FINAL ENVIRONMENTAL ASSESSMENT

PHYSICAL FITNESS CENTER
LOS ANGELES AIR FORCE BASE

Prepared for
Los Angeles Air Force Base
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In accordance with the National Environmental Policy Act (NEPA) of 1969 (Public Law 91-190, 42 United States Code [USC] 4321 through 4337) and the Council on Environmental Quality (CEQ) Regulations (40 CFR Parts 1500 through 1508), the United States Air Force 61st Air Base Group/Civil Engineering, acting as the Lead Agency, has completed a Final Environmental Assessment (EA) for the following proposed action: Physical Fitness Center Complex.

The proposed action would involve the construction of an approximately 34,000 square foot physical fitness center complex to replace the existing Physical Fitness Center (PFC) and Health and Wellness Center (HAWC) facilities located in Area B, at the Los Angeles Air Force Base (LAAFB) in the City of El Segundo. The project would involve the demolition of Building 213 (Hazardous Storage), Building 214 (POV Wash Rack), Building 216 (Vehicle Operations Parking Shed), and a portion of Building 215 (Automotive Hobby Shop) to provide for the new space. The proposed new facility would include a multi-purpose basketball court, sauna, steam rooms, locker rooms, showers, exercise and aerobics area, weight-training area, fitness testing room, kitchen, classroom/conference room, and relaxation room. The current facilities are inadequate to support effective and minimum conditioning and exercising requirements, fail to meet current fire and building safety codes, and are seismically unsafe. The proposed action would be a design and build project and comply with all the recommended mitigation measures outlined in the Final EA. Construction is estimated to take approximately 10 months.

The attached Environmental Assessment (EA) evaluated the effects of the Proposed Action and other alternatives on a variety of resources including land use, geology and soils, water resources, biological resources, air quality, noise, traffic and transportation, waste management, socioeconomics, cultural resources, and infrastructure.

Based on the information contained in the attached EA and in accordance with the National Environmental Policy Act, the proposed action with the mitigation measures described in the EA will have no significant impact on the human environment. An Environmental Impact Statement will not be prepared because the EA found no significant long-term environmental impacts resulting from the proposed action.

APPROVED:

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1.1 BACKGROUND

Los Angeles Air Force Base (LAAFB) represents the Western Development Division (WDD) of the United States Air Force. The mission of LAAFB is to provide integrated affordable systems for the control and exploitation of air and space. LAAFB is part of the Space and Missile Systems Center (SMC), 61st Air Base Group (ABG) and numerous Operating Locations and Detachments. The SMC is the center of technical excellence for researching, developing, and purchasing military space systems, including on-orbit check-out, testing, sustainment, and maintenance of military satellite constellations and other Department of Defense space systems.

LAAFB is located in the City of El Segundo, California, about four miles south of Los Angeles International Airport, in an area dominated by aerospace industries (see Figure 1-1, *Los Angeles Air Force Base Regional Vicinity and Property Map*, and Figure 1-2, *Project Site Location Map*). LAAFB consists of 2 distinct areas – Area A and Area B. Area B, in which the project site is located, was acquired by the U.S. Navy in 1942 and used as a Naval Weapons Industrial Reserve Plant (Douglas Aircraft Company). Through various transfers of ownership, Area B became Air Force property. Area B consists of 30 buildings and is currently used to provide logistic, administrative, transportation, and medical support for all organizations and personnel assigned or affiliated with the installation. LAAFB employs over 1,500 military personnel and about 1,000 civilians, and offers on-site auxiliary services to their dependents.

The Proposed Action comprises construction and operation of a new Physical Fitness Center Complex (PFC Complex) at LAAFB Area B. The facility would provide opportunities for the physical training and development of military personnel at LAAFB as well as recreational opportunities to help moderate the stresses of military life.

There currently exists a PFC and Health and Welfare Center (HAWC) in separate structures both in Area B. The existing PFC is approximately 32,400 square feet (sf) and is located in Building 242. It houses a basketball gym, showers, locker rooms, an aerobic workout room, cardiovascular equipment, and nutritional concession stand. The HAWC is approximately 4,340 sf and is located within the northwest corner of Building 244. It has office space and a classroom size kitchen for cooking instruction classes. Buildings 242 and 244 are converted hangars that were originally constructed in the 1940's. Despite recent interior renovations, the spaces provided for these functions are substandard.

One of LAAFB's goals is to design new quality facilities that enhance mission effectiveness, protect the environment, and incorporate seismic safety measures as well as energy conservation

technologies. Development of a new Complex is consistent with the *Base Master Plan* (currently being developed) and will be the fourth major facility to be constructed on the Base within the last 20 years.

1.2 PURPOSE AND NEED

The purpose of the Proposed Action is to provide for an upgraded facility that will meet the existing and future physical fitness needs of military personnel and their dependents at LAAFB. The present PFC and HAWC facilities are inadequate to provide effective and minimum conditioning and exercising requirements. Consequently, there is a great need to provide a facility to meet minimum Air Force requirements for physical fitness at LAAFB.

Moreover, the existing PFC and HAWC do not meet current fire and building safety codes. They are housed in structures that are not structurally adequate to withstand a significant seismic event. Other facility deficiencies include an antiquated electrical system, a suspect roof, and the presence of asbestos containing materials and lead based paint.

The programs and services provided by the two existing facilities are directly related but are located in completely separate buildings. The new Complex will provide for a more efficient use of space.

1.3 DECISION TO BE MADE

The decision to be made regarding construction of the new Complex at LAAFB is whether:

- The Proposed Action has the potential to adversely affect the surrounding environment.
- Further detailed analysis of the environmental issue areas, in the form of an Environmental Impact Statement, is needed to more accurately characterize the extent of environmental impact associated with the Proposed Action.
- The alternatives are sufficient to provide for the existing and future physical fitness needs of military personnel and their dependents.

1.4 PURPOSE OF THE ENVIRONMENTAL ASSESSMENT

In proposing the development of a new facility at LAAFB, LAAFB must comply with general procedural environmental review requirements under the National Environmental Policy Act (NEPA) of 1969 (Public Law 91-190, 42 United States Code [USC] 4321 through 4337) and the Council on Environmental Quality (CEQ) Regulations (40 CFR Parts 1500 through 1508). The

Air Force Environmental Impact Analysis Process (EIAP) in the Air Force Instruction 32-7061 described these requirements and provides guidelines for compliance with NEPA.

The purpose of this Environmental Assessment (EA) is to provide information to the United States Air Force (USAF) decision makers regarding the potential environmental consequences of the Proposed Action and alternatives, including the No Action alternative. This EA serves as the environmental documentation in support of the decision maker's selection and approval of the Proposed Action or alternative.

1.5 ISSUES

In compliance with the EIAP and NEPA requirements, the following environmental issue areas are addressed and discussed as they relate to the potential for the Proposed Action to result in significant environmental effects:

- Land Use
- Geology and Soils
- Water Resources
- Biological Resources
- Climate and Air Quality
- Noise
- Traffic and Transportation
- Solid and Hazardous Waste Management and Disposal
- Socioeconomics
- Cultural Resources
- Infrastructure

1.6 SCOPE OF ENVIRONMENTAL ASSESSMENT

This EA is part of the USAF's EIAP for the proposed development of a new Physical Fitness Center Complex. The scope of this EA involves the analysis and evaluation of the Proposed Action and the potential for it to result in significant environmental consequences. In accordance with AFI 32-7061, NEPA and CEQ regulations, this EA:

- Describes the existing environmental conditions as related to the Proposed Action;

- Identifies and analyzes the potential environmental consequences of the Proposed Action, and the potential cumulative environmental impacts of the Proposed Action and alternatives;
- Identifies mitigation measures, as appropriate, to avoid, limit, or reduce the potential environmental affects associated with the Proposed Action and alternatives; and
- Identifies applicable environmental permits, if any, that may be required for the Proposed Action.

The analysis contained in this EA was based on information and data provided to the consultant by LAAFB in the form of previous EAs prepared for similar on-site projects planned at LAAFB, Area B, as well as off-site projects servicing U.S. military personnel. Other documents used in the preparation of the EA are the *Final Natural and Cultural Resources Management Plan* (LAAFB 1999b), the *Final Phase I Environmental Baseline Survey* (LAAFB 2000a), summary asbestos and lead survey reports, and the *Report of Subsurface Investigation Physical Fitness Center Complex* (Geotechnics Inc. 2000).

1.7 ORGANIZATION OF THE ENVIRONMENTAL ASSESSMENT

This EA has been organized into nine sections, in addition to supporting tables and figures. Section 2.0 describes the location of the development site and the details of the Proposed Action. In compliance with NEPA, this section also addresses alternatives to the Proposed Action. Section 3.0 characterizes the existing environmental baseline conditions or affected environment. Section 4.0 discusses the potential for the Proposed Action to result in significant adverse environmental effects, including cumulative impacts, in and around the project site. It also identifies recommended mitigation measures to avoid and/or reduce anticipated negative impacts to below a level of significance. Section 5.0 addresses the potential environmental impacts associated with alternatives to the Proposed Action. Sections 6.0 through 9.0 provide supporting documentation in preparation of this EA including regulatory review and permit requirements, persons and organizations consulted, references, and a list of preparers.

1.8 PUBLIC REVIEW AND RESPONSES TO COMMENTS

The Draft EA for the Physical Fitness Center Complex project was submitted on August 25, 2000 to the Governor's Office of Planning and Research, State Clearinghouse, for distribution to state agencies. The public was notified of the document's availability through an advertisement in the El Segundo Herald. Copies of the document were placed in the El Segundo and Hawthorne public libraries. The Draft EA was available for public review from August 25 to

September 24, 2000. One comment letter, and one comment made via telephone call, were received. Responses to these comments are provided at Appendix A.

2.1 LOCATION OF PROPOSED ACTION

The Proposed Action is located in the City of El Segundo on the USGS 7.5 minute series, Venice and Inglewood quadrangles in an unsectioned portion of the maps (Township 3S, Range 14W). LAAFB consists of two parcels: Area A and Area B. Area A is located at the southeast corner of El Segundo Boulevard and Aviation Boulevard and encompasses 41.45 acres. Area B is located at the northwest corner of El Segundo Boulevard and Aviation Boulevard and encompasses 53.70 acres. Both areas are adjacent to existing freight railroad lines, which run along Aviation Boulevard and the eastern boundary of Area B.

2.2 ALTERNATIVE NO. 1 - PROPOSED ACTION

The Proposed Action involves construction of a new Physical Fitness Center Complex (PFC Complex) at LAAFB to support on-going physical fitness training of military personnel for combat readiness and national emergencies. The Complex would replace fitness services and facilities currently offered in the existing PFC (Building 242) and Health and Welfare Center (HAWC) (Building 244), both of which are located in separate facilities on Area B of LAAFB. The Complex would accommodate both the PFC and HAWC programs. As part of an evolving Master Plan for the LAAFB, the current PFC and HAWC structures are planned to be transformed into office and community center space (Personal Communication, LAAFB 2000a).

The Proposed Action would include a multi-purpose ball court, sauna, steam rooms, locker rooms, showers, exercise and aerobics area, weight-training area, fitness testing room, kitchen, classroom/conference room, and relaxation room. The facilities would comprise approximately 34,000 square feet (sf). Outdoor furnishings including benches, planters, tables, and trash receptacles would also be provided. A depiction of the proposed project is presented in Figure 2-1, *Project Site Plan* and Figure 2-2, *Project Site Aerial Photograph*.

The Complex would be designed consistent with the existing LAAFB architectural context, and would maintain an exterior metal-panel system. American Disabilities Act (ADA) standards would be implemented to ensure handicapped patron access. Landscaping would consist of turf and low, thorny shrubs adjacent to the building. Vegetation would be drought tolerant and low maintenance. Drip irrigation would be installed where needed.

