DRAFT
ENVIRONMENTAL ASSESSMENT FOR PROPOSED PHASE 2 PARKING STRUCTURE LOS ANGELES AIR FORCE BASE

SPACE BASE DELTA 3
LOS ANGELES AIR FORCE BASE
LOS ANGELES, CALIFORNIA

FEBRUARY 2023

ACRONYMS AND ABBREVIATIONS

ABA	Architectural Barriers Act
ADT	average daily traffic
AFB	Air Force Base
AFCEC	Air Force Civil Engineer Center
AFMAN	Air Force Manual
APE	Area of Potential Effect
AT/FP	Anti-Terrorism/Force Protection
BMP	best management practice
CAA	Clean Air Act
CAAA	Clean Air Act Amendments of 1990
CARB	California Air Resources Board
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
cy	cubic yard
DAFI	Department of the Air Force Instruction
DoD	Department of Defense
DoDI	Department of Defense Instruction
DWR	Department of Water Resources
EA	Environmental Assessment
EIAP	Environmental Impact Analysis Process
EIS	Environmental Impact Statement
EO	Executive Order
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
I-	Interstate
IDP	Installation Development Plan
IPaC	Information for Planning and Consultation
LAX	Los Angeles International Airport
MSL	mean sea level
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOA	Notice of Availability
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
POL	petroleum, oils, and lubricants

ACRONYMS AND ABBREVIATIONS (CONT.)

RWQCB	Regional Water Quality Control Board
SBD3	Space Base Delta 3
sf	square foot
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SCAQMD	South Coast Air Quality Management District
SSC	Space Systems Command
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
UFC	Unified Facilities Criteria
USAF	U.S. Air Force
USC	U.S. Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USSF	U.S. Space Force

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

SECTION 1
PURPOSE AND NEED FOR ACTION

1.1 INTRODUCTION

Los Angeles Air Force Base (AFB) is a 54-acre property located in the heavily urbanized Los Angeles Basin, within the City of El Segundo. The base is located immediately west of the incorporated City of Hawthorne, approximately 1 mile south of Los Angeles International Airport (LAX), and 0.5 mile southwest of the intersection of Interstate 105 (I-105) and I-405 (see Figure 1-1). Los Angeles AFB is a "non-flying" base, with no airfield and no assigned aircraft. The base provides approximately 543,000 square feet (sf) of office and administrative space and supports more than 4,500 civilian and military personnel. Los Angeles AFB also houses and supports the headquarters of the U.S. Space Force (USSF) Space Systems Command (SSC). The Space Base Delta 3 (SBD3) is the host unit at the base and is ultimately responsible for the base mission to pioneer, develop, and deliver sustainable joint space warfighting capabilities to defend the nation and its allies and disrupt adversaries in the contested space domain.

The proposed Phase 2 Parking Structure would be an extension of the existing parking structure located in the northwest corner of the base. The expansion footprint is currently developed with a surface parking lot (shown above) with sub-surface utility lines (i.e., sewer, water, electricity) that serve the existing parking structure and surrounding development at Los Angeles AFB.

This Environmental Assessment (EA) has been prepared to evaluate potential construction-related and operational impacts associated with the proposed Phase 2 Parking Structure at Los Angeles AFB. The EA complies with the National Environmental Policy Act of 1969 (NEPA) (42 U.S. Code [USC] §§4331 et seq.), Council on Environmental Quality (CEQ) *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act* (40 Code of Federal Regulations [CFR] Parts 1500-1508), U.S. Air Force (USAF) Environmental Impact Assessment Process (EIAP) regulations codified at 32 CFR Part 989, and

Department of the Air Force Instruction (DAFI) 32-1015, *Integrated Installation Planning*.[1]

1.2 PURPOSE AND NEED

The *purpose* of the proposed Phase 2 Parking Structure is to provide additional parking capacity necessary to meet parking demand at Los Angeles AFB.

The *need* for the proposed Phase 2 Parking Structure is twofold:

- The current parking supply is inadequate, with unreserved parking utilization exceeding 90 percent within each of the 22 parking lots on the base. While existing telework policies – enacted September 2022 for civilian employees – have limited existing parking demand, with a current workforce exceeding 4,500 personnel and only 2,212 total parking spaces, addressing the existing parking ratio is a top priority prior to a full return to office scenario (Gannett Fleming 2020).

- The proposed Phase 2 Parking Structure would also facilitate long-term transportation and circulation improvements identified in the *Entry Control Facilities and Comprehensive Traffic Engineering Study* (Gannett Fleming 2020). These improvements – intended to address existing Anti-Terrorism / Force Protection (AT/FP) issues, improve accessibility within the base consistent with the requirements of the Architectural Barriers Act (ABA), and accommodate future traffic conditions – require the removal of existing surface parking spaces, which cannot be achieved without replacement. The *Entry Control Facilities and Comprehensive Traffic Engineering Study* found that the base would require a total of 540 additional parking spaces to replace surface parking lot spaces lost as a result of these improvements (Gannett Fleming 2020).

[1] USAF EIAP regulations, codified at 32 CFR Part 989, and DAFI 32-1015 were adhered to during preparation of this EA as the Proposed Action would occur at a USAF facility. USSF has not yet established regulations and instructions for the preparation of NEPA-compliant documentation.

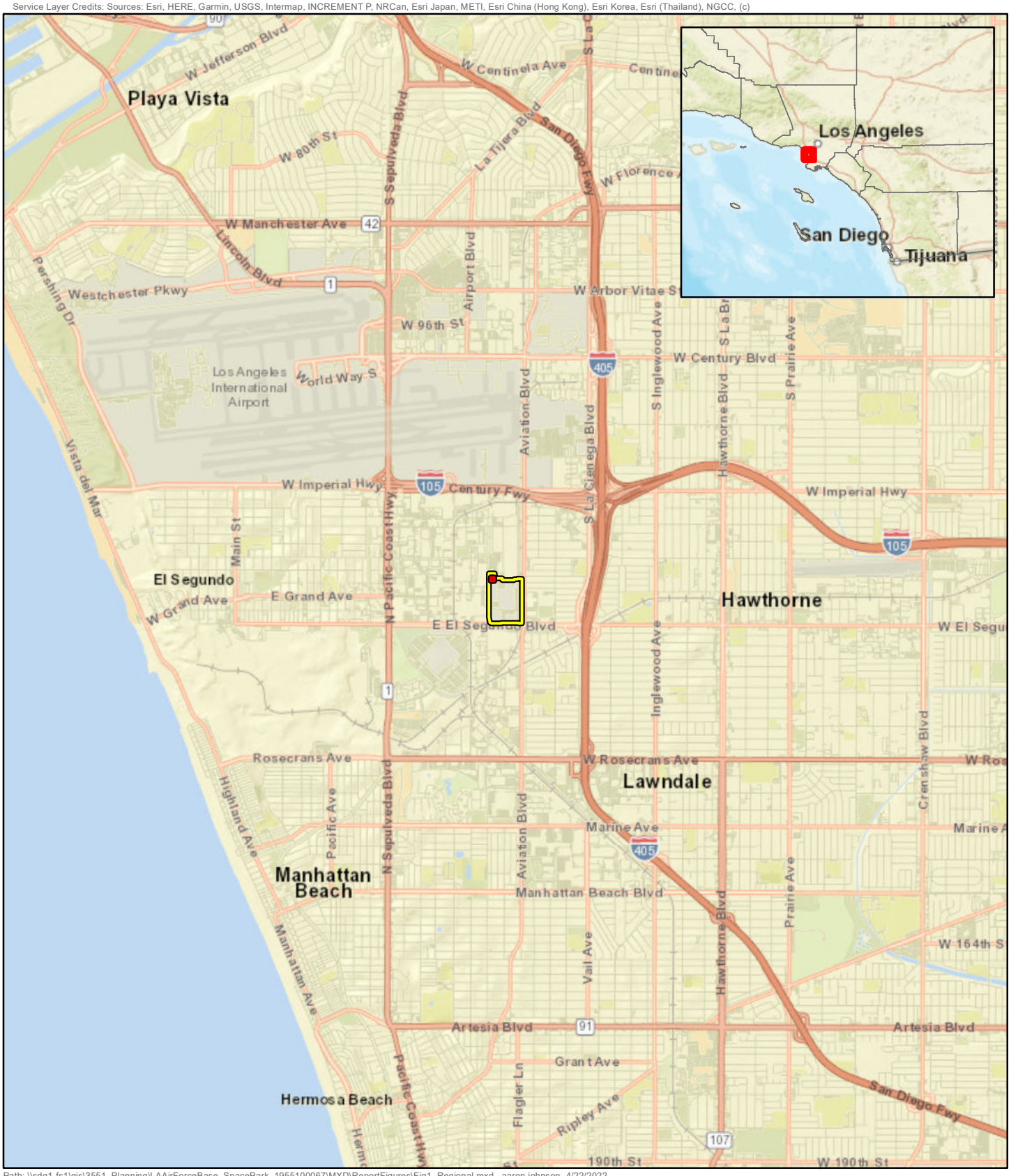


FIGURE 1-1
Regional Location
Environmental Assessment
Los Angeles Air Force Base

1.3 INTERAGENCY/INTERGOVERNMENTAL COORDINATION AND CONSULTATION

1.3.1 Interagency Coordination and Consultation

Per the requirements of the Intergovernmental Cooperation Act of 1968 (42 USC §4231[a]) and Executive Order (EO) 12372, *Intergovernmental Review of Federal Programs*, federal, state, and local agencies with jurisdiction that could be affected by the Proposed Action were notified during the development of this EA (see Appendix A).

1.3.2 Government-to-Government Consultation

Section 106 of the National Historic Preservation Act of 1966 (NHPA) and its implementing regulations (36 CFR Part 800) require federal agencies to consult with federally recognized Native American tribal governments whose interests might be directly and substantially affected by activities on federally administered lands. Consistent with Department of Defense (DoD) Instruction (DoDI) 4710.02, *Interactions with Federally-Recognized Tribes*, and Department of the DAFI 90-2002, *Interaction with Federally-Recognized Tribes*, Native American tribes that are historically affiliated with lands in the vicinity of the base have been invited to consult on all proposed undertakings that could affect properties of cultural, historical, or religious significance to the tribes (see Appendix B). The Native American consultation process is distinct from the interagency coordination process and requires separate notification of all relevant Native American tribes. The timelines for Native American consultation are also distinct from those of other agency consultation.

1.3.3 Other Agency Consultation

Per the requirements of Section 7 of the Federal Endangered Species Act (ESA) and implementing regulations (50 CFR Part 402), a finding that no federally listed species occur within the proejct area and a request for concurrence has been submitted to the U.S. Fish and Wildlife Service (USFWS). Similarly, per the requirements of Section 106 of the NHPA and implementing regulations (36 CFR Part 800), a finding that no historic resources occur within the project area and a request for concurrence has been submitted to the California State Historic Preservation Office (SHPO) (see Appendix A).

1.4 PUBLIC AND AGENCY REVIEW

NEPA, 40 CFR Parts 1500-1508, 32 CFR Part 989, and DAFI 32-1015 require public review of the EA before approval of a Finding of No Significant Impact (FONSI) and implementation of the Proposed Action. Additionally, a Notice of Availability (NOA) for public review of the Draft EA was published and the Draft EA has been made available for public review at: https://www.losangeles.spaceforce.mil/. All substantive public and agency comments received during the 30-day public review period for the Draft EA will be considered and incorporated into the Final EA.

1.5 DECISION TO BE MADE

The EA evaluates whether the Proposed Action or its alternatives would result in significant impacts on the human and/or natural environment. If potentially significant impacts are identified, mitigation measures would be implemented to reduce impacts to below the level of significance. If mitigation measures are not feasible or are otherwise not sufficient to reduce impacts to below the level of significance, the U.S. Department of the Air Force would undertake the preparation of an Environmental Impact Statement (EIS) or abandon the Proposed Action and its alternatives.

1.6 SCOPE OF THE ENVIRONMENTAL ASSESSMENT

Consistent with CEQ regulations, the scope of analysis presented in this EA is defined by the potential range of environmental impacts that would result from implementation of the Proposed Action or its alternatives. This EA evaluates potential environmental impacts to the following resources that would have the potential to be affected by implementation of the Proposed Action:

- Air Quality;
- Transportation and Circulation;
- Water Resources; and
- Visual Resources.

Each of these resources has the potential to be affected by construction-related activities – including criteria air pollutant emissions from heavy construction

equipment, construction-related vehicle traffic, and stormwater runoff. Additionally, each of these resources has the potential to be affected by operation of the proposed Phase 2 Parking Structure – including changes in vehicle circulation patterns on the base as well as additional bulk, mass, and scale added to the existing parking structure.

Other resources that have been considered but dismissed are provided, along with a rationale for dismissal, in Section 3.2, *Scope of the Environmental Assessment*.

SECTION 2
PROPOSED ACTION AND ALTERNATIVES

2.1 PROPOSED ACTION

This EA addresses potential construction-related and operational impacts associated with the proposed Phase 2 Parking Structure (Proposed Action) – including the expansion of the existing parking structure, utility tie-ins, minor changes to pedestrian and vehicle circulation, and other associated landscape and hardscape improvements.

The proposed Phase 2 Parking Structure would expand the existing parking structure originally constructed in 2011. The expanded footprint would occupy an approximately 18,500-sf area within the existing surface parking lot to the south providing a net increase of approximately 165 parking spaces.

The existing parking structure, which is located in the northwest corner of Los Angeles AFB, was previously analyzed in the *EA for the Los Angeles Air Force Base Parking Structure* (USAF 2007). That EA, which was prepared for the first phase of parking development, considered four alternative locations, with parking structures ranging in size/height and providing between 1,168 and 1,461 parking spaces. Ultimately, the existing parking structure was constructed in 2011 and occupies a footprint of approximately 30,000 square feet (sf), rises to a height of 6 stories, and provides 335 parking spaces. This is well within the maximum footprint (79,386 sf), height (7 stories), and parking spaces (1,361 spaces) analyzed for this location in 2007 and allows space for future expansion of the parking structure, as necessary. In fact, the ultimate design of the existing parking structure included removeable upper spandrel panels[2] along the southern wall of the parking structure to facilitate future expansion.

[2] Spandrel panels are factory produced prefabricated panels used as dividing walls.

The proposed Phase 2 Parking Structure would expand the existing 6-story parking structure to occupy an additional 18,500-sf area of the existing surface parking lot to the south (Parking Lot No. 16) (see Figure 2-1). The expansion of the existing parking structure would displace approximately 41 surface parking spaces but would provide an additional 206 parking spaces within the parking structure, for a net increase of approximately 165 parking spaces.

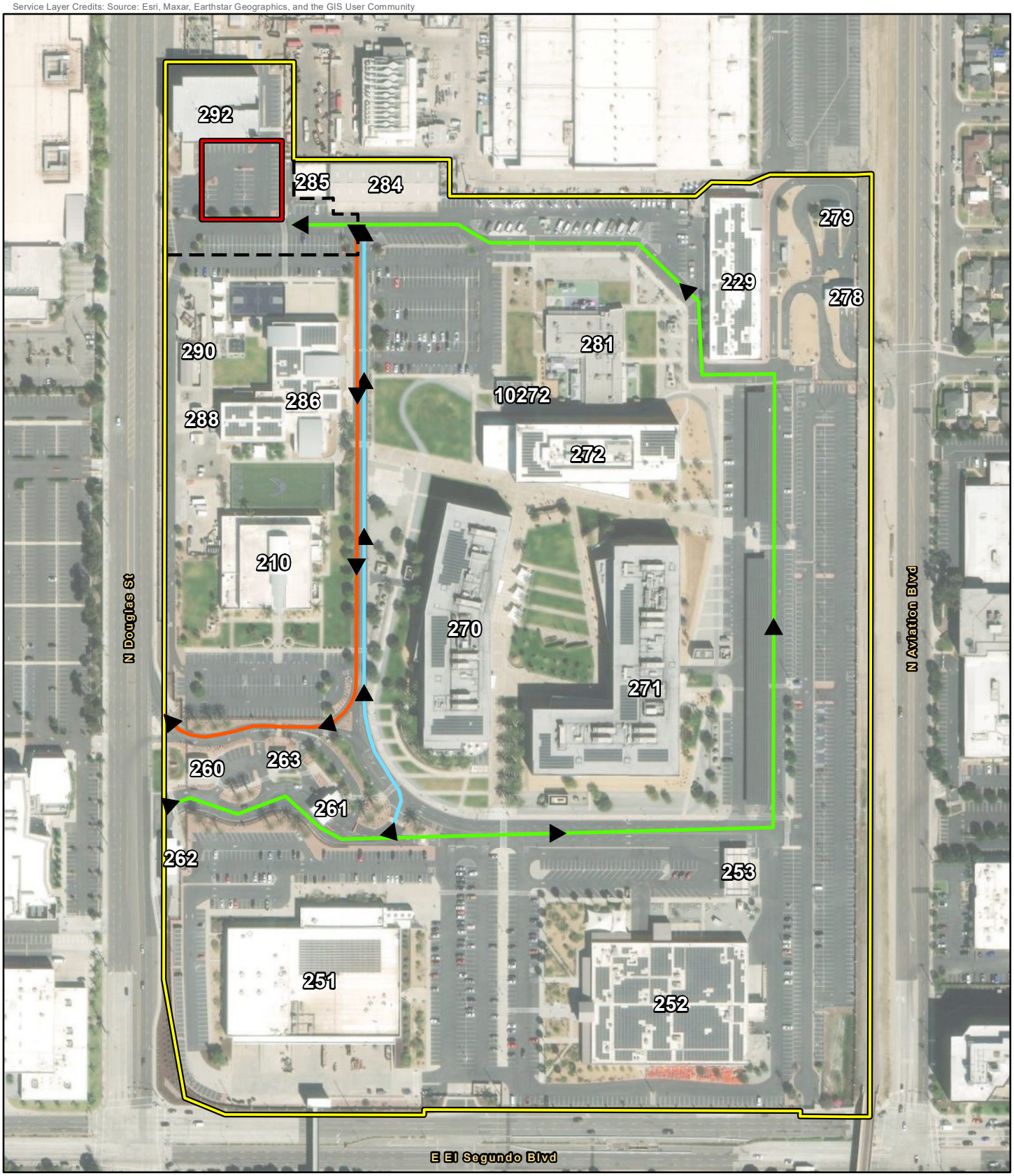
Together, the proposed Phase 2 addition to the existing parking structure would form a single, 6-story parking structure occupying a footprint of 60,000-sf. The existing parking lot entrance and exit would remain the same and the expanded area would be tied into the existing utility infrastructure. Following the completion of the proposed Phase 2 Parking Structure, a total of 500 parking spaces (including ABA-accessible spaces) would be provided.

