Project Number: *1528*
Logged By: *J. Miller*	Date Drilled: *07/12/24*
Drilling Method: *8" Hollow Stem Auger*	Ground Surface Elevation: ~60'

Total Depth 21.5' - No Groundwater

Moisture %	Dry Density PCF	Sample Type	Blow Count (total lower 12" of 18" run)	Soil Classification	Graphic Symbol	Depth in Feet
				HAND AUGER		0
15	118	⊠	20	SC		5
12	122	⊠	34			
15	118	⊠	61			10
18	109	⊠	26			
9	123	⊠	43			15
				SP		
11	103	⊠	29			20
						25
						30

DESCRIPTION

⊠ 2.5" Ring Sample

Ground Surface

0.0 - 3.0" ASPHALT
3" - 6" BASE (sand & gravel)

0.5' - 3.5' FILL; Af,

clayey silt, reddish-brown to medium-brown and orange-brown, mottled, slightly moist, moderately firm.

3.5 - 21.5' QUATERNARY ALLUVIUM; Qyf

@5.0' (SC) clayey sand, medium-brown, slightly moist, dense.

@7.5' (SC) clayey sand, medium-brown, slightly moist, dense.

@10.0' (SC) clayey sand, medium-brown, slightly moist, very dense.

@12.5' (SC) sandy clay, medium-brown, slightly moist, dense.

@15.0' (SP) silty sand to very fine-grained sand, olive-brown, slightly moist, very dense.

@20.0' (SP) silty sand to very fine-grained sand, olive-brown to olive-gray, slightly moist, dense.

BORING: B-14

Page 1 of 1

Project Address: *12101 Crenshaw Blvd.*	Project Number: *1528*
Logged By: *J. Miller*	Date Drilled: *07/12/24*
Drilling Method: *8" Hollow Stem Auger*	Ground Surface Elevation: ~60'

Total Depth 26.5' - No Groundwater

Moisture %	Dry Density PCF	Sample Type	Blow Count (total lower 12" of 18" run)	Soil Classification	Depth in Feet	DESCRIPTION
						2.5" Ring Sample
					0	Ground Surface
				HAND AUGER		0.0 - 4.0" ASPHALT 4" - 10" BASE (sand & gravel) **10.0" - 2.5' FILL; Af,** silty clay, dark- to reddish-brown, mottled, slightly moist, firm.
18	112	X	21	CL	5	**2.5 - 26.5' QUATERNARY ALLUVIUM; Qyf** @3.0' (CL) sandy clay, medium-brown, slightly moist, firm. @5.0' (CL) sandy clay, medium-brown, slightly moist, firm.
14	120	X	49			
11	121	X	28	SM	10	@7.5' (SM) silty sand, light-brown, slightly moist, dense, fine-grained.
9	121	X	27			@10.0' (SM) silty sand to fine-grained sand, light-brown, slightly moist, dense.
23	102	X	27	SC		@12.5' (SC) clayey sand, medium-brown, slightly moist, dense, fine-grained.
6	110	X	74	SP	15	@15.0' (SP) very fine-grained sand, light-brown, slightly moist, very dense.
13	112	X	41	SM	20	@20.0' (SM) silty sand, medium-brown to light-gray, slightly moist, dense, fine-grained.
21	105	X	39		25	@25.0' (SM) silty sand, grayish-brown, slightly moist, dense, fine-grained.
					30	

APPENDIX II - LABORATORY TESTING

Laboratory testing was performed on representative earth material samples obtained during our field exploration, as outlined in Appendix I. All earth material samples were sent to the laboratory for examination, testing, and classification using the Unified Soil Classification System (USCS). The earth material samples were tested for the purpose of estimating material properties for use in subsequent engineering evaluations.

Moisture and Density Tests

The dry unit weight and moisture content of the undisturbed samples were determined in accordance with ASTM D2216 and ASTM D2937. Classification of the obtained soil samples were performed utilizing the USCS in accordance with ASTM D2487 and ASTM D2488.

Expansion Index Tests

Expansion characteristics of the soil were determined in accordance with ASTM D4829 procedures. The sample is remolded and compacted into an expansion mold with a degree of saturation between 40-60%. A vertical confining pressure of (144) pounds per square foot is applied to the sample. The sample is inundated with distilled water. The deformation is recorded after (24) hours.

Moisture-Density Relation (Modified Proctor Maximum Density Test)

Compaction tests are performed in accordance with ASTM D1557 on representative samples to determine the relationship between molding water content and dry unit weight of soils. A sample at a selected water content is placed in five layers in a mold. Each layer is uniformly compacted with a (10)-pound hammer. The resulting dry density is determined. A sufficient number of samples are tested at varying moisture contents to determine the moisture-density relation (compaction curve).

Direct Shear Tests

Direct single and/or repeat shear tests were performed in accordance with ASTM D3080 procedures using a strain-controlled direct shear machine. The desired normal load is applied to the specimen and allowed to come to equilibrium. The rate of deflection on the sample is approximately (0.005) inches per minute. The samples are tested at higher and/or lower normal loads in order to determine the earth material angle of internal friction and cohesive strength.

Consolidation Tests

Consolidation tests in accordance with ASTM D2435 procedures were performed on samples contained within the one-inch brass rings of the Modified California ring sampler. Consolidation tests are used to predict the soil settlement behavior under a specific loading progression. Porous stones are placed in contact with top and bottom of the samples to permit the addition or release of water. Loads are applied in several increments and the results are recorded at selected time intervals. Samples are tested at field and increased moisture content. The results are plotted on the Consolidation Test Curve and the load at which the water is added as noted on the drawing.

Resistance "R" Value by Stabilometer

The resistance "R" value and potential strength of the onsite subgrade soils for use in pavement design was determined by testing a retrieved bulk soil sample in accordance with ASTM D2844 and/or CALTRANS CTM 301. The bulk soil sample is prepared and tested with the stabilometer and expansion pressure devices to obtain results indicative of performance when placed in the base, subbase, or subgrade of a road subjected to traffic loads. The expansion pressure testing has been used in conjunction with the R-value test to determine cover requirements (thickness) and construction controls to reduce pavement distortion from expansive subgrade soils.

PLATE L-1A: LABORATORY RECAPITULATION 1

PROJECT NO.: 1528

PROJECT ADDRESS: 12101 Crenshaw Boulevard

LABORATORY RECAPITULATION 1

Explorations	Depth (ft)	Material	Dry Density (p.c.f.)	Moisture Content (%)
B-5	3.0	Qa	123	9
	5.0	Qa	127	9
	7.5	Qa	129	8
	10.0	Qa	126	8
	12.5	Qa	116	7
	15.0	Qa	122	13
	20.0	Qa	107	12
	25.0	Qa	119	13
B-6	5.0	Qa	119	14
	7.5	Qa	127	11
	10.0	Qa	121	13
	15.0	Qa	123	13
	20.0	Qa	90	31
B-7	5.0	Qa	122	13
	7.5	Qa	120	14
	10.0	Qa	124	12
	15.0	Qa	118	14
	20.0	Qa	105	11
B-8	3.0	Fill	123	12
	5.0	Qa	127	11
	7.5	Qa	120	14
	12.5	Qa	116	15
	17.5	Qa	112	13
	22.5	Qa	115	12
B-9	5.0	Qa	123	12
	7.5	Qa	123	13
	10.0	Qa	122	13
	15.0	Qa	116	15
	20.0	Qa	121	7
	25.0	Qa	107	21

PLATE L-1B: LABORATORY RECAPITULATION 1 (CONT.)

Explorations	Depth (ft)	Material	Dry Density (p.c.f.)	Moisture Content (%)
B-10	5.0	Qa	120	14
	10.0	Qa	117	15
	15.0	Qa	105	4
	20.0	Qa	112	11
B-11	3.0	Fill	115	16
	5.0	Qa	122	13
	7.5	Qa	120	14
	10.0	Qa	119	13
	12.5	Qa	111	17
	15.0	Qa	114	14
	20.0	Qa	112	6
	25.0	Qa	94	25
	30.0	Qa	124	13
B-12	5.0	Qa	119	13
	7.5	Qa	122	13
	10.0	Qa	118	15
	15.0	Qa	106	9
	20.0	Qa	104	8
B-13	5.0	Qa	118	15
	7.5	Qa	122	12
	10.0	Qa	118	15
	12.5	Qa	109	18
	15.0	Qa	123	9
	20.0	Qa	103	11
B-14	3.0	Qa	112	18
	5.0	Qa	123	12
	7.5	Qa	121	11
	10.0	Qa	121	9
	12.5	Qa	102	23
	15.0	Qa	110	6
	20.0	Qa	112	13
	25.0	Qa	105	21

PLATE L-2: LABORATORY RECAPITULATION 2

LABORATORY RECAPITULATION 2

Exploration	Depth (ft)	Expansion Index
B-6	1-5	29
B-9	1-5	42
B-11	1-5	39
B-14	1-5	66

Maximum Dry Density & Optimum Moisture (D-1557)

Description	Maximum Density (pcf)	Optimum Moisture (%)
B-6 @ 1-5'	134.2	12.7
B-9 @ 1-5'	128.5	12.5
B-11 @ 1-5'	129.7	14.4
B-14 @ 1-5'	120.4	17.1

PLATE S-1: DIRECT SHEAR TEST (ASTM D3080)

Direct Shear Test Diagram (D-3080)

Sample Description	Sample Identification	Test Type	Sample Test State	Number of Passes
Qa	B-6 @ 5.0'	Ultimate	Saturated	1

Soil Dry Density (PCF)	119	Shear Strength Values:	
Soil Moisture Content (%)	14.5	Phi (Degrees)	29.8
Soil Saturation (%)	98.6	Cohesion (PSF)	179.7

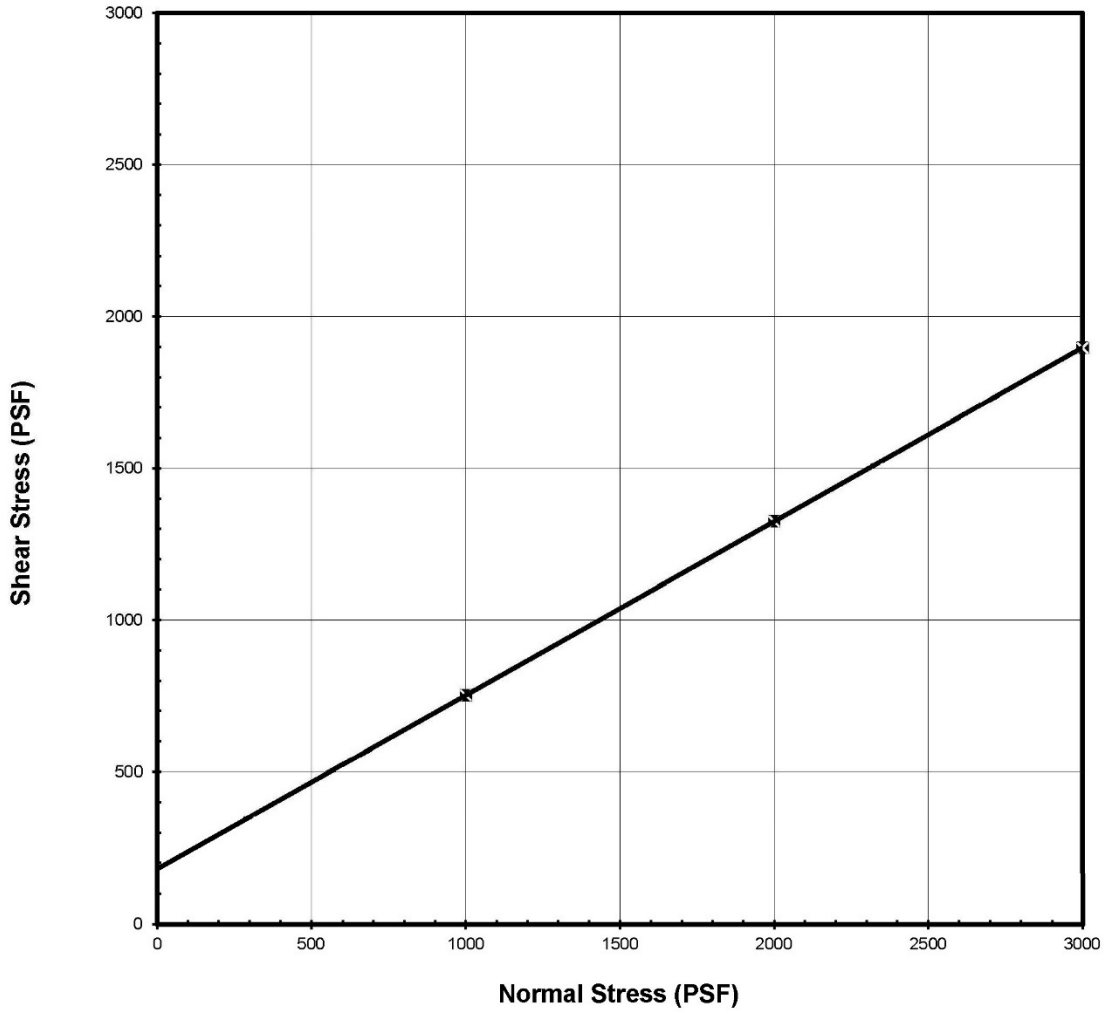


PLATE S-2: DIRECT SHEAR TEST (ASTM D3080)

Direct Shear Test Diagram (D-3080)

Sample Description	Sample Identification	Test Type	Sample Test State	Number of Passes
Qa	B-7 @ 5.0'	Ultimate	Saturated	1

Soil Dry Density (PCF)	122	Shear Strength Values:	
Soil Moisture Content (%)	13.3	Phi (Degrees)	28.2
Soil Saturation (%)	99.2	Cohesion (PSF)	231.3

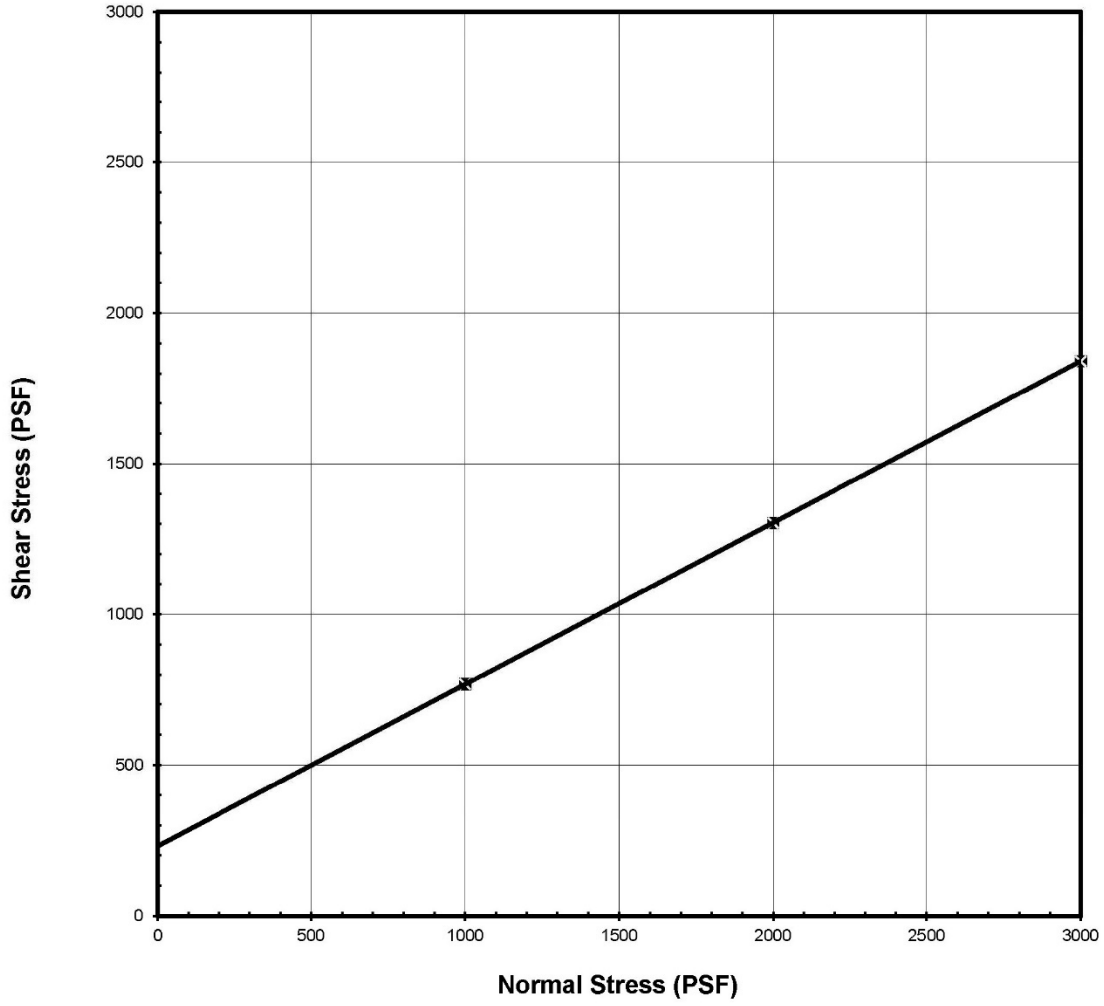


PLATE S-3: DIRECT SHEAR TEST (ASTM D3080)

Direct Shear Test Diagram (D-3080)

Sample Description	Sample Identification	Test Type	Sample Test State	Number of Passes
Fill	B-8 @ 3.0'	Ultimate	Saturated	1

Soil Dry Density (PCF)	123	Shear Strength Values:	
Soil Moisture Content (%)	12.8	Phi (Degrees)	30.2
Soil Saturation (%)	98.5	Cohesion (PSF)	228.0

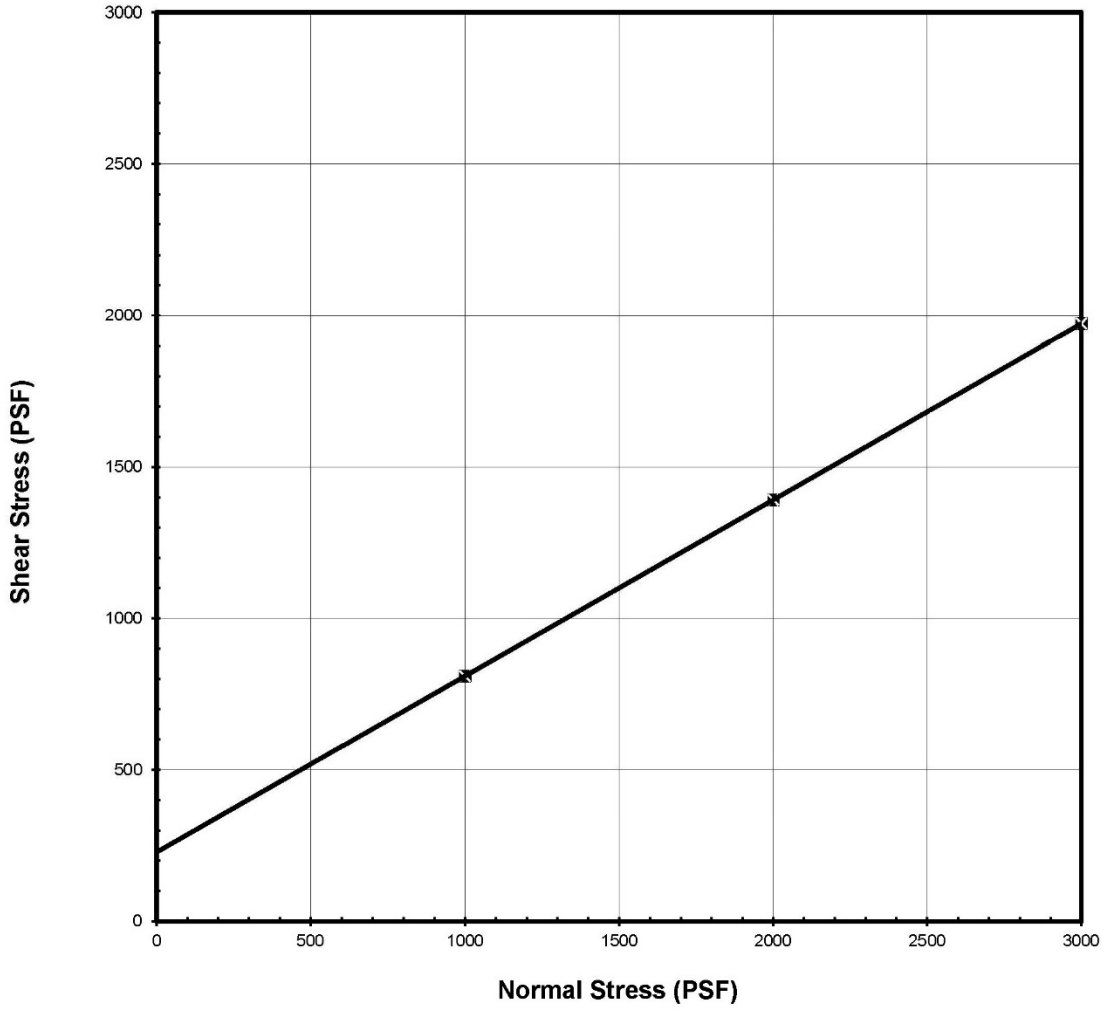


PLATE S-4: DIRECT SHEAR TEST (ASTM D3080)