Utilities (water, wastewater, communications) would be installed to support the proposed complex. Due to the presence of methane underlying the project site, a passive methane gas control system would be installed to vent methane from accumulating beneath the building and from inside the building (Geotechnics Incorporated 2000)

Construction of the Proposed Action would involve demolition of the Hazardous Storage (Building 213), POV Wash Rack (Building 214), Vehicle Operations Parking Shed (Building 216), and southern half of the Automotive Hobby Shop (Building 215). These structures are depicted in Figure 2-3 *(Building 213),* Figure 2-4 (*Building 214),* Figure 2-5 (*Building 215),* and Figure 2-6 (*Building 216).* The existing running track, picnic area, basketball court, volleyball court, and landscaping would also be demolished. About 90 parking spaces would be permanently displaced and replaced with approximately six (6) new spaces.

Access to the site would be through LAAFB Gates 4 and 5 on Aviation Boulevard and on Douglas Street, respectively. In addition, a new temporary access gate along Douglas Road would be installed just north of the project site during construction. Limited ADA and service vehicle parking would be provided.

Construction Scenario

The Proposed Action would be constructed in two (2) phases and be completed in approximately ten (10) months. Construction activities would begin in February 2001.

It is estimated that up to a maximum of 35 construction workers would be on-site on any given day. The project would involve the operation of heavy equipment including one (1) backhoe, one (1) bulldozer, one (1) crane, one (1) small hydraulic crane, and several concrete mixers. The duration of operation of each of these pieces of equipment would vary and range from one (1) week to five (5) weeks. Not all the equipment would be on site at one time. The anticipated duration of construction activities is as follows:

Phase 1

- Demolition of Buildings 213, 214, 215 (south only), and 216 as well as the existing running track, picnic area, basketball court, volleyball court, parking and landscaping – 3 weeks
- Site preparation and grading – 3 weeks

Phase 2

- Construction of the new Complex - 8-9 months

The anticipated construction route would utilize El Segundo Boulevard off I-405 to Douglas Street to enter and exit through a temporary new access gate just north of the project site on Douglas Street traveling north to Imperial Highway and/or I-105.

Current activities at the existing PFC and HAWC would continue uninterrupted until the new facility is completed. Upon completion of construction activities, personnel and equipment would be moved to the new Complex. The new facility would have the same hours as the existing facility, and be open from 6:00 a.m. to 9:00 p.m. Monday through Thursday, 6:00 a.m. to 7:00 p.m. on Friday, and 8:00 a.m. to 3:00 p.m. Saturday and Sunday.

2.3 ALTERNATIVE NO. 2 – RENOVATION

Alternative No.2 involves renovating the existing PFC and HAWC. Physical fitness activities and programs would continue to operate in the same location: Building 242 (PFC) and Building 244 (HAWC). No new fitness equipment would be purchased nor would any new programs be implemented under this alternative. Renovations would be strictly cosmetic and structural in nature and include asbestos and lead based paint abatement. This alternative considers retrofitting the buildings for seismic safety as well as installing necessary fire protection features. An addition to Building 242 would be necessary to accommodate the current number of users.

2.4 ALTERNATIVE NO. 3 – UTILIZATION OF LOCAL FITNESS FACILITIES/LEASING

Alternative No.3 considers redirecting military personnel to physical fitness facilities off-site. Military personnel would utilize nearby gym facilities in the El Segundo area. The current PFC (Building 242) and HAWC (Building 244) would be closed (Personal Communication, Freeman 2000a).

2.5 ALTERNATIVE NO. 4 - BUILDING NEW PFC FACILITY OFF-BASE

Alternative No. 4 would involve the purchase of new property and construction of a new fitness center building off-base within the vicinity of LAAFB Area B. This alternative would require availability of land and several preliminary studies including a geotechnical investigation, cultural resources investigation, biological assessment, and potentially a Phase I Environmental Baseline Survey.

2.6 NO ACTION ALTERNATIVE

Under the No Action Alternative, physical fitness services and programs would continue to be administered through the existing PFC and HAWC. The existing track and field facility, picnic tables, and Buildings 213-216 would remain and operate under current conditions.

This section of the EA characterizes the environmental baseline conditions that exist at the site when preparing this EA. Because of the nature of the project (replacement facility within an existing military base), the level of detail provided in describing the surrounding environment is limited to the project site. Information and data referenced in this section were obtained from an EA prepared for the *Replacement Medical and Dental Clinic for the 61st Medical Squadron at LAAFB* (LAAFB, 1999c), as well as the *Final Phase I Environmental Baseline Survey* for the *Utility Privatization and Real Property Transfer* (LAAFB, 2000a). The following areas are described in this section: Land Use, Geology and Soils, Water Resources, Biological Resources, Climate and Air Quality, Noise, Traffic and Transportation, Waste Management Disposal, Socioeconomics, Cultural Resources, and Infrastructure.

3.1 LAND USE

LAAFB is located in the city of El Segundo, east of Sepulvada Boulevard and west of I-405. The project site is located in LAAFB Area B, north of El Segundo Boulevard and east of Douglas Road. Surrounding land uses include industrial, office, commercial, and vacant land. This area of El Segundo contains "super block" development, a mixture of office and research and development uses. The City General Plan and zoning designations for the area in which the project site is located are Public Facilities. Citywide land use and zoning designations are depicted in Figure 3-1, *City of El Segundo Land Use Map* and Figure 3-2, *City of El Segundo Zoning Map*.

An existing child daycare facility is housed in Building 207 and 208, located immediately southeast of the project site. The facility serves approximately 100 children and employs approximately 35 full-time staff (Personal Communication, Freeman 2000). Building 219, located directly across from the project site in Area B, is mostly administrative office and houses over 150 full time workers including the Air Base Group commander.

3.2 GEOLOGY AND SOILS

Geology. LAAFB is located in the Transverse Ranges geomorphic province of California and within the Los Angeles Basin, a topographic lowland plain with a northwest trending axis approximately 50 miles long and 20 miles wide. The stratigraphy of the Los Angeles Basin is characterized by both unconsolidated and indurated sediments of Jurassic to Recent age. Bedrock in the vicinity of the LAAFB consists of metamorphic rocks of the Franciscan Formation and Catalina Schist. These units are impervious and non-water bearing and are overlain unconformably by rocks of Miocene age (see Figure 3-3, *Generalized Geologic Cross Section*).

The Miocene Monterey formation consists of massive shale and claystone units. The bottom section of the Monterey exhibits coarse, pebbly sandstone and schist-bearing conglomerate. The upper units of the formation are predominantly shale and micaceous siltstone. Fine to medium-grained sandstone units also occur within the upper section; however, these units are discontinuous and contain connate water with a salinity near that of seawater. The Miocene units are overlain by a Pliocene-age unit of the Pico Formation. This unit is divided into three subdivisions, based on water-bearing characteristics, and is separated by local unconformities. The Lower Division, also referred to as the Repetto Formation, consists of fine to coarse sand with pebbly, sandy siltstone and clay. The Middle Division is predominantly massive marine siltstone with lesser amounts of fine to coarse sand. Both the Lower and Middle Divisions are largely impervious and contain saline water. The Upper Division of the Pico Formation is about 1,000 feet thick and consists of inter-bedded, semi-consolidated sand and micaceous silt, with lesser marine clay and gravel members.

The Pico Formation is overlain by early Pleistocene deposits, forming the San Pedro Formation. The San Pedro consists of unconsolidated to semi-consolidated gravel, sand, silt, and clay of marine origin, with partial influence and reworking by fluvial processes. The coarser sands and gravels are usually found in the lower two-thirds of the deposit. In the vicinity of LAAFB, lower Pleistocene deposits of the Lakewood Formation overlie the San Pedro Formation.

The lower section of the Lakewood Formation is approximately 200 to 300 feet thick and consists of fluvial gravel, sand, silt, and clay. The upper section of the Lakewood grades into a fossiliferous marine sand and gravel, overlain by a non-marine silt deposit.

Active faults known to exist in the vicinity of LAAFB include the San Andreas, Newport-Inglewood, San Fernando, Sierra Madre, and Verdugo (TRC 1999). Visible fault lines exist within approximately 3 miles of Area B (EDR 1999). The Alquist-Priolo Earthquake Fault Zoning Act is intended to prevent construction of buildings used for human occupancy on the surface trace of faults. The City of El Segundo (including the project site) is not located within an Alquist-Priolo Earthquake Fault Zone. Review of Seismic Hazard Zones Map of the Venice Quadrangle in which Area B is located indicates that Area B is not situated within an area of concern for liquefaction or seismically induced landslides (California Department of Conservation 2000). Landslides greater than 5 acres have not occurred within a mile of Area B (Occidental College 1999).

The subject site is located within the Los Angeles basin, an area known for the extraction of fluids such as oil, gas, and water. The El Segundo oil fields are located approximately 1.2 km

(.75 miles) southwest of the site. The potential for subsidence due to fluid extraction is considered low because the site does not lie within an area actively being affected by the removal of fluids (oil or water). Because of the generally dense to very dense and very still to hard nature of the soils underlying the site, the potential for seismically induced subsidence to occur at the site is also considered low.

Area B does not lie within a flood zone according to the applicable Floodplain and Wetland Inventory Map. A 500-year floodplain, however, lies approximately 1 ½ mile east of Area B and another lies approximately 1mile to the southeast. The project site topography is flat and does not contain bluffs, steep slopes, or other topographic features susceptible to landslides.

Soil. Subsurface soils at LAAFB include silty fine sand from the ground surface to approximately 5 feet below, and clayey sand, from a depth of 5 to 10 feet. Fill material has been found overlying the natural soil at depths of 0 to 3 feet. This material consists of dark brown to dark gray, clayey silt. The clayey silt materials were very stiff, moist, and exhibited high plasticity. Alluvial sediments are believed to underlay the site at depth. The materials encountered during a subsurface investigation conducted in July 2000 consisted of sands that were generally dense to very dense, and the silt and clays were very stiff to hard. In general, the alluvium was moist.

Lithologics logs from three ground water monitoring wells installed on LAAFB (International Technology Corporation, 1989), MIW-102, -103, and -104, indicate that the underlying alluvial deposits consist primarily of inter-bedded lenses of silty sand, clayey sand, lean clay, and silty lean clay of variable thicknesses. The materials are unconsolidated, dense, and non-cemented. The average depth of these wells is approximately 111 feet. The average depth of ground water is approximately 91 feet.

Most surface infiltration is restricted because the surface is mostly paved. As a result, surface drainage enters the storm sewer system. The small amount of natural soils that are exposed in Area B are used for ornamental landscaping.

Because of the generally dense to very dense and very still to hard nature of the soils underlying the site, the potential for liquefaction or seismically induced subsidence to occur at the site is considered low.

A subsurface investigation report completed in July 2000 found no obvious indications of gross soil contamination or hazardous materials in the borings (Geotechnics Incorporated 2000). The report concluded that possible soil contamination beneath the subject site is possible. Areas

beneath and adjacent to the existing buildings where former and ongoing maintenance operations reportedly occurred are primary suspect locations. The investigation surveyed the soil for odorous and non-odorous gases and concluded that methane is present at levels ranging from less than 0.1 to 82%. These levels are within the explosive limits of methane (5.3 to 14%). Other soil gases, including toluene, ethylbenzene, total xylene, and hydrogen sulfide, did not appear to be in significant quantities warranting concern (Geotechnics Incorporated 2000).

3.3 WATER RESOURCES

Groundwater. Four formations contain ground water aquifers underlying LAAFB (Woodward-Clyde Federal Services 1995). The basal units consist of the Monterey and Pico Formations, which reportedly contain connate ground water with a high salinity content. These formations are considered potable water aquifers (Poland, et al. 1969).