It is anticipated that construction would occur over an 18-month schedule and would involve the activities described below.

2.1.1 Site Clearing and Grading

Construction activities would begin with demolition and minor grading within a footprint of 0.5 acre or less, immediately adjacent to the existing parking structure. No inhabitable facilities or structures would be demolished to facilitate the expansion of the parking structure; however, existing planters and light poles within the proposed parking structure footprint would be removed.

Up to five existing planters and four existing light poles within the proposed parking structure footprint would be removed during site clearing and grading.



Path: \\sdg1-fs1\gis\3551_Planning\LAAirForceBase_SpacePark_2255100005\MXD\ReportFigures\Fig2-1_ProjectSite.mxd, aaron.johnson 2/16/2023

Construction Fencing
Primary Truck Route
Alternate Route (Smaller Vehicles)
Exit Route
Project Site
Base Boundary

1 inch = 250 feet
0 125 250 Feet

wood.

FIGURE 2-1

Project Site
Environmental Assessment
Los Angeles Air Force Base

2.1.2 Disposal of Demolition Debris

Recyclable materials such as concrete, asphalt, and metal products would be generated as a result of demolition and construction activities. It is estimated that up to 500 cubic yards (cy) tons of asphalt and concrete could be transported off-site for recycling or disposal. Assuming a standard dump truck capacity of between 10 and 16 cy, demolition activities would result in approximately 50 round trips from the base to a recycle/disposal facility in the greater Los Angeles area.

2.1.3 Utility Impacts / Relocation

Utility lines – including water, sewer, storm drain, electrical, and gas – were relocated as necessary during construction of the existing parking structure. This original relocation effort was designed and completed with the understanding that any future expansion of the parking structure would require connections to the relocated infrastructure. A utility survey would be conducted to verify the location of all underground utilities in the vicinity of the proposed parking structure footprint. However, apart from trenching for utility conduits necessary to tie the proposed Phase 2 Parking Structure into existing infrastructure, no major utility relocations are included as a part of the Proposed Action.

2.1.4 Construction of the Parking Structure

Construction would begin with the reinforcement of load-bearing soils to limit the potential for building settling and to meet the structural requirements of the parking structure (e.g., pursuant to Unified Facilities Criteria [UFC] 3-310-04). The proposed Phase 2 Parking Structure would likely be constructed using precast and prestressed concrete, which is available in many shapes and sizes, including structural elements and unreinforced pieces. Concrete members (i.e., slabs, beams, columns, etc.) would be constructed and stored in a factory setting and then transported to the project site. The size of the concrete members would vary but would be limited by the size of trucks and the constraints of the roadway network along the haul route. Once at the project site the concrete members would be lifted into place using a crane and secured. The proposed parking structure could also be cast-in-place, which would involve the use of concrete trucks to transport

concrete, where it would be mixed and poured on-site. Each of these approaches to construction would involve hundreds of truck trips at Los Angeles AFB.

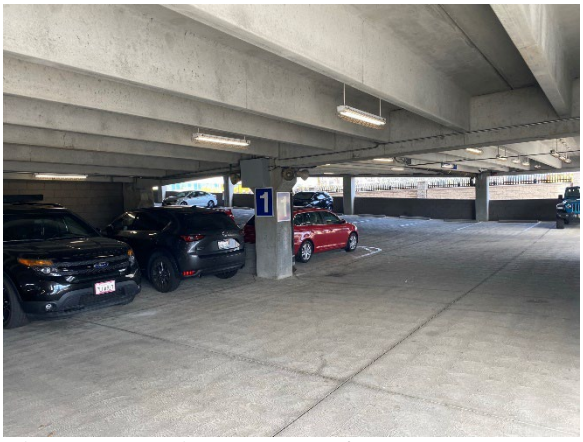
2.1.5 Storm Water Management

The construction site would be managed to prevent contamination of storm water from construction activities in accordance with requirements of the Los Angeles Regional Water Quality Control Board (RWQCB), including the development of a Construction Activity Storm Water Pollution Prevention Plan (SWPPP). Storm water on site would be managed to Tier II storm water standards, in which the watershed potentially adversely impacted by storm water discharges associated with the Proposed Action would be targeted for individual or watershed-specific general permits.

Given the existing development as a surface parking lot, it is anticipated that any earthwork associated with the proposed Phase 2 Parking Structure would be minor. No excavation activities or substantial grading activities necessary to level the project site would be required.

2.1.6 Transportation and Access

The entire construction site, including the proposed parking structure and adjacent construction equipment and materials laydown areas, would be fenced. This would likely include the area to the east and further south of the proposed parking structure footprint (refer to Figure 2-1). Given the one-way circulation system within the existing parking structure, it would not remain operational during the proposed expansion.



The existing parking structure features a one-way circulation system. Therefore, it would not be possible to continue operation of the parking structure during construction activities.

As a result, existing parking capacity at Los Angeles AFB would be further reduced during construction. Prior to initiating construction activities, Los Angeles AFB would attempt to negotiate temporary off-site parking for the 18-month duration of construction activities or would otherwise coordinate schedules (e.g., telework, etc.) to address potential temporary parking shortages.

The existing entry and exit to the parking structure would remain the unchanged following the proposed expansion.

A temporary construction gate would facilitate ingress and egress for construction personnel during demolition and construction activities. All construction personnel would be required to attend safety meetings prior to and during demolition debris disposal and construction material transport activities. Drivers would be briefed on specific haul routes, traffic controls, and site layout. Signs would be placed outside ingress and egress areas to warn of the construction activity. Construction flaggers would also be located at key areas to prevent potential pedestrian-vehicle safety conflicts (e.g., at crosswalks adjacent to the construction site), particularly during periods of heavy haul truck activities.

As previously described, following the completion of construction, the entrance to and exit from the existing parking structure would remain unchanged. Additionally, although approximately 41 surface parking lot spaces and associated drive aisles would be removed from Parking Lot No. 16, no other permanent circulation changes would occur in the immediate vicinity of the proposed parking structure.

2.2 SELECTION STANDARDS FOR PROJECT ALTERNATIVES

This section outlines the alternative selection standards that were used to develop and analyze the range of reasonable alternatives for the proposed Phase 2 Parking Structure at Los Angeles AFB. Alternatives selection standards were used to help

determine feasibility of alternatives, potential project siting locations, and the extent to which alternatives would fulfill the purpose of and need for the Proposed Action, as identified in Section 1.2, *Purpose and Need*.

Potential alternatives to the Proposed Action were evaluated based on three universal selection standards: Planning Constraints; Capacity Opportunities; and Sustainable Development Indicators.

Standard 1: Planning Constraints – Planning constraints include created or natural elements that can pose significant limitations to construction or operation of buildings, roadways, utilities, and other infrastructure or facilities. These constraints, when considered collectively with the base's capacity opportunities, inform the identification of areas for potential development. This standard addresses compatibility with overall base operations and functionality, land use compatibility, and natural and built resources, and largely dictates the location/placement of a proposed facility or other development.

- *Operational* – Los Angeles AFB does not currently have a flying mission or an inventory of aircraft , meaning many typical operational constraints are not applicable at this location. However, Los Angeles AFB is currently considering plans to construct a helipad on-base (see Section 5.1.3, *Cumulative Projects at Los Angeles Air Force Base*). Currently, operational constraints at the base are generally related to transportation and circulation, parking, etc. that can limit future development activity.

- *Natural / Cultural* – Although limited in abundance at Los Angeles AFB, natural and cultural constraints include biological and cultural (i.e., historic or archaeological) resources. These resources provide positive aesthetic, social, cultural, and recreational attributes that contribute to the overall quality of life at the base.

- *Built* – Built constraints are related to the condition, functionality, or effectiveness of infrastructure systems, facilities, and other improvements.

- *Land Use* – Land use compatibility constraints are associated with land use designations (e.g., utilities, industrial, administrative, recreation, open

space, etc.) on the base and ensuring that planning considerations account for compatibility between proposed and existing uses.

Standard 2: Capacity Opportunities – This refers to the capabilities of the base's existing infrastructure to meet existing and future mission requirements. This standard largely drives the scope of feasible development and requires that proposed development supports – or that at a minimum does not compromise: 1) mission operations; 2) mission support; 3) built infrastructure; and 4) quality of life.

Standard 3: Sustainability Development Indicators – This refers to the ability to operate into the future without a decline in either the mission or the natural and built systems that support it, ensuring long-term sustainability of the base. Sustainability is a holistic approach to asset management that seeks to minimize the negative impacts of the USAF's mission and operations on the environment. This standard also influences the scope of development and supports sustainability of the base through consideration of energy, water, wastewater, air quality, facilities/space optimization, encroachment, and natural/cultural resources.

2.3 SCREENING OF ALTERNATIVES

CEQ regulations mandate the consideration of reasonable alternatives to the Proposed Action. Reasonable alternatives are defined as those alternatives that could also meet the purpose of and need for the Proposed Action.

The NEPA process is intended to support flexible, informed decision-making; the analyses provided in this EA and feedback from federal, state, and local agencies as well as other interested members of the public will inform decisions made about whether, when, and how to implement the Proposed Action. Among the alternatives evaluated is a No-Action Alternative, which analyzes the consequences of not providing new parking and establishes a comparative baseline for analysis.

2.4 DETAILED DESCRIPTION OF ALTERNATIVES

2.4.1 No-Action Alternative

Under the No-Action Alternative, the existing parking structure on Los Angeles AFB would not be expanded. The adjacent existing surface parking lot would remain unchanged and would continue to be used for parking, albeit continuing to provide a comparatively limited supply of parking stalls. There would be no changes to existing site landscaping or on-site drainage patterns. Under the No-Action Alternative, if the existing telework policy remains in place, parking utilization would remain at current rates. However, under a return to office scenario, parking demand at Los Angeles AFB would exceed parking capacity. This could force Los Angeles AFB employees to park off-site along adjacent roadways or at other off-site locations further from Los Angeles AFB. This alternative would also limit the ability of Los Angeles AFB to implement long-term future transportation and circulation improvements identified in the *Entry Control Facilities and Comprehensive Traffic Engineering Study* (Gannett Fleming 2020). As previously described, these improvements – intended to address existing AT/FP issues, improve accessibility consistent with the requirements of the ABA, and accommodate future traffic conditions – require the removal of existing surface parking spaces, which cannot be achieved without replacement.

The No-Action Alternative is not considered acceptable, and would result in a loss of man-hours, increased inconvenience, and adverse safety effects during military support missions conducted at Los Angeles AFB. Nevertheless, the No-Action Alternative has been carried forward for further analysis, consistent with CEQ regulations, to provide a baseline against which the impacts of the project can be assessed.

2.5 ALTERNATIVES ELIMINATED FROM FURTHER CONSIDERATION

As previously described, Los Angeles AFB is heavily developed which limits potential siting alternatives for the development of the proposed Phase 2 Parking Structure. Alternative locations for the existing parking structure were considered in the *EA for the Los Angeles Air Force Base Parking Structure* (USAF 2007). Each of these locations are discussed in further detail below in Section 2.5.1, *Alternative*

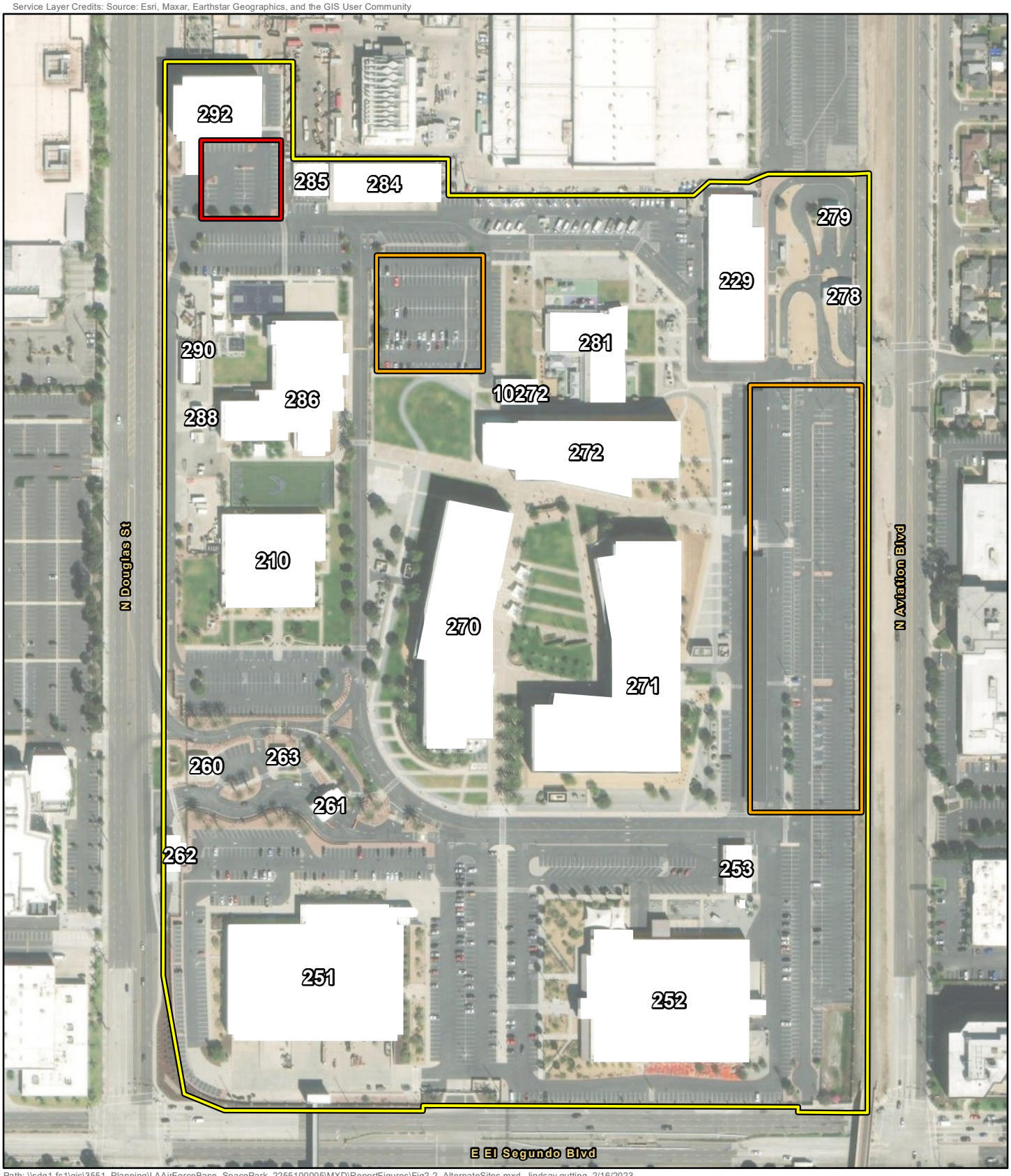
Locations on Los Angeles AFB. Additionally, potential off-base locations are also considered in Section 2.5.2, *Alternative Locations Off-Base*. As described below, alternative locations are either programmed for future development or otherwise would not achieve synergies associated with the proposed expansion of the existing parking structure constructed in 2011.

2.5.1 Alternative Locations on Los Angeles Air Force Base

Alternative Location #1 – West of the Child Development Center. Situated to the southeast of the project site (see Figure 2-2), this alternative location was dismissed because it is immediately adjacent to the childcare and early childhood education center. This land use activity could present potential land use conflicts (e.g., air quality, noise, etc.) during construction and operation of the parking structure. As such, this site would pose substantial planning constraints related to land use and operational compatibility. Further, development of a standalone parking structure would require circulation improvements and reconfiguration (e.g., to facilitate an entry and exit) resulting in additional operational constraints.

Alternative Location #2 – East of Building 271. This alternative location is situated along the eastern boundary of Los Angeles AFB (see Figure 2-2). When the *EA for the Los Angeles Air Force Base Parking Structure* was originally prepared, this location was available for development. However, this location has since been developed with a solar panel arrary that provides renewable energy for the base. Construction of a parking structure at this location would require the dispalcement of the existing solar panels as well as substantial utilities work – including the extension of water, sewer, storm drain, electrical, and gas lines. Additionally, development of a standalone parking structure would require circulation improvements and reconfiguration (e.g., to facilitate an entry and exit) resulting in additional operational constraints.

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



Path: \\sdg1-fs1\gis\3551_Planning\LAAirForceBase_SpacePark_2255100005\MXD\ReportFigures\Fig2-2_AlternateSites.mxd, lindsay.gutting 2/16/2023

1 inch = 250 feet

0 125 250 Feet

wood.