Direct Shear Test Diagram (D-3080)

Sample Description	Sample Identification	Test Type	Sample Test State	Number of Passes
Fill	B-11 @ 3.0'	Ultimate	Saturated	1

Soil Dry Density (PCF)	115	Shear Strength Values:	
Soil Moisture Content (%)	16.5	Phi (Degrees)	30.9
Soil Saturation (%)	99.8	Cohesion (PSF)	287.7

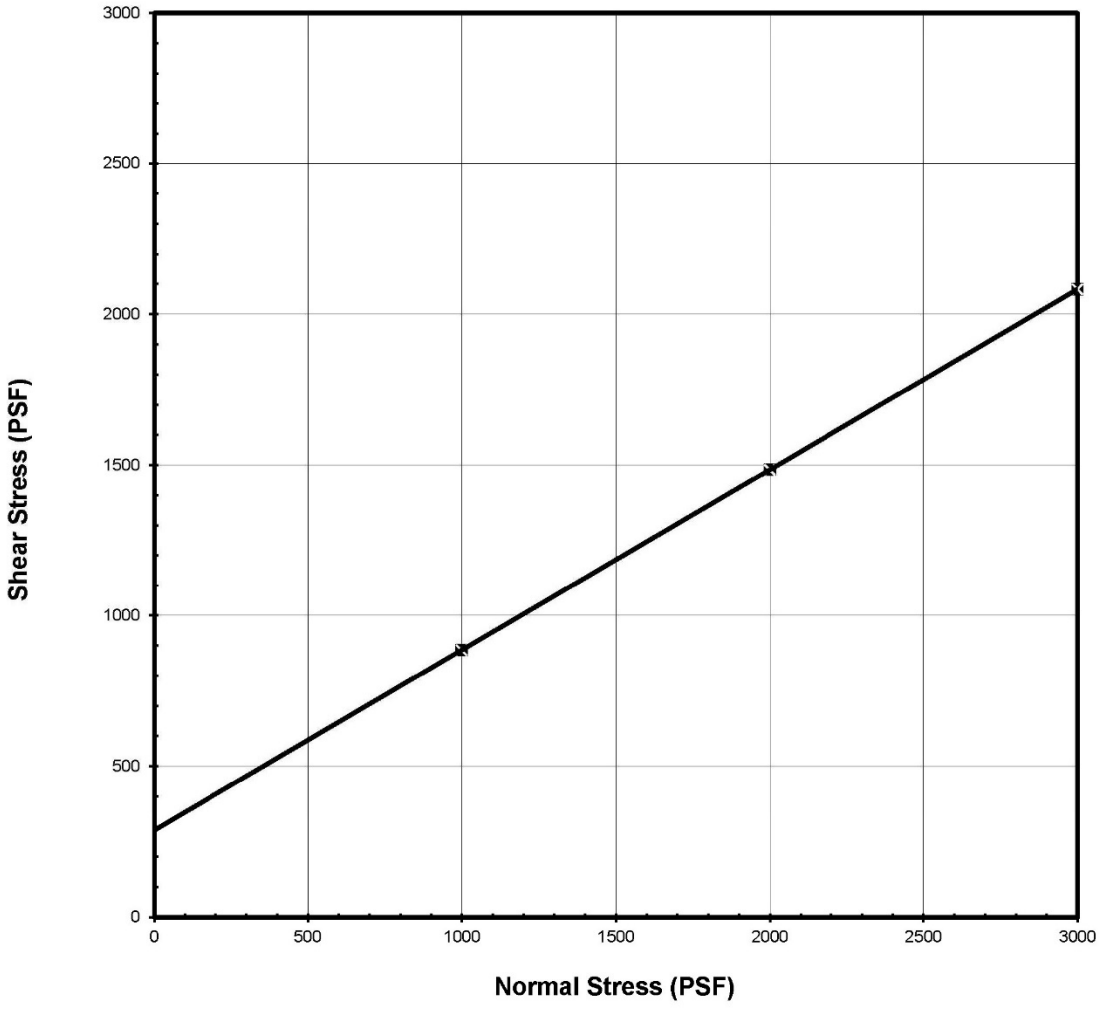


PLATE S-5: DIRECT SHEAR TEST (ASTM D3080)

Direct Shear Test Diagram (D-3080)

Sample Description	Sample Identification	Test Type	Sample Test State	Number of Passes
Qa	B-12 @ 5.0'	Ultimate	Saturated	1

Soil Dry Density (PCF)	119	Shear Strength Values:	
Soil Moisture Content (%)	14.5	Phi (Degrees)	27.7
Soil Saturation (%)	98.6	Cohesion (PSF)	394.7

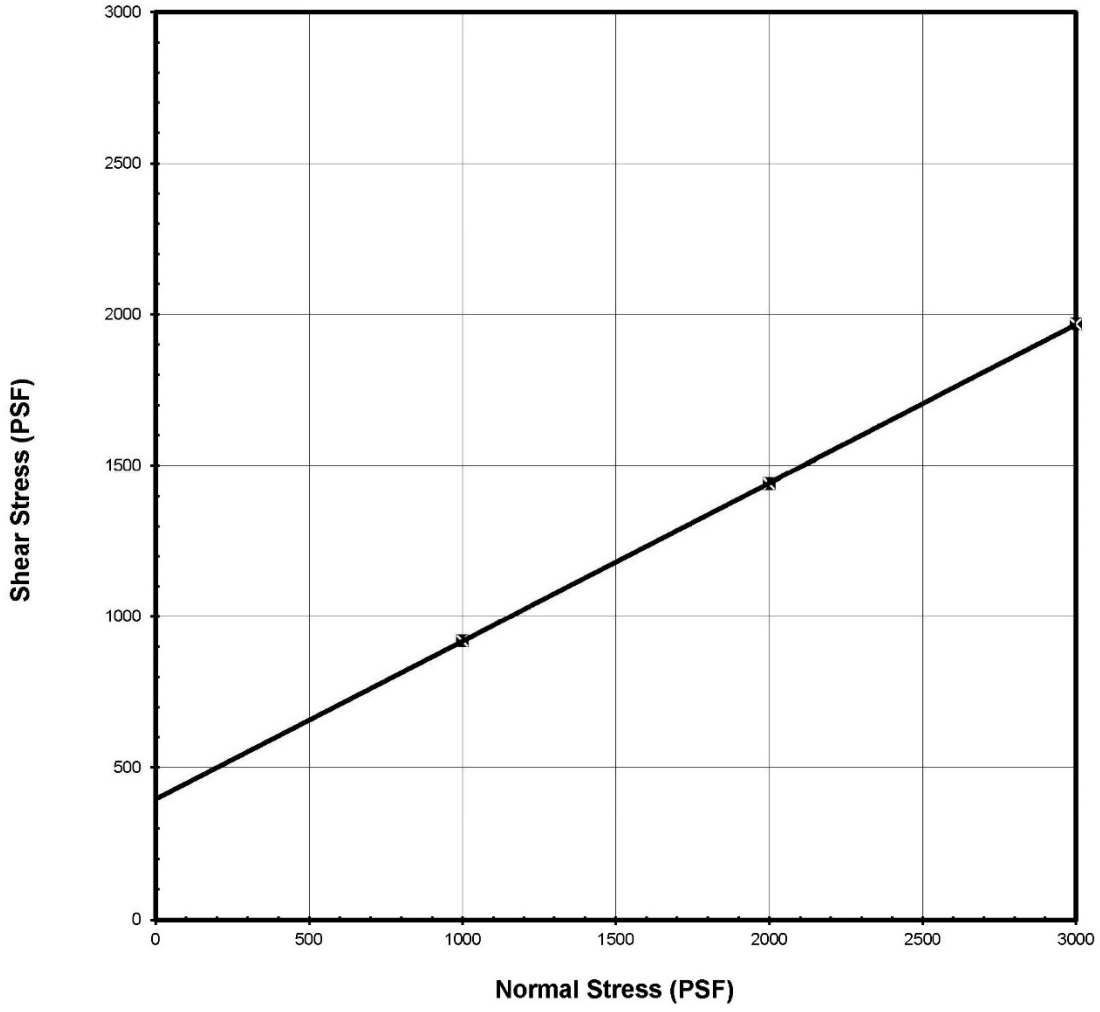


PLATE S-6: DIRECT SHEAR TEST (ASTM D3080)

Direct Shear Test Diagram (D-3080)

Sample Description	Sample Identification	Test Type	Sample Test State	Number of Passes
Qa	B-14 @ 3.0'	Ultimate	Saturated	1

Soil Dry Density (PCF)	112	Shear Strength Values:	
Soil Moisture Content (%)	17.5	Phi (Degrees)	31.7
Soil Saturation (%)	97.3	Cohesion (PSF)	186.3

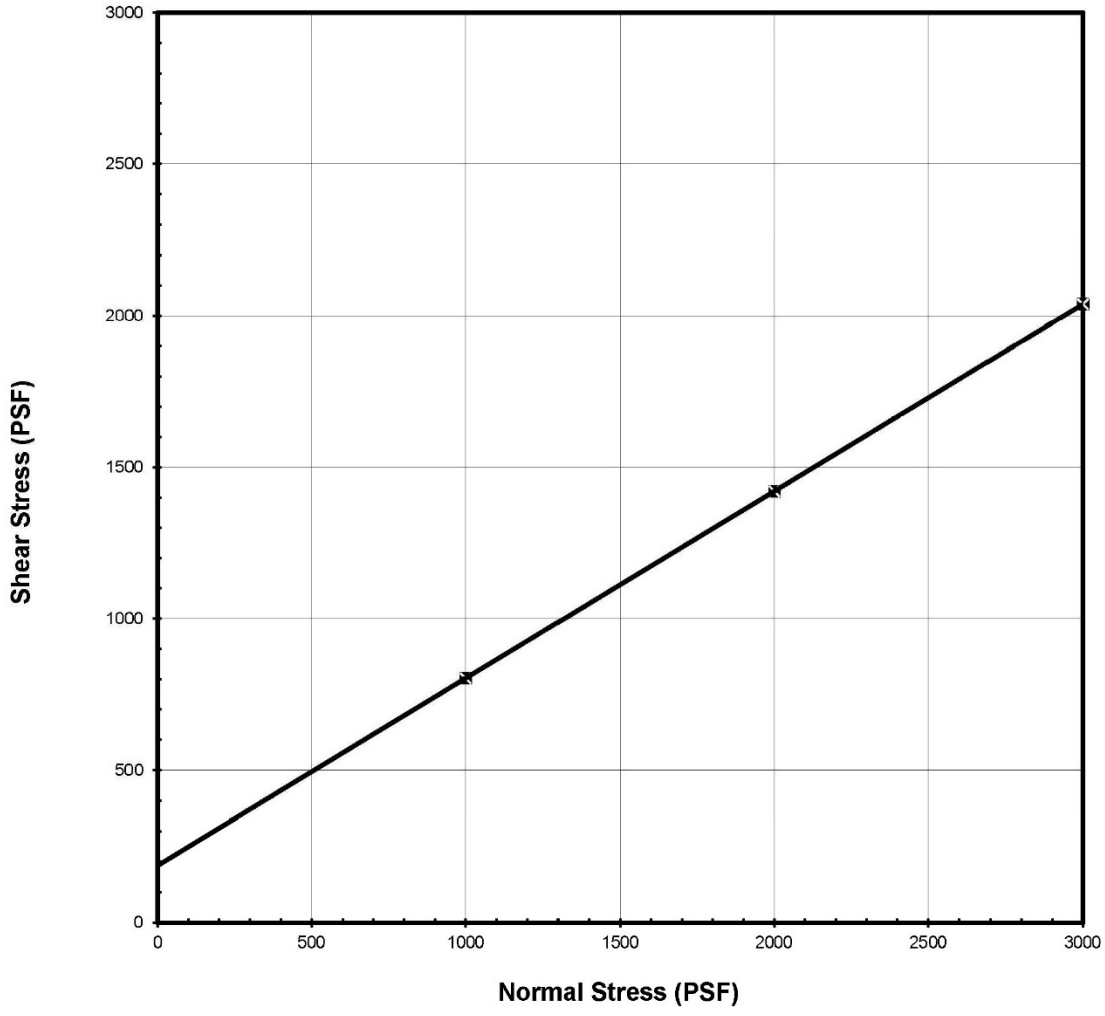


PLATE S-7: DIRECT SHEAR TEST (ASTM D3080)

Direct Shear Test Diagram (D-3080)

Sample Description	Sample Identification	Test Type	Sample Test State	Number of Passes
Qa	B-14 @ 5.0'	Ultimate	Saturated	1

Soil Dry Density (PCF)	123	Shear Strength Values:	
Soil Moisture Content (%)	12.7	Phi (Degrees)	27.3
Soil Saturation (%)	97.7	Cohesion (PSF)	300.7

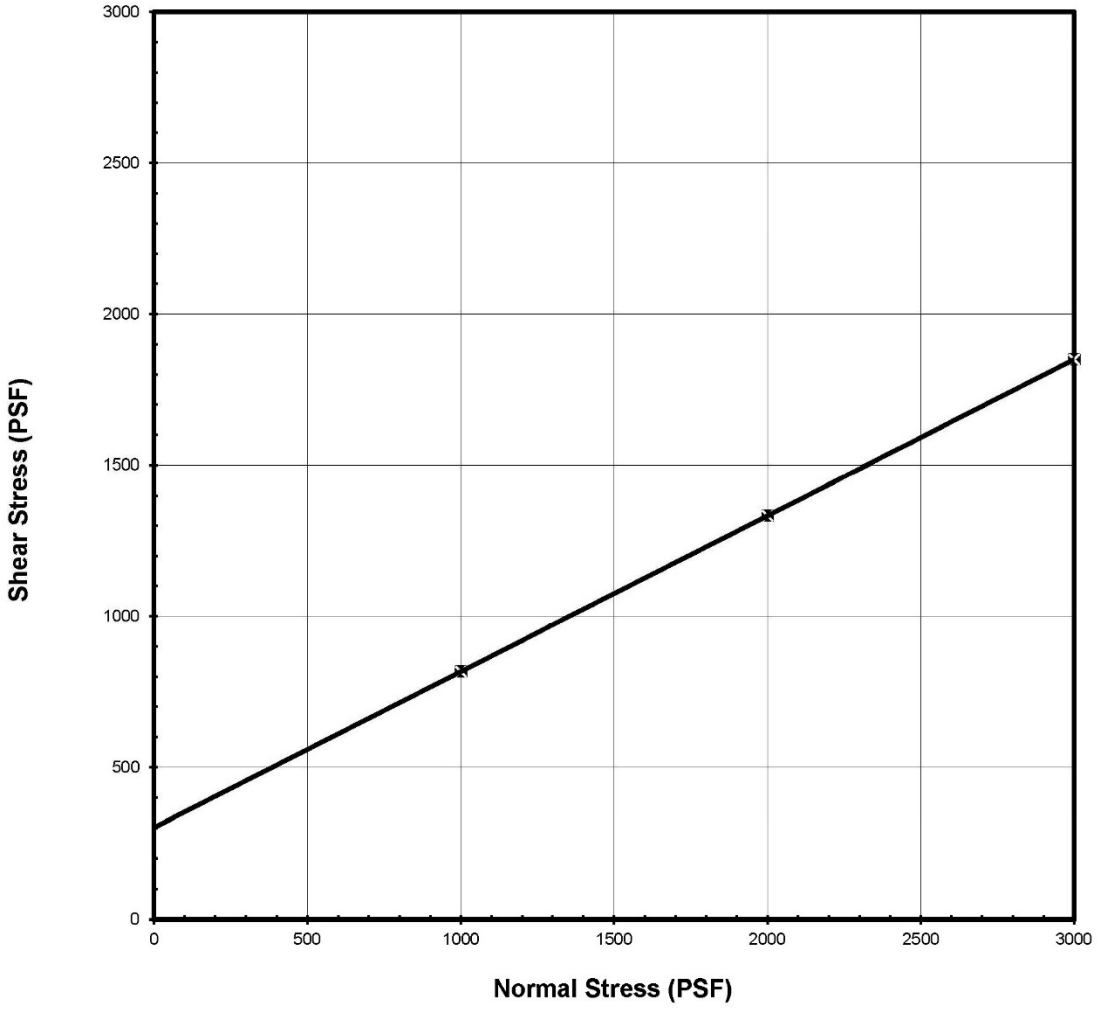


PLATE S-8: DIRECT SHEAR TEST (ASTM D3080)

Direct Shear Test Diagram (D-3080)

Sample Description	Sample Identification	Test Type	Sample Test State	Number of Passes
Remolded @ 90%	B-6 @ 1-5'	Ultimate	Saturated	1

Soil Dry Density (PCF)	121	Shear Strength Values:	
Soil Moisture Content (%)	13.5	Phi (Degrees)	31.5
Soil Saturation (%)	97.6	Cohesion (PSF)	332.7