The overlying San Pedro Formation contains one productive, potable aquifer system, the Silverado aquifer (California Department of Water Resources 1961). The uppermost, consolidated unit is the Lakewood Formation, which contains one productive, potable aquifer system, the Gage aquifer. Overlying the Lakewood formation are unconsolidated Pleistocene to Recent dune sands and alluvial units that reportedly contain localized semi-perched aquifers (see Figure 3-4, *Generalized Groundwater Flow Direction in the Vicinity of LAAFB*).

The shallowest ground water occurrence at LAAFB exists in a localized semi-perched system in the basal section of the alluvial deposits. This aquifer is separated from the underlying potable ground water sources by an impervious confining layer. Hydrogeologic data from onsite wells indicates that the depth to water is between 90 to 95 feet below ground surface, with a gradient sloping to the west/northwest. The ground water in this system is reportedly not used as a potable, industrial, or municipal source because of its limited supply (IT Corporation 1989).

The Gage Aquifer, which begins at about 120 feet below ground surface, is the first potable aquifer in the area. However, there are no potable water supply wells located onsite. The direction of ground water flow is to the west, toward the Pacific Ocean, in the shallowest aquifer system (i.e., the semi-perched system in the older dune sand), and to the east in the lower Gage, Lynwood, and Silverado Aquifers.

El Segundo is located within the West Coast Groundwater Basin. The amount of groundwater adjudicated from the basin is restricted by court judgement and therefore, the City does not withdraw from this water source. The City purchases its potable water from the West Basin Municipal Water District (WBMWD) and then distributes it through approximately 4,580 service

connections, including LAAFB Areas A and B. LAAFB further distributes the water without further treatment. Water quality testing for coliform bacteria content, pH levels and chlorine concentrations are conducted monthly. As of June 2000, no water quality problems were reported. Currently, a voluntary program is underway to promote water conservation practices throughout the City.

Surface Water. Stormwater run-off from LAAFB Area B, and specifically from the project area, is collected in open catch basins and routed through a system of vitrified clay, cast iron, or reinforced concrete pipes to the Los Angeles County Flood Control District storm drainage system. Due to the extensive paved areas at LAAFB, all rainfall (minus evaporation) leaves the installation in the form of stormwater run-off. Little infiltration of rainfall is expected to occur at the project site.

No surface waters of resource potential exist within the City of El Segundo. In addition, surface water is not present at LAAFB Area B. Urban run-off and storm drainage are accommodated by the City's storm water drainage flood control system.

3.4 BIOLOGICAL RESOURCES

Biological resources considers both flora (plants) and fauna (animals). According to the *Final Environmental Baseline Survey* (baseline survey) prepared in June of 2000, a search of federal and state databases yielded no officially designated wilderness areas, wildlife preserve, sanctuaries, refuges, wild and scenic rivers, or other officially designated natural areas within a one mile radius of Area B (EDR – NEPA 1999). Nor did the search identify any threatened or endangered species or critical habitats within a one-half mile radius.

The nearest ecologically sensitive habitat that supports an endangered species is the El Segundo Blue Butterfly Wildlife Preserve which is approximately four (4) miles from the Proposed Action site. The Butterfly Preserve occupies approximately 1.96 acres adjacent to the Chevron Refinery and in the dune area under the flight path of the Los Angeles International Airport (City of El Segundo, 1992). In addition, a wetland was identified approximately two miles south of Area B and is depicted on the Floodplain and Wetland Map. Though two endangered bird species, the California least tern and the brown pelican, reside in the City of El Segundo, no known nesting sites have been established. The project site, however, is almost entirely built-out consisting of paved surfaces and buildings. The area is void of hydrophytic vegetation, hydric soils, and wetland hydrology. The primary vegetation of the City of El Segundo consists of introduced species including a variety of grasses, shrubs and trees serving an aesthetic and atmosphere function to city residents rather than for wildlife purposes.

In September of 1999, all six LAAFB parcels (Area A, B, the Lawndale Annex, Fort MacArthur Middle Reservation, and the Pacific Crest and Pacific Heights Housing Areas) were surveyed for potential habitat of wildlife species, including sensitive species. The results of the survey are summarized in the *Final Natural and Cultural Resources Management Plan* (LAAFB, 1999b). As a result of the urban setting and associated lack of available habitat, few wildlife species occur on LAAFB. Various urban bird species forage in the trees/potted plants in Areas A and B, and common rodents (e.g., mice) live on the base. No threatened or endangered species are known to be present.

3.5 CLIMATE AND AIR QUALITY

The climate at the project site is mild, with average temperatures ranging from a low of 56 degrees F in January to a high of 70.3 degrees F in August. Due to El Segundo's coastal location, LAAFB is protected from the worst of the South Coast Air Basin's (Basin) air pollution problem. Daily onshore breezes bring clean air onshore and blow air pollutants inland. These onshore winds are most active during the summer months when smog is typically at its highest level.

The project is located in the South Coast Air Basin (SCAB). The SCAB consists of the non-desert portions of Los Angeles, Riverside, and San Bernardino counties and all of Orange County, covering an area of approximately 6,000 square miles.

Ambient Air Quality

The EPA has designated all areas of the United States as either "attainment," "nonattainment," or "unclassified" with respect to the National Ambient Air Quality Standards (NAAQS) which are established by the U.S. Environmental Protection Agency (EPA). An attainment designation means that the air quality of the area is better than the NAAQS. A nonattainment designation means that a primary NAAQS has been exceeded more than three separate times in three years in a given area. An area is designated as unclassified when sufficient data are not available to classify the area as either attainment or nonattainment.

With regard to the California Ambient Air Quality Standards (CAAQS), the California Air Resources Board (ARB) considers an area to be in nonattainment if the CAAQS have been exceeded more than once in three years. At present, the SCAB is in extreme nonattainment for the O_3 CAAQS, severe nonattainment for the CO and NO_2 CAAQS, and nonattainment for the PM_{10} CAAQS. With regard to the NAAQS, the basin is also in extreme nonattainment for O_3, serious nonattainment for PM_{10} and CO, and maintenance area for NO_2. The SCAB is in attainment for both the NAAQS and CAAQS for sulfur dioxide (SO_2).

Generally, O_3 concentrations are highest during the summer months and coincide with periods of maximum solar energy. Inert pollutant concentrations tend to be highest during the winter months and are a product of light wind conditions and surface-based temperature inversions that are frequent during that time of year.

Readings from SCAQMD's Hawthorne monitoring station for the City of El Segundo indicate that federal ozone standards have only been exceeded 6 days per year over the last five years since 1987. Additionally, the number of first stage smog alerts recorded in the City were fewer than those recorded throughout the majority of the Basin.

Major contributing sources of air pollutants in El Segundo originate from the Chevron Oil Refinery, Southern California Edison facilities, the Los Angeles International Airport, the Hyperion Wastewater Treatment Plant, and the Scattergood Generating Station. Major mobile sources of air pollutant emissions include Los Angeles International Airport, Sepulveda Boulevard, and the I-405 Freeway.

LAAFB Area B has 6 permitted air emission sources including natural gas burning boilers, a 6-cylinder diesel portable emergency generator, fuel vapor recovery systems, and soil vapor extraction systems. Area B also has a number of non-permitted air emission sources, including but not limited to an on-site chiller plant, welding generating, USTs, and HEPA Vacs (LAAFB 2000b).

3.6 NOISE

The principal noise sources in the vicinity of LAAFB are vehicular traffic on 1-405 and major arterial streets adjacent to facilities, including Aviation Boulevard and El Segundo Boulevard. Noise levels decrease with increasing distance from the highways. A secondary noise source is the aircraft traffic at Los Angeles International Airport (LAX), approximately four miles north of LAAFB. Railroad operations along Aviation Boulevard are an additional source of noise.

The most dominant component of the City's noise environment is the flight operations at LAX. The City of El Segundo does not have the capability to conduct its own measurement of CNEL contours and, therefore, relies on information provided by LAX and other regional agencies. Figure 3-5, *Existing CNEL Noise Contours* provides information on the City's CNEL levels. Streets with adjacent residential uses and noise levels above 65 CNEL include portions of Center Street, Grand Avenue, Main Street, and Mariposa Avenue. Area B lies within the 60 CNEL center.

3.7 TRAFFIC AND TRANSPORTATION

Regional access to LAAFB is by I-405. Local access includes Aviation Boulevard, El Segundo Boulevard, and Douglas Road. Access to Area B is via three gates: Gate #4 (along Aviation Boulevard), Gate #5 (along Douglas Street), and Gate #8 (used only for emergencies).

Figure 3-6, *Summary of Existing Daily Roadway Operation,* depicts traffic volumes and capacity estimates for the local roadway network within the City and around the project site. According to the City of El Segundo General Plan (1992), El Segundo Boulevard operates at a Level of Service (LOS) C or better, with the exception of one segment between Douglas Street and Nash Street that operates at a LOS D. Table 3.8-1, *Daily Traffic Volumes on Local Roads* provides information on daily traffic volumes and estimated road capacities of roadways throughout the City. Table 3.8-2, *Peak Traffic in Vicinity of Los Angeles AFB* lists peak traffic volumes on streets that provide access to LAAFB. As shown, peak morning volumes generally occur between 7:15 and 7:45 a.m. with peak afternoon volumes ranging from 3:30 until 5:30 p.m. The exception is El Segundo Boulevard, which has heavy westbound traffic in the morning hours and heavy eastbound traffic in the afternoon. Douglas Street is one-way northbound, providing access/egress on the west side of LAAFB, with peak traffic at about 7:30 a.m. and 3:30 p.m.

Figure 3-7, *Existing Peak Hourly Intersection Operation* depicts LOS ratings for intersections throughout the City. According to the City of El Segundo General Plan (1992), intersections surrounding the project site operate at LOS D or better during both the AM and PM peak hours.

3.8 SOLID AND HAZARDOUS WASTE MANAGEMENT AND DISPOSAL

Local private contractors collect and dispose solid waste generated at LAAFB. The closest major landfill to LAAFB is Puente Hills owned and operated by the Los Angeles County Sanitation District. The Puente Hills landfill currently receives 13,000 tons per day of municipal solid waste (Sanitation Districts of Los Angeles County 2000). The Bradley Landfill and Recycling Center and the Sunshine Canyon Landfill also may potentially serve the El Segundo area for disposing of solid waste. The Bradely center is located at 9081 Tujunga Avenue in Sun Valley and the Sunshine center is located at 1474 San Fernando Road in Sylmar. The Bradley Landfill accepts non-hazardous solid wastes, inert solid wastes, auto shredder fluff, autoclaved medical waste, pesticide/empty containers, and petroleum contaminated soils and has a permitted tonnage capacity of 10,000 tons per day.

The local hazardous waste landfill serving the El Segundo area and LAAFB is the Azusa Land Reclamation, a Class III landfill, located at 1211 W. Gladstone Street in Azusa. The Azusa landfill accepts only inert waste, concrete, asphalt, clean soils, asbestos friable/non-friable, whole

tires and petroleum contaminated soils for treatment. The site has a permitted tonnage capacity of 6,000 tons per day.

According to the El Segundo General Plan (1992), Area B is categorized as a low degree of risk for the use of hazardous materials. In addition, a Phase I Environmental Baseline Survey was conducted for the LAAFB that characterizes the extent of hazardous materials located at the Base. According to this report, hazardous materials (including combustible liquids, corrosive liquids, and compressed gases) are stored in various locations throughout Area B. There was a subsurface soil investigation conducted in the vicinity of the Building 215 former seepage pit. Items found throughout the building included used antifreeze, waste oil, compressor oil, lead/acid batteries, and PCB Ballasts (Geotechnics Inc. 2000).