Project Site

Alternative Site Location

Base Boundary

FIGURE 2-2

Alternative Locations Eliminated from Further Consideration
Environmental Assessment
Los Angeles Air Force Base

2.5.2 Alternative Locations Off-Site

Prior to the construction of the existing parking structure in 2011, Los Angeles AFB personnel parked off-site and were shuttled to the base, which presented AT/FP compliance issues. As described in the *EA for the Los Angeles Air Force Base Parking Structure*, the purpose of the proposed parking structure was to provide consolidated on-site parking, thereby remedying these issues (USAF 2007). Therefore, the re-establishement of off-site parking would not meet the purpose and need for the Proposed Action, and AT/FP issues and operational inefficiencies would remain or be reintroduced. Additionally, while surface parking lots and parking structures are located in the surrouding vicinity, they are currently heavily utilized by the existing land owners and tenants (e.g., Raytheon), which would limit the ability of Los Angeles AFB to negotiate aquisition or lease of the land for off-site parking.

Table 2-1. Alternatives and Screening Standards Summary

Alternative		Purpose / Need	Planning				Capacity	Sustainability
			Operations	Natural / Cultural	Built	Land Use		
Proposed Action	Expansion of the existing parking structure over Parking Lot No. 16	Yes / Yes	Yes	Yes	Yes	Yes	Yes	Yes
1	Construction of a new parking structure west of the Child Development Center	Yes / Yes	Yes	Yes	No	No	Yes	Yes
2	Construction of a new parking structure east of Building 271	Yes / Yes	Yes	Yes	No	No	Yes	Yes
3	Acquisition or lease of land to develop permanent off-site parking	No / No	No	Yes	Yes	No	Yes	Yes
No-Action	No expansion of the existing parking structure or development of additional parking on Los Angeles AFB.	No / No	No	Yes	Yes	No (AT/FP)	No	Yes

Notes: Yes = Alternative meets the subject screening criteria; No = Alternative does not meet the subject screening criteria

SECTION 3
AFFECTED ENVIRONMENT

3.1 INTRODUCTION

This section describes relevant existing environmental conditions for resources potentially affected by the Proposed Action or its alternatives (see Section 4, *Environmental Consequences*). In the case of the Proposed Action at Los Angeles AFB, the affected environment description is limited locally to the base and regionally to Los Angeles County, California.

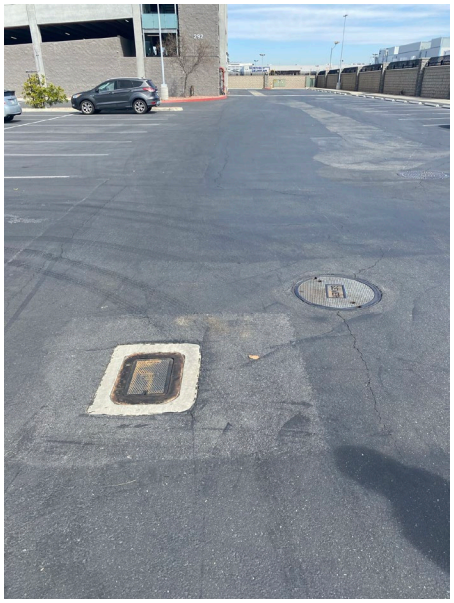
3.2 SCOPE OF THE ENVIRONMENTAL ASSESSMENT

Consistent with CEQ regulations, the scope of analysis present in this EA is defined by the potential range of environmental impacts that would result from implementation of the Proposed Action or its alternatives. CEQ regulations (40 CFR §1501.3[b][1]) state that an agency shall "*in considering the potentially affected environment, agencies should consider, as appropriate to the specific action, the affected area (national, regional, or local) and its resources, […]. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend only upon the effects in the local area.*"

Based on the outcomes of interagency coordination, Native American consultation, and other agency consultation, and consideration of the existing built environment and which characterizes the Project site, it was determined that there would be no potential for environmental impacts on the following resources:

- Land Use;
- Biological Resources;
- Noise;
- Geology and Soils;
- Cultural Resources;
- Hazardous Materials and Wastes;
- Safety;
- Socioeconomics; and
- Environmental Justice / Protection of Children.

Land Use. Land use decisions at Los Angeles AFB are guided by the base's Installation Development Plan (IDP). As documented in the Air Force's DD Form 1391, the Proposed Action is compliant with the IDP. The proposed Phase 2 Parking Structure has been sited such that construction and operational activities would be consistent with designated land uses and compatible with neighboring uses. The project site would continue to be used for parking; however, the proposed improvements would expand the site's capacity to meet the existing parking demand as compared to current facility capabilities. Utility lines currently serving the project site would be extended as needed but the Proposed Action would not require substantial improvements or surpass capacity constraints. No substantially new operational activities would be introduced that could result in potential changes to existing land uses elsewhere on base. Other than the beneficial impacts of expanding parking availability for Los Angeles AFB personnel via the establishment of the proposed Phase 2 Parking Structures, there would be no impacts to or incompatibilities with existing land uses at Los Angeles AFB.



The project site is currently serviced with existing utility lines including water, gas, and electricity. Utility lines would be expanded as needed to accommodate new development and would not pose planning constraints with existing land use.

Biological Resources. The natural environment at and in the vicinity of Los Angeles AFB is highly urbanized. As described in Section 1.1, *Introduction*, the base is predominantly developed, with small, landscaped areas (i.e., lawns and planter beds) located at the entrance and around buildings and surface parking lots. According to the USFWS Information for Planning and Consultation (IPaC) database, five federally-listed sensitive species – including the California least tern (*Sterna antillarum browni*), least Bell's vireo (*Vireo bellii pusillus*), coastal California gnatcatcher (*Polioptila californica californica*), western snowy plover (*Charadrius nivosus nivosus*), and monarch butterfly (*Danaus plexippus*) – have potential to occur in the vicinity of Los Angeles AFB. However, the base does not support any undisturbed natural areas or provide any potential habitat that would support

federally or state-listed sensitive species. There are 10 migratory bird species that have the potential to occur in the vicinity of Los Angeles AFB. The existing landscape trees on the base could support these nesting birds. If construction activities occur during the nesting bird season (1 February through 31 August), a pre-construction nesting bird survey would be conducted for the landscaped trees in the surface parking lot and the immediate vicinity. If active nests are identified they would be avoided until the nest has fledged. Therefore, the proposed construction of the proposed Phase 2 Parking Structure would not have adverse impacts on sensitive biological resources.

Noise. Construction and operation of the proposed Phase 2 Parking Structure at Los Angeles AFB would not result in a substantial short- or long-term changes in ambient noise levels at the base, which are dominated by surrounding industrial noise, traffic-related noise, and other off-base noise sources including aircraft noise associated with LAX.

Construction-related noise would be noticeable in the immediate vicinity of construction activities (e.g., surface demolition, grading, construction of concrete foundations, etc.). Table 3-1 shows typical noise levels for several types of construction equipment that may be used during construction.

Table 3-1. Typical Construction Equipment Noise Levels

Emissions Type	Approximate Noise Levels at 50 Feet from Source
Backhoe	85 dB
Front-end Loader	85 dB
Concrete Truck/Mixer	85 dB
Water Truck	81 dB
Tractor Grader	80 dB
Flat-bed Truck	84 dB

Source: U.S. Environmental Protection Agency (USEPA) 1971

Noise levels would fluctuate depending on construction phase, equipment type and duration of use, distance between the noise source and receptor, and the presence (or absence) of noise attenuation barriers. However, these activities are

common to an industrial area and would generally be imperceptible to sensitive receptors in the area including:

- On-base Child Development Center, located over 600 feet to the southwest of the Project site;
- Single-family residences, located approximately 0.25 miles to the west of the Project site; and
- Da Vinci Connect Charter School, located more than 0.30 miles to the southwest of the Project site.

Construction-related activities would only occur during the hours of 7:00 a.m. to 5:00 p.m. Monday through Friday when receptors typically expect similar activities to occur. To further minimize potential noise impacts to nearby receptors, construction activities would comply with environmental protection measures associated with vehicle mufflers and engine idling procedures.

Long-term noise sources associated with operation of the expanded parking structure would be similar to those that exist under existing conditions. Table 3-2 shows typical noise levels associated with parking structures.

Table 3-2. Maximum Noise Levels Generated by Parking Lots

Emissions Type	Maximum Noise Levels at 50 Feet from Source
Backhoe	85 dB
Front-end Loader	85 dB
Concrete Truck/Mixer	85 dB
Water Truck	81 dB
Tractor Grader	80 dB
Flat-bed Truck	84 dB

Source: Harris 1979

Any minor increases in noise would not be expected to result in substantial noise impacts to receptors. The Proposed Action would be compatible with other land uses in the vicinity. In addition, use of the parking structure would continue to occur primarily during the morning and evening work hours (e.g., 9:00 a.m. and 5:00 p.m.), when receptors expect similar activities to occur. Further, the Proposed

Action would not conflict with the local noise standards or ordinances. As a result, the Proposed Action would not cause direct, indirect, or cumulatively significant noise impacts.

Geology and Soils. Subsurface soils at Los Angeles AFB include silty loam from the ground surface to approximately 1 foot below ground surface (ft bgs), clayey loam from a depth of 1 to 2 ft bgs, and clay from approximately 2 to ft bgs. This material is mapped by the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) as *Urban land-Thums-Windfet*, 0 to 2 percent slopes (NRCS 2022). Fill material has been found overlying the natural soil at 0 to three feet. This material consists of dark brown to dark gray clayey silt (USAF 2007).

Los Angeles AFB has a relatively flat topography, with surface elevations ranging from 92 feet above mean sea level (MSL) along the southern edge of the property to 98 feet MSL along the north edge (USAF 2007).

As previously described, given the existing development of the project site as a surface parking lot, it is anticipated that any earthwork associated with the proposed Phase 2 Parking Structure would be minor. No excavation activities or substantial grading activities necessary to level the project site would be required. The County of Los Angeles Public Works Department recommends the following minimum depths of cover for utilities:

- 24 inches for service pipelines;
- 30 inches for all pipelines transporting nonhazardous substances;
- 30 inches for electrical facilities; and
- 42 inches for pipelines transporting hazardous substances.

Minor site preparation activities would not result in substantial soil erosion or other potential impacts to underlying soils. The construction site would be managed to prevent contamination of storm water from construction activities in accordance with requirements of the Los Angeles RWQCB, including the development of a Construction Activity SWPPP.

Construction of the proposed Phase 2 Parking Structure would also not create or exacerbate a geological hazard to human health or the environment.

As described in the *EA for the Los Angeles Air Force Base Parking Structure* (USAF 2007), the potential for ground-shaking impacts on the project site are considered to be moderate due to the proximity of known active faults within the region. The proposed expansion of the parking structure may expose the structure or people using the structure to impacts associated with ground shaking. However, the design of the parking structure would comply with UFC criteria and all appropriate federal, state, and local guidelines, and would reduce impacts due to ground shaking to a less than significant level.

Additionally, as described in the *EA for the Los Angeles Air Force Base Parking Structure* (USAF 2007), the potential for liquefaction at the project site is low. Los Angeles AFB is located several miles inland and south of the nearest seismic hazard area. Therefore, the Proposed Action would not result in or expose people to significant liquefaction related impacts including seismic settlement and differential compaction.

Cultural Resources. The Area of Potential Effect (APE) associated with the Proposed Action is limited to the surface parking lot and the off-base areas immediately adjacent to the east and west with views of the Project site.

Soils at Los Angeles AFB have been repeatedly disturbed during development of the base in the 1950s and during more recent re-development of the base (refer to the *Geology and Soils* discussion). The 2018 Integrated Cultural Resources Management Plan for Los Angeles AFB does not identify any archaeological resources on the base and states that the potential to uncover such resources is low (USAF 2018b). No previously undiscovered cultural resources were identified during the construction of the surface parking lot or the existing parking structure. In the unlikely event that archaeological or traditional resources are encountered during site preparation or construction, all activities would be temporarily stopped until the resource(s) could be properly assessed and subsequent recommendations are provided by a qualified archeologist or other cultural resource specialist, as appropriate. In the event that human remains are discovered, the procedures and requirements set forth in 36 CFR §800.13, California Health and Safety Code §7050.5, and Public Resources Code §5097.98, which require notification of the County Coroner and the Native American Heritage Commission, would be implemented, as required.

There is one historic-age building (i.e., 50 years or older) located on the base; however, an evaluation of the structure determined it did not meet criteria necessary for eligibility to the National Register of Historic Places (NRHP) (USAF 2018b). No other structures of historical importance occur within the APE.

Hazardous Materials and Wastes. Construction of the proposed Phase 2 Parking Structure would not impact any active Environmental Restoration Program sites. No known areas of potential contamination exist at Los Angeles AFB (State Water Resources Control Board [SWRCB] 2022). Construction activities associated with the Proposed Action would involve localized, short-term use of petroleum, oil, and lubricants (POLs) associated with heavy construction equipment. However, there would be no long-term change to the inventory of POLs or plans and policies in place which establish procedures for the safe handling, storage, and transport of such materials. All activities at Los Angeles AFB, including the Proposed Action, are required to comply with the installation's existing Hazardous Waste Management Plan (2021). A Spill Prevention Notification and Cleanup Plan would be prepared prior to initiation of construction activities. Any fuel or hazardous waste leaks, spills, or releases would be immediately reported to Los Angeles AFB and appropriate local government agencies.

Expansion of parking facilities on-site would increase the number of vehicles that could be accommodated on the base at any given time. However, the base is fully developed and the project site currently supports surface parking. Therefore, operation of the proposed Phase 2 Parking Structure would not introduce substantial volumes of POLs compared to the existing setting.

Safety. During construction, standard health and safety practices would be conducted in accordance with Occupational Health and Safety Administration policies and procedures. Construction of proposed Phase 2 Parking Structure would follow all requirements of the UFC as well as the California Building Code. Additionally, as described in the *Land Use* discussion above, the proposed Phase 2 Parking Structure would be compliant with the IDP, which takes into account AT/FP criteria. Therefore, the Proposed Action would be consistent with *UFC Series 4-000, DoD Anti-Terrorism/Force Protection Standards & Security Engineering*.

Socioeconomics. Construction of the proposed Phase 2 Parking Structure would provide limited short-term socioeconomic benefits to the local economy, including temporary employment and materials purchases. However, such short-term beneficial impacts would be negligible on a regional scale and the proposed Phase 2 Parking Structure would result in no long-term changes in employment levels or economic activity at or in the vicinity of Los Angeles AFB.

Environmental Justice / Protection of Children. The proposed Phase 2 Parking Structure would not result in any adverse environmental impacts to on- or off-base communities. Therefore, no populations (i.e., minority, low-income, or otherwise) would be disproportionately or adversely impacted and no adverse impacts with regard to environmental justice would result. The area proposed for development would not be accessible to the public and standard construction site safety precautions (e.g., fencing and other security measures) would reduce potential risks to minimal levels. The proposed Phase 2 Parking Structure would not result in increased exposure of children to environmental health risks or safety risks.

3.3 WATER RESOURCES

3.3.1 Definition of Resource

Water resources analyzed in this EA include surface water and groundwater. Natural surface water resources include lakes, rivers, and streams that collect and convey precipitation and surface water runoff. Human-created water collection systems include ditches, canals, and stormwater systems. Groundwater can be defined as subsurface water resources that are interlaid in layers of rock and soil and recharged by percolation. Other issues relevant to water resources include watershed areas affected by existing and potential hazards related to floodplains.

Water resources are vulnerable to contamination and degradation. For this reason, the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 (CWA), was enacted to protect these resources. The Water Pollution Prevention and Control Act (33 USC Chapter 26), also known as the CWA Amendments, set the federal policy objective to "*restore and maintain the chemical, physical, and biological integrity of the Nation's waters.*" The CWA provides the

authority to establish water quality standards, control discharges into surface water, develop waste treatment management plans and practices, and issue permits for discharges. A National Pollutant Discharge Elimination System (NPDES) permit – pursuant to Section 402 of the CWA – is required for discharges into navigable waters. The USEPA oversees the issuance of NPDES permits at federal facilities as well as water quality regulations for surface waters within states, pursuant to Section 401 of the CWA.

Surface waters are defined by USEPA as Waters of the U.S. and are primarily lakes, rivers, estuaries, coastal water, and wetlands. Jurisdictional waters, including surface water resources as defined in 33 CFR §328.3, are regulated by the U.S. Army Corps of Engineers pursuant to Sections 401 and 404 of the CWA and Section 10 of the Rivers and Harbors Act of 1899.

The State of California, under delegated authority and oversight by USEPA, establishes policies and standards relative to managing the quality of Waters of the State. Water quality is managed by the SWRCB, which is responsible for all aspects of planning, permitting, and monitoring to protect the state's water resources.

3.3.2 Existing Conditions

Surface Water

As described in the *Geology and Soils* discussion (refer to Section 3.2, *Scope of the Environmental Assessment*), Los Angeles AFB has relatively flat topography. The base does not include any permanent surface water resources such as lakes, rivers, or streams. According to the USFWS National Wetland Inventory (NWI), no wetlands occur on the base (USFWS 2022). Further, the majority of Los Angeles AFB is covered by impermeable surfaces, including existing building footprints, asphalt surface parking lots, and concrete hardscape (e.g., sidewalks). Due to the small amount of exposed soils or permeable surfaces, there is very little infiltration. Rather, the majority of precipitation leaves the installation via evaporation or in the form of stormwater runoff. The stormwater runoff is collected in open catch basins and routed through an underground system of 4-inch to 36-inch vitrified clay, cast iron, or reinforced concrete pipes to the Los

Angeles County Flood Control District storm drain system (EarthTech 2005; USAF 2007).

The project site is located within the Los Angeles AFB's Western Drainage Basin, which covers approximately nine acres and drains west into several catch basins and connection to the Los Angeles County storm drain in Douglas Street (EarthTech 2005). The Western Drainage Basin has two direct connections to the Los Angeles County Flood Control District stormwater lines, one on Douglas Street and one just east of the intersection of El Segundo Boulevard and Douglas Street. Additional surface flow from the western area enters a series of catch basins along the eastern side of Douglas Street, which drain into the Douglas Street stormwater line (EarthTech 2005).