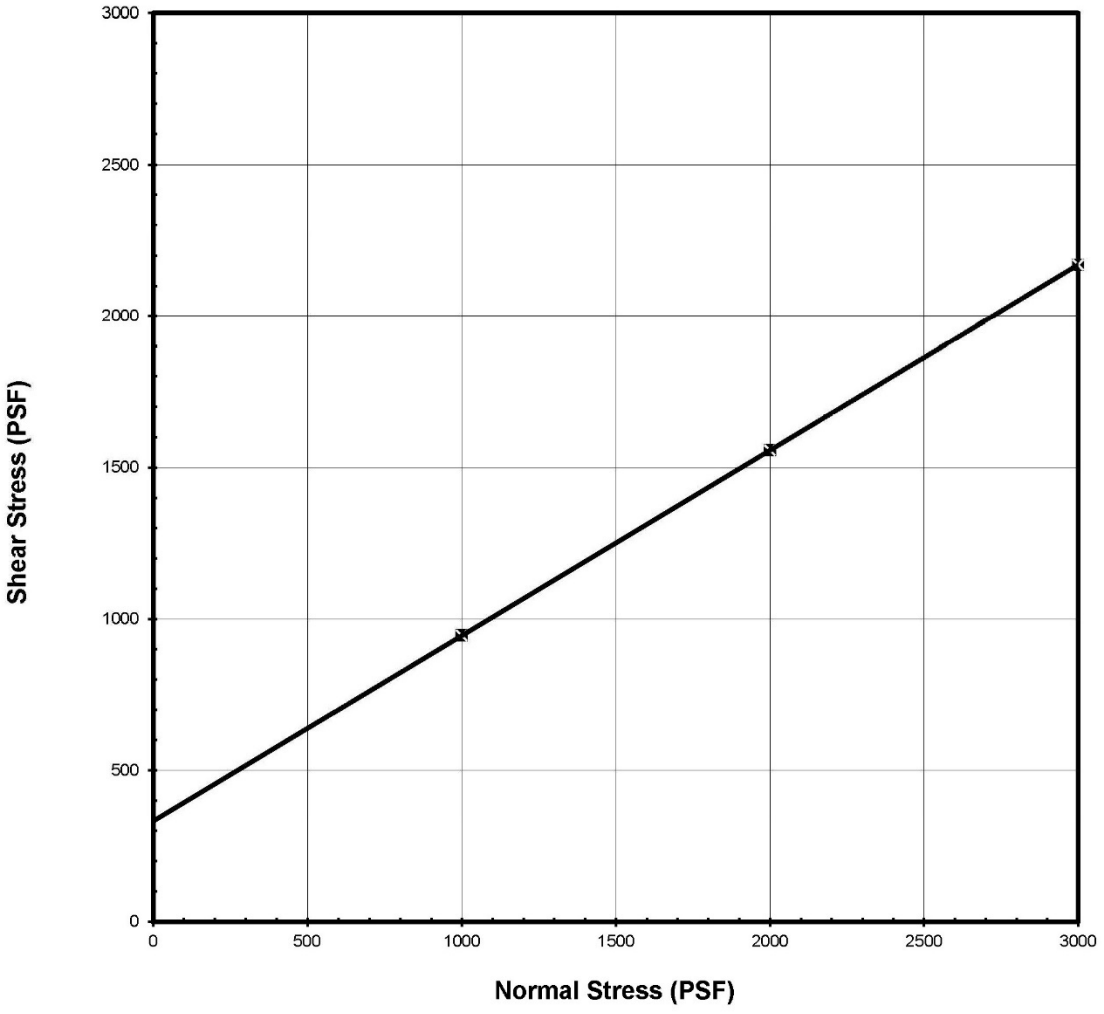


PLATE S-9: DIRECT SHEAR TEST (ASTM D3080)

Direct Shear Test Diagram (D-3080)

Sample Description	Sample Identification	Test Type	Sample Test State	Number of Passes
Remolded @ 90%	B-9 @ 1-5'	Ultimate	Saturated	1

Soil Dry Density (PCF)	116	Shear Strength Values:	
Soil Moisture Content (%)	16	Phi (Degrees)	30.8
Soil Saturation (%)	99.6	Cohesion (PSF)	428.7

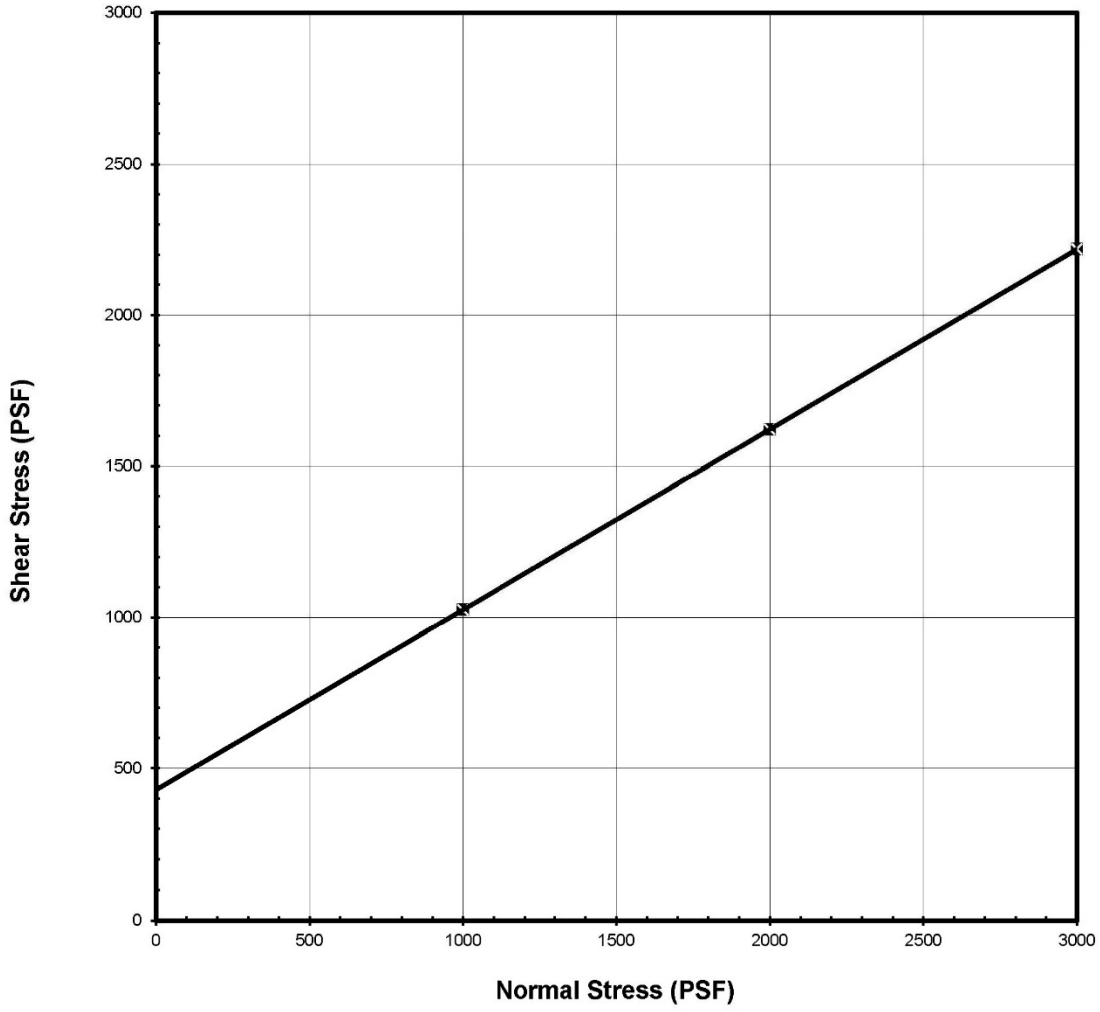


PLATE S-10: DIRECT SHEAR TEST (ASTM D3080)

Direct Shear Test Diagram (D-3080)

Sample Description	Sample Identification	Test Type	Sample Test State	Number of Passes
Remolded @ 90%	B-11 @ 1-5'	Ultimate	Saturated	1

Soil Dry Density (PCF)	117	Shear Strength Values:	
Soil Moisture Content (%)	15.5	Phi (Degrees)	32.2
Soil Saturation (%)	99.4	Cohesion (PSF)	372.3

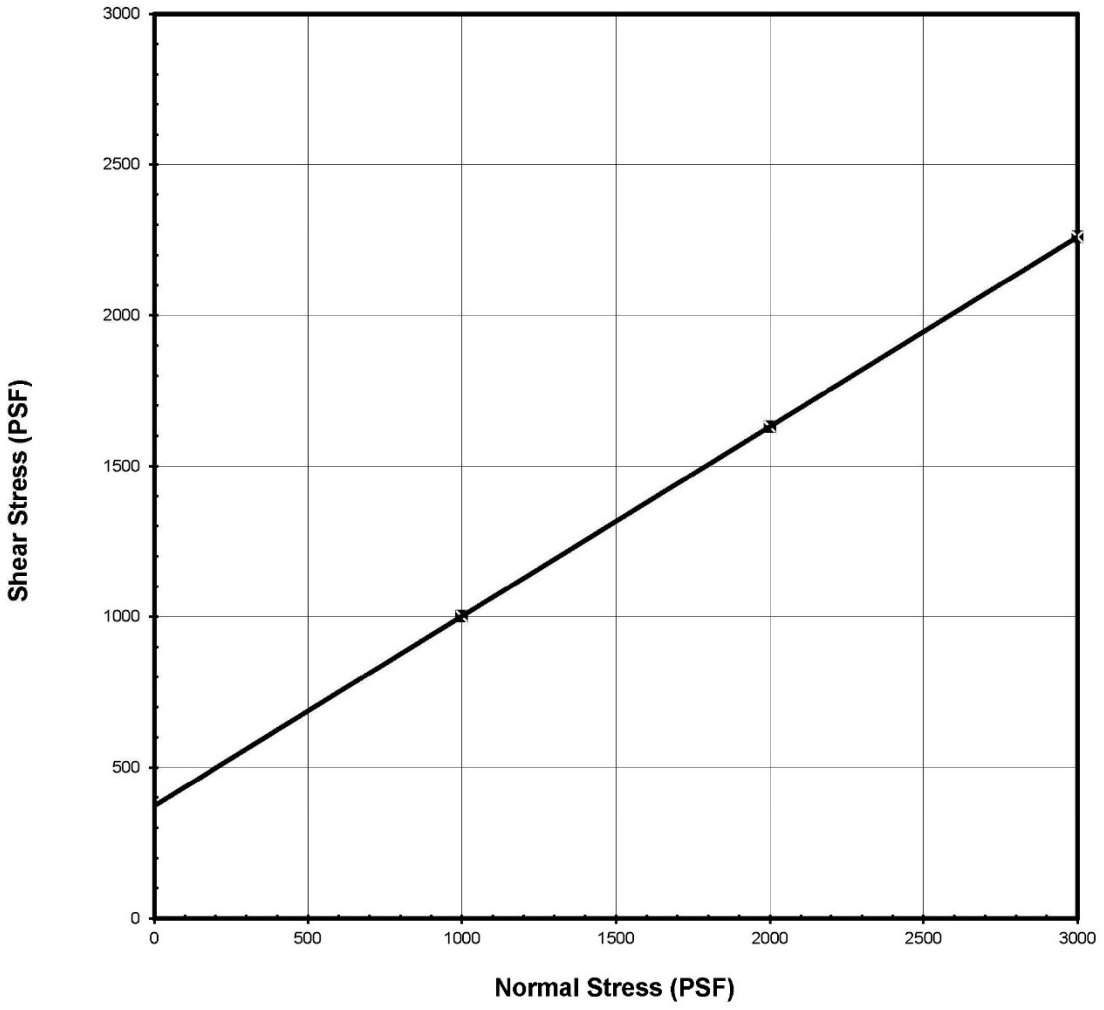


PLATE S-11: DIRECT SHEAR TEST (ASTM D3080)

Direct Shear Test Diagram (D-3080)

Sample Description	Sample Identification	Test Type	Sample Test State	Number of Passes
Remolded @ 90%	B-14 @ 1-5'	Ultimate	Saturated	1

Soil Dry Density (PCF)	109	Shear Strength Values:	
Soil Moisture Content (%)	19.5	Phi (Degrees)	29.7
Soil Saturation (%)	99.9	Cohesion (PSF)	318.3

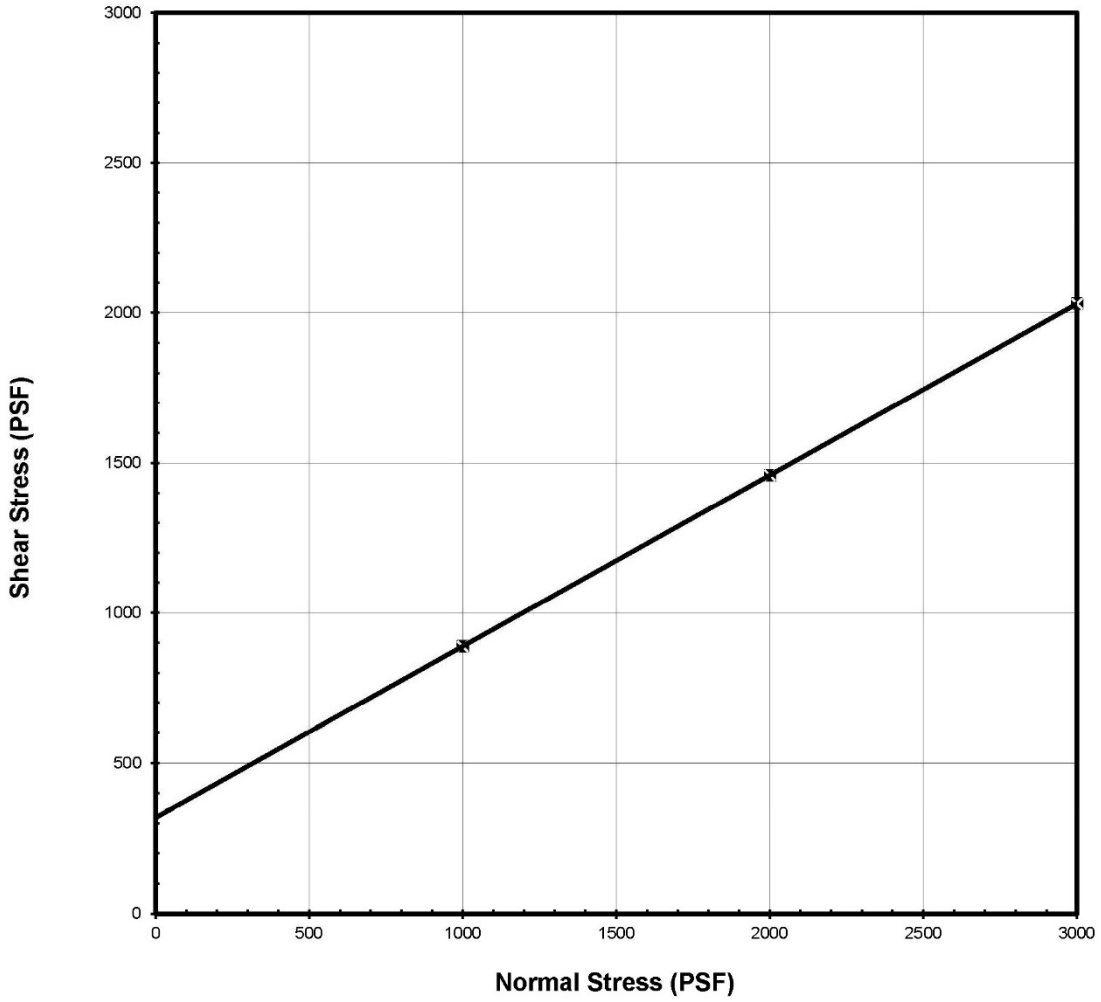


PLATE C-1: CONSOLIDATION TEST (ASTM D2435)

Consolidation Pressure Curve (D-2435)

Sample Identification	Sample Description
B-5 @ 5.0'	Qa

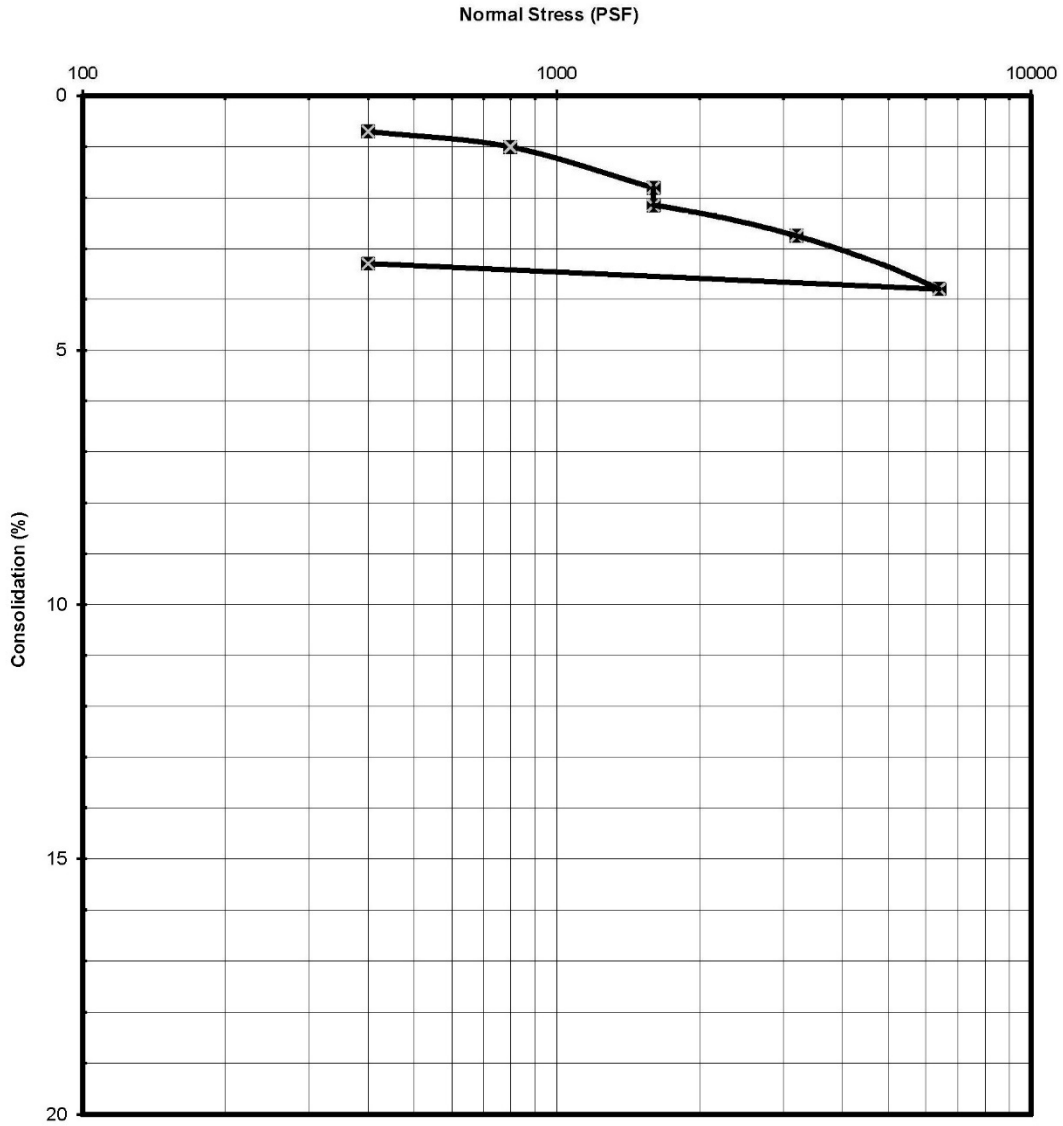


PLATE C-2: CONSOLIDATION TEST (ASTM D2435)

Consolidation Pressure Curve (D-2435)