Investigative records indicate that three Underground Storage Tanks (USTs) are located at the AAFES Service Station for fuel dispensing and two Aboveground Storage Tanks (ASTs) containing waste oil are currently located within Area B, primarily at Buildings 235 and 215 (Geotechnics Inc. 2000). Treatment systems at Area B include vapor extraction systems at Building 235 and an oil water separator at Building 215.

An Installation Restoration Program (IRP) Phase I Records Search was conducted at LAAFB that identified eight (8) sites of environmental concern at Area B (Environmental Science Engineering, Inc., 1985). These sites are Building 215 - Auto Hobby Shop Seepage Pit Site, Building 219 – Stormwater Drainage Disposal Site, Building 200 – UST Site, Building 220 – UST Site, Building 241 – UST Site, Building 244 – Stormwater Drainage Disposal Site, Building 208 – Child Development Center Site, and the Miscellaneous UST Structures Site. All IRP sites are closed and no further action is needed (Geotechnics Inc. 2000).

The focus of environmental concern related to hazardous waste associated with the project site is restricted primarily to Buildings 213, 214, 215, and 216, and miscellaneous underground storage structures. As described in Section 2.2, Buildings 213, 214, and 216, and a portion of Building 215, are planned for demolition. Building 213 is a single-story semi-permanent drum storage shed with corrugated metal walls and roof which contain lead based paint. Various drums containing used oil were observed at Building 213 during the Phase I Environmental Baseline Survey. Building 214 (a self-operated car wash) is a more-permanent structure with concrete floors and walls and metal roofing. Building 215 involves some lead based paint and asbestos containing materials. Building 216 is characterized as a miscellaneous storage area with concrete flooring and metal-roofing which contains lead based paint (LAAFB 2000b). None of

the structures planned for demolition were found to release or dispose of hazardous substances or petroleum substances.

3.9 SOCIOECONOMICS

LAAFB is in the South Bay area of Los Angeles County, in the City of El Segundo. Surrounding communities are Hawthorne, Lawndale, Manhattan Beach, and Redondo Beach. From 1980 to 1990, this five-city area grew by 13 percent (13%), with the population increasing from 182,303 to 206,133 (U.S. Air Force 1990). A large proportion of the employment in the South Bay Cities is concentrated in the aerospace and electronics industries (U.S. Air Force 1990). El Segundo is considered an employment-led community, meaning development of the city is dependant more on employment conditions than on population growth. LAAFB employs over 1,500 military personnel and about 1,000 civilians, and offers on-site auxiliary services to their dependents.

In 1990, the El Segundo residential population was approximately 15,223 and employment population was approximately 80,000. According to Southern California Association of Governments (SCAG) estimates, El Segundo's residential population will increase to 18,160 by the year 2010, showing an average growth rate of 0.96 percent per year.

3.10 CULTURAL RESOURCES

Area B was developed during World War II for military aircraft production by the Douglas Aircraft Company. Prior to its development, Area B was used primarily for agriculture and oil production. Within the current project site are two (2) utilitarian maintenance shop buildings (Buildings 215 and 229) that were built in 1942. Although no formal evaluation of their eligibility to the National Register of Historic Places (NRHP) has been conducted, neither of these buildings possesses any distinctive architectural or engineering characteristics. Figure 2-5 depicts the exterior characteristics of the Automotive Hobby Shop (Building 215). Other structures in Area B include office, shop, warehouse, and ancillary building built from 1953 through 1959, with some construction continuing through the mid-1990s (U.S. Air Force, 1995). Buildings constructed during and prior to the 1950s require evaluation for eligibility to the NRHP prior to modification or demolition.

A records search with the South Coast Central Information Center (SCCIC) revealed no prehistoric or historic archaeological sites on or within a one-half mile radius of Area B (U.S. Air Force, 1995). Although historical documents and archaeological research in the area suggests that Area B may have been located within the territory of the Gabrielino-Tongva Native

American group, no Native American resources or legal interests, including scared sites, traditional use locations, land holdings, or water rights, are known to exist on Area B.

3.11 INFRASTRUCTURE

Police Protection. The project site, served by the El Segundo Police Department, is located at 348 Main Street in the City of El Segundo. The Department has 69 authorized police officers. A minimum of three (3) officers and up to six (6) are assigned patrol duty on a daily basis. Four (4) motorcycle patrolmen and six (6) police detective also serve the community during the week. Typically, emergency calls are responded to in approximately two (2) minutes. For Priority 1 or High Priority calls, police response time is under two (2) minutes.

Fire Protection. The local fire station serving LAAFB and project site is City of El Segundo Station #2, located at 2161 E. El Segundo Boulevard. The station has about 60 staff working three (3) shifts, or about 18-20 firefighters and staff per day. The response time from the station to the project site is less than three (3) minutes (Personal Communication, El Segundo Fire Department, 2000).

Water. Potable water for LAAFB is supplied by the Southern California Water Company, the City of El Segundo, and the Los Angeles Department of Water and Power (DWP). Area B is served by the City of El Segundo, which provides the water distribution system and purchases water from DWP. The distribution system was installed in 1942 during the construction of the Navy-owned Douglas Aircraft Company. Potable water is supplied in two metered connections, which in 1999 cumulatively supplied approximately 782,900 gallons of water to Area B. Water is distributed throughout Area B in underground water lines, that are approximately 6 to 8 feet below ground surface. LAAFB owns and maintains the water distribution lines in Area B which connect to the City's water facilities. Partial replacement of the water mains in Area B, occurred most recently in 1984.

Wastewater. The City of El Segundo provides wastewater service to Area B of LAAFB. The wastewater system discharges via gravity to the Los Angeles County Sanitation District sewage system at two unmetered points east of the Base. The County Sanitation District is a consortium of 27 separate districts which provide sewage collection, treatment, and disposal over a 600-square-mile area, and serve approximately 4 million people.

The wastewater infrastructure on Area B was installed in 1942. Domestic sewage is collected via underground, vitrified clay and cast iron pipelines. Wastewater utility lines are buried approximately 4 to 6 feet below grade and total approximately 7,438 linear feet.

Stormwater. Area B contains a stormwater drainage system to discharge surface runoff via Los Angeles County stormdrains into the Los Angeles Harbor or the Pacific Ocean. Area B is relatively flat with surface elevations ranging from 92 to 98 feet above Mean Sea Level (MSL). The majority of the ground surface area is asphalt-paved. Although LAAFB is not required to obtain a National Pollutant Discharge Elimination System (NPDES) Permit, the base has a Storm Water Pollution Prevention Best Management Practices (SWPPBMP) in place (LAAFB 1999a). The plan includes Best Management Practices (BMPs) recommended for the proper handling and management of wastewater generated from automobile servicing/washing, painting, fueling vehicles, and other activities associated with food services and military housing areas.

Electricity. Southern California Edison (SCE) provides Area B with electricity. SCE has one main 3750 KVA sub-station located north of Building 240 that it owns and maintains. Beyond the main SCE sub-station, ownership and maintenance responsibility of the electrical distribution system lies with LAAFB. The Area B distribution system consists of approximately 8,069 linear feet of underground distribution line, which is buried 6 to 8 feet below ground surface. The cumulative 1999 average monthly consumption at Area B was approximately 552,000 Kilowatt-Hours (kWh). LAAFB is equipped with 5 stand-by generators to provide back-up power for Area B.

Natural Gas. Southern California Gas Company supplies natural gas to Area B. The main metered connection is located at the southern property line near El Segundo Boulevard. As gas enters LAAFB, it is directed to a utility vault where the metering station measures the quantity and a pressure-reducing station regulates the gas pressure. The cumulative average monthly natural gas usage for the first 11 months of 1999 was approximately 15,839 therms (SCG 2000). Natural gas is distributed throughout Area B via underground gas lines, which are positioned 4 to 6 feet below ground surface. LAAFB owns and maintains the on-site gas lines.

Section 4.0 of this EA evaluates the potential for the Proposed Action and alternatives to result in direct and indirect environmental effects. The analysis addresses each environmental disciplines discussed in Section 3.0, and determines the extent to which these disciplines would be impacted by implementation of the Proposed Action and alternatives. The significance thresholds presented for each discipline are based on standard federal, state, or local agency guideline requirements. A brief discussion of cumulative impacts for each potentially-affected resource is also provided which considers "impacts on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions…." (USAF, 1982; 40 CFR 1508.7). Mitigation measures are provided for those environmental disciplines that have the potential for significant environmental impacts, in order to reduce such impacts to below the level of significance.

A list of related projects was obtained from the City of El Segundo Planning Department. Given that LAAFB is located in close proximity to I-405, it is assumed that I-405 would be the primary access route used during construction activities along with El Segundo Boulevard and Douglas Road. Main access to the project site during construction activities would be from Douglas Road. Therefore, on-going and future planned projects potentially utilizing the same roadways were considered. A list of approved and active projects in the City of El Segundo is presented in Table 4-1, *Major Approved & Active Projects.* Figure 4-1, *City of El Segundo Major Approved & Active Projects* depicts where these projects are located relative to the project site.

LAAFB plans to construct a Medical Dental Clinic south of the proposed action, during FY 2001/2002. Some construction activities associated with the clinic may overlap with the Proposed Action. LAAFB is in the process of preparing a Master Plan for Area B which would consolidate Area A and Area B facilities and services into Area B. Implementation of the Master Plan is a future action that is not contemplated in this EA.

4.1 LAND USE

In analyzing the potential for the Proposed Action to result in adverse land use impacts, the following significance criteria is considered (OPR 1992):

1) An inconsistency/conflict with the environmental goals, objectives, or guidelines of an applicable general plan that governs the subject area;
2) Development or conversion of an applicable general plan-designated open space to a more intensive land use;

3) Rapid urban growth or disruption of the physical arrangement of an established community;
4) Conflict with existing recreational, educational, religious, or scientific uses of the area;
5) Obstruction of a scenic vista or view open to the public;
6) Creation of an aesthetically offensive site open to public view; and
7) Degradation of the project site character caused to line, color, and/or texture.

The local plan governing the area in which the Proposed Action is located is the City of El Segundo General Plan. Both the City Land Use Map and Zoning Map designate the project site for public use for federal government agencies. The Proposed Action would not convert any general plan designated open space to a more intensive land use, but would augment recreational facilities already existing on the site. The Proposed Action is contained within an existing federal land use area surrounded by commercial and industrial facilities, and therefore would not disrupt the physical arrangement of an established community. The project would enhance existing recreational uses at LAAFB. The PFC and HAWC would continue to be open during construction of the new Complex, and thus there would be no recreational use conflicts associated with construction of the project.

The nearest scenic vista or view open to the public is the Pacific Ocean and coastline. Implementation of the Proposed Action would not affect this aesthetic resource. Construction of the new Complex would be compatible with the architectural features of the Commissary and the Medical/Dental Clinic (planned for development as a separate action from this project). Varied texture, recessed reveals, and natural concrete would be incorporated to enhance the design quality. These design and construction techniques would ensure an aesthetically pleasing structure to passersby along Douglas Road, as well as a structure compatible with existing buildings at LAAFB.

Cumulative Impacts

When considering planned and future projects in the vicinity of the Proposed Action, there would be no cumulative land use conflicts. The Proposed Action is a replacement of an existing facility, and would not change designated land uses.