Floodplains and Localized Flooding

Los Angeles AFB is not located within any designated floodplain, and the entire installation is designated as an Area of Minimal Flood Hazard – Zone X (Federal Emergency Management Agency [FEMA] 2008). However, a number of localized surface flooding areas have been identified within the Central Drainage Basin during large precipitation events (e.g., October and November 2004) (EarthTech 2005). This localized flooding was caused by storm drain blockages that have since been addressed or low points in the existing pavement that created small, temporary areas of standing water (EarthTech 2005). A small (less than 1,600 sf) flooding area located at the east end of the surface parking lot was attributed to a low point in the asphalt parking lot with no nearby storm drain inlets (EarthTech 2005).

Groundwater

Los Angeles AFB is located within the West Coast Hydrologic Subarea in the Coastal Plain of Los Angeles County Hydrologic Subunit. The water-bearing deposits of the subbasin include the unconsolidated and semi-consolidated marine and alluvial sediments of Holocene, Pleistocene, and Pliocene ages (California Department of Water Resources [DWR] 2004). Discharge of groundwater from the subbasin occurs primarily by pumping extractions. The storage capacity of the primary water producing aquifer, the Silverado aquifer, is estimated to be

6,500,000-acre feet (DWR 2004). Los Angeles AFB Environmental Staff indicated the depth to the water table at Los Angeles AFB is approximately 90 ft bgs (USAF 2003, 2007).

3.4 VISUAL RESOURCES

3.4.1 Definition of Resource

Visual resources are defined as the natural and manufactured features that comprise the aesthetic qualities of an area. These features form the overall impressions that an observer receives of an area or its landscape character. Landforms, water surfaces, vegetation, and manufactured features are considered characteristic of an area if they are inherent to the structure and function of a landscape.

High visual sensitivity exists in areas where views are rare, unique, or in other ways special, such as in a remote pristine environment. Highly sensitive views would include landscapes that have landforms, vegetative patterns, water bodies, or rock formations of unusual or outstanding quality.

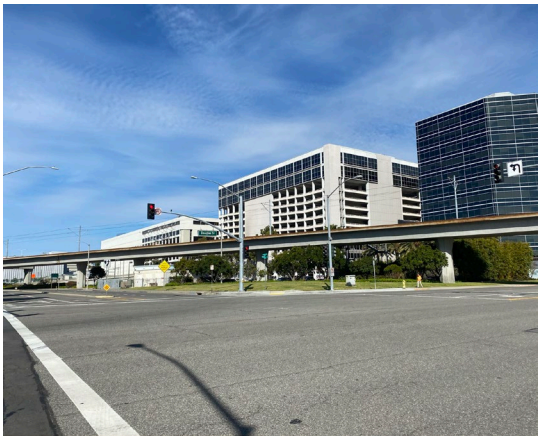
Medium visual sensitivity is characteristic of areas where human influence and modern civilization are evident, and the presence of motorized vehicles is commonplace. These landscapes generally have features containing varieties in form, line, color, and texture, but tend to be more common than high visual sensitivity areas.

Low visual sensitivity areas tend to have minimal landscape features with little change in form, line, color, and texture.

3.4.2 Existing Conditions

The Los Angeles AFB is currently developed with a variety of office, warehouses, and ancillary facilities constructed between 1942 and the present including three central multi-story office buildings, the existing multi-story parking structure, and other low-rise support buildings including additional office and administrative space as well as a medical clinic, base exchange, childcare facility, and recreation center. The general character of the installation is similar to other surrounding

corporate office parks with glass-fronted office buildings separated by greenspaces and walking paths. As described in the *Biological Resources* discussion (refer to Section 3.2, *Scope of the Environmental Analysis*), landscaping is limited to the entrance and around buildings and surface parking lots. The perimeter of the base is fenced with a combination of chain-link fencing and concrete block/wrought iron fencing, approximately 6 feet in height. The base can be considered as having low to medium visual sensitivity.



Development surrounding Los Angeles AFB is characterized by commercial/industrial office parks including aerospace businesses such as Northrop Grumman and The Aerospace Corporation.

The area surrounding Los Angeles AFB is fully developed with industrial businesses to the north, single-family residences to the northeast, and commercial and research and development businesses to the east, south, and west. Structures located immediately adjacent to the perimeter of the base range from single-story to multi-story glass and steel commercial office buildings. The Northrop Grumman facility located immediately north of the base is a large industrial plant containing utilitarian industrial buildings approximately 50 feet in height. The visual characteristics of these business and industrial buildings generally define the industrial visual character of the area surrounding the Los Angeles AFB.

3.5 TRANSPORTATION AND CIRCULATION

3.5.1 Definition of Resource

Transportation and circulation refers to the movement of vehicles throughout a roadway and highway network. Primary roads include interstates, highways, and major arterials designed to move traffic but not necessarily to provide access to all adjacent areas. Secondary roads include minor arterials and collectors that provide access to residential, commercial, and industrial areas. The capacity of

transportation networks and quality of circulation may be described in average daily traffic (ADT) volumes and/or Level of Service (LOS).

3.5.2 Existing Conditions

3.5.2.1 Regional and Local Circulation

Regional access to the base is provided by the San Diego Freeway (I-405) and the Glenn Anderson Highway (I-105). Los Angeles AFB can be accessed via three major arterial streets: El Segundo Boulevard, a major arterial that can be accessed via the I-405 and I-105, as well as Aviation Boulevard and Douglas Street, minor arterials that provide local access.

El Segundo Boulevard is an east-west major arterial that forms the southern boundary of Los Angeles AFB. Within the vicinity of the base El Segundo Boulevard is approximately 90 feet in width, with three to four travel lanes in each direction and left- and/or right-turn channelization at major intersections. Based on the most recent traffic counts available, El Segundo Boulevard carries approximately 28,000 ADT at its intersection with Douglas Street. During the AM peak hours on El Segundo Boulevard, approximately 716 vehicles per hour travel eastbound and 1,911 vehicles per hour travel westbound in the immediate vicinity of Los Angeles AFB. During the PM peak hours, approximately 2,328 vehicles per hour travel eastbound and 784 vehicles per hour travel westbound in the immediate vicinity of Los Angeles AFB (Kimley Horne 2019).

Aviation Boulevard is a north-south major arterial that forms the eastern boundary of Los Angeles AFB. Within the vicinity of the base Aviation Boulevard is 72 feet in width and provides two lanes of traffic in both directions. Left-turn channelization is also provided on Aviation Boulevard at most intersections. Based on the most recent traffic counts available, Aviation Boulevard carries more than 23,000 ADT at its intersection with El Segundo Boulevard a. During the AM peak hours on Aviation Boulevard, approximately 1,220 vehicles per hour travel northbound and 1,261 vehicles per hour travel southbound in the immediate vicinity of Los Angeles AFB. During the PM peak hours, approximately 1,932 vehicles per hour travel southbound and approximately 820 vehicles per hour

travel northbound in the immediate vicinity of Los Angeles AFB (Kimley Horne 2019).

Douglas Street is a secondary arterial that forms the western boundary of Los Angeles AFB. Within the vicinity of the base, Douglas Street is 102 feet in width with three travel lanes in each direction and left- and/or right-turn channelization at major intersections. Based on the most recent traffic counts available, Douglas Street carries over 18,000 ADT at its intersection with El Segundo Boulevard. During the AM peak hours on Douglas Street, approximately 603 vehicles per hour travel northbound in the vicinity of Los Angeles AFB. During the PM peak hours, approximately 1,569 vehicles travel northbound in vicinity of Los Angeles AFB (Kimley Horne 2019).

Mass transit to the region is provided by public transportation, rail service, airports, and ports. The Metro C Line, formerly known as the Green Line, light rail route connects Norwalk to Redondo Beach and passes through El Segundo with the El Segundo Station within 0.5 mile (i.e., walking distance) from the entrance to Los Angeles AFB.

3.5.2.2 Transportation and Circulation at Los Angeles AFB

Principal access to the base is via the entrance off Douglas Street with a secondary, secured entrance in northeast portion of the base, off Aviation Boulevard. Following the consolidation of operations and facilities at Los Angeles AFB and prior to the construction of the Phase 1 Parking Structure in 2011 a new Entry Control Point (ECP) was constructed at Los Angeles AFB in 2005. Interior circulation within Los Angeles AFB is provided by South Orbital Loop, West Orbital Loop, North Orbital Loop, West Orbital Loop.

Parking at Los Angeles AFB includes 2,212 parking spaces dispersed across the existing surface lots around the perimeter of the base and a multi-story parking structure in the northwest corner of the base. As previously described, the existing parking structure was completed in 2011 as the first of three phases, with Phase 2 being the subject of this EA. As described in Section 1.2, *Purpose and Need*, the current parking supply is inadequate, with unreserved parking utilization exceeding 90 percent within each of the 22 parking lots on Los Angeles AFB. With

a workforce exceeding 4,500 personnel and only 2,212 total parking spaces, addressing the existing parking ratio is a top priority at Los Angeles AFB.

3.6 AIR QUALITY

3.6.1 Definition of Resource

Air quality in a given location is determined by the concentration of various pollutants and particulates in the atmosphere; conditions are generally expressed in units of parts per million (ppm) or micrograms per cubic meter ($\mu g/m^3$). Air quality is determined by the type and amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and prevailing meteorological conditions. The Clean Air Act (CAA) (42 USC §§7401-7671[q]) requires that emission sources must comply with air quality standards and regulations established by federal, state, and county regulatory agencies. These standards and regulations focus on the maximum allowable ambient pollutant concentrations and the maximum allowable emissions from individual sources.

National Ambient Air Quality Standards (NAAQS) are established by the USEPA for six criteria pollutants, including: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter equal to or less than 10 micrometers in aerodynamic diameter (PM_{10}) and 2.5 micrometers in aerodynamic diameter ($PM_{2.5}$), and lead (Pb). NAAQS represent maximum levels of background pollution considered safe for public health and the environment, with an adequate margin of safety and are shown in Table 3-3.

Table 3-3. National Ambient Air Quality Standards

Pollutant [Final Rule Citation]	Primary/ Secondary	Averaging Time	Federal Standard	Form
Carbon Monoxide	P	8-hour	9 ppm	Not to be exceeded more than once per year
		1-hour	35 ppm	
Lead	P & S	Rolling 3-month average	0.15 $\mu g/m^3$	Not to be exceeded
	P	1-hour	100 ppb	98th percentile of 1-hour daily

Pollutant [Final Rule Citation]		Primary/ Secondary	Averaging Time	Federal Standard	Form
Nitrogen Dioxide					maximum concentrations, averaged over 3 years
		P & S	Annual	53 ppb	Annual mean
Ozone		P & S	8-hour	0.070 ppm	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years
Particulate Pollution	$PM_{2.5}$	P	Annual	12 µg/m^3	Annual mean, averaged over 3 years
		S	Annual	15 µg/m^3	
		P & S	24-hour	35 µg/m^3	98th percentile, averaged over 3 years
	PM_{10}	P & S	24-hour	150 µg/m^3	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide		P	1-hour	75 ppb	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		S	3-hour	0.5 ppm	Not to be exceeded more than once per year
Notes: FR = Federal Register ppm = parts per million Sources: USEPA 2021			ppb = parts per billion µg/m^3 = micrograms per cubic meter		

Similarly, the California Clean Air Act (California Health & Safety Code §§39000 et seq.) establishes State air quality standards, known as the California Ambient Air Quality Standards (CAAQS), which are more stringent than the NAAQS (see Table 3-4).

Table 3-4. California Ambient Air Quality Standards

Pollutant		Averaging Time	California Standard
Carbon Monoxide		8-hour	9 ppm
		1-hour	20 ppm
Lead		30-Day Average	1.5 µg/m^3
Nitrogen Dioxide		1-hour	0.18 ppm
		Annual	0.030 ppm
Ozone		1-hour	0.09 ppm
		8-hour	0.07 ppm
Particulate Pollution	$PM_{2.5}$	Annual	12 µg/m^3
		24-hour	None
	PM_{10}	Annual	20 µg/m^3
		24-hour	50 µg/m^3
Sulfur Dioxide		1-hour	0.25 ppm
		24-hour	0.04 ppm
		Annual	None
Sulfates		24-hour	25 µg/m^3
Hydrogen sulfide		1-hour	0.03 ppm
Notes: ppm = parts per million µg/m^3 = micrograms per cubic meter			

Source: CARB 2022

The Clean Air Act Amendments (CAAA) of 1990 place most of the responsibility to achieve compliance with NAAQS on individual states. Areas not in compliance with any of the NAAQS can be declared *nonattainment* areas by the USEPA. Nonattainment areas are declared for each pollutant addressed by the NAAQS. Once the USEPA declares an area as nonattainment, the USEPA requires each state to prepare a State Implementation Plan (SIP). A SIP is a compilation of goals,

strategies, schedules, and enforcement actions that will lead the state into compliance with the NAAQS. Should the state and local air agencies fail to develop adequate SIPs, then the USEPA will develop a Federal Implementation Plan to remedy the state's failure. In order to reach *attainment*, NAAQS may not be exceeded more than once per year. A nonattainment area can reach attainment when NAAQS have been met for a period of 10 consecutive years. During this time period, the area is in *maintenance*.

Under 40 CFR Part 93, the USEPA issued conformity regulations that mandate the federal government not engage, support, or provide financial assistance for licensing, permitting, or approval of any activity that does not conform to an approved SIP or Federal Implementation Plan. This rule applies to all federal actions except for those projects requiring funding or approval from the U.S. Department of Transportation, Federal Highway Administration, Federal Transit Administration, or Metropolitan Planning Organization; such projects must instead comply with the conformity rules established by the U.S. Department of Transportation. The General Conformity Rule establishes conformity as a process in which economic, environmental, and social aspects of transportation and air quality planning are considered. This rule applies to any federal action that results in direct or indirect emissions for criteria pollutants in a nonattainment or maintenance area.

3.6.2 Existing Conditions

3.6.2.1 Regional Climate

Los Angeles AFB is located in Southern California, and is characterized by average temperatures ranging from approximately 58.4 degrees Fahrenheit (°F) in January to approximately 6.3 °F in June (National Oceanic and Atmospheric Administration [NOAA] 2022). Average annual precipitation for the Los Angeles area is highly variable and terrain-dependent, ranging from twelve inches at the ocean to about twice that in the foothills. At downtown Los Angeles, the average seasonal rainfall is 14.2 inches, with the majority occurring between the months of October and March (NOAA 2022). This usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, and Santa Ana winds.

Winds in the vicinity of Los Angeles AFB are typically generated by the land/sea breeze circulation system, with daytime onshore sea breezes changing to offshore breezes at night. These winds control the rate and direction of pollution dispersal. The Los Angeles Basin has strong temperature inversions that limit the vertical depth through which pollution can be mixed.

3.6.2.2 Local Air Quality

CARB has delegated much of its air pollution control authority to local air pollution control districts and air quality management districts. Each air district has jurisdiction over air quality in an air basin or portion of an air basin. The South Coast Air Quality Management District (SCAQMD) has regulatory authority and is responsible for monitoring air quality in the Los Angeles Basin.

Table 3-5. NAAQS Attainment Status – South Coast Air Basin (Los Angeles County)

Emissions Type	NAAQS
Carbon Monoxide (CO)	Attainment (Maintenance)
Lead (Pb)	Nonattainment
Nitrogen Dioxide (NO_2)	Attainment (Primary)
1-Hour Ozone (O_3)	Attainment (Maintenance)
8-Hour Ozone (O_3)	Nonattainment (Extreme)
Particulate Matter (PM_{10})	Attainment (Maintenance)
Particulate Matter ($PM_{2.5}$)	Nonattainment (Serious)
Sulfur Dioxide (SO_2)	Unclassifiable / Attainment

Sources: USEPA 2022

3.6.2.3 Emissions at Los Angeles Air Force Base

Air quality management at USAF installations is established in Air Force Manual (AFMAN) 32-7002, *Environmental Compliance and Pollution Prevention*. AFMAN 32-7002 requires installations to achieve and maintain compliance with all applicable federal air quality standards.

Under the CAA, the Title V Operating Permit Program imposes requirements for air quality permitting on air emission sources. However, Los Angeles AFB does not operate under a Title V Operating Permit issued by SCAQMD as it is not a major source of criteria pollutants. Table 3-6 presents the most recently available baseline emissions inventory of criteria pollutants for Los Angeles AFB.

Table 3-6. 2019 Emissions for Los Angeles AFB

Location and Emission Type	CO (tpy)	Pb (tpy)	SO_x (tpy)	NO_x (tpy)	PM_{10} (tpy)	VOC (tpy)
Stationary and Mobile-Source Emissions	0.84	0.0	0.02	1.79	0.64	0.09

Source: USAF 2019

SECTION 4
ENVIRONMENTAL CONSEQUENCES

4.1 INTRODUCTION

Potential environmental impacts that could result from the implementation of the Proposed Action and its alternatives are identified and evaluated in this section. The issues analyzed in detail are listed in Section 1.6, *Scope of the Environmental Assessment*. These issues are presented below in the same order that they are described in Section 3, *Affected Environment*. As described in Section 3.2, *Scope of the Environmental Assessment*, resources that would have no impacts or negligible impacts with the implementation of the Proposed Action and its alternatives are not examined in further detail within this EA.

As described in Section 2, *Description of the Proposed Action and Alternatives*, the Proposed Action includes the development of a multi-story parking structure as an extension of an existing parking structure. The proposed Phase 2 Parking Structure would create an extension over approximately 18,500 sf from the existing structure's southern wall. Alternatives to the Proposed Action were considered; however, none of these alternatives would satisfy the purpose and need for the project (refer to Table 2-1) and therefore were not carried forward for further analysis. Nevertheless, because CEQ regulations stipulate that the No-Action Alternative must be analyzed to assess any environmental consequences that may occur if the Proposed Action is not implemented, the No-Action Alternative has also been carried forward for analysis and provides a baseline against which the Proposed Action can be compared.