Sample Identification	Sample Description
B-6 @ 10.0'	Qa

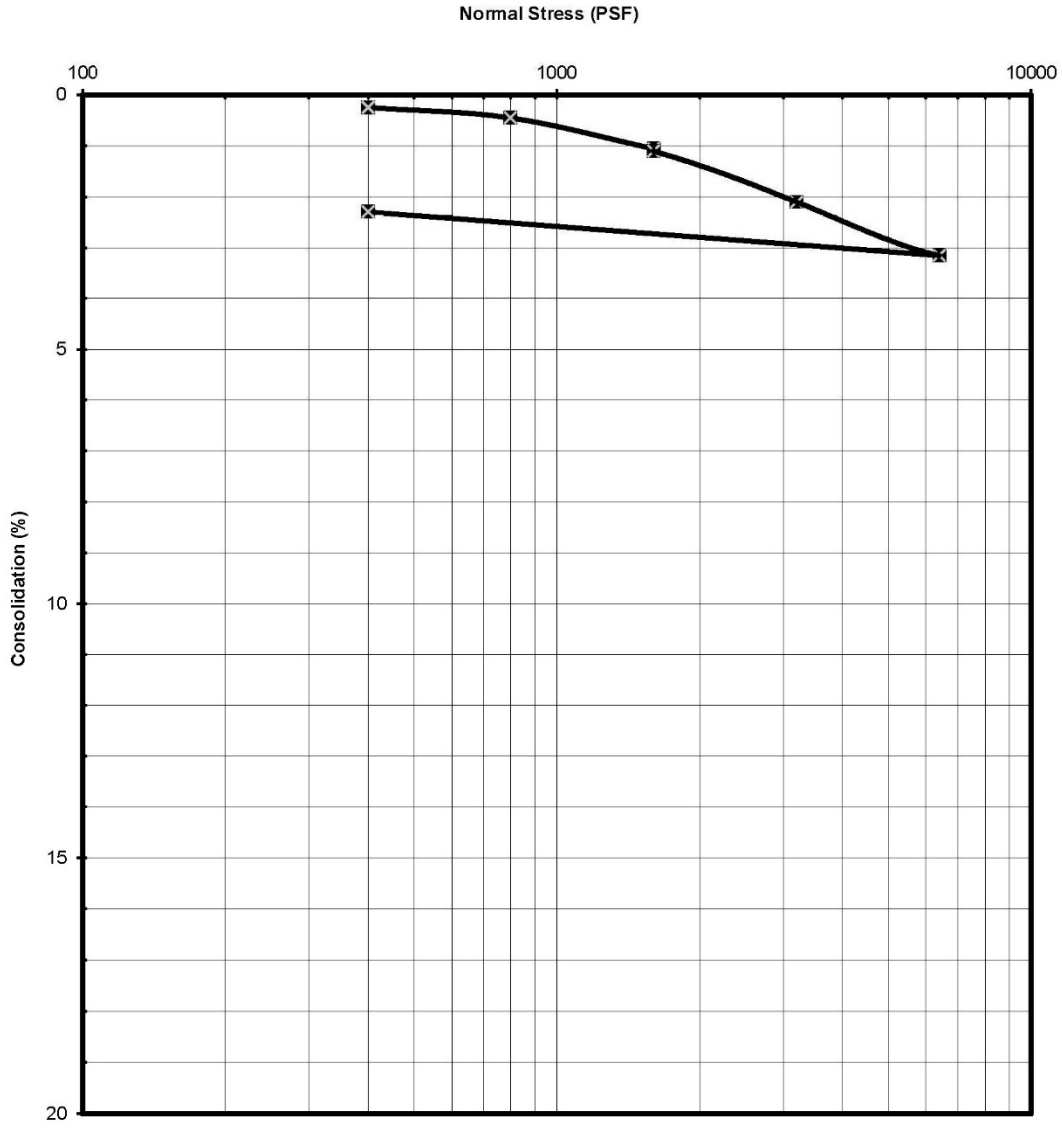


PLATE C-3: CONSOLIDATION TEST (ASTM D2435)

Consolidation Pressure Curve (D-2435)

Sample Identification	Sample Description
B-8 @ 5.0'	Qa

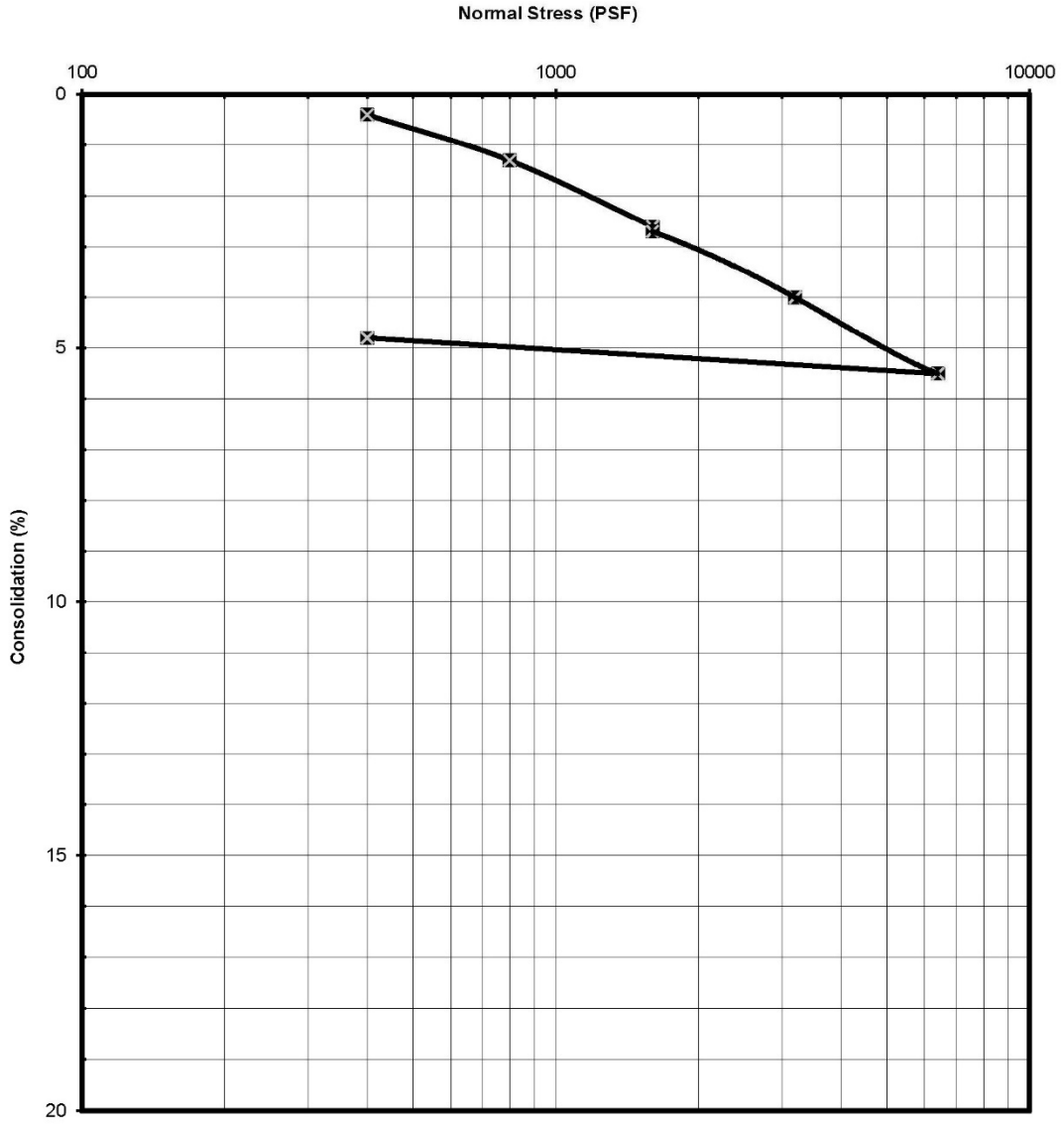


PLATE C-4: CONSOLIDATION TEST (ASTM D2435)

Consolidation Pressure Curve (D-2435)

Sample Identification	Sample Description
B-10 @ 10.0'	Qa

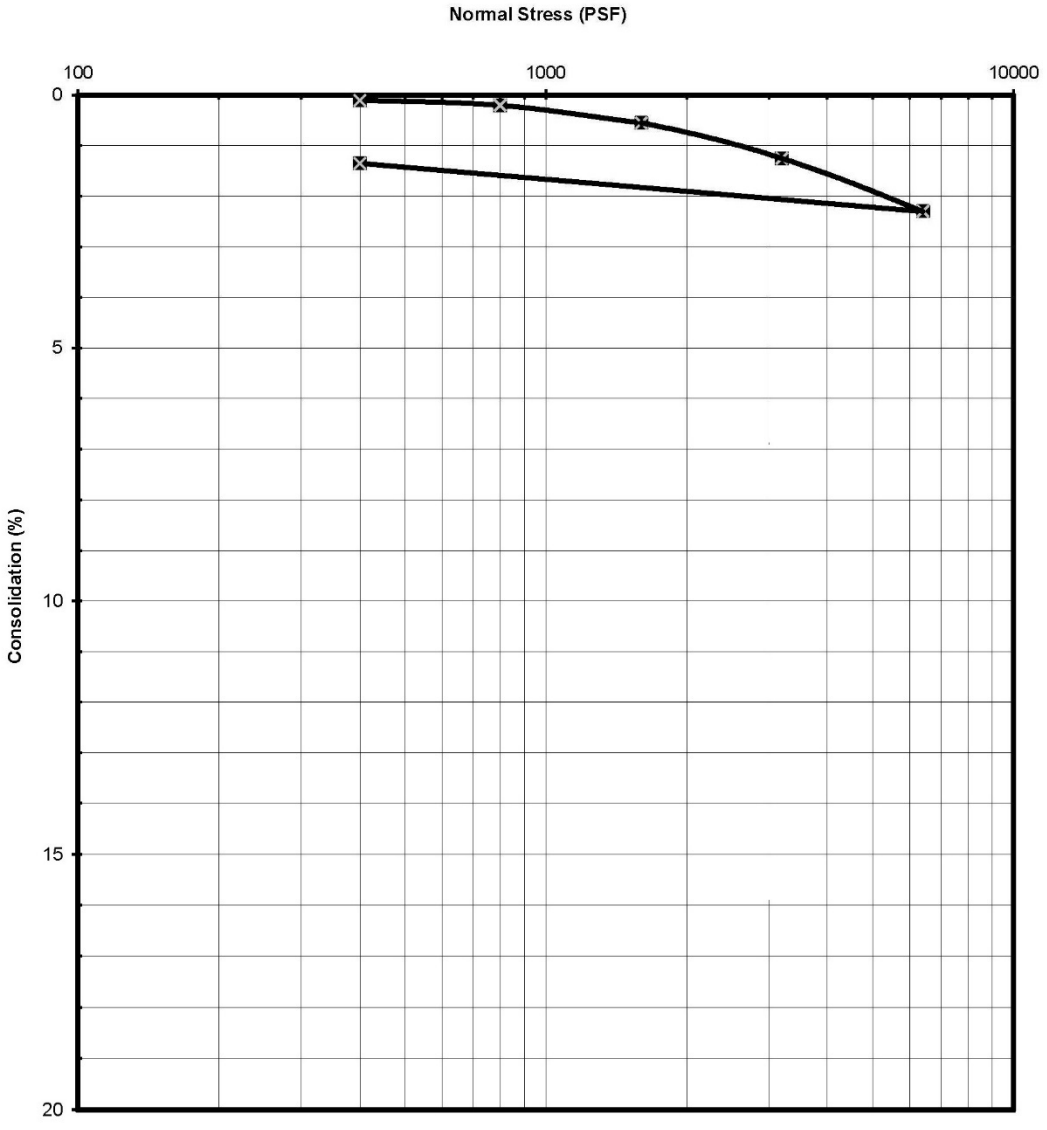


PLATE C-5: CONSOLIDATION TEST (ASTM D2435)

Consolidation Pressure Curve (D-2435)

Sample Identification	Sample Description
B-12 @ 5.0'	Qa

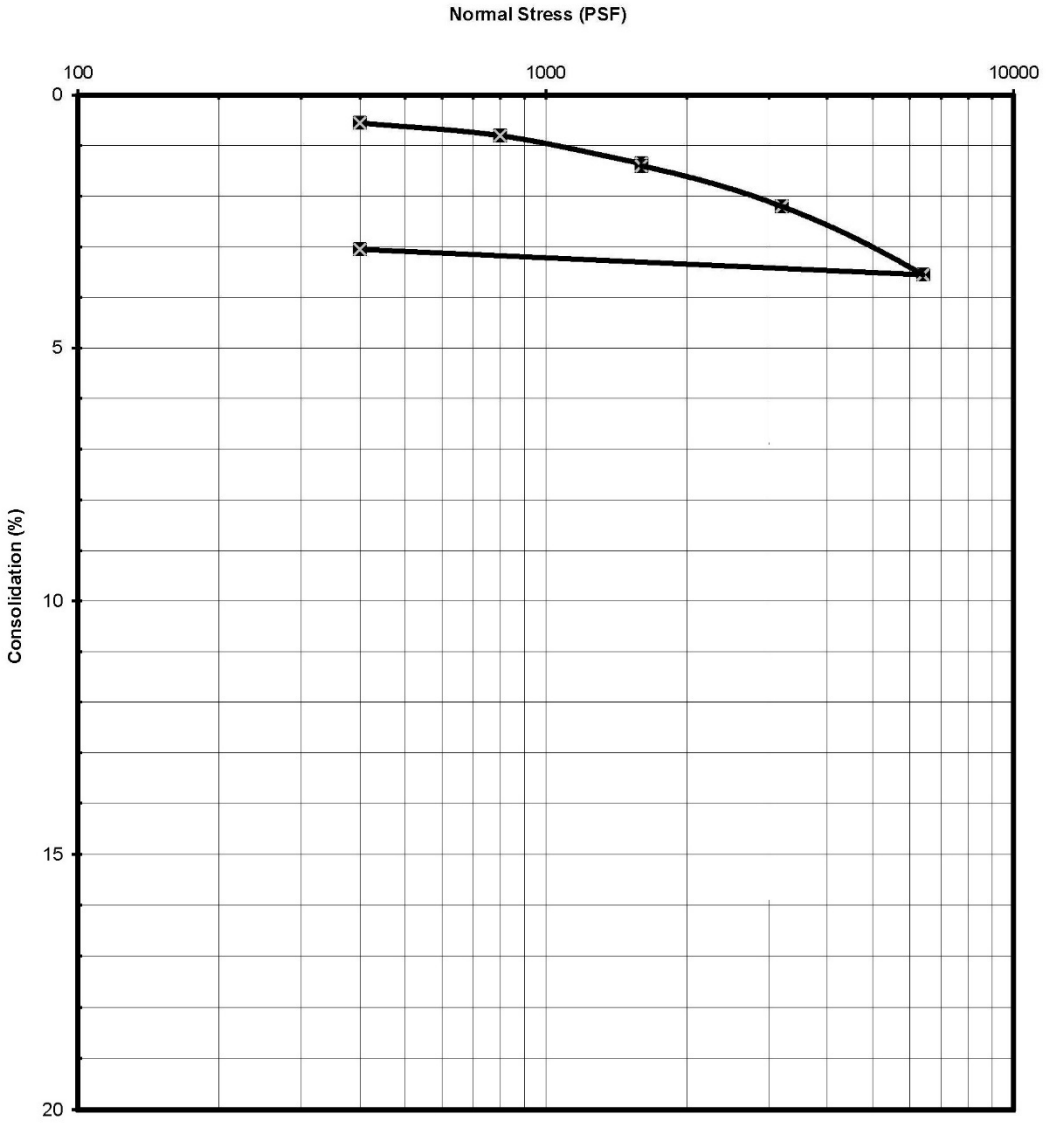


PLATE C-6: CONSOLIDATION TEST (ASTM D2435)

Consolidation Pressure Curve (D-2435)

Sample Identification	Sample Description
B-13 @ 10.0'	Qa

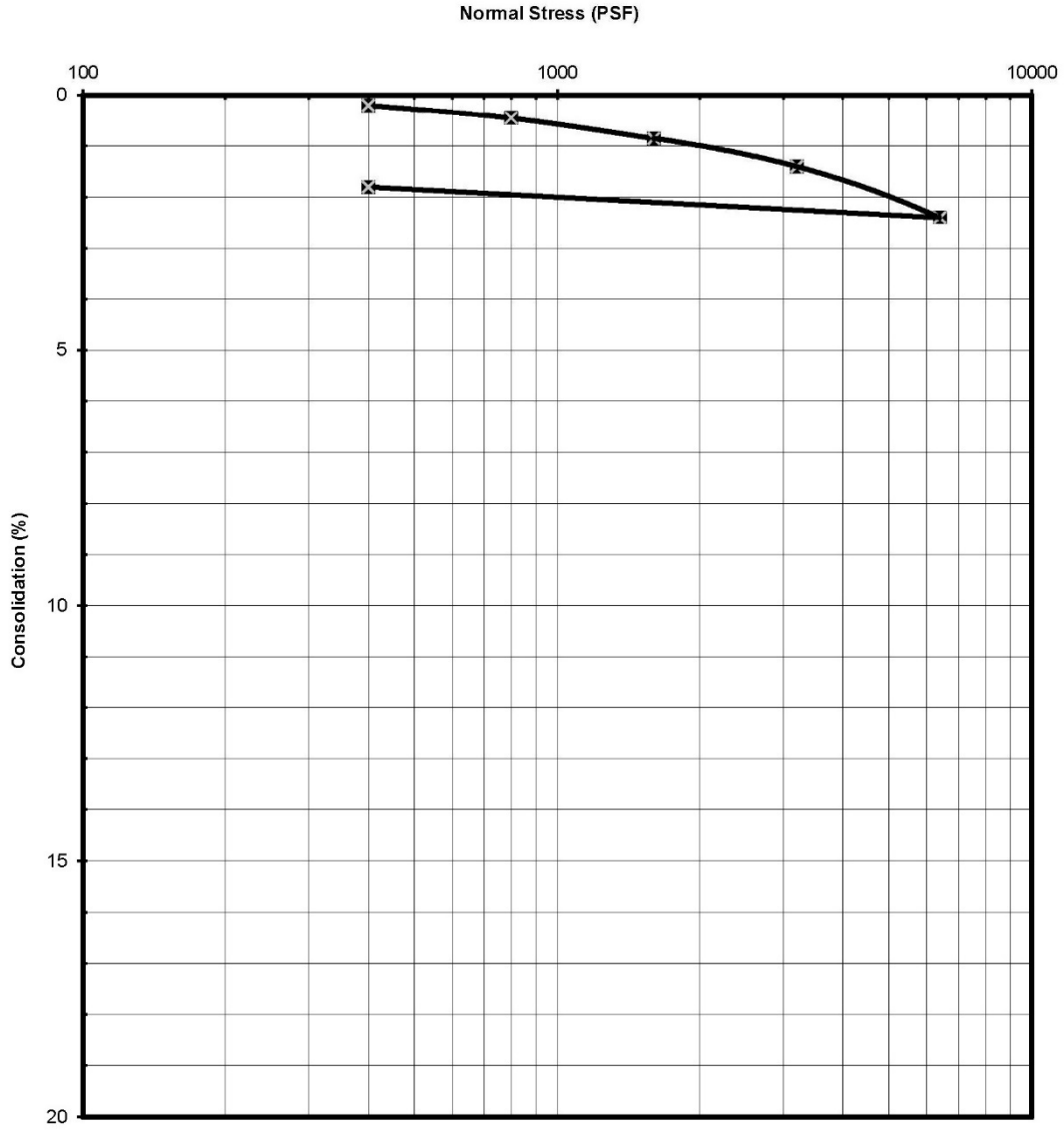


PLATE C-7: CONSOLIDATION TEST (ASTM D2435)

Consolidation Pressure Curve (D-2435)