4.2 GEOLOGY AND SOILS

In analyzing the potential for the Proposed Action to result in adverse impacts on the existing geology and soils surrounding the project site, the following significance criteria is considered (OPR, 1992):

(1) Substantial alteration of previously undisturbed topography or ground surface relief, beyond that resulting from natural erosion and deposition;

(2) Disruptions, displacement, excavation, compaction, or overcovering of large amounts of soil;

(3) Grading activities that result in potentially unstable slope conditions, such as the construction of a cut slope exceeding a grade of 1.5 horizontal to 1 vertical, or cut slopes over 15 feet in height;

(4) General soil characteristics (such as shear strength, expansiveness, etc.) that require extensive foundation/engineering or slope stabilization measures; especially artificial fill materials;

(5) Geologic processes such as landslides or erosion are triggered or accelerated;

(6) Reactivation of an old landslide, or loss of load bearing strength of soils in the surrounding area occurs due to seismic activity;

(7) Unique geologic features (such as paleontologic resources) or geologic features of unusual scientific value for study or interpretation are disturbed or otherwise adversely affected; or

(8) Earthquake-induced ground shaking occurs which is capable of causing settlement or surface cracks at the site and attendant damage to structures, or of causing a substantial loss of use, or of exposing the public to a substantial increase in risk or injury.

The Proposed Action would be constructed on previously disturbed ground and would not substantially alter the surface relief nor disrupt large amounts of soil. Some excavation and grading of the area would occur for site preparation. In addition, the upper soils would be excavated to allow for the import and laying of a minimum of two (2)-feet of relatively non-expansive soils beneath the floor slab and adjacent concrete slabs and walkways. The excavated soils may be used for fill. The Proposed Action would involve a minimum surface slope of 1.5 percent for adequate storm drainage. Given the virtually flat surface of the site with a gradual slope of 0.2 percent from north to south, a 0.5 percent slope towards the west and 0.4 percent slope towards the east, the Proposed Action would not result in potentially unstable slope conditions nor trigger or reactivate any landslides or slope erosion.

The project site is underlain with highly expansive clay, and therefore would be excavated to allow placing a two-foot minimum layer of imported relatively non-expansive soils beneath the floor slab. This approach is not considered an extensive foundation engineering or slope stabilization measure. It is estimated that during grading work, approximately 1 meter (3 feet) of fill soil would be excavated across the site. According to findings contained in the *Report of Subsurface Investigation Physical Fitness Center Complex* (Geotechnics Inc. 2000), potential environmental hazards relating to soil contamination may be encountered during grading activities and may require special handling and disposal. In addition, the report indicated that soil

gas surveys reflected methane levels within explosive limits due to decomposition of buried organic debris, or historical oil and natural gas well drilling activities in the area. In order to avoid and/or minimize the potential hazard associated with contaminated soils and methane gases emitted from the site, and to reduce potential hazardous geologic and soil impacts, the following mitigation measures, to be conducted by the contractor, are recommended (note that Appendix references relate to the *Report of Subsurface Investigation* (Geotechnics Inc. 2000):

GS – 1 Prior to construction, the design-build foundation, grading plans and earthwork specifications should be reviewed by a geo-technical firm to evaluate conformance with the recommendations set forth in the *Report of Subsurface Investigation* (Geotechnics Inc. 2000). Any significant change in the assumed location of the proposed structure may require additional geotechnical evaluation.

GS – 2 A qualified geotechnical consultant should be on site during foundation excavation and site grading and perform any necessary soil and fill testing so as to provide recommendations for adjusting designs to actual field conditions. The geotechnical consultant on-site should also provide guidance for complying with compaction requirements.

GS – 3 A Work Plan and Health & Safety Plan (HP/H&SP) should be developed to address the safety issues surrounding the potential exposure of contaminated soils. The findings of the soil vapor study should be included in the plan. The documents should include a recommendation for monitoring the soils during mass grading. The soils should be monitored in the field using an OVA and observed for signs of contamination. Affected areas should be segregated and stockpiled on-site. Soil sampling and analysis should also be conducted.

GS – 4 Grading and earthwork should be conducted in accordance with the applicable Air Force and Navy design manuals, local grading ordinances, and the current Uniform Building Code. Specific recommendations for earthwork related to the project should be implemented as described in Appendix A, Section 9.4 Earthwork (Geotechnics Inc. 2000).

GS – 5 All surface drainage work should be conducted consistent with the recommendations described in Appendix A, Section 9.5 Surface Drainage (Geotechnics Inc. 2000).

GS – 6 All foundation work should be conducted consistent with the recommendations described in Appendix A, Section 9.6 Foundation Requirements (Geotechnics Inc. 2000).

GS – 7 All seismic work should be conducted consistent with the recommendations described in Appendix A, Section 9.7 Seismic Parameters (Geotechnics Inc. 2000).

GS – 8 All on-grade slab work should be conducted consistent with the recommendations described in Appendix A, Section 9.8 On-Grade Slab (Geotechnics Inc. 2000).

GS – 9 In order to control corrosion, recommendation described in Appendix A, Section 9.9 Soil Corrosivity, should be followed (Geotechnics Inc. 2000).

GS – 10 All below grade wall or retaining wall construction should be conducted consistent with the recommendations described in Appendix A, Section 9.10 Earth-Retaining Structures (Geotechnics Inc. 2000).

GS – 11 All pavement construction should be conducted consistent with the recommendations described in Appendix A, Section 9.11 Pavements (Geotechnics Inc. 2000).

There are no known unique geologic features located in or around the project site, including paleontologic resources, namely those associated with the Gabrielino-Tongva Native American group, and therefore no significant geologic/paleontological impacts would occur from the Proposed Action.

Should earthquake-induced ground shaking occur, the potential for structural and attendant damage to occur as a result of the Proposed Action would be less than significant. The existing PFC and HAWC are non-habitable structures in use only during the day. The new Complex is a replacement of these two (2) structures assuming the same number of users per day, and therefore would not expose the public to an increase in risk or injury due to earthquake-induced structural damage.

Cumulative Impacts

When considering planned and future projects in the vicinity of the Proposed Action, there would be no cumulative geologic or soil conflicts. The Proposed Action would redevelop an existing developed site.

4.3 WATER RESOURCES

In analyzing the potential for the Proposed Action to result in adverse impacts on existing water resources near the project site, the following significance criteria is considered:

(1) A discharge creating pollution, contamination, or a nuisance as defined in Section 13050 of the California water code;

(2) A discharge that degrades designated beneficial uses of water as set forth in the California Regional Water Quality Control Board (CRWQCB) Basin Plan;

(3) A change in the absorption rates, drainage patterns, or rate and amount of runoff that would in turn exceed the capacity of storm drain systems (OPR, 1992);

(4) Substantial alteration of flood water flow resulting in on-site flooding (OPR, 1992);

(5) Release of contaminants to the groundwater in such concentrations as to exceed maximum contaminant levels specified in the California Code of Regulations, Title 22, Division 14, Chapter 15; and,

(6) A discharge which violates the Safe Drinking Water and Toxic Enforcement Act of 1986 which states, "No person in the course of doing business shall knowingly discharge or release a chemical known to the State to cause cancer or reproductive toxicity into water or onto or into land where such a chemical passes or probably will pass into any source of drinking water."

The use of heavy equipment would have the potential to spill excess oil, other automotive fluids and sediment into the City's stormwater drainage system which carries urban runoff to the ocean. Demolition, clearing, grading, re-paving, utility installation, fencing, and building construction activities would have the potential to increase erosion potential; however, the construction site is less than four acres and on relatively flat ground. The Air Force has prepared instructions on how to comply with the *Clean Water Act* for managing domestic and industrial wastewater, stormwater, non-point source runoff, sewage sludge, and water treatment residuals (U.S. Department of the Air Force, 1994). Construction of the Proposed Action would also comply with the City of El Segundo's Municipal Ordinance No. 1235 by implementing Best Management Practices recommended by the City. Such measures would minimize the occurrence of contaminants released into the stormwater drainage system from construction activities.

The amount of impervious ground surface would not substantially increase from the Proposed Action, and therefore no new or increased pollutant discharges would occur that would degrade water quality or groundwater sources. Similarly, maintaining the amount of impervious ground surface would not change absorption rates, the amount of run-off from the project site, or alter flood water flows from current conditions. Construction impacts on water quality associated with the Proposed Action would be temporary and less than significant.

Cumulative Impacts

When considering planned and future projects within the vicinity of the Proposed Action, there would be no cumulative water resource conflicts. The Proposed Action and other planned projects in the area would comply with Best Management Practices for controlling the discharge of contaminants into the stormwater drainage system from construction activities. The Proposed Action would redevelop an already developed site, and therefore would not change the amount of impervious ground surface. Overall, no cumulative impacts to water resources would occur.

4.4 BIOLOGICAL RESOURCES

Impacts to biological resources would be considered significant if implementation of the Proposed Action or an alternative were to directly or indirectly substantially affect the continued existence of any listed special status (i.e., candidate, rare, threatened or endangered) floral and/or faunal species or their habitats (OPR, 1992).

There would be no significant impact to biological resources resulting from the Proposed Action given that no candidate, sensitive, or special status species exist on or around the site within a two (2) mile radius. The Proposed Action is not located in any wildlife corridor, riparian area or federally protected wetland. No sensitive plant communities have been identified on LAAFB property (LAAFB 1999b).

Cumulative Impacts

When considering planned and future projects within the vicinity of the Proposed Action, there would be no cumulative biological resource conflicts. No sensitive plant and animal species exist on the property.

4.5 CLIMATE AND AIR QUALITY

In analyzing the potential for the Proposed Action to result in adverse impacts on the existing climate and air quality at the project site, the following significance criteria is considered. Impacts on air quality are considered to be significant if the project emissions would:

(1) Exceed the SCAQMD's established daily levels of significance;

(2) Increase ambient air pollutant levels from below to above the National Ambient Air Quality Standards (NAAQS) and/or the California Ambient Air Quality Standards (CAAQS);

(3) Contribute measurably to an existing or projected air quality violation; or

(4) Violate conformity with a State Implementation Plan.

Air quality at a given location can be described by the concentration of various pollutants in the atmosphere. Units of concentration are generally expressed in parts per million (ppm) or micrograms per cubic meter ($\mu g/m^3$). The significance of a pollutant concentration is determined by comparing the concentration to an appropriate federal and/or state ambient air quality standard. The standard represents the allowable atmospheric concentrations at which the public health and welfare are protected, and include a reasonable margin of safety to protect the more sensitive individuals in the population.

Federal standards, established by the U.S. Environmental Protection Agency (EPA), are termed the National Ambient Air Quality Standards (NAAQS). The NAAQS are defined as the maximum acceptable concentrations that, depending on the pollutant, may not be equaled or exceeded more than once per year, except the annual standards, which may never be exceeded. The state standards, established by the California Air Resources Board (ARB), are termed the California Ambient Air Quality Standards (CAAQS). The CAAQS are defined as the maximum acceptable pollutant concentrations that, depending on the pollutant, are not to be equaled or exceeded (see Table 4-2, *National and California Ambient Air Quality Standards*).

Air quality regulations were first promulgated with the Federal Clean Air Act (CAA) of 1969. This act established the NAAQS and delegated the enforcement of air pollution control regulations to the states. In California, the ARB has delegated the responsibility of regulating stationary emission sources to local air pollution control districts or air quality management districts. In the South Coast Air Basin (SCAB), the South Coast Air Quality Management District (SCAQMD) regulates stationary sources of air pollution through its administration of rules and regulations. In an attempt to bring the SCAB into attainment of the NAAQS, the SCAQMD develops Air Quality Management Plans (AQMP), the first of which was completed in 1979. The most recent version, the 1997 AQMP, demonstrates attainment of the federal and state air quality standards through the implementation of new emission control measures and by demonstrating the associated decrease in future SCAB emission inventories. In particular, the 1997 AQMP: 1) updates demonstration of the federal and state carbon monoxide (CO) standards and the federal ozone (O_3) standard by the years 2000 and 2010, respectively; 2) demonstrates attainment of

federal standards for particulate matter less than 10 microns in diameter (PM_{10}) by the year 2006; and 3) includes a maintenance plan for nitrogen dioxide (NO_2).