4.2 DETERMINATION OF SIGNIFICANT EFFECTS

In considering whether the effects of a proposed action are significant, CEQ regulations direct agencies to analyze the potentially affected environment and degree of the effects of the action. CEQ regulations acknowledge that significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend only upon the effects in the local area (40 CFR §1501.3[a]). Per the CEQ regulations at 40 CFR §1501.3[b], this EA addresses:

- Short- and long-term effects;
- Beneficial and adverse effects;
- Effects on public health and safety;
- Effects that would violate applicable Federal, state, tribal, or local law protecting the environment.

Best management practices (BMPs) that would be included under the Proposed Action to avoid and/or minimize potential environmental impacts are also provided.

4.3 WATER RESOURCES

4.3.1 Approach to Analysis

Determination of the significance for potential impacts to water resources is based on water supply, surface water quality, existence of floodplains and wetlands, and associated regulations and policies. The Proposed Action and its alternatives would have a significant impact to water resources if they would:

- Reduce water availability to or interfere with the supply of existing users;
- Adversely affect water quality or endanger the public health by creating or worsening adverse health hazard conditions above federal or state water quality standards;
- Degrade surface Waters of the U.S. by deposition of dredge or fill material beyond limits set by permitting agencies;
- Modify a floodway or substantially alter a floodplain, diverting floodwaters to areas previously outside the 100-year floodplain; or
- Create or contribute to overdraft of groundwater basins or exceed safe annual yield of water supply sources.

4.3.2 Impacts

4.3.2.1 Proposed Action

Surface Water

Potential sources of short-term, construction-related stormwater pollution associated with the Proposed Action include: 1) earth-moving activities which

may result in soil erosion and sedimentation within the Los Angeles AFB stormwater system; 2) handling, storage, and disposal of construction materials containing POLs; and 3) operation and maintenance of construction equipment on-site.

Since the implementation of the Proposed Action would disturb less than 1 acre, a General Construction Activity Storm Water Permit from the SWRCB is not required prior to the start of construction. The construction site would be managed to prevent contamination of storm water from construction activities in accordance with requirements of the Los Angeles RWQCB, including the development of a SWPPP. The SWPPP would identify structural and nonstructural BMPs, erosion controls, sediment controls, run-on and runoff controls to be implemented. BMPs may include silt fencing, soil stockpiling, dust suppression, construction worker education sandbag barriers, temporary desilting basins near inlets, dust controls, employee training, and general good housekeeping practices. Implementation of BMPs would ensure that short-term construction impacts to water quality both at the project site and in the Los Angeles AFB stormwater system would be less than significant.

A drainage plan for the proposed Phase 2 Parking Structures would be prepared prior to initiation of construction-related activities and would include detailed hydrology/hydraulic calculations as well as recommendations for specific drainage improvements. The drainage plan would also identify additional BMPs to be implemented in compliance with the requirements of the Standard Urban Storm Water Mitigation Plan and the City of El Segundo Municipal Code. The drainage plan would be shared with state and local agencies (e.g., Los Angeles RWQCB, Los Angeles County Flood Control District, City of El Segundo, etc.), as appropriate.

Given that the Proposed Action would develop a parking structure over an already developed parking lot and total impervious surface area at the Los Angeles AFB would remain unchanged, the Proposed Action would not have a significant impact on surface water resources. Further, considering previous localized flooding that has occurred on the surface parking lot storm drain improvements under the Proposed Action would provide a beneficial effect on surface water resources.

Floodplains

As described in Section 3.3, *Water Resources,* Los Angeles AFB is not located within any designated floodplain. Additionally, construction of the proposed Phase Parking Structure – including the preparation of a drainage plan would not directly result in or compound localized surface flooding areas within the project site. As previously described, the Proposed Action may have a beneficial effect with respect to flooding issues.

Groundwater

Under the Proposed Action, grading and site preparation activities would neither involve deep excavations that have the potential to compromise local aquifers, nor would it involve direct additions or withdrawals of groundwater that would result in a contribution to overdraft of a groundwater basin. Therefore, the Proposed Action would have a less than significant impact on groundwater resources.

4.3.2.2 No-Action Alternative

If the No-Action Alternative were selected, no changes to the existing stormwater detention basin would occur. Consequently, no changes to local stormwater runoff would occur, and conditions would remain as described in Section 3.3, *Water Resources*. Therefore, there would be no impacts to water resources under the No-Action Alternative.

4.3.3 Proposed BMPs

The following BMPs would be implemented in order to further reduce less than significant water quality impacts as a result of the implementation of the Proposed Action and evacuation would include the following:

- A drainage plan shall be prepared and shall include detailed hydrology/hydraulic calculations and recommendations for drainage improvements. The plan shall also identify the proposed BMPs to be implemented in compliance with the requirements of the Standard Urban Storm Water Mitigation Plan and the City of El Segundo Municipal Code.

- Standard construction BMPs shall be implemented (e.g., good site management "housekeeping," erosion control, sediment control, run-on and runoff controls).
- During construction and operation of the proposed Phase 2 Parking Structure, all waste shall be disposed of in accordance with all applicable laws and regulations. Properly labeled recycling bins shall be utilized for recyclable construction materials including solvents, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and vegetation. Non-recyclable materials and wastes shall be taken to an appropriate landfill. Toxic wastes shall be discarded at a licensed, regulated disposal site by a licensed waste hauler.

4.4 VISUAL RESOURCES

4.4.1 Approach to Analysis

Determination of the significance for impacts to visual resources is based on the level of visual sensitivity in the area, which is defined as the degree of public interest in a visual resource and concern over adverse changes in the quality of that resource. In general, an impact to a visual resource is significant if implementation of an action would result in substantial alterations to an existing, sensitive visual setting.

4.4.2 Impacts

4.4.2.1 Proposed Action

Under the Proposed Action, development of the proposed Phase 2 Parking Structure would alter the existing visual character of Los Angeles AFB. The paved surface parking lot located on the project site would be redeveloped by the expansion of the existing parking structure into the northern portion of the lot. The Proposed Action

The viewsheds of the project site and surrounding vicinity is characterized by urban development including multi-story commercial and industrial structures and associated parking structures.

would also involve landscaping and hardscaping improvements. The new parking structure would be consistent with the height of the existing structure (i.e., 6 stories). Given its height, the new parking structure would be visible from several locations on Los Angeles AFB except where screened by the existing multi-story office buildings. The new multi-story parking structure would also be visible to off-base viewers, including industrial uses to the west, but would be partially screened by the perimeter fencing and existing low-rise buildings. Further, while construction of the proposed Phase 2 Parking Structure would include new lighting – particularly along the pathways and in seating areas – light fixtures would be downcast and dimly lit. These light fixtures would generally not be noticeable within the context of the existing commercial and industrial development on the base and in the immediate vicinity. Therefore, the introduction of new light fixtures would not introduce a substantial new source of light or glare to adjacent office and administrative spaces off-base land uses.

The proposed Phase 2 Parking Structure would be consistent with the immediate urbanized viewshed surrounding Los Angeles AFB. Los Angeles AFB supports a variety of office buildings and other administrative buildings and ancillary structures. These structures are largely utilitarian, constructed of glass and steel with flat rooflines. The proposed parking structure would be visually consistent with the existing development at Los Angeles AFB including the existing parking structure and the three centrally located multi-story office buildings.

The AT&T Entertainment Group Building and associated 11-story concrete parking is located 0.5 miles north of the project site. This commercial building is representative of the development in the vicinity of Los Angeles AFB. Development of the proposed Phase 2 Parking Structure would be visually consistent with the existing character of the Los Angeles AFB and the surrounding area.

Properties in the surrounding area are fully developed with commercial and industrial uses. Similar to on-base development, structures in the surrounding vicinity feature utilitarian designs and are commonly made of glass

and steel, and are fronted with concrete hardscapes and limited greenspace. These commercial buildings are generally supported by surface parking lots or aboveground parking structures. The proposed Phase 2 Parking Structure would be visually consistent with the surrounding development. Therefore, while both on- and off-base viewsheds would be altered by implementation of the Proposed Action, impacts to visual resources would be less than significant.

4.4.2.2 No-Action Alternative

If the No-Action Alternative were selected, the proposed Phase 2 Parking Structure would not be constructed. Consequently, no changes to the local viewshed would occur and conditions would remain as described in Section 3.4, *Visual Resources*. Therefore, there would be no impacts to visual resources under the No-Action Alternative.

4.4.3 Proposed BMPs

The *Los Angeles Air Force Base Installation Facilities Standards* (USAF 2018a) include a number of BMPs that would ensure that the Proposed Action would not result in visual resource impacts as a result of construction and operation of the Park. For example, light pollution control measures would include the following:

- All new light sources would be directed down and shielded to prevent light pollution (or spillage) outside of Los Angeles AFB.

4.5 TRANSPORTATION AND CIRCULATION

4.5.1 Approach to Analysis

Potential impacts to transportation and circulation are assessed with respect to anticipated disruption or improvement of current transportation patterns and systems; deterioration or improvement of existing levels of service; and changes in existing levels of transportation safety. Beneficial or adverse impacts may arise from physical changes to circulation (e.g., closing, rerouting, or creating roads), construction activity, changes in daily or peak-hour traffic volumes created by installation workforces and population changes, or changes in on-base parking availability. Adverse impacts on roadway capacities would be significant if roads

with no history of exceeding capacity began to operate at or above their final full design capacity, if LOS of existing roadways worsened as a direct result of implementing the Proposed Action, or if the Proposed Action would reduce available parking or increase parking demand such that the base's parking needs would not be met.

4.5.2 Impacts

4.5.2.1 Proposed Action

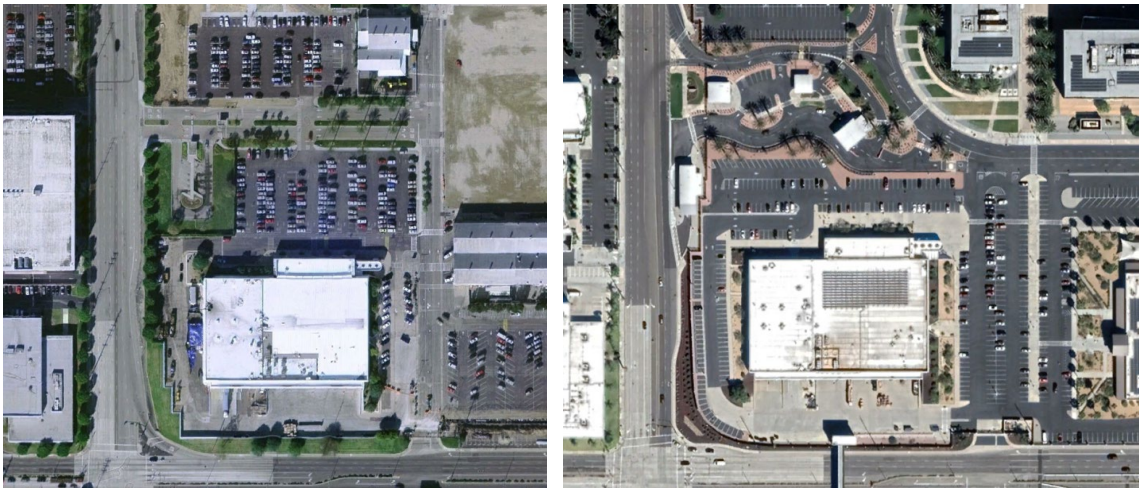
Construction-related traffic would be associated with construction workers arriving and leaving the project site, removal of demolition debris, and delivery of construction materials. Construction worker traffic is expected to be located off-site with shuttles transporting workers to the project site and is not anticipated to create a significant impact to area-wide circulation.

Heavy haul trucks associated with the removal of demolition debris and the delivery of construction materials would be likely to access the project site via westbound I-105 to southbound Sepulveda Boulevard to eastbound El Segundo Boulevard, and to northbound Douglas Street. Access to the project site would be from Douglas Street. During the 18-month construction period a maximum of 85 construction vehicles (e.g., heavy haul trucks and light duty construction vehicles, etc.) would access the project site per day, resulting in an incremental increase in traffic levels on the roads surrounding the Los Angeles AFB. However, the minimal increases in traffic (i.e., far less than 1 percent of total ADT along Douglas Street) over this period of time would not result in significant impacts to transportation.

Approximately 41 surface lot parking spaces would not be available during the construction period. Additionally, given that construction staging and construction activities would interrupt the one-way circulation system within the existing parking structure, the structure would not remain operational during construction, resulting in a loss of 335 parking spaces over the 18-month construction period. In the past, Los Angeles AFB has negotiated temporary parking agreements with neighboring properties during construction projects that limited on-site parking. Similar agreements would be explored and applied to the Proposed Action. If off-site parking cannot be negotiated, Los Angeles AFB would

coordinate schedules (e.g., telework, etc.) to address potential short-term temporary impacts. Additionally, public transit options (e.g., C Line light rail) would continue to be available throughout the 18-month construction period.

Following the completion of the construction phase, the proposed Phase 2 Parking Structure would add approximately 165 net new spaces, necessary to provide parking for the base's growing workforce. In the long-term, the proposed project would not change regional traffic levels. Therefore, implementation of the Proposed Action would not be anticipated to change existing roadway or intersection levels of services.



The original ECP at Los Angeles AFB (left) did not meet modern AT/FP requirements or have appropriate space for vehicle queuing. Following the consolidation of operations at Los Angeles AFB and prior to the construction of the Phase 1 Parking Structure, a new ECP was constructed to address these issues. The queuing lane along Douglas Street would accommodate any increases in queuing associated with the Phase 2 Parking Structure.

The implementation of the Proposed Action would result in an increase in the number of vehicles accessing the base through the main gate located on Douglas Street. However, potential off-site queuing impacts associated with an increase in parking were envisioned as a part of long-term planning for Los Angeles AFB. Following the consolidation of operations and facilities at Los Angeles AFB and prior to the construction of the Phase 1 Parking Structure in 2011 a new ECP was constructed at Los Angeles AFB in 2005. This new ECP included the addition of a queuing lane along Douglas Street that has the capacity to accommodate vehicles entering through the ECP without affecting through traffic along Douglas Street.

No off-site queuing or circulation impacts were identified in the *EA for the Los Angeles Air Force Base Parking Structure* (USAF 2007). As previously described, that

EA considered parking structures providing between 1,168 and 1,461 parking spaces. Ultimately, the existing parking structure that was constructed in 2011 provides 335 parking spaces. Thus, the addition of 206 spaces under the proposed Phase 2 addition to the existing parking structure would not exceed the parking capacity that was originally envisioned and would not result in any new impacts related to off-site queuing.

Given the previous improvements to the ECP and off-site transportation network, which were accomplished in order to facilitate on-site parking and circulation, impacts related to the construction and operation of proposed Phase 2 Parking Structure are not expected to be significant.

4.5.2.2 No-Action Alternative

If the No-Action Alternative were selected, there would be no changes to existing traffic patterns, parking facilities, or demand for parking at Los Angeles AFB and conditions would remain as described in Section 3.5, *Transportation and Circulation*. While existing telework policies – enacted September 2022 for civilian employees – have limited existing parking demand, under a return to office scenario, parking demand at Los Angeles AFB would continue to exceed parking capacity. Additionally, this alternative would limit the ability of Los Angeles AFB to implement long-term future transportation and circulation improvements identified in the *Entry Control Facilities and Comprehensive Traffic Engineering Study* (Gannett Fleming 2020). As previously described, these improvements are intended to address existing AT/FP issues, improve accessibility consistent with the requirements of the ABA, and accommodate future traffic conditions.

4.5.3 Proposed BMPs

The following BMPs, although not required to reduce potential impacts to less than significant levels, would be implemented in order to further reduce short-term, construction-related transportation and circulation impacts as a result of the implementation of the Proposed Action. Construction traffic control measures to be implemented during earthmoving and evacuation would include the following:

- Delivery of oversized construction equipment and materials shall occur outside of the AM and PM peak hours in the vicinity of Los Angeles AFB (7:00 to 9:00 AM and 4:00 to 6:00 PM).

- Oversized deliveries shall be coordinated with California Department of Transportation and appropriate local jurisdictions to ensure appropriate permits are procured and any necessary traffic control measures are implemented during delivery.

4.6 AIR QUALITY

4.6.1 Approach to Analysis

The CAAA require that federal agency activities conform to the SIP with respect to achieving and maintaining attainment of NAAQS and addressing air quality impacts. The USEPA General Conformity Rule requires that a conformity analysis be performed which demonstrates that federal actions do not: 1) cause or contribute to any violation of any NAAQS; 2) interfere with provisions in the SIP for maintenance or attainment of any NAAQS; 3) increase the frequency or severity of any existing violation of any NAAQS; or 4) delay timely attainment of any NAAQS, any interim emission reduction goals, or other milestones included in the SIP. Provisions in the General Conformity Rule allow for exemptions from performing a conformity determination only if total emissions of individual nonattainment area pollutants resulting from an action fall below the *de minimis* threshold values.