Sample Identification	Sample Description
B-14 @ 5.0'	Qa

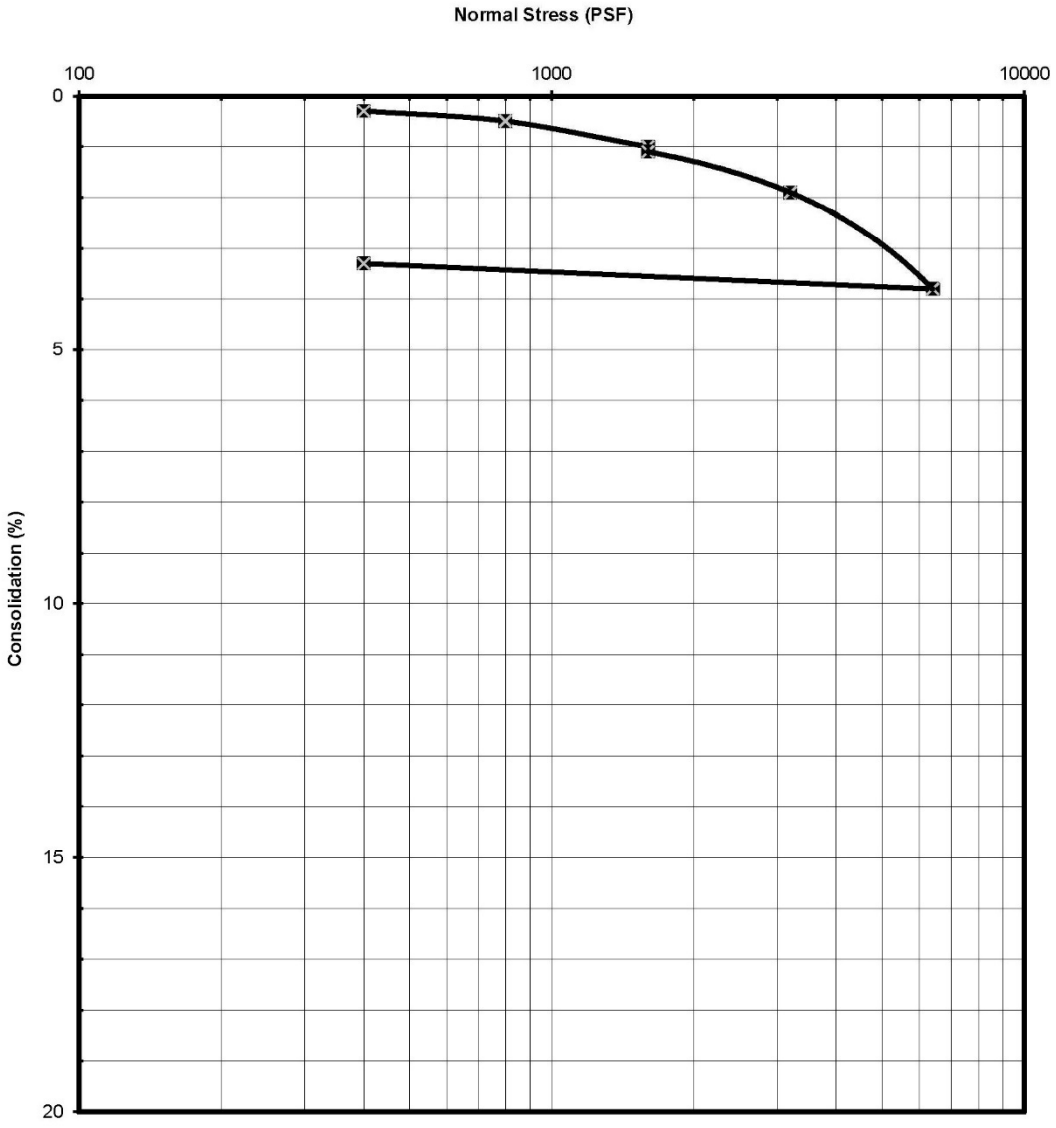


PLATE C-8: CONSOLIDATION TEST (ASTM D2435)

Consolidation Pressure Curve (D-2435)

Sample Identification	Sample Description
B-14 @ 7.5'	Qa

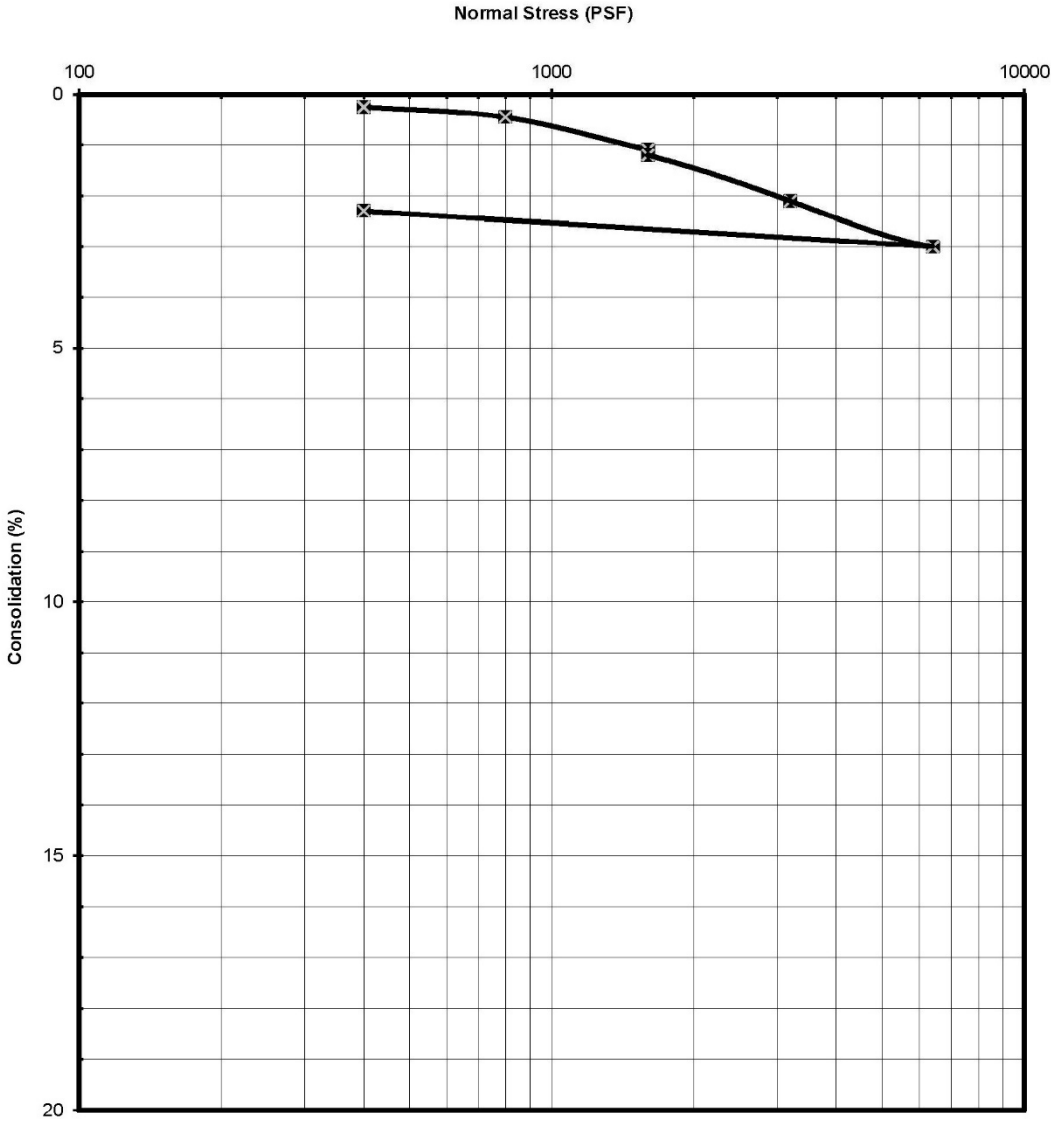


PLATE R-1: SOIL RESISTANCE ("R") VALUE (ASTM D2844 / CALTRANS CTM 301)

"R" VALUE CA 301

Client: Bay City Geology, Inc. **ATL No.:** C 8056-1 **Date:** 7/23/2024
Client Reference No.: 1528
Sample: B-6 Bulk @ 12101 Crenshaw Boulevard, Hawthorne, California **Soil Type:** Brown, Sandy Clay w. Gravel

TEST SPECIMEN		A	B	C	D
Compactor Air Pressure	psi	180	80	60	
Initial Moisture Content	%	4.4	4.4	4.4	
Moisture at Compaction	%	9.6	10.5	11.4	
Briquette Height	in.	2.54	2.53	2.50	
Dry Density	pcf	123.9	127.4	125.1	
EXUDATION PRESSURE	psi	471	313	185	
EXPANSION PRESSURE	psf	225	78	17	
Ph at 1000 pounds	psi	28	46	55	
Ph at 2000 pounds	psi	64	105	122	
Displacement	turns	3.45	4.2	4.66	
"R" Value		52	24	14	
CORRECTED "R" VALUE		52	24	14	

Final "R" Value	
BY EXUDATION: @ 300 psi	**23**
BY EXPANSION: TI = 5.0	**N/A**

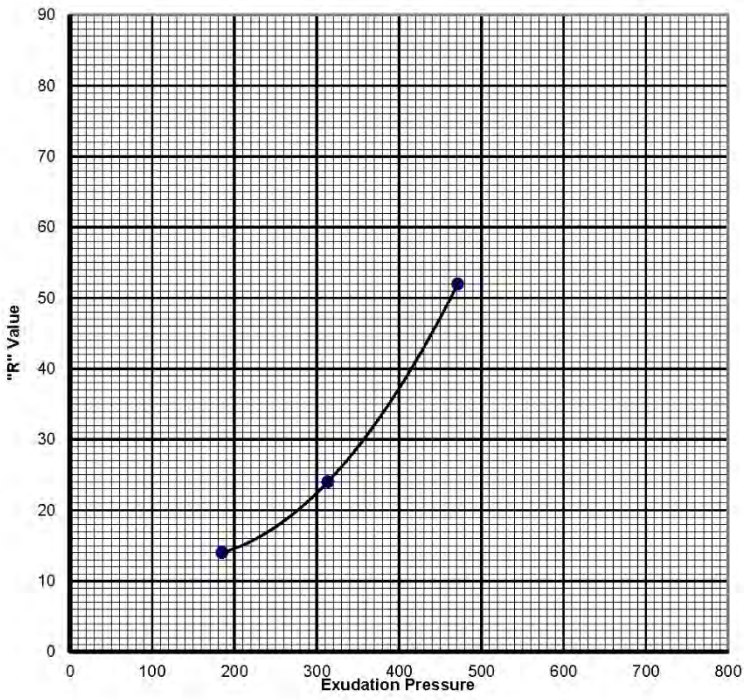


PLATE R-2: SOIL RESISTANCE ("R") VALUE (ASTM D2844 / CALTRANS CTM 301)

"R" VALUE CA 301

Client: Bay City Geology, Inc. **ATL No.:** C 8056-2 **Date:** 7/23/2024
Client Reference No.: 1528
Sample: B-9 Bulk @ 12101 Crenshaw Boulevard, Hawthorne, California **Soil Type:** Brown, Sandy Clay w. Gravel

TEST SPECIMEN		A	B	C	D
Compactor Air Pressure	psi	200	60	100	
Initial Moisture Content	%	5.7	5.7	5.7	
Moisture at Compaction	%	10.1	12.3	11.2	
Briquette Height	in.	2.45	2.54	2.51	
Dry Density	pcf	127.6	121.8	123.3	
EXUDATION PRESSURE	psi	590	232	337	
EXPANSION PRESSURE	psf	130	0	56	
Ph at 1000 pounds	psi	28	63	42	
Ph at 2000 pounds	psi	64	135	89	
Displacement	turns	3.88	5.06	4.22	
"R" Value		49	8	32	
CORRECTED "R" VALUE		49	8	32	

Final "R" Value	
BY EXUDATION: @ 300 psi	**25**
BY EXPANSION: TI = 5.0	**N/A**

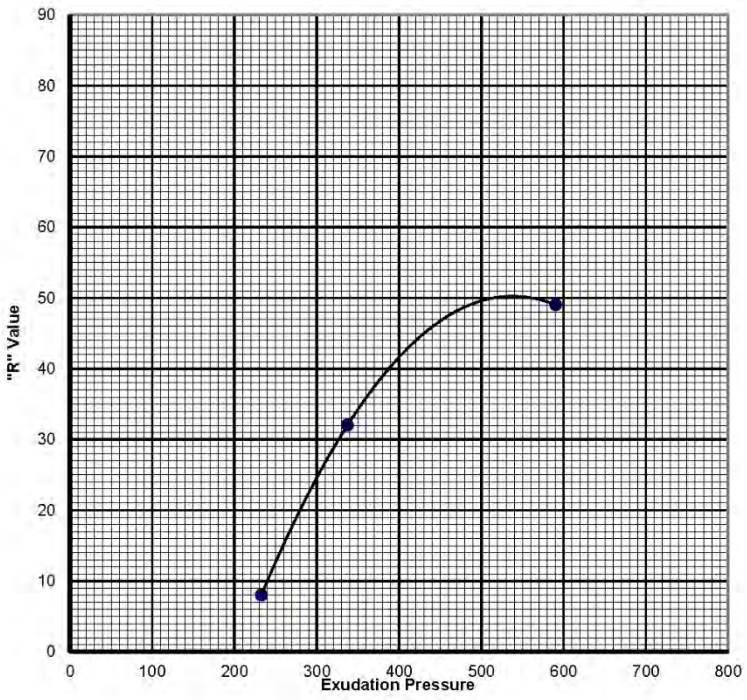


PLATE R-3: SOIL RESISTANCE ("R") VALUE (ASTM D2844 / CALTRANS CTM 301)

"R" VALUE CA 301

Client: Bay City Geology, Inc. **ATL No.:** C 8056-3 **Date:** 7/23/2024
Client Reference No.: 1528
Sample: B-11 Bulk @ 12101 Crenshaw Boulevard, **Soil Type:** Brown, Silty Clay
Hawthorne, California

TEST SPECIMEN		A	B	C	D
Compactor Air Pressure	psi	100	60	80	
Initial Moisture Content	%	5.4	5.4	5.4	
Moisture at Compaction	%	13.7	16.8	15.5	
Briquette Height	in.	2.49	2.53	2.50	
Dry Density	pcf	120.2	111.4	114.8	
EXUDATION PRESSURE	psi	571	296	397	
EXPANSION PRESSURE	psf	238	0	121	
Ph at 1000 pounds	psi	44	67	55	
Ph at 2000 pounds	psi	110	143	125	
Displacement	turns	3.25	4.89	4.29	
"R" Value		26	6	14	
CORRECTED "R" VALUE		20	6	14	

Final "R" Value	
BY EXUDATION: @ 300 psi	**6**
BY EXPANSION: TI = 5.0	**N/A**

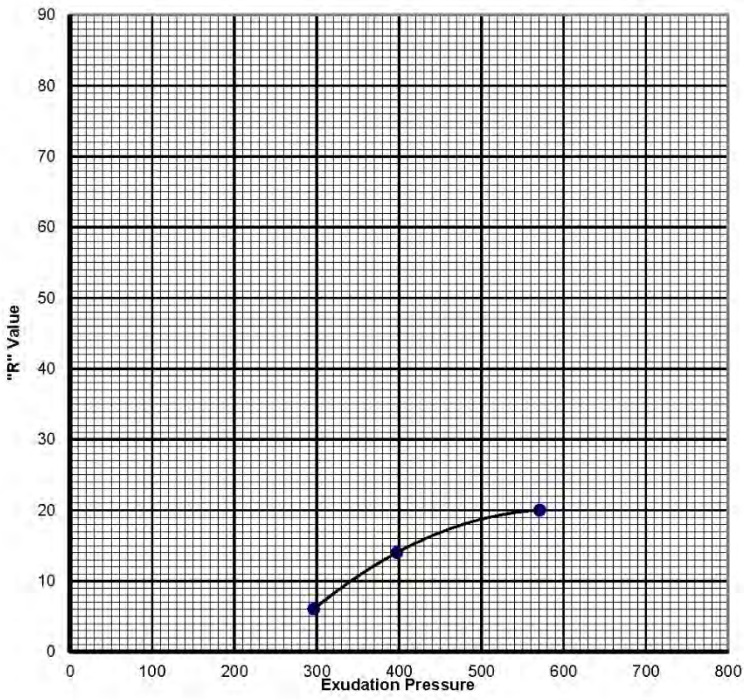


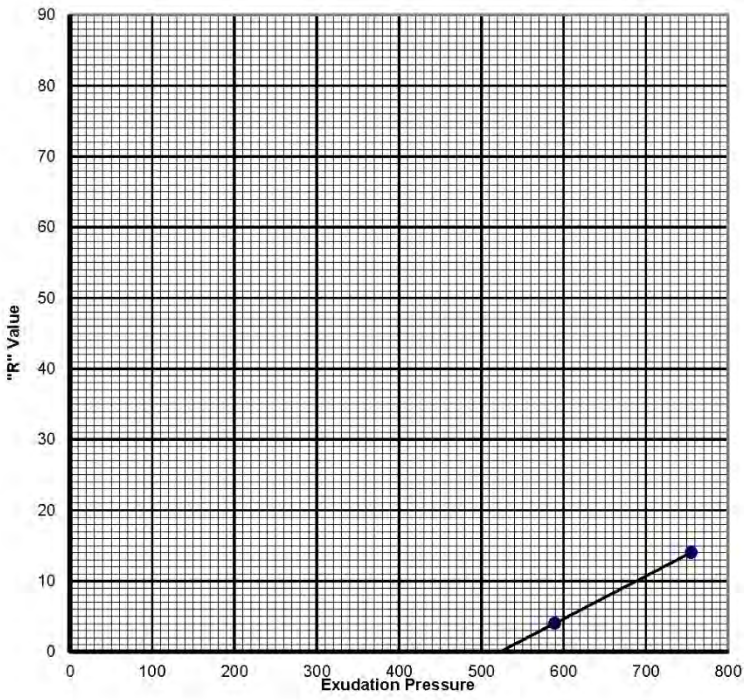
PLATE R-4: SOIL RESISTANCE ("R") VALUE (ASTM D2844 / CALTRANS CTM 301)

"R" VALUE CA 301

Client: Bay City Geology, Inc. **ATL No.:** C 8056-4 **Date:** 7/23/2024
Client Reference No.: 1528
Sample: B-14 Bulk @ 12101 Crenshaw Boulevard, **Soil Type:** Brown, Silty Clay
Hawthorne, California

TEST SPECIMEN		A	B	C	D
Compactor Air Pressure	psi	90	60	50	
Initial Moisture Content	%	8.9	8.9	8.9	
Moisture at Compaction	%	17.9	21.6	24.3	
Briquette Height	in.	2.55	2.51	2.48	
Dry Density	pcf	112.3	103.3	100.1	
EXUDATION PRESSURE	psi	755	589	382	
EXPANSION PRESSURE	psf	333	152	**Sample Extruded	
Ph at 1000 pounds	psi	50	65		
Ph at 2000 pounds	psi	130	148		
Displacement	turns	3.51	4.56		
"R" Value		14	4		
CORRECTED "R" VALUE		14	4		

Final "R" Value	
BY EXUDATION: @ 300 psi	**<5**
BY EXPANSION: TI = 5.0	**N/A**



APPENDIX III

ENGINEERING ANALYSIS

Temporary Excavation Calculations

Seismic Design Considerations

Bay City Geology, Inc.

SLOT CUT CALCULATION

File No.: **1528-3**
Project: **Hawthorne Airport**

ASSUME: NE Hangar Grading Over-Excavation

CALCULATE THE FACTOR OF SAFETY OF SLOT CUT EXCAVATIONS. ASSUME COHESIVE AND FRICTIONAL RESISTANCE ALONG THE SIDES OF SLOTS AS WELL AS THE FAILURE SURFACE. THE HORIZONTAL PRESSURE ON THE SIDES OF THE SLOTS IS THE AT-REST PRESSURE (1-SIN(phi)).