General Conformity Rule. The 1990 amendments to Federal Clean Air Act Section 176 required the EPA to promulgate rules to ensure that federal actions conform to the appropriate State Implementation Plan (SIP). These rules, known together as the General Conformity Rule (40 C.F.R. §§ 51.850-.860 and 40 C.F.R. §§ 93.150-.160), require any federal agency responsible for an action in a nonattainment area to determine that the action is either exempt from the General Conformity Rule's requirements or positively determine that the action conforms to the applicable SIP. The EPA general conformity rule applies to federal actions occurring in nonattainment or maintenance areas when the total direct and indirect emissions of nonattainment pollutants (or their precursors) exceed specified thresholds, known as *de minimis* limits. Table 4.5-1, *De Minimis Levels for Determination of Applicability of General Conformity Rule*, identifies the federal nonattainment pollutants for the SCAB and the relevant *de minimis* emission thresholds.

In order to demonstrate conformity with the Clean Air Act, a project must clearly demonstrate that it does not: 1) cause or contribute to any new violation of any standard in any area; 2) increase the frequency or severity of any existing violation of any standard in any area; or 3) delay timely attainment of any standard, any required interim emission reductions, or other milestones in any area. A conformity applicability analysis is required for each of the nonattainment pollutants or its precursor emissions.

NAAQS have been established for ozone, CO, SO_2, NO_2, PM_{10}, and Pb. Specific geographic areas are classified under the Federal Clean Air Act as either "attainment," "nonattainment," or "unclassifiable" for each pollutant. The area's classification depends upon whether the air quality meets or exceeds the NAAQS, or is not determinable for each pollutant of concern. The General Conformity Rule applies only to actions that generate emissions in nonattainment or maintenance areas. The proposed facility is located within the SCAB, a federal "extreme" nonattainment area for ozone, "serious" nonattainment area for PM_{10} and CO, and a maintenance area for NO_2. Therefore, the General Conformity Rule is applicable at the project site.

The General Conformity Rule requires analysis only of emissions of criteria pollutants, or their precursors for which an area is designated nonattainment for a criteria pollutant or that are covered by a maintenance plan. The Proposed Action would include construction equipment, natural gas usage and project-generated traffic which would emit CO, PM_{10}, reactive organic gases (ROG), and oxides of nitrogen (NO_x). ROC and NO_x are the precursors of ozone.

Therefore, the General Conformity Rule is applicable to the project-related emissions of CO, PM_{10}, ROG and NO_x that are not otherwise exempt from coverage under the rule, such as emission units already subject to New Source Review or Prevention of Significant Deterioration permitting programs.

Difference from NEPA's Level of Significance. A NEPA analysis of potential air quality impacts is broader than a General Conformity analysis in that it should evaluate the potential of attainment pollutants, and whether emissions of such attainment pollutants might significantly impact the human environment. The de minimis threshold levels used to evaluate the proposed action are appropriate guidelines for the determination of a significant impact under NEPA. This analysis does not directly evaluate the criteria pollutants SO_2 and Pb because little to no quantifiable and foreseeable emissions of these substances would be generated during construction or occupation of the project. The typical stationary sources of SO_2 and Pb emissions, such as fossil fuel burning electrical utilities, industrial processes, and municipal solid waste incinerators, are not involved in this project. For the mobile sources associated with this project, emissions of Pb are virtually nonexistent due to regulations that banned lead as a gasoline additive long ago. NO_2 emissions are already being analyzed within a broader category. NO_x emissions indirectly include NO_2 as the subscript "x" represents the sum of the oxides of nitrogen (NO, NO_2, NO_3, etc.).

NEPA Analysis. The following air quality analysis in compliance with NEPA requirements addresses potential local and regional effects from construction equipment and commuting vehicles activities that can be expected as a result of the Proposed Action. Construction emissions are related to emissions produced during demolition and construction activities, and potentially involve an increase in dust (suspended particulates) and equipment and vehicle exhaust. Operational emissions are related to commuting vehicles and small stationary sources (i.e., water heaters, air conditioning units, and furnaces). The following discussion addresses potential air quality impacts from both a short-term and a long-term perspective. Short-term impacts are related to emissions produced during demolition and building construction, and typically involve a temporary increase in dust (suspended particulates) and equipment and vehicle exhaust. Direct long-term impacts are related to emissions produced by vehicle trips and small stationary source emissions associated with the Proposed Action. Long-term impacts are anticipated to be permanent impacts that are directly associated with the Proposed Action.

Construction Impacts

Short-term impacts to localized air quality would result from construction of the Proposed Action. These impacts would result from fugitive dust generated by clearing and grading

activities, and from tailpipe emissions generated from the use of construction equipment and vehicles. These construction impacts depend on the number of workers, number and types of heavy duty vehicles and equipment, and length of time over which the activities occur. Estimates of construction impacts were evaluated quantitatively for the Proposed Action. A discussion of the methodology for estimating construction emissions is provided below.

The numbers and types of construction activities that would be operating during the construction period assumes a maximum of 35 construction workers on-site on any given day, one backhoe, one bulldozer, one crane, one small hydraulic crane, and several concrete mixers. The duration of construction is estimated to be approximately 10 months. It can be anticipated that most of the heavy duty equipment would be powered by diesel fuel. In general, diesel-powered equipment emits more NOx, SOx, and PM_{10} than gasoline-powered equipment. The latter, however, emits more hydrocarbons and CO. When the equipment is initially started, some visible emissions and possibly odorous emissions can be expected.

Construction activities are also a source of fugitive dust emissions that may have a substantial, but temporary, impact on local air quality. These emissions are associated with land clearing, grading, and construction of the Proposed Action. Substantial dust emissions can also occur when vehicles travel on paved and unpaved surfaces, and when haul trucks lose material. Dust emissions and impacts vary substantially from day to day, depending on the level of activity, the specific operation being conducted, and the prevailing meteorological conditions. Wet dust suppression techniques, such as watering and applying chemical stabilization, would be used during construction to prevent (or suppress) the fine particulate from leaving the surface and becoming airborne through the action of mechanical disturbance or wind.

Fugitive dust may adversely affect sensitive receptors, i.e., people who are more susceptible to the adverse impact of air pollutants. These include the elderly, young children, and those individuals suffering from respiratory disorders. Although most dust are readily filtered by human breathing passages, tiny particles can easily bypass this natural filtering system and lodge deep in the lungs. Large-diameter dust, which settles out on nearby foliage and other surfaces, is more a soiling nuisance than a potential health impact. Areas near the construction site would be the most susceptible to this nuisance from construction activities.

These activities have the potential to generate airborne dust. Fugitive dust generation from heavy construction activities is commonly estimated at 1.2 tons per acre per month of activity. A control efficiency of 50 percent was assumed to be achieved by onsite watering, which reduces the effective emission factor to 0.6 tons per acre per month of activity (EPA 1985). Using the

estimated 41,500 square feet complex (which includes the possible construction of a 7,500 square foot pool), the construction activities would generate an estimated total fugitive dust emission of 0.57 tons during the duration of the construction period.

Emissions of construction equipment were estimated using the emission factors for heavy equipment and workers' travel from the South Coast Air Quality Management District's CEQA Air Quality Handbook (SCAQMD 1993). Based on the limited information available for this analysis, it is assumed that construction activities would be based on the number of square footage of the facilities to be constructed. The estimated construction emissions are presented in Table 4.5-2, *Estimated Construction Equipment Emissions*. The resultant emissions from construction activities would not exceed the *de minimis* thresholds for the SCAB. Therefore construction activities would not be considered to have a significant impact on air quality.

Asbestos/Lead. Construction of the Proposed Action would involve demolition of the existing buildings on the project site. Asbestos and lead waste would be generated during the short-term building demolition phase. An asbestos/lead survey was conducted by LAAFB to detect the asbestos and lead concentration levels for the proposed building demolition (LAAFB 2000b).

As described in the survey report, only one of the 4 buildings to be demolished, Building 215, was detected to contain asbestos. Asbestos was detected on the exterior roof surface and floor materials of Building 215. Lead was detected on Buildings 213, 214, and 215; and the lead concentrations in some of the paint samples collected in the survey were greater than 5,000 ppm, which constitute Lead Based Paint.

LAAFB will use a certified asbestos abatement contractor to perform the asbestos related work, and ensure that any disturbances to asbestos containing materials and abatement activities comply with all federal, state, and local laws and regulations.

LAAFB will use a certified lead abatement contractor and ensure any disturbances to lead containing materials or Lead Based Paint and abatement of Lead Based Paint comply with all federal, state, and local laws and regulations.

The asbestos and lead impacts on air quality during the project building demolition would not be significant after implementing applicable California regulations.

Air Toxics. Air toxics would be generated if surface/subsurface soil that has been contaminated due to previous land uses is disturbed during project construction. Air toxics impact levels

associated with the Proposed Action were evaluated based on information of the existing land uses of the project site, as well as current soil contamination levels.

According to a recent site investigation, no release or disposal of hazardous substance or petroleum substances has occurred from existing buildings at the project site except Building 215 (Geotechnics Inc. 2000). Building 215 is used for vehicle repair and restoration, motor pool maintenance, car wash, Services administrative offices, and storage. According to the LAAFB baseline survey (LAAFB 2000b), a field investigation was conducted in 1988 by IT Corporation to assess the extent of contamination of the site. Analytical results of soil samples did not reveal detectable concentrations of volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs). Elevated concentrations of metals, including iron at 20,000 mg/mg and aluminum at 14,000 mg/kg, were detected; however, they were considered in naturally occurring background levels. In 1993, RESNA Industries, Inc. conducted site remediation. The final excavation of the site measured approximately 33 feet long by 22 feet wide by 16 feet deep. Confirmation samples were taken from the bottom of the excavation and analyzed for petroleum hydrocarbons, VOCs, SVOCs, and metals. The detected contaminant levels did not exceed residential Preliminary Remediation Goals (PRGs). No further action was recommended for the site (Geotechnics Inc. 2000).

The PRGs combine current EPA toxicity values with standard exposure factors to estimate contaminant concentrations in environmental media (including air, soil, and water) that are protective of humans, including sensitive groups, over a lifetime. The contaminant concentration levels of the project site below the corresponding PRGs indicate that the air toxics impacts associated with the Proposed Action would not be significant.

Operational Impacts

Implementation of the proposed operation of the Physical Fitness Center Complex may include vehicles commuting to and from the Center and small stationary sources such as air conditioning, water heaters, and furnaces. Because the Proposed Action would not affect or cause changes to the number of commuting vehicles and the use of small stationary sources at LAAFB, the operational activity would remain constant. These activities are not quantitatively examined because it is considered that the emissions generated from these activities would be relatively unchanged when compared with existing operations at LAAFB. Without any proposed increase or decrease in the operational activity at LAAFB, the continuing/recurring activity of the LAAFB would be exempted under the General Conformity Rule (Section 93.153 (c)(2)(ii)). Pursuant to 40 CFR 93.153(c)(1), the requirement of the EPA general conformity rule is not

applicable to the Proposed Action. Therefore, the operational impact on air quality is considered not significant.

Conformity Statement

Implementation of the Proposed Action would not adversely affect attainment of the SIP. Pursuant to Section 176(c) of the Clean Air Act (as amended by the 1990 amendments and the General Conformity Rule at 40 CFR Parts 51 and 93), the air quality analysis established that emissions associated with proposed action would be below de minimis threshold levels. Therefore, the Proposed Action would not be considered regionally significant because it would not exceed 10 percent of the South Coast Air Basin's total emission inventory for any criteria pollutant. Consequently, the Proposed Action would be exempt from the conformity determination requirement of the General Conformity Rule.