AFMAN 32-7002, *Environmental Compliance and Pollution Prevention*, provides a framework for ensuring that USAF actions conform with all applicable federal, state and local environmental laws and standards... Section 4.4 of AFMAN 32-7002, *NEPA and Environmental Impact Analysis Process Planning*, outlines requirements under NEPA for analysis of air quality impacts with respect to the Prevention of Significant Deterioration/New Source Review (40 CFR Part 51), and emissions of any other pollutants regulated under the CAA, such as ozone-depleting substances. Direct and indirect emissions of criteria pollutants or their precursors associated with the Proposed Action must be calculated for all non-exempt emission sources, including mobile and stationary emissions and assessed relative to established *de minimis* standards for attainment, maintenance, and

nonattainment areas by pollutant as set forth in 40 CFR §93.153(b)(1) (see Table 4-1). In order to ensure compliance with all applicable regulations, an air quality analysis was conducted using the USAF's Air Conformity Applicability Model to estimate air emissions associated with construction of the proposed Phase 2 Parking Structure.

Table 4-1. South Coast Air Basin Attainment Status and *de minimis* Thresholds

Criteria Pollutant	Attainment Status	*de minimis* Threshold (tons per year [tpy])
Ozone (Volatile Organic Compounds [VOCs] or NO_x)	Nonattainment (Serious)	50
	Nonattainment (Severe)	25
	Nonattainment (Extreme)	10
Other VOC inside an ozone transport area:	Nonattainment	50
Other NO_x inside an ozone transport area:	Nonattainment	100
Carbon Monoxide	All Maintenance Areas	100
Nitrogen Dioxide	All NAAs	100
Sulfur Dioxide	All NAAs	100
PM_{10}	Nonattainment (Moderate)	100
	Nonattainment (Serious)	70
$PM_{2.5}$	Nonattainment (Moderate)	100
	Nonattainment (Serious)	70
Lead	All NAAs	25

Source: USEPA 2021

4.6.2 Impacts

4.6.2.1 Proposed Action

The air quality analysis was conducted to ensure consistency with NAAQS and because there would be no long-term operational emissions associated with the Proposed Action once construction is complete. The Proposed Action is located in the Los Angeles County portion of the South Coast Air Basin which is designated *nonattainment* for O_3 and particulate matter and is subject to *de minimis* thresholds for a General Conformity determination. The net change in emissions associated with the Proposed Action were compared against General Conformity *de minimis* values as an indicator of significance (see Table 4-1).

The Proposed Action would have a short-term impact on air quality from construction activities. During grading of the project site, preparation of foundations and footings, and parking structure assembly would create temporary emissions of dusts, fumes, equipment exhaust, and other air contaminants throughout the project construction period. Pollutant emissions can vary substantially from day to day, depending on the level of activity, the specific operations, and the prevailing weather. It is assumed that grading, site preparation, and concrete work would occur of a period of approximately 18 months (5 working days per week and 8 hours of work per day).

Construction – Fugitive Dust Emissions

Under the Proposed Action, fugitive dust would be generated during ground-disturbing activities, including site preparation, clearing, and grading. Fugitive dust would also be generated by construction-related vehicles and heavy equipment. Dust emissions generated by such activities can vary substantially depending on levels of activity, specific operations, and prevailing meteorological conditions. It is assumed that emissions resulting from construction-related activities would be reduced through standard dust suppression practices – including soil stockpiling and regularly watering exposed soils (refer to Section 4.3, *Water Resources*). These dust suppression practices can reduce dust generation by up to 50 percent (USEPA 2006).

It has been estimated that implementation of the Proposed Action would disturb a total area of approximately 5.7 acres. This conservative estimate accounts for site preparation activities, materials staging, and heavy equipment storage, which may occur outside of and adjacent to the proposed project footprint (e.g., within the surface parking lot to the north). Emissions calculations provided in the *EA for the Los Angeles Air Force Base Parking Structure* (USAF 2007), which was prepared for the first phase of parking development, determined that PM_{10} and $PM_{2.5}$ would be substantially below the SCAQMD and General Conformity thresholds. Given that the proposed Phase 2 Parking Structure would have a smaller footprint (i.e., disturbance area) than the existing parking structure, impacts associated with fugitive dust would remain less than significant. Construction activities would continue to be subject to the provisions of SCAQMD Rule 403, *Fugitive Dust*, which

requires the use of best available control measures to suppress fugitive dust emissions.

Although any increase in dust generation is inherently adverse, implementation of standard dust suppression measures would limit the total quantity generated during construction. Additionally, increased fugitive dust emissions associated with the Proposed Action would be short-term and temporary. Therefore, air quality impacts associated with fugitive dust would be minor and less than significant.

Construction – Combustion Emissions

Operation of construction equipment with internal combustion engines, and off-site vehicles (e.g., construction employee vehicles, etc.) would result in emission of criteria air pollutants (i.e., CO, N_2O, O_3, SO_2, and particulate matter [PM_{10} and $PM_{2.5}$]). In addition to on-site construction emissions, minor regional emissions associated with haul truck trips for the delivery of supplies/materials and removal of solid waste (e.g., any construction debris) would also occur under the Proposed Action. Emissions associated with construction equipment (e.g., grader, backhoe, dozer, etc.) would be minimal because most equipment would be driven to and kept on-site for the duration of construction activities. Additionally, equipment would be shut off when not in use. Emissions associated with construction worker commutes and the transportation of materials would also be minimal given the relatively small-scale and temporary nature of the activities.

Impacts due to criteria pollutant emissions from construction activities are generally not considered significant because they are temporary and of short duration. As described for fugitive dust emissions, emissions calculations provided in the *EA for the Los Angeles Air Force Base Parking Structure* (USAF 2007) determined that all construction-related criteria pollutant emissions would be substantially below the SCAQMD and General Conformity thresholds. Given that the proposed Phase 2 Parking Structure would be smaller in scale than the existing parking structure, impacts associated with construction-related criteria pollutant emissions would remain less than significant. Anticipated combustion emissions during construction activities would remain below *de minimis* threshold values and result in less than significant, short-term impacts to air quality.

Operational Emissions

Long-term operational emissions under the Proposed Action, would include stationary and mobile sources. Stationary sources include the emissions produced from on-site energy use for operation of electrical machinery, lighting, and other equipment that consumes electricity or natural gas. Stationary source emissions are expected to be minimal because the open-air parking garage would not have air or water heating and cooling. Minimal amounts of energy would be used as a result of electrical lighting. Minor emissions associated with gas- or electric-powered gardening equipment would be negligible.

Mobile-source emissions would be generated by vehicle trips to the proposed parking structure. Mobile-source or indirect emissions projected to result from implementation of the proposed project could include vehicular pollutants such as CO, NO_x, PM_{10}, and reactive organic compounds. However, impacts on air quality from Los Angeles AFB employee commutes would be negligible since the new parking structure would provide parking for personnel who are already commuting to the area. As such, there would be no long-term changes to emissions or air quality conditions at Los Angeles AFB related to the proposed Phase 2 Parking Structure. The implementation of the Proposed Action would neither cause an exceedance of NAAQS nor exceed a *de minimis* threshold for any criteria pollutant. Therefore, operational emissions under the Proposed Action would have no impact on long-term air quality and operational emissions would remain similar to those described in Section 3.6, *Air Quality*.

General Conformity

As described in Section 3.6.2.2, *Local Air Quality*, Los Angeles County is currently designated as a *nonattainment* area by the USEPA for the following NAAQS criteria pollutants: Pb, O_3 and $PM_{2.5}$ (refer to Table 3-3) (USEPA 2022). Consequently, emissions from construction and operations activities associated with the Proposed Action are subject to *de minimis* thresholds for a General Conformity determination related to these pollutants. Potential air quality impacts associated with the Proposed Action were quantified using the Air Conformity Applicability Model (ACAM) in accordance with the EIAP (32 CFR Part 989); Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention*; and the General Conformity Rule (40 CFR Part 93 Subpart B) (see Appendix C). As provided in

Tables 4-2 and 4-3 below, construction emissions including construction equipment and construction worker commutes, the Proposed Action would not generate air emissions in excess of any General Conformity *de minimis* threshold.

Table 4-2. Construction Emissions

Criteria Pollutant	CO (tpy)	Pb (tpy)	SO_x (tpy)	NO_x (tpy)	$PM_{2.5}$ (tpy)	PM_{10} (tpy)	VOC (tpy)
Peak Construction Emissions	1.967	<0.001	0.005	1.586	0.064	0.439	0.268
General Conformity *de minimis* Threshold	100	25	70	10	70	100	10
Significant?	No	No	No	No	No	No	No

Table 4-3. Operational Emissions

Criteria Pollutant	CO (tpy)	Pb (tpy)	SO_x (tpy)	NO_x (tpy)	$PM_{2.5}$ (tpy)	PM_{10} (tpy)	VOC (tpy)
Peak Construction Emissions	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
General Conformity *de minimis* Threshold	100	25	70	10	70	100	10
Significant?	No	No	No	No	No	No	No

4.6.2.2 No-Action Alternative

Under the No-Action Alternative, there would be no construction-related emissions. Consequently, no changes to local air quality would occur and conditions would remain as described in Section 3.6, *Air Quality*. No further determination is required to document compliance with the General Conformity Rule. Therefore, there would be no impacts to air quality under the No-Action Alternative.

4.6.3 Proposed BMPs

The following BMPs, although not required to reduce potential impacts to less than significant levels, would be implemented in order to further reduce short-term, construction-related air quality impacts as a result of the implementation of the Proposed Action. Fugitive dust and air quality control measures to be

implemented during excavation, trenching, grading, and other earth-moving activities would include the following:

- All construction equipment would be maintained in good operating condition to minimize exhaust emissions.
- Vehicular traffic associated with construction and operation activities would remain on paved areas to the maximum extent practicable.
- Vehicle speed would be limited on unpaved surfaces.
- All excavated, graded, or unpaved areas would be watered to prevent excess dust generation.
- Where soil is excavated during construction, displaced soils would be stockpiled.
- Idling equipment would be shut off when not in use.

SECTION 5
CUMULATIVE IMPACTS

Cumulative impacts result from "incremental impacts of an individual action when combined with other past, present, and reasonably foreseeable future projects in an affected area. Cumulative impacts generally result from minor, but collectively substantial, actions undertaken over a period of time by various agencies (e.g., federal, state, or local) or persons. In accordance with NEPA, a discussion of cumulative impacts resulting from projects proposed, under construction, recently completed, or anticipated to be implemented in the near future is required.

5.1 CUMULATIVE IMPACTS ANALYSIS

5.1.1 Approach to Cumulative Impacts Analysis

Cumulative effects may occur when there is a relationship between a proposed action and other actions expected to occur in a similar location or during a similar time period. Actions overlapping with or in close proximity to the Proposed Action can be reasonably expected to have more potential for cumulative effects on shared resources than potential actions that may be geographically separated. Similarly, actions that coincide temporally would tend to offer a greater potential for cumulative effects. CEQ regulations require that agencies consider effects that "…result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions" (40 CFR §1508.1).

The Proposed Action is limited to construction of the proposed Phase 2 Parking Structure at Los Angeles AFB. As such potential impacts associated with the Proposed Action would be limited to short-term, temporary impacts during construction activities, which would last for a period of 18 months. As described in Section 4, *Environmental Consequences*, the Proposed Action is not expected to have any significant long-term impacts associated with operation of the proposed Phase 2 Parking Structure.

5.1.2 Cumulative Projects Off-Base

5.1.2.1 Local Past, Present, and Future Development

All of the proposed grading, site preparation, and concrete work included in the Proposed Action would occur within the developed Los Angeles AFB. As such, other than negligible, short-term, temporary increase in air emissions, the Proposed Action would not have a noticeable effect on local off-base conditions in the City of El Segundo.

The City of El Segundo Planning Department publications – including project approvals and environmental documentation compliant with the California Environmental Quality Act and Cumulative Projects List – were reviewed for other planned, recently approved, or in-process development projects in the vicinity of Los Angeles AFB to identify potentially cumulative effects related to the Proposed Action. These projects were assessed for their potential to contribute cumulatively to impacts to water resources, visual resources, transportation and circulation, and air quality. These projects include:

- Pacific Coast Commons Specific Plan – Draft Environmental Impact Report (EIR) prepared to document potential impacts related to the redevelopment of the existing surface parking lots and a portion of the Fairfield Inn and Suites Hotel property, located at 525 North Pacific Coast Highway, approximately one mile from the Los Angeles AFB through the adoption of a Specific Plan. The Specific Plan would create five new land use districts that would allow for up to 263 new housing units, 11,252 gross square feet of new commercial/retail uses, new parking garages, as well as the continued use and operation of the existing Fairfield Inn and Suites Hotel and Aloft Hotel uses. The Draft EIR identified potentially significant and unavoidable impacts to Air Quality; potentially significant but mitigable impacts to Cultural Resources, Tribal Cultural Resources, Geology and Soils, Hazards / Hazardous Materials, Noise, Transportation; and less than significant impacts to Energy, Greenhouse Gas Emissions, Hydrology and Water Quality, Land Use and Planning, Utilities and Service Systems, Population and Housing.

- Standard Works Project – According to the Initial Study, the project would include a 45,568 sf addition to an existing 19,493 sf office use, for a total of 65,061 sf located at 1320-1330 E Franklin Avenue and a 44,604 sf addition to an existing 19,311 sf office use for a total of 63,915 sf located at 1475 E El Segundo Boulevard approximately 1.3 miles from the Project site. The initial study identifies potentially significant but mitigable impacts to Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Transportation, Tribal Cultural Resources; and less than significant impacts to Aesthetic Resources, Air Quality, Energy, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, and Utilities and Service Systems. Further CEQA documentation is still ongoing and no further impact analysis has yet been prepared.

Various small residential development have been determined by the City of El Segundo to be exempt from consideration under CEQA and therefore would be expected to have no impacts or negligible impacts as considered under NEPA.

Large development projects for which an EIR was prepared include potentially significant impacts to resources as well as mitigation measures that would reduce impacts to less than significant levels over the short- and long-term. As such, neither temporary construction-related impacts at Los Angeles AFB nor long-term operational impacts associated with the Proposed Action would contribute substantially to cumulative impacts associated with any of these projects.

5.1.3 Cumulative Projects at Los Angeles AFB

For the purposes of this EA, a review of recently completed, in-progress, and planned construction and demolition projects was conducted. The projects described below have been completed or are currently planned for development at Los Angeles AFB in the next five years:

5.1.3.1 Los Angeles AFB Helipad

Consistent with the base's IDP, an approximately 4,000 sf helipad is planned for the manicured lawn immediately north of Building 270, which currently serves as a stormwater detention basin. Site development would require grading of the existing manicured lawn and construction of a new stormwater detention basin and associated storm drain improvements.

5.1.3.2 Perimeter Lighting Upgrade Project

In order to reduce security vulnerabilities and comply with Anti-Terrorism Executive Committee requirements, Los Angeles AFB plans to construct perimeter security lighting around the entire installation. In planning this project, interested members of the public requested that lighting not affect off-base properties.

While the Proposed Action would result in short-term, temporary construction impacts completed in FY 2025, construction activities would not substantially interact with or contribute to potential cumulative impacts associated with longer-term development at Los Angeles AFB. Additionally, as with the Proposed Action BMPs from the *Los Angeles Air Force Base Installation Facilities Standards* (USAF 2018a) would be incorporated into the design of this project to ensure that lighting upgrades do no impact off-base viewers and properties.

5.1.3.3 Other Projects

Other projects at the Los Angeles AFB include multiple maintenance and repair projects to base facilities including HVAC systems, water and lighting systems, flooring and carpeting, building roof repairs, pavement repair, and paint maintenance. Additionally, while not currently programed, the implementation of the Proposed Action would make space for AT/FP improvements described in the base's IDP, including improvements to circulation that would increases in setbacks from the buildings and the perimeter fence.

However, these maintenance activities would be relatively small-scale and short duration and would not contribute to cumulative impacts associated with any of the previously described projects. Survey projects that currently do not include

planning for physical changes on-base (e.g., energy audits, Backflow Prevention Programs) were not considered.

5.1.4 Cumulative Impact Analysis

Implementation of the Proposed Action would involve grading, site preparation, and concrete work. Under the Proposed Action construction, demolition, and installation activities would occur in FY 2024.

The following resource analyses address potential impacts associated with cumulative project activities in addition to the Proposed Action at Los Angeles AFB. No significant cumulative impacts would result from implementation of the Proposed Action, when evaluated in conjunction with the projects identified above in Section 5.1.3, *Cumulative Projects at Los Angeles Air Force Base*.

5.1.4.1 Water Resources

Implementation of the Proposed Action would result in minor grading activities. With implementation of BMPs and compliance with state and local agency regulations and policies, the Proposed Action would not significantly contribute to adverse impacts to water resources. Other cumulative construction projects would also have the potential for impacts on water resources (e.g., stormwater runoff during construction or increases in impervious surface areas); however, as with the Proposed Action each of these projects would implement project-specific BMPs and would be required to comply with state and local regulations limiting the potential for impacts to water quality. Therefore, the Proposed Action, along with the other identified cumulative projects, would not contribute substantially to any potential cumulative impacts to water resources.

5.1.4.2 Visual Resources

Implementation of the Proposed Action would result in the addition of a multi-story parking structure forming an extension of the existing parking structure. The Proposed Action would be visually similar to the existing structure and would be visible from on- and off-base viewing locations. Given the consistency of the proposed Phase 2 Parking Structure with the existing visual character in the

surrounding vicinity, the Proposed Action would not be considered an adverse impact to visual resources (refer to Section 4.4, *Visual Resources*). While the other cumulative construction projects have the potential to result in alterations to the local viewshed through addition of new buildings and/or nighttime lighting (e.g., perimeter lighting upgrade project), these cumulative projects would also remain consistent with the existing visual character in the surrounding vicinity. Therefore, the Proposed Action along with the other identified cumulative projects would not contribute substantially to any potential cumulative impacts to visual resources.