CALCULATION PARAMETERS

EARTH MATERIAL:	Af/Qyf		EXCAVATION HEIGHT:	5	feet
SHEAR DIAGRAM:	S-4 & 5, Lowest Ult. Vals.		BACKSLOPE ANGLE:	0	degrees
COHESION:	287.7	psf	SURCHARGE:	0	pounds
PHI ANGLE:	27.7	degrees	SURCHARGE TYPE:	U	Uniform
DENSITY:	136.3	pcf	INITIAL FAILURE ANGLE:	10	degrees
SLOT BOUNDARY CONDITIONS			FINAL FAILURE ANGLE:	80	degrees
SLOT CUT WIDTH:	8	feet	INITIAL TENSION CRACK:	1	feet
COHESION:	143.85	psf	FINAL TENSION CRACK:	10	feet
PHI ANGLE:	13.85	degrees			

Run Calculatior

CALCULATED RESULTS

CRITICAL FAILURE ANGLE	54	degrees
HORIZONTAL DISTANCE TO UPSLOPE TENSION CRACK	1.0	feet
DEPTH OF TENSION CRACK	3.6	feet
TOTAL EXTERNAL SURCHARGE	0.0	pounds
VOLUME OF FAILURE WEDGE	34.5	ft^3
WEIGHT OF FAILURE WEDGE	4701.6	pounds
LENGTH OF FAILURE PLANE	1.7	feet
SURFACE AREA OF FAILURE PLANE	14	ft^2
SURFACE AREA OF SIDES OF SLOTS	4.3	ft^2
NUMBER OF TRIAL WEDGES ANALYZED	8928	trials
TOTAL RESISTING FORCE ALONG WEDGE BASE (FrB)	2263.4	pounds
TOTAL RESISTING FORCE ALONG WEDGE SIDES (FrS)	776.5	pounds
RESULTANT HORIZONTAL COMPONENT OF FORCE	**-89.9**	**pounds**
CALCULATED FACTOR OF SAFETY	**1.73**	

CONCLUSIONS:

THE CALCULATION INDICATES THAT SLOT CUTS UP TO 8 FEET WIDE AND 5 FEET HIGH HAVE A SAFETY FACTOR GREATER THAN 1.25 AND ARE TEMPORARILY STABLE.

Bay City Geology, Inc.

SLOT CUT CALCULATION

File No.: **1528-3**
Project: **Hawthorne Airport**

ASSUME: SE Hangar Grading Over-Excavation

CALCULATE THE FACTOR OF SAFETY OF SLOT CUT EXCAVATIONS. ASSUME COHESIVE AND FRICTIONAL RESISTANCE ALONG THE SIDES OF SLOTS AS WELL AS THE FAILURE SURFACE. THE HORIZONTAL PRESSURE ON THE SIDES OF THE SLOTS IS THE AT-REST PRESSURE (1-SIN(phi)).

CALCULATION PARAMETERS

EARTH MATERIAL:	Qyf		EXCAVATION HEIGHT:	5	feet
SHEAR DIAGRAM:	S-1, Lowest Ult. Vals.		BACKSLOPE ANGLE:	0	degrees
COHESION:	179.7	psf	SURCHARGE:	0	pounds
PHI ANGLE:	29.7	degrees	SURCHARGE TYPE:	U	Uniform
DENSITY:	136.3	pcf	INITIAL FAILURE ANGLE:	10	degrees
SLOT BOUNDARY CONDITIONS			FINAL FAILURE ANGLE:	80	degrees
SLOT CUT WIDTH:	8	feet	INITIAL TENSION CRACK:	1	feet
COHESION:	89.85	psf	FINAL TENSION CRACK:	10	feet
PHI ANGLE:	14.85	degrees			

Run Calculatior

CALCULATED RESULTS

CRITICAL FAILURE ANGLE	58	degrees
HORIZONTAL DISTANCE TO UPSLOPE TENSION CRACK	1.0	feet
DEPTH OF TENSION CRACK	3.4	feet
TOTAL EXTERNAL SURCHARGE	0.0	pounds
VOLUME OF FAILURE WEDGE	33.6	ft^3
WEIGHT OF FAILURE WEDGE	4579.5	pounds
LENGTH OF FAILURE PLANE	1.9	feet
SURFACE AREA OF FAILURE PLANE	15	ft^2
SURFACE AREA OF SIDES OF SLOTS	4.2	ft^2
NUMBER OF TRIAL WEDGES ANALYZED	8928	trials
TOTAL RESISTING FORCE ALONG WEDGE BASE (FrB)	2136.1	pounds
TOTAL RESISTING FORCE ALONG WEDGE SIDES (FrS)	664.8	pounds
RESULTANT HORIZONTAL COMPONENT OF FORCE	**-7.9**	**pounds**
CALCULATED FACTOR OF SAFETY	**1.27**	

CONCLUSIONS:

THE CALCULATION INDICATES THAT SLOT CUTS UP TO 8 FEET WIDE AND 5 FEET HIGH HAVE A SAFETY FACTOR GREATER THAN 1.25 AND ARE TEMPORARILY STABLE.

Bay City Geology, Inc.

SLOT CUT CALCULATION

File No.: **1528-3**
Project: **Hawthorne Airport**

ASSUME: SW Hangar Grading Over-Excavation

CALCULATE THE FACTOR OF SAFETY OF SLOT CUT EXCAVATIONS. ASSUME COHESIVE AND FRICTIONAL RESISTANCE ALONG THE SIDES OF SLOTS AS WELL AS THE FAILURE SURFACE. THE HORIZONTAL PRESSURE ON THE SIDES OF THE SLOTS IS THE AT-REST PRESSURE (1-SIN(phi)).

CALCULATION PARAMETERS

EARTH MATERIAL:	Af/Qyf		EXCAVATION HEIGHT:	5	feet
SHEAR DIAGRAM:	S-2 & 3, Lowest Ult. Vals.		BACKSLOPE ANGLE:	0	degrees
COHESION:	228	psf	SURCHARGE:	0	pounds
PHI ANGLE:	28.2	degrees	SURCHARGE TYPE:	U	Uniform
DENSITY:	138.7	pcf	INITIAL FAILURE ANGLE:	10	degrees
SLOT BOUNDARY CONDITIONS			FINAL FAILURE ANGLE:	80	degrees
SLOT CUT WIDTH:	8	feet	INITIAL TENSION CRACK:	1	feet
COHESION:	114	psf	FINAL TENSION CRACK:	10	feet
PHI ANGLE:	14.1	degrees			

Run Calculatior

CALCULATED RESULTS

CRITICAL FAILURE ANGLE	56	degrees
HORIZONTAL DISTANCE TO UPSLOPE TENSION CRACK	1.0	feet
DEPTH OF TENSION CRACK	3.5	feet
TOTAL EXTERNAL SURCHARGE	0.0	pounds
VOLUME OF FAILURE WEDGE	34.1	ft^3
WEIGHT OF FAILURE WEDGE	4725.5	pounds
LENGTH OF FAILURE PLANE	1.8	feet
SURFACE AREA OF FAILURE PLANE	14	ft^2
SURFACE AREA OF SIDES OF SLOTS	4.3	ft^2
NUMBER OF TRIAL WEDGES ANALYZED	1860	trials
TOTAL RESISTING FORCE ALONG WEDGE BASE (FrB)	2234.1	pounds
TOTAL RESISTING FORCE ALONG WEDGE SIDES (FrS)	731.6	pounds
RESULTANT HORIZONTAL COMPONENT OF FORCE	**-21.6**	**pounds**
CALCULATED FACTOR OF SAFETY	**1.46**	

CONCLUSIONS:

THE CALCULATION INDICATES THAT SLOT CUTS UP TO 8 FEET WIDE AND 5 FEET HIGH HAVE A SAFETY FACTOR GREATER THAN 1.25 AND ARE TEMPORARILY STABLE.

Bay City Geology, Inc.

SLOT CUT CALCULATION

File No.: **1528-3**
Project: **Hawthorne Airport**

ASSUME: NW Hangar Grading Over-Excavation

CALCULATE THE FACTOR OF SAFETY OF SLOT CUT EXCAVATIONS. ASSUME COHESIVE AND FRICTIONAL RESISTANCE ALONG THE SIDES OF SLOTS AS WELL AS THE FAILURE SURFACE. THE HORIZONTAL PRESSURE ON THE SIDES OF THE SLOTS IS THE AT-REST PRESSURE (1-SIN(phi)).

CALCULATION PARAMETERS

EARTH MATERIAL:	Qyf		EXCAVATION HEIGHT:	5	feet
SHEAR DIAGRAM:	S-6 & 7, Lowest Ult. Vals.		BACKSLOPE ANGLE:	0	degrees
COHESION:	186.3	psf	SURCHARGE:	0	pounds
PHI ANGLE:	27.3	degrees	SURCHARGE TYPE:	U	Uniform
DENSITY:	138.6	pcf	INITIAL FAILURE ANGLE:	10	degrees
SLOT BOUNDARY CONDITIONS			FINAL FAILURE ANGLE:	80	degrees
SLOT CUT WIDTH:	8	feet	INITIAL TENSION CRACK:	1	feet
COHESION:	93.15	psf	FINAL TENSION CRACK:	10	feet
PHI ANGLE:	13.65	degrees			

Run Calculatior

CALCULATED RESULTS

CRITICAL FAILURE ANGLE	57	degrees
HORIZONTAL DISTANCE TO UPSLOPE TENSION CRACK	1.0	feet
DEPTH OF TENSION CRACK	3.5	feet
TOTAL EXTERNAL SURCHARGE	0.0	pounds
VOLUME OF FAILURE WEDGE	33.8	ft^3
WEIGHT OF FAILURE WEDGE	4690.3	pounds
LENGTH OF FAILURE PLANE	1.8	feet
SURFACE AREA OF FAILURE PLANE	15	ft^2
SURFACE AREA OF SIDES OF SLOTS	4.2	ft^2
NUMBER OF TRIAL WEDGES ANALYZED	9672	trials
TOTAL RESISTING FORCE ALONG WEDGE BASE (FrB)	2189.2	pounds
TOTAL RESISTING FORCE ALONG WEDGE SIDES (FrS)	700.9	pounds
RESULTANT HORIZONTAL COMPONENT OF FORCE	**-12.6**	**pounds**
CALCULATED FACTOR OF SAFETY	**1.25**	

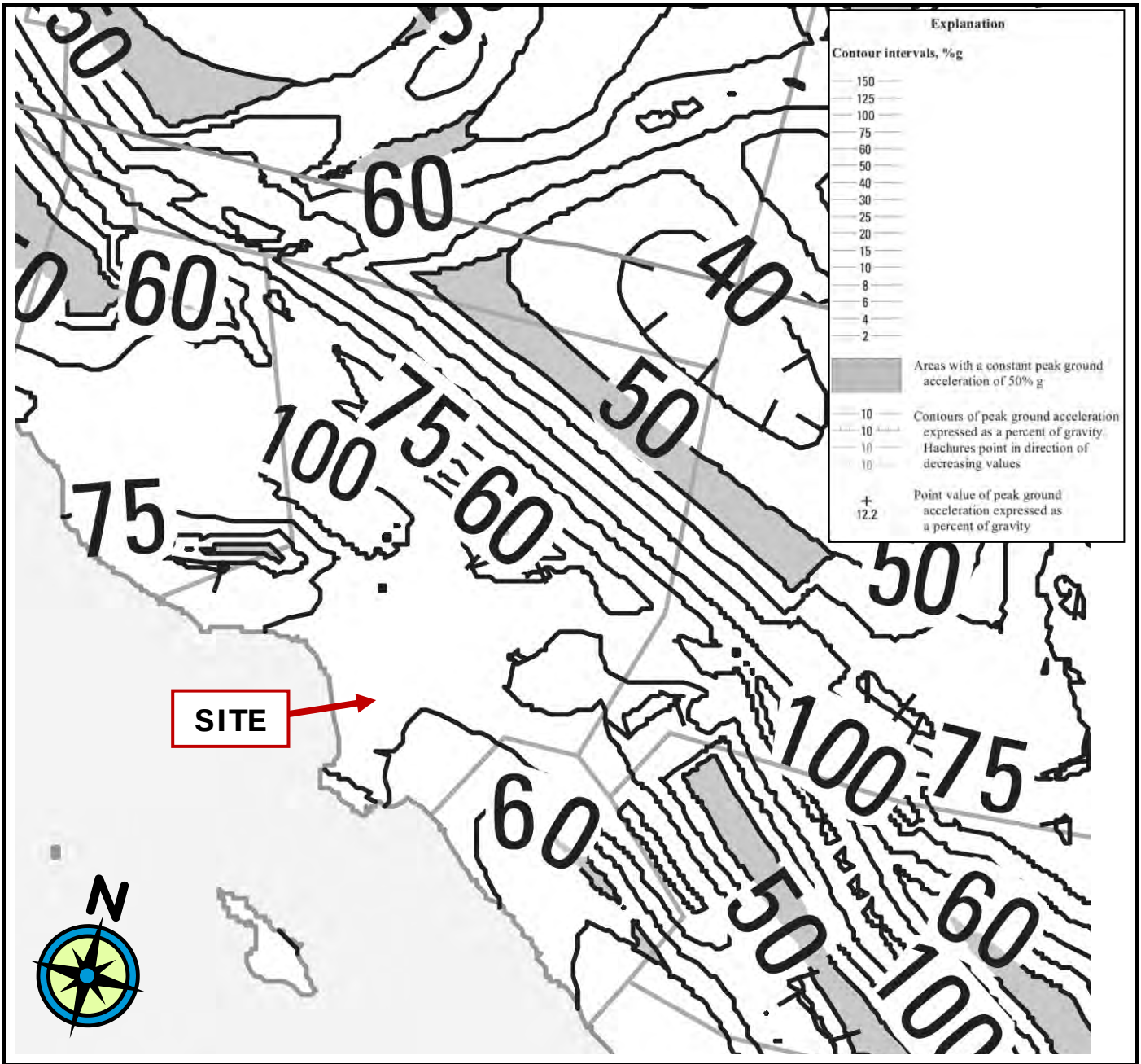
CONCLUSIONS:

THE CALCULATION INDICATES THAT SLOT CUTS UP TO 8 FEET WIDE AND 5 FEET HIGH HAVE A SAFETY FACTOR GREATER THAN 1.25 AND ARE TEMPORARILY STABLE.

Seismic Design Considerations

Any new structures and/or site improvements for the proposed development should be designed in accordance with the seismic design considerations contained in 2022 California Building Code (CBC) §1613 and *Standard ASCE/SEI 7-16*, (2017). The following parameters should be considered for design.

MAXIMUM CONSIDERED EARTHQUAKE GEOMETRIC MEAN



Reference:	Portion of Figure 22-9, *Standard ASCE/SEI 7-16* (2017)	Plate 5
Project Address:	12101 Crenshaw Boulevard Hawthorne, California	

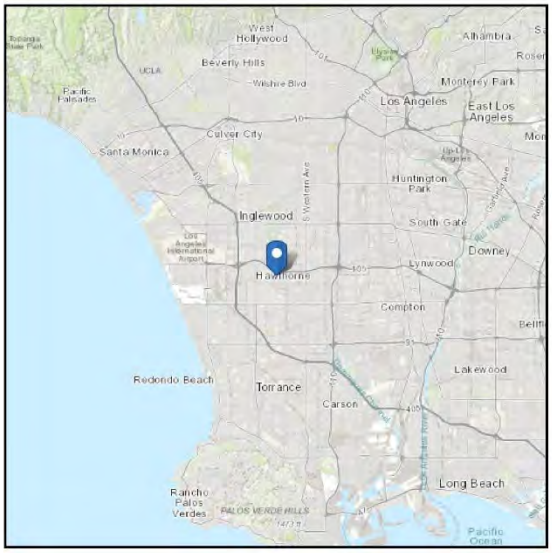
ASCE Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Stiff Soil

Latitude: 33.92217
Longitude: -118.335165
Elevation: 61.27434648833808 ft (NAVD 88)





ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

Seismic

Site Soil Class: D - Stiff Soil

Results:

S_S :	1.853	S_{D1} :	N/A
S_1 :	0.653	T_L :	8
F_a :	1	PGA :	0.801
F_v :	N/A	PGA_M :	0.881
S_{MS} :	1.853	F_{PGA} :	1.1
S_{M1} :	N/A	I_e :	1
S_{DS} :	1.235	C_v :	1.471

Ground motion hazard analysis may be required. See ASCE/SEI 7-16 Section 11.4.8.

Data Accessed: Sat Aug 10 2024

Date Source: USGS Seismic Design Maps

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Additional Seismic Design Considerations for Site Class D ("Default" / "Stiff Soil")

Under EXCEPTION A of ASCE/SEI 7-16 §11.4.8, a ground motion hazard analysis is not required for structures other than seismically isolated structures and structures with damping systems where the Seismic Response Coefficient "C_S" is determined as provided herein, (below):

Seismic Response Coefficient "C_S":

$C_S = \{(S_{DS})*[1/(R/I_e)]\}$; for: $T \leq (1.5)*(T_S)$ *(eq. 12.8-2, ASCE/SEI 7-16)*

$C_S = \{[(1.5)*(S_{D1})]/[(T)*(R/I_e)]\}$; for: $(1.5)*(T_S) < T \leq T_L$ *(eq. 12.8-3, ASCE/SEI 7-16)*

$C_S = \{[(1.5)*(S_{D1})*(T_L)]/[(T)*(R/I_e)]\}$; for: $T > T_L$ *(eq. 12.8-4, ASCE/SEI 7-16)*

Where:
Site Class is "D" – "Default / Stiff Soil"

S_1: Mapped MCE_R, 5% damped, spectral response acceleration parameter at a 1s period, and "S_1" ≥ 0.2.

S_{DS}: Design, 5% damped, spectral response acceleration parameter at short periods.

S_{D1}: Design, 5% damped, spectral response acceleration parameter at a 1s period.

R: Response modification coefficient.

I_e: Importance Factor.

T: Fundamental period of the structure.

T_S: $T_S = S_{D1}/S_{DS}$

T_L: Long-period transition period.

Under EXCEPTION A of ASCE/SEI 7-16 §11.4.8, the following seismic design parameters may be determined from their respective sections of ASCE/SEI 7-16 without performing a site-specific ground motion hazard analysis, provided that the proposed development meets the requirements of EXCEPTION A:

Long-Period Site Coefficient (at 1.0-s Period), "F_V": $F_V = 1.7$ *(Table 11.4-2, ASCE/SEI 7-16)*

MCE_R, 5% Damped, Spectral Response Acceleration Parameter at 1s Period adjusted for Site Class effects, "S_{M1}":

$S_{M1} = F_V * S_1 = (1.7) * (0.653) = 1.11$ *(eq. 11.4-2, ASCE/SEI 7-16)*

Design, 5% Damped, Spectral Response Acceleration Parameter at 1s Period adjusted for Site Class effects, "S_{D1}":

$S_{D1} = (2/3) * S_{M1} = (2/3) * (1.11) = 0.74$ *(eq. 11.4-4, ASCE/SEI 7-16)*

Seismic Design Category, "SDC": SDC = "D" *(ASCE/SEI 7-16 §11.6)*

APPENDIX IV – GENERAL RECOMMENDATIONS

Drainage and Maintenance

Maintenance of the property and structures located within must be performed to minimize the chance of serious damage and/or instability to improvements. Most problems are associated with or triggered by water. Therefore, a comprehensive drainage system should be designed and incorporated into the final plans. In addition, pad areas should be maintained and planted in a way that will allow this drainage system to function as intended. The following are specific drainage, maintenance, and landscaping recommendations. Reductions in these recommendations will reduce their effectiveness and may lead to damage and/or instability to the improvements. It is the responsibility of the property owner to ensure that the residence and drainage devices are maintained in accordance with the following recommendations and the requirements of all applicable government agencies.