Cumulative Impacts

As described above, the project construction impacts would be temporary and were estimated to be less than significant. The construction traffic would not significantly affect traffic flow on local roadways. The project operation is not expected to increase the number of vehicle trips associated with the normal traffic of the project location. The project would not result in a permanent increase of any criteria pollutant for which the project region (SCAB) is under non-attainment. Therefore, the project would not have the potential to result in cumulatively considerable net increase of any criteria pollutant to the SCAB area.

4.6 NOISE

The noise assessment evaluates the change in the noise environment that may occur to sensitive receptors as a result of the Proposed Action, and the effects of noise on the daily activities of the local population. These effects include potential annoyance, speech interference, sleep disturbance, hearing loss, health effects, and land use impacts.

According to the Air Force, Federal Aviation Administration (FAA), and Housing and Urban Development (HUD) criteria, residential units and other noise-sensitive land uses are "clearly unacceptable" in areas where the noise exposure exceeds a Day-Night Average Sound Level (DNL) of 75 A-weighted decibels sound level (dBA); "normally unacceptable" in regions exposed between the DNL of 65 to 75 dBA; and "normally acceptable" in areas exposed to noise of a DNL of 65 dBA or less. Noise policies used by agencies having jurisdiction over the Proposed Action are briefly summarized below.

Federal Regulations

- The Federal Highway Administration (FHWA) has established noise standards for traffic noise on federal highways (23 CFR Part 772). When these standards or "noise abatement criteria" (NAC) are approached or exceeded, noise impact occurs.
- The NAC for the most sensitive receptors (including parks, residences, schools, churches, libraries, and hospitals) is a L_{eq} of 67 dBA at the receiver location or the receiver property line. L_{eq} is the equivalent steady-state sound level that contains the same acoustic energy as a time-varying sound level during the same period of time.

Local Regulations

According to the El Segundo Municipal Code (Title 9, Chapter 9.06 Noise and Vibration Regulation):

- No person shall, at any location within the City, create any noise, nor shall any person allow the creation of any noise within the person's control on public or private property, which causes the noise level when measured on any other property, to exceed the applicable noise standards, as set forth in Section 9.06.040(b) for commercial and industrial property. The maximum allowable noise level increase for commercial and industrial property is 8 dBA above the ambient noise level.
- Noise sources associated with or vibration created by construction, repair, or remodeling of any real property are exempt from the above, provided said activities do not take place between the hours of 6:00 p.m. and 7:00 a.m. Monday through Saturday, or at any time on Sunday or a federal holiday, and provided the noise level created by such activities does not exceed 65 dBA plus the limits specified in Section 9.06.040(c) as measured on the receptor residential property line and provided any vibration created does not endanger the public health, welfare and safety.

The allowable noise level at the project site, as specified in Section 9.06.040(b) and pertaining to the zone classification in which the project site is located, is restricted to 60 dBA between 7:00 a.m. and 10:00 p.m. Exceedance of this standard is permitted according to the following: 1) an increase of 5 dBA for 15 minutes, 2) an increase of 10 dBA for 5 minutes, 3) an increase of 15 dBA for 1 minute and 4) an increase of 20 dBA for less than 1 minute.

Implementation of the Proposed Action would involve the demolition of a portion of Building 215, Building 213, Building 214 and Building 216. Preparation of the site would also involve pavement splitting, excavation, and re-grading. Trucks would utilize Gate #4 and Gate #5 and travel along El Segundo Boulevard, Aviation Boulevard, and Douglas Road to access the project

site and to deliver construction materials and supplies. The known sensitive receptors in the project vicinity are a child daycare facility in LAAFB Building 207 (southeast of the project site), Del Aire Park (on Isis Street just north of El Segundo Boulevard), and Hawthorne High School (on El Segundo Boulevard, east of I-405 and approximately one mile from the project site). Additional sensitive receptors include a junior high school, library and private elementary school located on 135th Street between Isis Avenue and Glasglow Place east of I-405 and approximately ½ mile southeast of the project site. A second private elementary school is located northeast of the project site at a distance of approximately ½ mile. Typical construction activities are assumed to generate noise levels in the mid-80's dBA at approximately 50 feet and would decrease by 6 dBA when distances are doubled. The sensitive receptors are located at a great enough distance where noise impacts would not likely occur from construction of the Proposed Action.

According to the City of El Segundo *General Plan* (1992), ambient noise levels are 60 CNEL for the project site and 65 CNEL along Aviation Boulevard near LAAFB. Because of the close proximity of the project site to the on-base child care and child development service facility (Building 207), approximately 100 feet, noise from some construction activities is expected to exceed federal, state and local ambient noise levels at this sensitive receptor. However, the noise standards specified in the City of El Segundo *General Plan* (1992) are only applicable to off-base land use activities. The child daycare center is an on-base facility and is assumed to be exempt from City standards and is not considered a noise receptor independent of LAAFB. Furthermore, because construction will occur intermittently, noise impacts are considered temporary. Buildings 205 and 206, located immediately south of the project site, are planned to be demolished (as a separate project) concurrent with the Proposed Action, and therefore there would be no noise impacts to occupants of these structures. Operation of the Proposed Action would maintain a similar level of noise as current conditions and therefore no noise impacts would occur.

Cumulative Impacts

When considering planned and future projects within the vicinity of the Proposed Action, there would be no cumulative noise increase during construction of the project even when considering major approved and active projects in the vicinity. The planned projects, as identified by the City of El Segundo, are concentrated in the eastern part of the city and around the project site in areas designated and zoned for commercial (mixed use) and light industrial. However, the most sensitive receptors are located approximately ½ mile from these sights which is at a great enough distance where noise levels from construction activities would not be significant. In addition,

the cumulative noise impact from the Proposed Action and other projects is considered temporary.

4.7 TRAFFIC AND TRANSPORTATION

In determining whether the Proposed Action would result in significant traffic impacts, the following significance criteria are considered. Would the Proposed Action result in:

(1) A substantial increase in vehicle trips that would change the Level of Service and road capacity of the existing roadway system and intersections; or

(2) Inadequate parking and emergency access.

Table 4.7-1, *Significance Criteria for Traffic Impacts,* sets forth standards developed by the Los Angeles Department of Transportation (LADOT) that are used as a baseline for analysis.

It is assumed that construction workers commuting to the site, and all construction vehicles for delivery of materials and transport of heavy equipment, would utilize northbound (50%) and southbound (50%) I-405, exit El Segundo Boulevard west, and proceed north to Douglas Street entering Area B at Gate #5. All construction workers and equipment trips would exit a temporary access gate just north of the project site on Douglas Street and proceed north to Imperial Highway. Construction of the project would occur over an estimated 10 month period and involve up to an average of 35 construction workers on any one given day, including management personnel, subcontractors, construction equipment operators, and delivery personnel. Potentially, an average of 70 vehicle trips (35 round trips) per day would be made under this assumption. The distribution of construction related traffic along the roadways surrounding the site is contained in Table 4.7-2, *Distribution of LAAFB Construction Traffic on Local Roads.*

Heavy equipment used during portions of the construction period include a backhoe, bulldozer, large sized crane, truck mounted cement mixers, and small hydraulic cranes. It is assumed that 45 concrete mixer trucks per day for three (3) to four (4) days would visit the site to deliver and pour the concrete for the structures foundation, floor slab, and panels. Because these equipment and material trips are so few, and would occur intermittently over a very few days, their traffic impacts are considered temporary and insignificant.

The number of trips resulting from construction activities is nominal in relation to the existing traffic load and design capacity of the street system, and would not change any Level of Service standard established by the City of El Segundo nor affect the design capacity of the roadways used. No change in LOS for the existing roadway system would occur. Imperial Highway

would remain at a LOS F with the Proposed Action. As described in Section 3.0, the LOS for the intersections utilized during construction are at a LOS D or better during AM and PM hours. This level would not change during construction activities under the Proposed Action.

The Proposed Action would eliminate approximately 90 parking spaces but would provide approximately six (6) replacement parking spaces. Users of the child daycare center (Building 207) would continue to utilize parking spaces just east of that building and along Gemini Avenue on base. There is sufficient parking to accommodate all other buildings in Area B.

The existing routes for emergency access (LAAFB Gates 4 and 5) would remain the same under the Proposed Action. The Proposed Action would be designed in compliance with emergency fire access code requirements. A new access gate to Area B, located just north of the project site along Douglas Street, would provide an additional option for construction traffic to and from the project site.

The new Complex would serve existing military personnel. Therefore, no traffic impacts are expected from operation of the Proposed Action given that no new trips would be generated to the site.

Cumulative Impacts

When considering planned and future projects within the vicinity of the Proposed Action, there would be insignificant cumulative traffic impacts attributable to construction activities. Planned projects in the area are concentrated near the project site on Aviation Boulevard, El Segundo Boulevard, Nash Street, and Grand Avenue, and would potentially utilize similar construction routes as the Proposed Action. In addition, some construction activities associated with construction of the new Medical/Dental clinic at LAAFB would generate traffic. Should all approved and active projects be constructed concurrent with the Proposed Action, then the potential for cumulative traffic impacts from construction would increase. However, it is assumed that construction of these projects would occur over various periods, thereby reducing potential traffic impacts. Assuming that construction workers are encouraged not to use Imperial Highway, local roadways have sufficient capacity to accommodate these projects and the Proposed Action.

4.8 SOLID AND HAZARDOUS WASTE MANAGEMENT DISPOSAL

The Proposed Action would have a potentially significant impact on the environment if:

- The Proposed Action would create a potential public health hazard, or involve the use, production, or disposal of hazardous materials;

- Remediation activities were restricted or halted by the Proposed Action;
- Solid waste disposal needs generated by the Proposed Action would exceed the permitted capacity of a landfill to accommodate those needs; or
- The Proposed Action would violate any federal, state, or local statutes and regulations governing the disposal of solid waste.

Construction of the Proposed Action would involve the demolition of Buildings 213, 214, and 216, and a portion of Building 215. An asbestos survey was conducted in June 2000 for these buildings (LAAFB 2000b). The report concluded that asbestos is present only in Building 215. Demolition of Building 215 would disturb the asbestos-containing material and pose a potentially significant health threat if not properly handled and disposed of. A survey of lead-based paint was also conducted in June of 2000 for the buildings proposed for demolition. Samples taken indicated that Buildings 213, 215, and 216 contain lead-based paint.

Non-hazardous solid waste associated with construction of the Proposed Action would be disposed of at a local landfill, such as the Puente Hills Landfill, which has adequate capacity to serve the project. The local hazardous waste disposal site, Azusa Land Reclamation, located in Azusa, would be able to accommodate the disposal of asbestos waste generated from the demolition of Building 215, as well as concrete, asphalt, whole tires, and petroleum contaminated soils.

Operation of the new Physical Fitness Complex would not generate a substantial increase in solid waste in excess of current levels, and therefore local solid waste disposal and storage facilities would not be impacted by the Proposed Action.

To reduce the potential significant impacts from hazardous waste exposure to construction workers and nearby military base personnel, implementation of the following mitigation measures would reduce the hazardous waste impact to below the level of significance:

WM – 1 Comply with all federal, state and local regulations associated with the proper management and disposal of asbestos containing material.

WM – 2 Only licensed hazardous waste haulers shall transport asbestos-containing waste and lead-based paint waste originating from the project site. All contaminated materials shall be delivered to a permitted transport, storage, and disposal facility.

WM – 3 A certified asbestos and lead abatement contractor shall perform the necessary work associated with the demolition of Buildings 213, 215 and 216.