5.1.4.3 Transportation and Circulation

Implementation of the Proposed Action would result in the construction of the proposed Project and would expand parking availability on-base. However, because the proposed Project would accommodate existing demand of Los Angeles AFB personnel and would not generate new commutes, the Proposed Action would not significantly contribute to potential cumulative adverse impacts to parking and circulation at Los Angeles AFB. None of the other identify cumulative projects would generate substantial increases in trip generation at Los Angeles AFB. Therefore, the Proposed Action along with the other identified cumulative projects would not contribute substantially to any potential adverse cumulative impacts to transportation and circulation.

5.1.4.4 Air Quality

Implementation of the Proposed Action would result in a short-term temporary increase in construction-related fugitive dust and combustion emissions. However, implementation of these projects as well as all individual cumulative projects would be required to implement standard construction BMPs to reduce fugitive dust and combustion emissions during construction activities to acceptable levels below *de minimis* thresholds (refer to Section 4.6.3, *Proposed BMPs*). As shown in Table 4-2 in Section 4.1, *Air Quality*, construction emissions associated with the Proposed Action would not exceed *de minimis* thresholds. As such, the Proposed Action would not significantly contribute to potential cumulative construction impacts at Los Angeles AFB. While the other cumulative construction projects have the potential to result in impacts to air quality (e.g., through fugitive dust), BMPs to control these issues would be implemented and

impacts to air quality are expected to remain similar. Further, the Proposed Action would not result in any long-term increase in operational air emissions. Therefore, the Proposed Action would not contribute substantially to any potential cumulative impacts to regional air quality.

5.1.5 Relationship Between Short-Term Uses and Enhancement of Long-Term Productivity

CEQ regulations (40 CFR §1502.16) specify that environmental analyses must address the relationship between short-term uses on the environment and the effects that these impacts may have on the maintenance and enhancement of the long-term productivity of the affected environment. Special attention should be given to impacts that narrow the range of beneficial uses of the environment in the long-term or pose a long-term risk to human health or safety. A short-term use of the environment is generally defined as a direct consequence of an action in its immediate vicinity. Changes to long-term productivity generally refer to negative impacts to the long-term quality of the land, air, or water.

The Proposed Action would primarily involve the use of a previously developed area at Los Angeles AFB which is itself located within a developed portion of the Los Angeles Basin characterized by urban residential, commercial, and industrial development and no existing agricultural lands. Additionally, as discussed in Section 4.3, *Water Resources*, Section 4.4, *Visual Resources*, Section 4.5, *Transportation and Circulation*; and Section 4.6, *Air Quality*, BMPs would be implemented to ensure that impacts to natural and built resources would be kept to a minimum. No croplands, pastureland, or wetlands would be modified or affected as a result of implementing the Proposed Action and, consequently, productivity of the area would not be degraded.

SECTION 6
REFERENCES

California Department of Water Resources (DWR). 2004. Coastal Plain of Los Angeles County Groundwater Basin, West Coast Subbasin. Available at: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Bulletin-118/Files/2003-Basin-Descriptions/4_011_03_WestCoastSubbasin.pdf.

Council on Environmental Quality (CEQ). 2022. Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 Code of Federal Regulations [CFR] Parts 1500-1508).

EarthTech 2005. Final Stormwater Assessment of Area B Los Angeles Air Force Base. Prepared for Los Angeles Air Force Base.

Flood Emergency Management Agency (FEMA). 2008. Flood Insurance Rate Map Panel 06037C1770F. Map Effective Date: 25 September 2008.

Gannett Fleming. 2020. Entry Control Facilities and Comprehensive Traffic Engineering Study. February.

Harris, C.M. 1979. Handbook of Noise Control, 2nd Edition (Illustrated).

Kimley Horne. 2019. Continental Grand Campus Specific Plan in the City of El Segundo. Available at: https://files.ceqanet.opr.ca.gov/210918-3/attachment/WnHSkBHJEwQtJTfJbo6DT1OwhCdLlm8UetgF-imvK5F5FMEFB_X0Mp9Hm1A0QvONrbH6p9ozAsMCvhY40.

NOAA. 2022. U.S. Climate Normals Quick Access. Available at: https://www.ncei.noaa.gov/access/us-climate-normals/#dataset=normals-annualseasonal&timeframe=30&location=CA&station=USW00093134.

National Resources Conservation Services (NRCS). 2022. Web Soil Survey. https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx.

State Water Resources Control Board (SWRCB). 2022. GeoTracker. https://geotracker.waterboards.ca.gov/.

U.S. Air Force (USAF). 2021. Hazardous Waste Management Plan.

USAF. 2018a. Los Angeles Air Force Base Installation Facilities Standards

USAF. 2018b. Integrated Cultural Resources Management Plan for Los Angeles.

USAF. 2007. Environmental Assessment Los Angeles AFB Parking Structure. Los Angeles Air Force Base. August.

U.S. Environmental Protection Agency (USEPA). 2022. USEPA Green Book—National Area and County-Level Mutli-Pollutant Information. https://www3.epa.gov/airquality/greenbook/anayo_ca.html.

USEPA. 2011. AP-42: Compilation of Air Emission Factors, Fifth Edition, Volume I: Stationary Point and Area Sources. U.S. Environmental Protection Agency, Research Triangle Park, NC, January 1995 - December 2002. Last update in 2011. [Policies and Guidance]. https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-compilation-air-emission-factors.

USEPA. 2006. Documentation for the Final 2002 Nonpoint Sector National Emission Inventory for Criteria and Hazardous Air Pollutants.

USEPA. 2003. Los Angeles Air Force Base Land Conveyance, Construction, and Development Plan Environmental Impact Statement/Environmental Impact Report and Record of Decision.

USEPA. 1971. Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances.

USFWS. 2022. National Wetland Inventory.

SECTION 7
LIST OF PREPARERS

This EA was prepared for the USAF, under the direction of the Air Force Civil Engineer Center (AFCEC) and the SBD3, by WSP USA Environment and Infrastructure Inc. (WSP). Members of WSP's professional staff are listed below:

Project Management

Doug McFarling, NEPA Program Manager
B.A. Environmental Studies

Nick Meisinger, Project Manager
B.S. Environmental Science

Aaron Goldschmidt, QA/QC Manager
M.A. Geography

Technical Analyst

Ashlyn Navarro, Lead Environmental Analyst
B.A. Environmental Studies

Production

Janice Depew
Production

APPENDIX A
INTERAGENCY CORRESPONDENCE

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS SPACE BASE DELTA 3 (USSF)
LOS ANGELES AIR FORCE BASE, CALIFORNIA

MEMORANDUM FOR DISTRIBUTION

FROM: Space Base Delta 3
Los Angeles Air Force Base
482 North Aviation Boulevard
El Segundo, CA 90245

SUBJECT: Request for Comment on the Draft Environmental Assessment (EA) for Proposed Phase 2 Parking Structure at Los Angeles Air Force Base (AFB), Los Angeles, California

1. Space Base Delta 3 (SBD3) has prepared a Draft EA pursuant to the National Environmental Policy Act of 1969 (NEPA) (42 U.S. Code [USC] §§4331 et seq.) to evaluate the potential environmental impacts of the proposed Phase 2 Parking Structure at Los Angeles AFB.

2. The purpose of the Phase 2 Parking Structure to address parking deficiencies at Los Angeles AFB. While existing telework policies – enacted September 2022 for civilian employees – have limited existing parking demand, with a current workforce exceeding 4,500 personnel and only 2,212 total parking spaces, addressing the existing parking ratio is a top priority prior to a full return to work scenario.

3. The proposed Phase 2 Parking Structure (Proposed Action) – including the expansion of the existing parking structure, utility tie-ins, minor changes to pedestrian and vehicle circulation, and other associated landscape and hardscape improvements.

4. In accordance with Executive Order (EO) 12372, *Intergovernmental Review of Federal Programs*, we request your review of the attached Draft EA and solicit your comments concerning the proposal and any potential environmental consequences. Also enclosed is the distribution list, which includes those Federal, State, and local agencies that have been contacted as part of the intergovernmental review process. If there are any additional agencies that you feel should review and comment on the proposal, please include them in your distribution of this letter and the attached materials.

5. Please provide any comments at your earliest convenience, but no later than 30 days from the receipt of this letter to Mr. Yong Park, SBD3 Environmental Lead, 482 N Aviation Blvd, El Segundo, CA 90245, or by email to yong.park.1.ctr@spaceforce.mil. If you choose to e-mail comments, please include "Phase 2 Parking Structure at Los Angeles Air Force Base" in the subject line. Thank you for your assistance.

EDGAR A. JIMENEZ, NH-03, USAF
Engineering Flight Chief

SEMPER SUPRA

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS SPACE BASE DELTA 3 (USSF)
LOS ANGELES AIR FORCE BASE, CALIFORNIA

Attn: Mr. Ed Carroll
Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, CA 95816
(916) 445-7000

February 9, 2023

Dear Mr. Carroll,

Space Base Delta 3 (SBD3) is preparing an Environmental Assessment (EA) pursuant to the National Environmental Policy Act of 1969 (NEPA) (42 U.S. Code [USC] §§4331 et seq.) to evaluate the potential environmental impacts of a proposed Phase 2 Parking Structure at Los Angeles Air Force Base (AFB).

The proposed undertaking would involve the expansion of the existing parking structure, utility tie-ins, minor changes to pedestrian and vehicle circulation, and other associated landscape and hardscape improvements. Construction activities would begin with demolition and minor grading within a footprint of 0.5 acre or less, immediately adjacent to the existing parking structure. No inhabitable facilities or structures would be demolished to facilitate the expansion of the parking structure; however, existing planters and light poles within the proposed parking structure footprint would be removed. A utility survey would be conducted to verify the location of all underground utilities in the vicinity of the proposed parking structure footprint. However, apart from trenching for utility conduits necessary to tie the proposed Phase 2 Parking Structure into existing infrastructure, no major utility relocations are included as a part of the Proposed Action. Construction of the parking structure would begin with the reinforcement of load-bearing soils to limit the potential for building settling and to meet the structural requirements of the parking structure. The proposed Phase 2 Parking Structure would likely be constructed using precast and prestressed concrete, which is available in many shapes and sizes, including structural elements and unreinforced pieces. The proposed parking structure could also be cast-in-place, which would involve the use of concrete trucks to transport concrete, where it would be mixed and poured on-site.

The construction timeline for the proposed Phase 2 Parking Structure is uncertain and is largely dependent on existing telework policies – enacted September 2022 for civilian employees – and future operational and staffing decisions.

The Area of Potential Affect (APE) for this for this undertaking includes the project site (see Figure 1).

The Integrated Cultural Resources Management Plan (ICRMP) for the Los Angeles AFB describes the history of the base (U.S. Air Force [USAF] 2018). Los Angeles AFB was originally developed in the 1940s and 1950s. This 54-acre property is developed building footprints, asphalt surface parking lots, concrete hardscapes, and landscaping. A California Historical

Resources Information System (CHRIS) record search conducted with the South Central Coastal Information Center (SCCIC) identified no prehistoric archaeological sites on or within a 0.5-mile radius of the base (USAF 2018). Additionally, no archaeological sites have been identified at Los Angeles AFB, and the potential for the area to contain subsurface archaeological deposits is low (USAF 2018). There is one historic-age building is located on the base; however, an evaluation of the structure has determined it does not meet the criteria necessary for eligibility to the National Register of Historic Places (NRHP) (USAF 2018).

The proposed undertaking would not involve the demolition of any buildings or structures at Los Angeles AFB. Further, all ground-disturbing activities associated with the proposed undertaking would occur on a previously disturbed area of the base. Therefore, there is low possibility of inadvertent discoveries, and SBD3 has determined that an archaeological monitoring program would not be required. Any inadvertent discoveries would be processed under the ICRMP, Section 7.4, *Cultural Discoveries*, and the provisions of applicable law(s) such as Section 106 of the NHPA (36 CFR §800.13).

Based on the evidence and data provided herein, SBD3 has determined that the undertakings would have no effect on any historic resources that are eligible or potentially eligible for listing on the NRHP. We respectfully seek your concurrence with our determination of *no historic properties affected*. In accordance with 36 CFR §800.4(d)(1)(i), we are open to receiving your comments or questions within 30 days of your office's receipt of this consultation package. If your office chooses to send written comments, please address them to Mr. Yong Park, SBD 3 Environmental Lead, 482 N. Aviation Blvd. El Segundo, CA 90245. You may also e-mail your comments to yong.park.1.ctr@spaceforce.mil. If you choose to e-mail comments, please include "Phase 2 Parking Structure at Los Angeles Air Force Base" in the subject line. Thank you for your assistance in reviewing this undertaking.

EDGAR A. JIMENEZ, NH-03, USAF
Engineering Flight Chief

Enclosures:
1) Figure 1, Project Site
2) Integrated Cultural Resources Management Plan for Los Angeles Air Force Base (USAF 2018)

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS SPACE BASE DELTA 3 (USSF)
LOS ANGELES AIR FORCE BASE, CALIFORNIA

Attn: Mr. Scott Sobiech
Carlsbad Fish and Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
(760) 431-9440

February 9, 2023

Dear Mr. Sobiech,

Space Base Delta 3 is preparing an Environmental Assessment (EA) pursuant to the National Environmental Policy Act of 1969 (NEPA) (42 U.S. Code [USC] §§4331 et seq.) to evaluate the potential environmental impacts of a proposed Parking 2 Parking Structure at Los Angeles Air Force Base (AFB).

The Proposed Action would involve the expansion of the existing parking structure, utility tie-ins, minor changes to pedestrian and vehicle circulation, and other associated landscape and hardscape improvements. Construction activities would begin with demolition and minor grading within a footprint of 0.5 acre or less, immediately adjacent to the existing parking structure. No inhabitable facilities or structures would be demolished to facilitate the expansion of the parking structure; however, existing planters and light poles within the proposed parking structure footprint would be removed. A utility survey would be conducted to verify the location of all underground utilities in the vicinity of the proposed parking structure footprint. However, apart from trenching for utility conduits necessary to tie the proposed Phase 2 Parking Structure into existing infrastructure, no major utility relocations are included as a part of the Proposed Action. Construction of the parking structure would begin with the reinforcement of load-bearing soils to limit the potential for building settling and to meet the structural requirements of the parking structure. The proposed Phase 2 Parking Structure would likely be constructed using precast and prestressed concrete, which is available in many shapes and sizes, including structural elements and unreinforced pieces. The proposed parking structure could also be cast-in-place, which would involve the use of concrete trucks to transport concrete, where it would be mixed and poured on-site.

The construction timeline for the proposed Phase 2 Parking Structure is uncertain and is largely dependent on existing telework policies – enacted September 2022 for civilian employees – and future operational and staffing decisions.

The attached official species list – generated using the U.S. Fish and Wildlife's (USFWS's) Information for Planning and Consultation (IPaC) system – identified the federally endangered California least tern (*Sterna antillarum browni*), federally threatened coastal California gnatcatcher (*Polioptila californica californica*), federally endangered least Bell's vireo (*Vireo bellii pusillus*), federally threatened western snowy plover (*Charadrius nivosus nivosus*), and federally listed El Segundo blue butterfly (*Euphilotes battoides allyni*) as having potential to occur within Los Angeles AFB.

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS SPACE BASE DELTA 3 (USSF)
LOS ANGELES AIR FORCE BASE, CALIFORNIA

Los Angeles AFB was originally developed in the 1940s and 1950s, resulting in substantial modification of the existing topography and removal of existing native vegetation. This 54-acre property is completed developed with building footprints, asphalt surface parking lots, concrete hardscapes, and landscaping. Wildlife habitat is limited to landscaped trees and shrubs and indirectly impacted by roadway noise and industrial noise from surrounding land uses. The base does not provide coastal habitat for California least tern or western snowy plover. Additionally, the base does not provide coastal sage scrub habitat for coastal California gnatcatcher, riparian habitat for least Bell's vireo, or coast buckwheat (*Eriogonum parvifolium*), the host plant for El Segundo blue butterfly. Further, all ground-disturbing activities associated with the Proposed Action would be limited an existing surface parking lot located adjacent to an arterial roadway. Therefore, the U.S. Air Force has determined that there would be "no effect" to federally listed species.

We understand that it is not necessary to contact the USFWS regarding a "no effect" determination. Nevertheless, we respectfully request your concurrence with our finding of "no effect" within 30 days of your receipt of this letter. If your office chooses to send written comments, please address them to Mr. Yong Park, SBD3 Environmental Lead, 482 N. Aviation Blvd. El Segundo, CA 90245. You may also e-mail your comments to yong.park.1.ctr@spaceforce.mil. If you choose to e-mail comments, please include "Phase 2 Parking Structure at Los Angeles Air Force Base" in the subject line. Thank you for your assistance.

EDGAR A. JIMENEZ, NH-03, USAF
Engineering Flight Chief

Enclosures:
1) Figure 1, Project Site
2) USFWS IPaC Official Species List

APPENDIX B
TRIBAL CONSULTATION CORRESPONDENCE

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS SPACE BASE DELTA 3 (USSF)
LOS ANGELES AIR FORCE BASE, CALIFORNIA

MEMORANDUM FOR DISTRIBUTION

FROM: Space Base Delta 3
Los Angeles Air Force Base
482 North Aviation Boulevard
El Segundo, CA 90245

SUBJECT: Environmental Assessment (EA) for Proposed Phase 2 Parking Structure at Los Angeles Air Force Base (AFB), Los Angeles, California

1. Space Base Delta 3 (SBD3) is preparing an EA pursuant to the National Environmental Policy Act of 1969 (NEPA) (42 U.S. Code [USC] §§4331 et seq.) to evaluate the potential environmental impacts of the proposed Phase 2 Parking Structure at Los Angeles AFB.

2. The purpose of the Phase 2 Parking Structure to address parking deficiencies at Los Angeles AFB. While existing telework policies – enacted September 2022 for civilian employees – have limited existing parking demand, with a current workforce exceeding 4,500 personnel and only 2,212 total parking spaces, addressing the existing parking ratio is a top priority prior to a full return to work scenario.