Drainage
Positive pad drainage should be incorporated into the final plans. The pad should slope away from the footings at a minimum five percent slope for a horizontal distance of five feet. In areas where there is insufficient space for the recommended five-foot horizontal distance concrete or other impermeable surface should be provided for a minimum of three feet adjacent the structure. Pad drainage should be at a minimum of two percent slope where water flows over lawn or other planted areas. Drainage swales should be provided with area drains about every fifteen feet. Areas drains should be provided in the rear and side yards to collect drainage. All drainage from the pad should be directed so that water does not pond adjacent to the foundations or flow towards them. Roof gutters and downspouts are required for the proposed structures and should be connected into a buried area drain system. All drainage from the site should be collected and directed via non-erosive devices to a location approved by the building official. Area drains, subdrains, weep holes, roof gutters and downspouts should be inspected periodically to ensure that they are not clogged with debris or damaged. If they are clogged or damaged, they should be cleaned out or repaired.

Landscaping (Planting)
Planters placed immediately adjacent to the structures are not recommended. If planters are proposed immediately adjacent to structures, impervious above-grade or below-grade planter boxes with solid bottoms and drainage pipes away from the structure are suggested. All slopes should be maintained with a dense growth of plants, ground-covering vegetation, shrubs and trees that possess dense, deep root structures and require a minimum of irrigation. Plants surrounding the development should be of a variety that requires a minimum of watering. It is recommended that a landscape architect be consulted regarding planting adjacent to improvements. It will be the responsibility of the property owner to maintain the planting. Alterations of planting schemes should be reviewed by the landscape architect.

Irrigation
An adequate irrigation system is required to sustain landscaping. Over-watering resulting in runoff and/or ground saturation must be avoided. Irrigation systems must be adjusted to account for natural rainfall conditions. Any leaks or defective sprinklers must be repaired immediately. To mitigate erosion and saturation, automatic sprinkling systems must be adjusted for rainy seasons. A landscape architect should be consulted to determine the best times for landscape watering and the proper usage.

Pools/Plumbing
Leakage from a swimming pool or plumbing can produce a perched groundwater condition that may cause instability or damage to improvements. Therefore, all plumbing should be leak-free. Pools located adjacent to descending slopes should be provided with a pool subdrain system.

Grading & Earthwork

General Grading Guidelines

1. Prior to commencement of work, a pre-grading meeting shall be held. Participants at this meeting will consist of the contractor, the owner or his representative, and the soils engineer and/or engineering geologist. The purpose of the meeting is to avoid misunderstanding of the recommendations set forth in this report that might cause delays in the project.
2. Prior to placement of fill materials, all vegetation, rubbish, and other deleterious material should be disposed of off-site. The proposed structures should be staked out in the field by a surveyor. This staking should, as a minimum, include areas for over-excavation, toes of slopes, tops of cuts, setbacks, and easements. All staking shall be offset from the proposed grading area at least (5) feet.

   The proposed construction areas should be excavated down to competent bedrock (or other recommended competent earth material).
3. The excavated grade (or "bottom"), that is determined to be satisfactory for the support of the controlled fill materials, shall then be scarified to a depth of at least (6) inches and moistened as required. The bottom should be compacted to at least (90) percent relative compaction.
4. The controlled fill materials shall consist of earth materials approved by the project soils engineer and/or engineering geologist. These materials may be obtained from the on-site excavation areas, from any other approved source areas, and by blending soils from one or more sources. The controlled fill materials used shall be free from organic matter, vegetation, and other deleterious substances. Also, the controlled fill materials shall not contain rocks greater than (8) inches in diameter, nor of a quantity sufficient to make compaction difficult.
5. The approved controlled fill materials shall be placed in approximately level layers ("lifts") about (4 to 6) inches thick and moistened as required. Each layer shall be thoroughly mixed to attain uniformity of moisture in each layer.

   When the moisture content of the controlled fill materials is found to be (3) percent or more below the optimum moisture content, as specified by the soils engineer, water shall be added and thoroughly mixed in until the moisture content is brought up to the optimum moisture content, and no more than (3) percent above the optimum moisture content.

   When the moisture content of the controlled fill materials is greater than (3) percent above the optimum moisture content, as specified by the soils engineer, the fill material shall be either dried and aerated by scarifying, or it shall be blended with additional drier fill materials and thoroughly mixed until the moisture content is brought down to the optimum moisture content, and no more than (3) percent above the optimum moisture content.

   Each lift of controlled fill materials shall be compacted to a minimum of (90) percent relative compaction (as determined by the modified Proctor maximum dry density - ASTM D 1557), using approved compaction equipment. Where cohesionless soil having less than (15) percent finer than (0.005) millimeters is used for controlled fill materials, the controlled fill material shall be compacted to a minimum of (95) percent relative compaction.
6. Review of controlled fill material placement and compaction should be provided by the soils engineer (or his designee) during the progress of grading. Generally, density tests will be required at intervals not exceeding (2) feet of fill height/depth, or for every 500 cubic yards of controlled fill materials placed.
7. During periods when inclement weather is expected at the project site, all controlled fill materials that have been spread and are awaiting compaction shall be compacted before stopping work, either because of inclement weather or at the end of the work day. The upper surface of the controlled fill area shall

sloped/contoured to drain all precipitation to a single location; where water may be collected and removed from the controlled fill area.

Following inclement weather, work may resume only after the condition of the controlled fill area and materials have been review by the soils engineer, and he has given authorization to resume work. Loose fill materials not compacted prior to the rain shall be removed and aerated so that the moisture content of these controlled fill materials will be not less than and no more than (3) percent above the optimum moisture content.

Surface materials previously compacted before the inclement weather period, shall be scarified, brought to the proper moisture content, and re-compacted prior to placing additional controlled fill materials, if deemed necessary by the soils engineer

8. Review of geotechnical data available for the local vicinity of the site indicates that septic tanks, seepage pits/cesspools, or leach fields may be encountered during site grading. If encountered, these should be drained of effluent or drilled out if they have been backfilled. The cleaned-out area should be inspected by the soils engineer and the local building official prior to backfill. Seepage pits/cesspools may be filled with approved controlled fill materials, lean-mix concrete (or 2-sack slurry), or (¾) inch crushed rock gravel. Whichever backfill material is selected, at least (5) feet of controlled fill materials, placed at a minimum of 90 percent relative compaction should cap the backfilled seepage pit/cesspool.

APPENDIX V - REFERENCES

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Appendix F

VMT Memorandum

Technical Memorandum

Hawthorne Airport Hangars Project CEQA Initial Study

Project	Hawthorne Airport CEQA IS CEQA Initial Study
Watearth #	24-151.0.1
Subject	Technical Memorandum – CEQA Vehicle Miles Traveled Analysis
Date	April 4, 2025
Prepared by	Jennifer J. Walker, PE, DWRE, ENV SP, QSD, LEED AP BD+C Kayla Tarr

Draft

DRAFT MEMORANDUM RELEASED UNDER THE AUTHORITY OF **JENNIFER J. WALKER PE (C77079), DWRE, CFM** ON 2024-03-15 AND SHOULD NOT BE USED FOR DESIGN OR CONSTRUCTION.

Project Description

Hawthorne Municipal Airport is a general aviation reliever airport, located within and owned by the City of Hawthorne. All non-field portions of the Airport are operated by Hawthorne Airport LLC; under a 45-year lease agreement with the City of Hawthorne. Hawthorne Airport LLC also operates the Airport's fixed base operations provider, Jet Center Los Angeles. The proposed project will involve the development of thirteen new hangars across four locations within the airport. Of the thirteen hangars: seven hangars will be built in the southwest section of the airport, one in the southeast, four in the northeast, and one in the northwest. The project is expected to support airport operations by increasing storage capacity for private aircraft and overall aviation activities.

The new hangars will vary in size, ranging from 2,500 to 25,300 square feet each, and will be designed to house private aircraft, small jets, and aviation-related equipment. Some hangars will include office spaces for aviation businesses and small workshops. Construction is anticipated to begin in summer 2025 and is expected to be completed by the end of 2028. The phased construction schedule includes site preparation and demolition in 2025, followed by hangar construction in different sections from 2026 to early 2027.

To prepare the site, demolition will include the removal of six existing buildings, totaling 18,000 square feet, consisting of two outdated hangars and four storage buildings for non-aviation equipment. Additional site clearing will include the removal of approximately 55,000 square feet of impervious cover, such as concrete and asphalt pavement, storm drains, fences, light poles, and utility connections.

The proposed project is located in the City of Hawthorne, in southwestern Los Angeles County, south of I-105, between Prairie Avenue and Crenshaw Boulevard. The Airport boundaries are represented by W 120th Street to the north, Prairie Avenue to the east, Crenshaw Boulevard to the west, and a mixed commercial and industrial area to the south. The surrounding environment is largely residential and commercial. Immediately south of the Airport are a Starlink corporate office, SpaceX offices and design stages, and a Tesla Design Center.

There are thirteen proposed hangar development sites. The locations of the construction and demolition activities are shown in **Exhibit 1**.

The demolition and construction processes will include grading, excavation, the removal of structures and corresponding utilities, removal of impervious surfaces, replacement of existing pavement, implementation of sustainable stormwater management features, and utility relocations.

VMT Introduction

Vehicle Miles Traveled (VMT) measures the sum of miles traveled by an individual vehicle within a geographic region over a given period. "VMT is a key metric in transportation planning because it provides indication of the access to economic and social opportunity, with lower VMT areas requiring less driving and generally providing better access to daily destinations such as jobs and services" (*OPR*, 2024). VMT can be used for the following:

- "Assess the difference in travel demand and impact between regions and other states.
- Project future revenue streams from fuel taxes and proposed VMT fees.
- Compare personal travel and freight/commercial vehicle travel.
- Project future congestion levels.
- Estimate the amount of travel resulting from local residence and freight activity versus external travel.
- Assess the impact of various population forecasts.
- Support interest for transportation planning." (*Texas A&M*, 2016)

For the purposes of this study, VMT was reviewed to determine if the construction of the proposed hangars and the removal of existing buildings will have a significant impact on the nearby roads' local transportation.

Senate Bill 743

Senate Bill (SB) 743 was approved by the California state legislature in 2013 (*California Legislative Information*, 2013). This bill requires California Environmental Quality Act (CEQA) guidelines to promote VMT as the metric to reduce greenhouse gas emissions, develop multimodal transportation networks, and diversify land uses. The Governor's Office of Planning and Research (OPR) directed the use of VMT as the replacement for automobile delay-based Level of Service (LOS) for the purposes of determining a significant transportation impact under CEQA section 15064.3 (*County of Santa Cruz*, 2024). To assist in the implementation of VMT as the primary measure of a transportation impact under CEQA, the OPR published an updated *Technical Advisory on Evaluating Transportation Impacts* in CEQA in December 2018. Statewide application of the new guidelines went into effect on July 1, 2020.

The OPR's *Technical Advisory* guidelines (*OPR*, 2018) include the following main components for assessment of projects:

- **Screening Methodologies** – Identification of potential screening thresholds that establish whether the project poses significant VMT transportation impacts.
- **Analysis Methodologies** – If necessary, recommendations of analysis methodologies for VMT impact analysis.
- **Mitigation Memorandum** – If necessary, determine types of mitigation that can be considered for VMT mitigation.

The VMT analysis for this project was based on the *City of Hawthorne SB 743 Implementation Guidelines*, based on OPR guidelines (*OPR*, 2018).

VMT Screening

The City of Hawthorne and OPR rely on VMT as the metric for determining significant transportation impact under CEQA. The City provides "screening thresholds" to quickly identify when a project should be expected to cause a less-than-significant impact without conducting a more detailed level analysis. A land use project needs to define the screening thresholds to be presumed to result in not having significant impact under CEQA pursuant to SB 743 (*Metropolitan Transportation Commission,* 2024). A project needs to only meet one of the screening thresholds to be classified as a causing a less-than-significant impact without a more detailed analysis. The City guidelines provide details on appropriate screening thresholds that can be used to complete this identification, which are provided in City guidelines. Screening Criteria are broken down into seven criteria:

1. **Small Projects**
    a. Projects of any land use type with low trip generation do not require a VMT analysis per existing CEQA exemptions. According to OPR guidance, a project is presumed to cause a less-than significant impact if it would:
        i. Generate less than 110 trips per day per the Institute of Transportation Engineers (ITE) Manual or other acceptable source determined by City of Hawthorne.
        ii. Projects that are inconsistent with the Sustainable Communities Strategy, as determined by the City of Hawthorne, are not eligible for this exemption. Sustainable Communities Strategies provide long-range plans to ensure that transportation, housing, and land use decisions align with greenhouse gas emissions reduction targets set by the California Air Resources Board.

The construction team supplied information regarding vehicles traveling to and from the site, primarily during the construction phase, which is outlined in **Table 1**. The number of trips to/from the site were assumed for each vehicle type based on the vehicle's purpose and empirical data. Watearth previously completed a VMT screening within Los Angeles County that utilized similar vehicles during the construction process and identified the number of trips needed to/from the site for each vehicle type. The number of trips used for each vehicle type was applied similarly to this project. The maximum number of trips a vehicle travels to/from the site each week is outlined in **Table 2** and **Table 3.** The weekly sum is then averaged daily, as displayed in **Table 4**.

Table 1: Inventory of Vehicles Traveling To/From the Project Site during the Operation/Construction Phase

Type	Number	Purpose
Excavator	2	site preparation and demolition of existing structures
Bulldozer	1	grading and site leveling
Crane	2	structural assembly of the hangar frames

Type	Number	Purpose
Concrete mixer	4	pouring hangar foundations and taxiways
Dump truck	6	hauling demolition debris and delivering construction materials
Loader	2	material handling and utility trenching
Backhoe	2	material handling and utility trenching
Compactor	2	preparing the subgrade for paving
Asphalt paver	2	taxiway construction

Table 2: Daily Trips to the Project Site during the Operation/Construction Phase

Vehicle Name	Vehicle Information	Monday	Tuesday	Wednesday	Thursday	Fridays)	Saturday	Sunday	Weekly Total per Vehicle	Weekly Total for Vehicle Type
Excavator	Travels to the site at the beginning of the project.	1	0	0	0	0	0	0	1	2
Bulldozer	Travels to the site at the beginning of the project.	1	0	0	0	0	0	0	1	1
Crane	Travels to the site at the beginning of the project.	1	0	0	0	0	0	0	1	2
Concrete mixer	Will likely make 3 to 4 trips per day over a 3 to 4 day period.	4	4	4	4	0	0	0	16	64

Vehicle Name	Vehicle Information	Monday	Tuesday	Wednesday	Thursday	Fridays)	Saturday	Sunday	Weekly Total per Vehicle	Weekly Total for Vehicle Type
Dump Truck	Travels to the site daily.	1	1	1	1	1	1	1	7	42
Loader	Travels to the site at the beginning of the project.	1	0	0	0	0	0	0	1	2
Backhoe	Travels to the site at the beginning of the project.	1	0	0	0	0	0	0	1	2
Compactor	Travels to the site at the beginning of the project.	1	0	0	0	0	0	0	1	2
Asphalt pavers	Travels to the site at the beginning of the project.	1	0	0	0	0	0	0	1	2

Table 3: Daily Trips from the Project Site during the Operation/Construction Phase

Vehicle Name	Vehicle Information	Monday	Tuesday	Wednesday	Thursday	Fridays)	Saturday	Sunday	Weekly Total per Vehicle	Weekly Total for Vehicle Type
Excavator	Travels from the site at the end of the project.	1	0	0	0	0	0	0	1	2

Vehicle Name	Vehicle Information	Monday	Tuesday	Wednesday	Thursday	Fridays)	Saturday	Sunday	Weekly Total per Vehicle	Weekly Total for Vehicle Type
Bulldozer	Travels from the site at the end of the project.	1	0	0	0	0	0	0	1	1
Crane	Travels from the site at the end of the project.	1	0	0	0	0	0	0	1	2
Concrete mixer	Will likely make 3 to 4 trips per day over a 3 to 4 day period.	4	4	4	4	0	0	0	16	64
Dump truck	Travels from the site daily	1	1	1	1	1	1	1	7	42
Loader	Travels from the site at the end of the project.	1	0	0	0	0	0	0	1	2
Backhoe	Travels from the site at the end of the project.	1	0	0	0	0	0	0	1	2
Compactor	Travels from the site at the end of the project.	1	0	0	0	0	0	0	1	2
Asphalt pavers	Travels from the site at the end of the project.	1	0	0	0	0	0	0	1	2

Table 4: Weekly Trip Sum and Daily Average

Site Visit Category	Weekly Sum (# of trips)	Daily Trip Average (# of trips)	Maximum Daily Trips (# of trips)
Trips "to" the site	119	17	35
Trips "from" the site	119	17	35

A conservative estimate of the maximum possible trips a vehicle is traveling to and from the site is shown in **Table 2** and **Table 3**. Even with the conservative evaluation, the daily trip value falls below the 110 daily trips screening value for both the construction phase and operational phase of the project. In order to exceed an average of 110 daily trips, each vehicle would have to make more than 2 round trips each day and more than 16 round trips each week. Based on this assessment, the project meets the criteria for a **less-than-significant** impact to transportation.

2. **Projects Near High Quality Transit**:
    a. CEQA guideline section 15064.3 (*Casetext*, 2024), subdivision (b)(1), states that lead agencies generally should presume that certain projects (including residential, retail, and office projects) proposed within a half mile of an existing major transit stop or an existing stop along a high-quality transit corridor will have a less than significant impact on VMT. But this assumption may not apply if the project:
        i. Has a Floor Area Ratio (FAR) of less than 0.75;
        ii. Includes more parking for use by residents, customers, or employees of the project than required by jurisdiction (if the jurisdiction requires the project to supply parking);
        iii. Is inconsistent with the applicable sustainable communities strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization);
        iv. Replaced affordable residential units with a smaller number of moderate- or high-income residential units.

A portion of the project site is located within a "Transit Priority Area" (see **Figure 1**), but the airport entrance and parking lot is located at approximately 3744 W 120th Street, 0.8 mile away from a Los Angeles Metro transit stop. This distance exceeds the half-mile CEQA guideline; the main area of transportation is not located within a "Transit Priority Area". This criteria was reviewed to ensure that the proposed project meets all City, County, and State requirements. In conclusion, the project does not fall under the "Transit Priority Area" category.