3. The proposed Phase 2 Parking Structure (Proposed Action) – including the expansion of the existing parking structure, utility tie-ins, minor changes to pedestrian and vehicle circulation, and other associated landscape and hardscape improvements.

4. SBD3 anticipates the Area of Potential Effect (APE) for this undertaking to be limited to project site identified in Figure 1. As a Native American tribe with potential interests in the APE, SBD3 is reaching out to you to assist in our analysis of the undertaking's effect. In accordance with Section 106 of the National Historic Preservation Act (NHPA) and in reference to Executive Order (EO) 13175, *Consultation and Coordination with Indian Tribal Governments*, SBD3 would like to offer government-to-government consultation with your tribe. SBD3 is also consulting with the California State Historic Preservation Office (SHPO) under Section 106.

5. In particular, SBD3 requests your input about 1) the existence of any traditional resources that may be located in or near the proposed APE; 2) whether you have knowledge of any historic properties that might be affected by the proposed undertaking in the APE; and 3) whether your tribe wishes to participate in Section 106 consultation for this undertaking.

6. SBD3 is committed to early and continuous consultation with all potentially affected Native American tribes. The information your tribe provides will assist us in the EA development. In accordance with 36 Code of Federal Regulations (CFR) §800.4(d)(1)(i), we are open to receiving your questions, comments, or requests for government-to-government consultation within 30 days of your receipt of this consultation package. Please feel free to contact Mr. Yong Park, SBD3

Environmental Lead, 482 N Aviation Blvd, El Segundo, CA 90245, or by email to yong.park.1.ctr@spaceforce.mil. If you choose to e-mail comments, please include "Phase 2 Parking Structure at Los Angeles Air Force Base" in the subject line. Thank you for your assistance.

EDGAR A. JIMENEZ, NH-03, USAF
Engineering Flight Chief

APPENDIX C
AIR CONFORMITY APPLICABILITY MODEL REPORT

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:

Base: LOS ANGELES AFB
State: California
County(s): Los Angeles
Regulatory Area(s): Los Angeles South Coast Air Basin, CA; Los Angeles County-South Coast Air Basin, CA

b. Action Title: LAAFB PARKING STRUCTURE ENVIRONMENTAL SURVEY/PROJECT FY22

c. Project Number/s (if applicable):

d. Projected Action Start Date: 1 / 2024

e. Action Description:

The Proposed Action would expand the existing 6-story parking structure to occupy an additional 18,500-sf area of the existing surface parking lot to the south (Parking Lot No. 16). The expansion of the existing parking structure would displace approximately 41 surface parking spaces but would provide an additional 206 parking spaces within the parking structure, for a net increase of approximately 165 parking spaces. Together, the proposed Phase 2 addition to the existing parking structure would form a single, 6-story parking structure occupying a footprint of 60,000-sf. The existing parking lot entrance and exit would remain the same and the expanded area would be tied into the existing utility infrastructure. Following the completion of the proposed Phase 2 Parking Structure, a total of 500 parking spaces (including ABA-accessible spaces) would be provided.

f. Point of Contact:

Name: Taylor lane
Title: Contractor
Organization: WSP USA, Inc.
Email: taylor.lane@wsp.com
Phone Number: (805) 962-0992

2. Analysis: Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are: _____ applicable
__X__ not applicable

Conformity Analysis Summary:

2024

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Los Angeles South Coast Air Basin, CA			
VOC	0.268	10	No
NOx	1.586	10	No

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

CO	1.967	100	No
SOx	0.005	70	No
PM 10	0.439	100	No
PM 2.5	0.064	70	No
Pb	0.000		
NH3	0.003	70	No
CO2e	450.3		
Los Angeles County-South Coast Air Basin, CA			
VOC	0.268		
NOx	1.586		
CO	1.967		
SOx	0.005		
PM 10	0.439		
PM 2.5	0.064		
Pb	0.000	25	No
NH3	0.003		
CO2e	450.3		

2025

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Los Angeles South Coast Air Basin, CA			
VOC	0.126	10	No
NOx	0.746	10	No
CO	0.940	100	No
SOx	0.002	70	No
PM 10	0.032	100	No
PM 2.5	0.031	70	No
Pb	0.000		
NH3	0.002	70	No
CO2e	209.0		
Los Angeles County-South Coast Air Basin, CA			
VOC	0.126		
NOx	0.746		
CO	0.940		
SOx	0.002		
PM 10	0.032		
PM 2.5	0.031		
Pb	0.000	25	No
NH3	0.002		
CO2e	209.0		

2026 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Los Angeles South Coast Air Basin, CA			
VOC	0.000	10	No
NOx	0.000	10	No
CO	0.000	100	No
SOx	0.000	70	No
PM 10	0.000	100	No
PM 2.5	0.000	70	No
Pb	0.000		

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF CONFORMITY ANALYSIS (ROCA)

NH3	0.000	70	No
CO2e	0.0		
Los Angeles County-South Coast Air Basin, CA			
VOC	0.000		
NOx	0.000		
CO	0.000		
SOx	0.000		
PM 10	0.000		
PM 2.5	0.000		
Pb	0.000	25	No
NH3	0.000		
CO2e	0.0		

None of estimated emissions associated with this action are above the conformity threshold values established at 40 CFR 93.153 (b); Therefore, the requirements of the General Conformity Rule are not applicable.

_____ _____

Taylor lane, Contractor DATE

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1. General Information

- Action Location

Base: LOS ANGELES AFB
State: California
County(s): Los Angeles
Regulatory Area(s): Los Angeles South Coast Air Basin, CA; Los Angeles County-South Coast Air Basin, CA

- Action Title: LAAFB PARKING STRUCTURE ENVIRONMENTAL SURVEY/PROJECT FY22

- Project Number/s (if applicable):

- Projected Action Start Date: 1 / 2024

- Action Purpose and Need:

The purpose of the proposed Phase 2 Parking Structure is to provide additional parking capacity necessary to meet existing parking demand at Los Angeles AFB. The need for the proposed Phase 2 Parking Structure is twofold: The current parking supply is inadequate, with unreserved parking utilization exceeding 90 percent within each of the 22 parking lots on the base. With a current workforce exceeding 4,500 personnel and only 2,212 total parking spaces, addressing the existing parking ratio is a top priority. The proposed Phase 2 Parking Structure would facilitate long-term transportation and circulation improvements identified in the Entry Control Facilities and Comprehensive Traffic Engineering Study (Gannett Fleming 2020). These improvements – intended to address existing Anti-Terrorism / Force Protection (AT/FP) issues, improve accessibility within the base consistent with the requirements of the Architectural Barriers Act (ABA), and accommodate future traffic conditions – require the removal of existing surface parking spaces, which cannot be achieved without replacement.

- Action Description:

The Proposed Action would expand the existing 6-story parking structure to occupy an additional 18,500-sf area of the existing surface parking lot to the south (Parking Lot No. 16). The expansion of the existing parking structure would displace approximately 41 surface parking spaces but would provide an additional 206 parking spaces within the parking structure, for a net increase of approximately 165 parking spaces. Together, the proposed Phase 2 addition to the existing parking structure would form a single, 6-story parking structure occupying a footprint of 60,000-sf. The existing parking lot entrance and exit would remain the same and the expanded area would be tied into the existing utility infrastructure. Following the completion of the proposed Phase 2 Parking Structure, a total of 500 parking spaces (including ABA-accessible spaces) would be provided.

- Point of Contact

Name: Taylor lane
Title: Contractor
Organization: WSP USA, Inc.
Email: taylor.lane@wsp.com
Phone Number: (805) 962-0992

- Activity List:

Activity Type		Activity Title
2.	Construction / Demolition	Parking Garage Construction

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

- Activity Location
County: Los Angeles
Regulatory Area(s): Los Angeles South Coast Air Basin, CA; Los Angeles County-South Coast Air Basin, CA

- Activity Title: Parking Garage Construction

- Activity Description:
The proposed Phase 2 Parking Structure would likely be constructed using precast and prestressed concrete, which is available in many shapes and sizes, including structural elements and unreinforced pieces. Concrete members (i.e., slabs, beams, columns, etc.) would be constructed and stored in a factory setting and then 27 transported to the project site. The size of the concrete members would vary but would be limited by the size of trucks and the constraints of the roadway network along the haul route. Once at the project site the concrete members would be lifted into place using a crane and secured. The proposed parking structure could also be cast-in-place, which would involve the use of concrete trucks to transport concrete, where it would be mixed and poured on-site. Each of these approaches to construction would involve hundreds of truck trips at Los Angeles AFB.

- Activity Start Date
Start Month: 1
Start Month: 2024

- Activity End Date
Indefinite: False
End Month: 5
End Month: 2025

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.394060
SO_x	0.006904
NO_x	2.331269
CO	2.906582
PM 10	0.471718

Pollutant	Total Emissions (TONs)
PM 2.5	0.095199
Pb	0.000000
NH_3	0.004167
CO_2e	659.3

2.1 Demolition Phase

2.1.1 Demolition Phase Timeline Assumptions

- Phase Start Date
Start Month: 1
Start Quarter: 1
Start Year: 2024

- Phase Duration
Number of Month: 2
Number of Days: 0

2.1.2 Demolition Phase Assumptions

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- General Demolition Information
Area of Building to be demolished (ft^2): 18500
Height of Building to be demolished (ft): 1

- Default Settings Used: Yes

- Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Concrete/Industrial Saws Composite	1	8
Rubber Tired Dozers Composite	1	1
Tractors/Loaders/Backhoes Composite	2	6

- Vehicle Exhaust
Average Hauling Truck Capacity (yd^3): 20 (default)
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips
Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.1.3 Demolition Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Concrete/Industrial Saws Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0357	0.0006	0.2608	0.3715	0.0109	0.0109	0.0032	58.544
Rubber Tired Dozers Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.1747	0.0024	1.1695	0.6834	0.0454	0.0454	0.0157	239.47
Tractors/Loaders/Backhoes Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0348	0.0007	0.1980	0.3589	0.0068	0.0068	0.0031	66.875

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	Pb	NH_3	CO_2e
LDGV	000.129	000.003	000.075	001.212	000.019	000.007		000.025	00301.651
LDGT	000.159	000.004	000.138	001.613	000.021	000.008		000.027	00370.710
HDGV	000.211	000.005	000.228	001.862	000.031	000.011		000.052	00517.052
LDDV	000.042	000.002	000.235	000.454	000.044	000.031		000.008	00252.239
LDDT	000.022	000.003	000.060	000.193	000.027	000.013		000.009	00334.201
HDDV	000.088	000.006	001.339	000.289	000.106	000.050		000.033	00606.872
MC	004.568	000.002	000.607	015.628	000.019	000.008		000.053	00211.875

2.1.4 Demolition Phase Formula(s)

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Fugitive Dust Emissions per Phase
$PM10_{FD}$ = (0.00042 * BA * BH) / 2000

$PM10_{FD}$: Fugitive Dust PM 10 Emissions (TONs)
0.00042: Emission Factor (lb/ft^3)
BA: Area of Building to be demolished (ft^2)
BH: Height of Building to be demolished (ft)
2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase
CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hour)
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase
VMT_{VE} = BA * BH * (1 / 27) * 0.25 * (1 / HC) * HT

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
BA: Area of Building being demolish (ft^2)
BH: Height of Building being demolish (ft)
(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd^3 / 27 ft^3)
0.25: Volume reduction factor (material reduced by 75% to account for air space)
HC: Average Hauling Truck Capacity (yd^3)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase
VMT_{WT} = WD * WT * 1.25 * NE

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.2 Site Grading Phase

2.2.1 Site Grading Phase Timeline Assumptions

- Phase Start Date
Start Month: 3
Start Quarter: 1
Start Year: 2024

- Phase Duration
Number of Month: 2
Number of Days: 0

2.2.2 Site Grading Phase Assumptions

- General Site Grading Information
Area of Site to be Graded (ft^2): 18500
Amount of Material to be Hauled On-Site (yd^3): 0
Amount of Material to be Hauled Off-Site (yd^3): 0

- Site Grading Default Settings
Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Graders Composite	1	6
Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	1	6
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust
Average Hauling Truck Capacity (yd^3): 20 (default)
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips
Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.2.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite								
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CH_4	CO_2e
Emission Factors	0.0714	0.0014	0.3708	0.5706	0.0167	0.0167	0.0064	132.90
Other Construction Equipment Composite								
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CH_4	CO_2e
Emission Factors	0.0461	0.0012	0.2243	0.3477	0.0079	0.0079	0.0041	122.61
Rubber Tired Dozers Composite								
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CH_4	CO_2e
Emission Factors	0.1747	0.0024	1.1695	0.6834	0.0454	0.0454	0.0157	239.47
Tractors/Loaders/Backhoes Composite								
	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CH_4	CO_2e
Emission Factors	0.0348	0.0007	0.1980	0.3589	0.0068	0.0068	0.0031	66.875

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	Pb	NH_3	CO_2e
LDGV	000.129	000.003	000.075	001.212	000.019	000.007		000.025	00301.651
LDGT	000.159	000.004	000.138	001.613	000.021	000.008		000.027	00370.710
HDGV	000.211	000.005	000.228	001.862	000.031	000.011		000.052	00517.052
LDDV	000.042	000.002	000.235	000.454	000.044	000.031		000.008	00252.239
LDDT	000.022	000.003	000.060	000.193	000.027	000.013		000.009	00334.201
HDDV	000.088	000.006	001.339	000.289	000.106	000.050		000.033	00606.872
MC	004.568	000.002	000.607	015.628	000.019	000.008		000.053	00211.875

2.2.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase

$PM10_{FD} = (20 * ACRE * WD) / 2000$

$PM10_{FD}$: Fugitive Dust PM 10 Emissions (TONs)
20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)
ACRE: Total acres (acres)
WD: Number of Total Work Days (days)
2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hour)
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
HA_{OnSite}: Amount of Material to be Hauled On-Site (yd^3)
$HA_{OffSite}$: Amount of Material to be Hauled Off-Site (yd^3)
HC: Average Hauling Truck Capacity (yd^3)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Vehicle Exhaust On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase
$VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

2.3 Building Construction Phase

2.3.1 Building Construction Phase Timeline Assumptions

- Phase Start Date
Start Month: 5
Start Quarter: 1
Start Year: 2024

- Phase Duration
Number of Month: 13
Number of Days: 0

2.3.2 Building Construction Phase Assumptions

- General Building Construction Information
Building Category: Office or Industrial
Area of Building (ft^2): 60000
Height of Building (ft): 60
Number of Units: N/A

- Building Construction Default Settings
Default Settings Used: No
Average Day(s) worked per week: 5

- Construction Exhaust

Equipment Name	Number Of Equipment	Hours Per Day
Cranes Composite	1	6

Forklifts Composite	2	6
Generator Sets Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8
Trenchers Composite	1	6
Welders Composite	3	8

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

- Vendor Trips

Average Vendor Round Trip Commute (mile): 40

- Vendor Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

2.3.3 Building Construction Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour)

Cranes Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0715	0.0013	0.4600	0.3758	0.0161	0.0161	0.0064	128.78
Forklifts Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0246	0.0006	0.0973	0.2146	0.0029	0.0029	0.0022	54.451
Generator Sets Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0303	0.0006	0.2464	0.2674	0.0091	0.0091	0.0027	61.061
Tractors/Loaders/Backhoes Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0348	0.0007	0.1980	0.3589	0.0068	0.0068	0.0031	66.875
Trenchers Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0718	0.0006	0.3671	0.4115	0.0236	0.0236	0.0064	58.874
Welders Composite								
	VOC	**SO_x**	**NO_x**	**CO**	**PM 10**	**PM 2.5**	**CH_4**	**CO_2e**
Emission Factors	0.0227	0.0003	0.1427	0.1752	0.0059	0.0059	0.0020	25.653

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	Pb	NH_3	CO_2e
LDGV	000.129	000.003	000.075	001.212	000.019	000.007		000.025	00301.651
LDGT	000.159	000.004	000.138	001.613	000.021	000.008		000.027	00370.710
HDGV	000.211	000.005	000.228	001.862	000.031	000.011		000.052	00517.052

LDDV	000.042	000.002	000.235	000.454	000.044	000.031		000.008	00252.239
LDDT	000.022	000.003	000.060	000.193	000.027	000.013		000.009	00334.201
HDDV	000.088	000.006	001.339	000.289	000.106	000.050		000.033	00606.872
MC	004.568	000.002	000.607	015.628	000.019	000.008		000.053	00211.875

2.3.4 Building Construction Phase Formula(s)

- Construction Exhaust Emissions per Phase
$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)
NE: Number of Equipment
WD: Number of Total Work Days (days)
H: Hours Worked per Day (hours)
EF_{POL}: Emission Factor for Pollutant (lb/hour)
2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase
$VMT_{VE} = BA * BH * (0.42 / 1000) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
BA: Area of Building (ft^2)
BH: Height of Building (ft)
(0.42 / 1000): Conversion Factor ft^3 to trips (0.42 trip / 1000 ft^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase
$VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
WD: Number of Total Work Days (days)
WT: Average Worker Round Trip Commute (mile)
1.25: Conversion Factor Number of Construction Equipment to Number of Works
NE: Number of Construction Equipment

$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons

- Vender Trips Emissions per Phase
$VMT_{VT} = BA * BH * (0.38 / 1000) * HT$

VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)
BA: Area of Building (ft^2)
BH: Height of Building (ft)
(0.38 / 1000): Conversion Factor ft^3 to trips (0.38 trip / 1000 ft^3)
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$V_{POL} = (VMT_{VT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)
VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)
0.002205: Conversion Factor grams to pounds
EF_{POL}: Emission Factor for Pollutant (grams/mile)
VM: Worker Trips On Road Vehicle Mixture (%)
2000: Conversion Factor pounds to tons