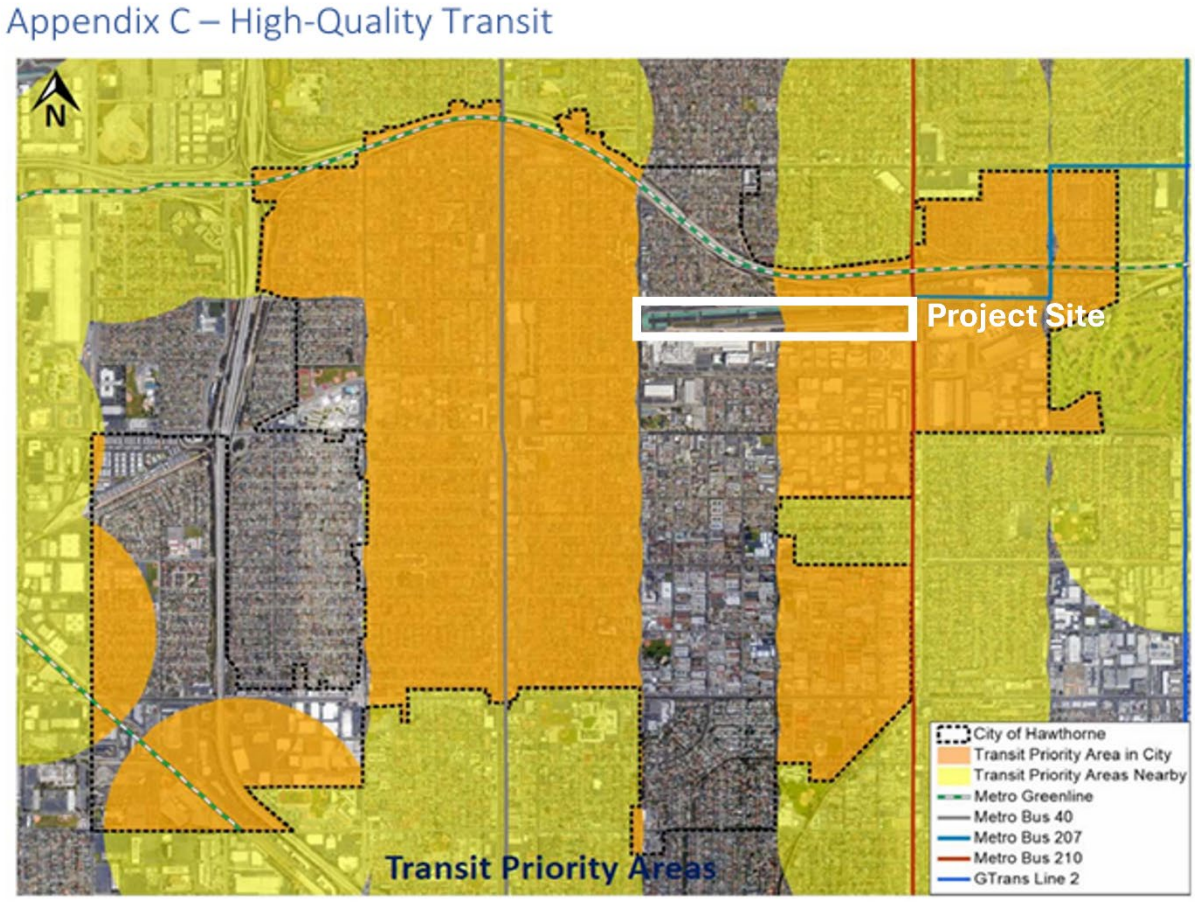


Figure 1: *Hawthorne Transit Priority Areas (Appendix C from the City Hawthorne SB 743 Implementation Guidelines)*

3. Affordable Housing

a. Since lower-income residents make fewer trips on average and contribute to a lower VMT overall, a project is presumed to cause a less-than-significant impact if it would:

i. Provide a high percentage of affordable housing, as determined by the City of Hawthorne.

The proposed project does not include residential construction or reconstruction and is not eligible to fall within the "Affordable Housing" category.

4. Local-Serving Retail

a. Trips to local-serving retail can replace higher distance trips for necessities, reducing VMT. OPR guidance states that a project is presumed to cause a less-than significant impact if it includes:

i. A local-serving retail development as determined by the City of Hawthorne.

ii. Projects that include a nature of service that is regionally focused, as determined by the City of Hawthorne, are not eligible for this exemption.

The proposed project is not categorized as retail land use and is not eligible to fall within the "Local-Serving Retail" category.

5. Local Essential Service

a. Trips to local essential services can replace higher distance trips for the services, reducing VMT. OPR guidance states that a project is presumed to cause a less-than significant impact if it would:

i. Include a building that is less than 50,000 square feet; and

ii. Land Use is:

1. Day care center; or
2. Public K-12 School; or
3. Police or Fire facility; or
4. Medical/Dental office building; or
5. Hospital and clinics; or
6. Government offices (in-person services such as post office, library, and utilities

iii. Projects that include a nature of service that is regionally focused, as determined by the City of Hawthorne, are not eligible for this exemption.

The proposed project is not categorized as retail land use and is not eligible to fall within the "Local Essential Service" category.

6. Map-Based Screening

a. The City of Hawthorne has produced maps to screen for smaller developments. The map-based screening is limited to residential and office projects. A project is presumed to cause less-than-significant impact if:

i. Located in an area of development that is under the threshold as shown on a screening map as allowed by City of Hawthorne.

ii. Projects that represent significant growth so as to substantially change regional patterns, as determined by the City of Hawthorne, are not eligible for this exemption.

The proposed project is categorized as a general aviation airport land use. Map-based screening is only allowable for residential or office land use designations. The proposed project is not eligible for "Map-Based Screening" and cannot be designated as exempt from VMT analysis using this method.

7. **Redevelopment Projects**
    a. In the event of a redevelopment project, the redevelopment may result in a lower VMT than the existing on-site uses. According to OPR guidance, a project is presumed to cause a less-than significant impact if it:
        i. Replaces an existing VMT-generating land use and does not result in a net overall increase in VMT.
        ii. Projects that replace an existing VMT-generating land use and result in a net overall increase in VMT are not eligible for this exemption.
        iii. Projects where the existing land use has been vacant for more than two years are not eligible for this exemption.

The proposed project is not a redevelopment project and does not qualify using this method.

Conclusion

The City of Hawthorne Municipal Airport project needs to only meet one screening threshold provided in the City SB 743 Implementation Guidelines (Small Projects, Projects Near High Quality Transit, Affordable Housing, Local-Serving Retail, Local Essential Service, Map-Based Screening, Redevelopment Projects) to be presumed to result in having a less than significant impact under CEQA pursuant to SB 743. Based on the results of the screening criteria, the following conclusions are drawn:

- An average total of 17 daily trips, with a potential maximum of 35 daily trips, are made to and from the project site during the construction phase, which is below the 110 daily trip OPR screening threshold. This value will be less during the operational phase post construction.

The project is considered to have met one of the screening criteria that would qualify it to have a less-than-significant transportation impact. The project area will not generate additional vehicular trips that would result in adverse transportation effects. A VMT impact analysis and Mitigation Memorandum are not required for this project. The proposed project does not require cumulative analysis, which is required if feasible mitigation measures cannot be identified for a project, as mitigation measures are not needed.

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Appendix G

Mitigation Monitoring and Reporting Program

Hawthorne Airport Hangar Development Project
Final Initial Study-Mitigated Negative Declaration
Mitigation Monitoring and Reporting Program

Mitigation Measure	Action Required	Timing	Implementing Entity	Verifying/Monitoring Entity
TRIBAL CULTURAL RESOURCES				
TCR-1: Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities	Hawthorne Airport shall retain a qualified Native American monitor from, or approved by, the Gabrieleño Band of Mission Indians – Kizh Nation prior to any ground-disturbing activity. Execute a monitoring agreement, ensure the monitor is present during all ground-disturbing work, and maintain daily logs as described in the measure. Provide the City with written confirmation and copies of logs upon request.	Prior to and during all ground-disturbing activities (including grading, excavation, trenching, boring, etc.)	Fly Advanced Air (in coordination with the Gabrieleño Band of Mission Indians – Kizh Nation	City of Hawthorne, Hawthorne Municipal Airport
TCR-2: Unanticipated Discovery of Tribal Cultural Resource Objects (Non-Funerary/Non-Ceremonial)	If Tribal Cultural Resources are discovered, Hawthorne Airport shall ensure that all work within 50 feet of the discovery stops immediately, notify the Kizh Nation tribal monitor and/or Kizh Nation archaeologist, and follow the treatment protocols specified by the Tribe. Resume work only after the monitor confirms the resource has been documented, recovered, or protected.	During construction when ground-disturbing activities occur	Fly Advanced Air in coordination with the Gabrieleño Band of Mission Indians – Kizh Nation	City of Hawthorne, Hawthorne Municipal Airport
TCR-3: Unanticipated Discovery of Human Remains and Associated Funerary or Ceremonial Objects	If human remains or associated funerary/ceremonial objects are discovered, Hawthorne Airport shall ensure work stops in the immediate vicinity, comply with PRC §5097.98 and HSC §7050.5, notify the Los Angeles County Coroner, and if remains are Native American, coordinate with the NAHC and the Most Likely Descendant. Preservation in place shall be the preferred treatment.	During construction when human remains or burial goods are discovered	Fly Advanced Air in coordination with the Gabrieleño Band of Mission Indians – Kizh Nation	City of Hawthorne, Hawthorne Municipal Airport
Hazardous Materials				

Hawthorne Airport Hangar Development Project
Final Initial Study-Mitigated Negative Declaration
Mitigation Monitoring and Reporting Program

Mitigation Measure	Action Required	Timing	Implementing Entity	Verifying/Monitoring Entity
HAZ-1: Remediation Well Protection, Conversion, and Coordination	Prior to any ground-disturbing activity within 20 feet of an existing remediation or monitoring well, the project applicant shall coordinate with Northrop Grumman, CDM Smith, and the Department of Toxic Substances Control (DTSC) to confirm DTSC's approval of all necessary well conversions, relocations, and abandonments within the hangar footprints. The applicant shall implement DTSC-approved procedures to maintain access to monitoring wells, protect well casings, and avoid damage to associated environmental infrastructure. Any necessary well abandonment or conversion shall be conducted by a licensed contractor in accordance with DTSC-approved procedures. DTSC shall confirm that well conversions and abandonments are consistent with the long-term remediation plan and that the overall remediation program will continue to meet groundwater quality protection goals.	Prior to and during all ground-disturbing activities (including grading, excavation, trenching, boring, and foundation construction)	Fly Advanced Air in coordination with Northrop Grumman, CDM Smith, and DTSC	City of Hawthorne; DTSC

Appendix H

DTSC Confirmation

Outlook

RE: CEQA Coordination: DTSC Concurrence on Well Abandonment Approach

From Gill, Tajinder@DTSC <Tajinder.Gill@dtsc.ca.gov>
Date Thu 8/21/2025 12:51 PM
To Lee Vella <lvella@watearth.com>; Wallbom, Todd@DTSC <Todd.Wallbom@dtsc.ca.gov>; Nguyen, Vu@DTSC <Vu.Nguyen@dtsc.ca.gov>
Cc Donny Sandusky <dsandusky@flyadvancedair.com>; Levi Stockton <lstockton@flyadvancedair.com>; Jeremy Liby <jliby@watearth.com>; Jennifer J. Walker <jwalker@watearth.com>; Subramanian, Ravi <subramanianr@cdmsmith.com>; Linda Niemeyer (laniemeyer@roadrunner.com) <laniemeyer@roadrunner.com>; kassidy.jones <kassidy.jones@ngc.com>; Woolsey, Marissa@DTSC <Marissa.Woolsey@dtsc.ca.gov>; Neuwirth, Efrem@DTSC <Efrem.Neuwirth@dtsc.ca.gov>

Hi Lee,

The construction of the airport hangars is impacting the cleanup efforts at the hangar construction area. Some extraction wells will need to be converted to monitoring wells and some wells will need to be abandoned and relocated. In addition, potential future expansion of the remediation system is impeded due to limited access agreements from the tenant, which does not allow the expansion.

Thanks,

Taj

From: Lee Vella <lvella@watearth.com>
Sent: Tuesday, August 5, 2025 9:09 AM
To: Gill, Tajinder@DTSC <Tajinder.Gill@dtsc.ca.gov>; Wallbom, Todd@DTSC <Todd.Wallbom@dtsc.ca.gov>; Nguyen, Vu@DTSC <Vu.Nguyen@dtsc.ca.gov>
Cc: Donny Sandusky <dsandusky@flyadvancedair.com>; Levi Stockton <lstockton@flyadvancedair.com>; Jeremy Liby <jliby@watearth.com>; Jennifer J. Walker <jwalker@watearth.com>; Subramanian, Ravi <subramanianr@cdmsmith.com>; Linda Niemeyer (laniemeyer@roadrunner.com) <laniemeyer@roadrunner.com>; kassidy.jones <kassidy.jones@ngc.com>
Subject: Re: CEQA Coordination: DTSC Concurrence on Well Abandonment Approach

Hi Taj,

We are requesting for confirmation that the proposed actions of all of the wells located within or adjacent to the construction footprint (particularly CEW-04, -05, and -06 and CEW-03) would not impede or truncate the effectiveness of the site's ongoing remediation and monitoring program. Including the action plans to complete remediation by or before April 2026 for the extraction wells within hangar 42 footprint.

While your recent comment letter focused on the technical adequacy of the workplan (particularly for CMW-03B), the City of Hawthorne has requested a clear statement from DTSC confirming whether all of the proposed well actions are consistent with the site's long-term remediation objectives, or if any mitigation measures are needed to avoid residual public health risks.

Would DTSC be able to provide written confirmation on this broader CEQA-related question, or alternatively, would it be possible to schedule a short call to discuss? Please let us know what would be most convenient. Thank you!

Best regards,

Lee Vella
Sr. Environmental Planner

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From: Gill, Tajinder@DTSC <Tajinder.Gill@dtsc.ca.gov>
Sent: Tuesday, July 29, 2025 10:56 AM
To: Lee Vella <lvella@watearth.com>; Wallbom, Todd@DTSC <Todd.Wallbom@dtsc.ca.gov>; Nguyen, Vu@DTSC <Vu.Nguyen@dtsc.ca.gov>
Cc: Donny Sandusky <dsandusky@flyadvancedair.com>; Levi Stockton <lstockton@flyadvancedair.com>; Jeremy Liby <jliby@watearth.com>; Jennifer J. Walker <jwalker@watearth.com>; Subramanian, Ravi <subramanianr@cdmsmith.com>; Linda Niemeyer (laniemeyer@roadrunner.com) <laniemeyer@roadrunner.com>; kassidy.jones <kassidy.jones@ngc.com>
Subject: RE: CEQA Coordination: DTSC Concurrence on Well Abandonment Approach

Hi Lee, DTSC issued comments on the workplan on July 21st.

Thanks,

Taj

From: Lee Vella <lvella@watearth.com>
Sent: Tuesday, July 29, 2025 10:53 AM
To: Gill, Tajinder@DTSC <Tajinder.Gill@dtsc.ca.gov>; Wallbom, Todd@DTSC <Todd.Wallbom@dtsc.ca.gov>; Nguyen, Vu@DTSC <Vu.Nguyen@dtsc.ca.gov>
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Subject: Re: CEQA Coordination: DTSC Concurrence on Well Abandonment Approach

Hi Taj,

Just wanted to follow up regarding DTSC's review of the workplan for the well conversions - specifically if DTSC has identified any concerns that may warrant mitigation so that we can address in the CEQA documentation. Thanks Taj.

Best regards,

Lee Vella

Sr. Environmental Planner

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From: Subramanian, Ravi <subramanianr@cdmsmith.com>
Sent: Wednesday, July 16, 2025 4:14 PM
To: Gill, Tajinder@DTSC <Tajinder.Gill@dtsc.ca.gov>; Lee Vella <lvella@watearth.com>; Wallbom, Todd@DTSC <Todd.Wallbom@dtsc.ca.gov>; Nguyen, Vu@DTSC <Vu.Nguyen@dtsc.ca.gov>; Linda Niemeyer (laniemeyer@roadrunner.com) <laniemeyer@roadrunner.com>; P. E. Kassidy Jones (kassidy.jones@ngc.com) <kassidy.jones@ngc.com>
Cc: Donny Sandusky <dsandusky@flyadvancedair.com>; Levi Stockton <lstockton@flyadvancedair.com>; Jeremy Liby <jliby@watearth.com>; Jennifer J. Walker <jwalker@watearth.com>
Subject: RE: CEQA Coordination: DTSC Concurrence on Well Abandonment Approach

Adding @Linda Niemeyer and @Kassidy Jones to the email chain

Ravi Subramanian, PE, PMP

Vice President

CDM Smith

(office) 303.383.2341, (cell) 714.308.2945

subramanianr@cdmsmith.com

From: Gill, Tajinder@DTSC <Tajinder.Gill@dtsc.ca.gov>
Sent: Wednesday, July 16, 2025 10:18 AM
To: Lee Vella <lvella@watearth.com>; Wallbom, Todd@DTSC <Todd.Wallbom@dtsc.ca.gov>; Nguyen, Vu@DTSC <Vu.Nguyen@dtsc.ca.gov>
Cc: Subramanian, Ravi <subramanianr@cdmsmith.com>; Donny Sandusky <dsandusky@flyadvancedair.com>; Levi Stockton <lstockton@flyadvancedair.com>; Jeremy Liby <jliby@watearth.com>; Jennifer J. Walker

<jwalker@watearth.com>
Subject: RE: CEQA Coordination: DTSC Concurrence on Well Abandonment Approach

As of now DTSC is in process of finalizing a comments letter on the workplan.

Thanks,

Taj

From: Lee Vella <lvella@watearth.com>
Sent: Wednesday, July 16, 2025 8:54 AM
To: Gill, Tajinder@DTSC <Tajinder.Gill@dtsc.ca.gov>; Wallbom, Todd@DTSC <Todd.Wallbom@dtsc.ca.gov>; Nguyen, Vu@DTSC <Vu.Nguyen@dtsc.ca.gov>
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Subject: Re: CEQA Coordination: DTSC Concurrence on Well Abandonment Approach

Hi Taj,

Understood - thank you for the update, and for the timely response. Can DTSC provide us with an anticipated/estimated timeline for finalizing the review?

Best regards,

Lee Vella

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Sent: Wednesday, July 16, 2025 8:47 AM
To: Lee Vella <lvella@watearth.com>; Wallbom, Todd@DTSC <Todd.Wallbom@dtsc.ca.gov>; Nguyen, Vu@DTSC <Vu.Nguyen@dtsc.ca.gov>
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Subject: RE: CEQA Coordination: DTSC Concurrence on Well Abandonment Approach

Hi Lee, Well abandonment workplan is currently under DTSC's review. At this time, we cannot comment or provide confirmation on your request.

Thanks,

Taj

From: Lee Vella <lvella@watearth.com>
Sent: Tuesday, July 15, 2025 7:30 PM
To: Gill, Tajinder@DTSC <Tajinder.Gill@dtsc.ca.gov>; Stanphill, Benjamin@DTSC <Benjamin.Stanphill@dtsc.ca.gov>; Wallbom, Todd@DTSC <Todd.Wallbom@dtsc.ca.gov>; Nguyen, Vu@DTSC <Vu.Nguyen@dtsc.ca.gov>
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Subject: CEQA Coordination: DTSC Concurrence on Well Abandonment Approach

Hi DTSC Team,

As part of the environmental documentation process for the Hawthorne Airport Hangars Project, we are currently finalizing the Initial Study/Mitigated Negative Declaration under CEQA, for which the City of Hawthorne is the Lead Agency. As you are aware, several remediation and monitoring wells (including CEW-04B, CEW-05B, CEW-06B, CMW-03B, and CMW-03) are located within or adjacent to the proposed construction footprint, particularly within the areas designated for Hangars 41 and 42. We appreciate the prior coordination regarding the proposed conversion of select extraction wells to monitoring wells and the future abandonment of remaining wells as part of the site's remediation and redevelopment plan.

To ensure the CEQA document appropriately reflects DTSC's position and that we address any potential public health or environmental hazard impacts under sections Hazards and Hazardous Materials and Hydrology and Water Quality, we request the following:

1. Written confirmation that the proposed abandonment and/or conversion of these wells will not impede or truncate the effectiveness of the ongoing remediation or monitoring program; and is consistent with DTSC's approved remediation objectives for the site.

2. If determined that the proposed well conversion may impact the success of site remediation, we would appreciate identification of any recommended mitigation measures that should be incorporated into the project's CEQA documentation.

Please let us know if you require any additional information or would like to schedule a meeting to discuss. Thank you!

Best regards,

Lee Vella

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