Cumulative Impacts

When considering planned and future projects within the vicinity of the Proposed Action, there would be a relatively small cumulative solid waste impact associated with the Proposed Project during construction given the demolition of structures and disposal of materials. This impact is not considered significant since the Puente Hills landfill can accept up to 72,000 tons per week and that other planned projects in the area do not involve the demolition of structures. The Proposed Action would result in a relatively small cumulative hazardous waste disposal impact during construction operations which is not considered significant given that the Azusa Land Reclamation site has the capacity to receive up to 6,000 tons per day. Other planned projects in the area do not involve demolition of structures containing asbestos. Operation of the Proposed Action would not generate a substantial increase in solid waste above existing quantities.

4.9 SOCIOECONOMICS

In analyzing the potential for the Proposed Action to result in adverse impacts on the local community near the project site, the following significance criteria is considered:

(1) An increase in population growth greater than 3 percent of the existing population (Minjares, 1994b);

(2) An increase in land values and housing costs that exceed the purchasing power of local residents;

(3) A disruption and/or division of neighborhoods which results in social instability;

(4) A displacement of existing structures and/or residents which cannot be relocated to comparable areas; and/or;

(5) A displacement or termination of existing economic activity which cannot be compensated or relocated to comparable areas with equal potential for income generation.

The Proposed Action would serve existing military personnel at LAAFB, and would not spur population growth nor increase land values or housing costs. Because the project site is located on LAAFB, it would not disrupt local neighborhoods. The Proposed Action would demolish a portion of an existing structure (Building 215); however, operations and activities within the remainder of this structure would continue to operate.

Construction of the Proposed Action would generate a nominal increase in the number of construction workers employed and would not significantly benefit local cities. Operation of the new Complex would utilize the same number of on-base employees as currently. Therefore, no change in the socioeconomic profile of LAAFB or the surrounding community would occur.

Cumulative Impacts

When considering planned and future projects within the vicinity of the Proposed Action, there would be a beneficial but small cumulative impact on the local economy given the availability of construction worker jobs during construction activities. The Proposed Action, alone, would not reduce and/or eliminate any residential housing or employment opportunities and therefore would not have a cumulative significant impact.

4.10 CULTURAL RESOURCES

In analyzing the potential for the Proposed Action to result in adverse impacts on existing cultural resources (including archaeological, paleontological and historical resources), near the project site, the following significance criteria are considered. Would the Proposed Action result in:

(1) A significant adverse affect on an archaeological resources;
(2) Destruction or damage of a unique paleontological resource; or
(3) Disturbance of human remains.

The significance criteria (36 CFR 60.4) established by the National Register of Historic Places (NRHP), authorized under the National Historic Preservation Act of 1966, is used to evaluate potential impacts to historic resources. Since the process for listing a site on the NRHP can be a lengthy one, federal agencies and the California Office of Historic Preservation can determine that a site is eligible for listing on the Register based on when the site was constructed. Unless a resource is of exceptional importance or value, sites younger than 50 years are not considered eligible for the NRHP. However, it is recommended that sites 45 years old or older be considered during the evaluation process to allow for potential delays between evaluation and project construction periods. The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, association, and:

(1) That are associated with events that have made a significant contribution to the broad patterns of our history; or
(2) That are associated with the lives of persons significant in our past; or
(3) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

(4) That have yielded, or may be likely to yield, information important to prehistory or history.

No archaeological or Native American resources have been identified on LAAFB property including Area B. However, subsurface deposits or burials may exist beneath current developed, paved, and landscaped areas in Area B. Subsurface deposits could be affected by any ground-disturbing activities that extend below ground levels previously undisturbed (LAAFB 1999b). The significance of subsurface deposits is determined by the type, extent, and integrity of the deposit. Construction activities involving excavation and/or trenching may disturb potential deposits or burials should excavation extend deeper than soils that have previously been disturbed. Should any archaeological, paleontological deposits, or human remains be encountered during excavation or trenching activities, the following mitigation measures should be implemented to reduce potential impacts to below the level of significance.

CUL – 1 Should archaeological or paleontological resources be encountered during construction, a qualified archaeologist, paleontologist, and/or Native American representative would be retained to conduct monitoring of earth moving activities as a precautionary measure against negatively impacting buried deposits.

CUL – 2 If human skeletal remains are found at the project site during earth moving activities such as grading or trenching, work would be suspended and the Los Angeles County Coroner's Office would be notified. Procedures to be employed in the treatment of human remains are found in, "A Professional Guide for the Preservation and Protection of Native American Human Remains and Associated Grave Goods," published by the California Native American Heritage Commission.

According to information contained in the *Cultural and Natural Resources Management Plan* (LAAFB 1999b), Buildings 215 and 229 in Area B are considered potentially eligible for listing to the National Registry of Historic Places based strictly on the fact that they are over 50 years old. The plan prepared for the LAAFB includes management policies and goals directed at ensuring protection of historic resources such as structures and buildings. Policies 5.4.2.2 and 5.4.2.4 recommend a formal historical evaluation of Buildings 215 and 229 in Area B. Upon completion of such an evaluation and determination of historic significance for Building 215, a Section 106 consultation with the State Historic Preservation Office may be required prior to construction of the Proposed Action to determine and develop appropriate mitigation measures for the partial demolition of the building.

Cumulative Impacts

Due to the nature and scope of the Proposed Action, cumulative impacts would be considered low for archaeological and paleontological resources, including historic structures.

4.11 INFRASTRUCTURE

In analyzing the potential for the Proposed Action to result in adverse impacts on existing infrastructure at and near the project site, the following significance criteria is considered. Would the Proposed Action result in:

(1) A need for additional police or fire protection, manpower, equipment, or facilities;

(2) A reduction in acceptable response times of police or fire protection services;

(3) A need for additional medical facilities in the community because of additional personnel in the area;

(4) A need for additional schools and libraries in the community due to project related population increases;

(5) A need for additional parks and recreational facilities in the community because of additional personnel in the area;

(6) An increase in water services that would exceed existing entitlements and require the expansion of water facilities; or

(7) Discharge volumes that would exceed the service capacity of wastewater treatment facilities.

The Proposed Action would serve existing military personnel on base. The police department, fire department, and nearby hospital would continue to serve in the same capacity as before the project. Therefore, there would be no increased demand on police, fire protection, medical services or facilities, schools, libraries, and parks and recreational facilities.

The Proposed Action would consume approximately 1,364.2 thousand gallons (Kgal) of water, generate approximately 1,227.7 Kgal of wastewater, consume approximately 1,788.4 MBTU of electricity, and 1,258 MBTU of gas. Estimated annual utility consumption quantities for the proposed project are as follows: Electricity-1788.4 (MBTU); Gas-1258 (MBTU); Water-1364.2 (KGal); and Waste Water- 1227.7 (Kgal) (Personal Communication, Freeman 2000). Consumption estimates would be comparable or less than existing conditions, given the installation of modern, more efficient, water and lighting features (ie. low flow toilets and showerheads, efficient lighting fixtures, etc.). Utility service providers have adequate capacity to serve the project's minor demands. Overall, the Proposed Action would not substantially impact utilities.

Cumulative Impacts

When considering planned and future projects within the vicinity of the Proposed Action, there would be no cumulative impact on public services or utility facilities. Existing service and utility providers have adequate capacity to serve cumulative projects.

The following section provides an analysis of four alternatives to the Proposed Action. The analysis discusses key issue areas addressed in the analysis for the Proposed Action, including impacts on Land Use, Geology and Soils, Water Resources, Biological Resources, Climate and Air Quality, Noise, Traffic and Transportation, Solid and Waste Management Disposal, Socioeconomics, Cultural Resources, and Infrastructure. A statement of the potential for each alternative to result in significant cumulative impacts is also provided.

5.1 ALTERNATIVE NO. 1- PROPOSED ACTION

Alternative No.1 provides for a new PFC to meet existing and forecasted physical fitness service needs at LAAFB. This alternative supports the LAAFB 2000 Master Plan (in progress), effectively uses available land on base, and supports the ongoing mission by providing immediate access to a PFC for all military personnel at LAAFB. Since the Proposed Action would replace existing facilities with a similar use and the existing area is previously disturbed land, it would minimize environmental impacts for this type of project. Section 4.0 of this EA identifies environmental consequences that would result from Alternative No.1, and recommends mitigation measures for avoiding and/or minimizing the extent of environmental effects. The analysis in Section 4.0 addresses the potential for this alternative to impact hazardous waste and air quality from contaminated soils and the demolition of structures containing asbestos. The mitigation measures recommended would reduce impacts to a less than significant level. No other significant environmental impacts associated with this alternative would occur. Comparatively, this alternative best satisfies the purpose and need statement of LAAFB while minimizing the potential for significant environmental consequences.

5.2 ALTERNATIVE NO. 2 – RENOVATION

Alternative No.2 would renovate the existing PFC and HAWC, and would result in a temporary disruption in recreational and/or physical fitness services provided to LAAFB military personnel on-base. The disruption would be due to the closure of the PFC and HAWC for the duration of renovation. Military personnel would need to travel off-base for the provision of physical fitness facilities. Due to the nature of the renovation of the existing facilities, including structural retrofitting and seismic improvements, construction noise impacts to occupants of Building 242 and 244 in which the PFC and HAWC are located would be greater than those anticipated for the Proposed Action. Traffic impacts from construction activities would be comparable to those from the Proposed Action. Alternative No. 2 would not impact any of the environmental issue areas including Geology and Soils, Water Resources, Biological Resources, Socioeconomics,

Cultural Resources or Infrastructure. Upon implementation of Alternative No. 2, no change to these resources is expected.

It is known that Buildings 242 and 244 contain asbestos and lead based paint (LAAFB, Szekely 2000b). Therefore renovations efforts under Alternative No. 2 would involve asbestos and lead based paint abatement involving the same mitigation measures as with the Proposed Action. Alternative No. 2 would have comparable air quality and hazardous waste disposal impacts as with the Proposed Action with the implementation of mitigation measures.

Alternative No. 2 would install modern water and utility fixtures which would improve the efficiency of water and energy use. However, maintaining the existing footprint of the PFC and HAWC would continue to utilize space in an inefficient manner compared to the Proposed Action. The PFC and HAWC would continue to be disconnected and not readily accessible by military personnel. Costs associated with Alternative No. 2 would be comparable to the Proposed Action in that retrofitting and seismic upgrading would involve a comparable level of engineering and construction requirements as with a new building.

The costs for renovation, mainly due to seismic requirements and changes to the building structure itself, are expensive and would exceed that desired for an existing structure. In addition, these facilities may be demolished within a few years to make room for a larger Base consolidation effort.

Cumulative Impacts

Alternative No. 2 would not result in a significant cumulative impact on any of the environmental issue areas. Renovation efforts would involve a less intense construction scenario than that anticipated for the Proposed Action. Therefore, traffic-related impacts from construction activities under this alternative would not result in greater cumulative impacts than the Proposed Action. See impact analysis in Section 4.0.

5.3 ALTERNATIVE NO. 3 – UTILIZATION OF LOCAL FITNESS FACILITIES/LEASING

Alternative No.3 would involve financing the membership costs of on-base military personnel at a local physical fitness center. The existing PFC and HAWC would be permanently closed. Military personnel would have to utilize off-base facilities for their fitness needs, thereby increasing the demand at those fitness facilities. Compared with the Proposed Action, Alternative No. 3 would have similar environmental impacts on Biological Resources, and would have fewer environmental impacts related to Geology and Soils, Water Resources, Noise, Solid and Hazardous Waste Management and Disposal, Cultural Resources, and Infrastructure.

Because there would be no construction under this alternative, no earth would be displaced, no noise would be generated, no solid or hazardous waste would be generated, and the potential to expose cultural resources would not exist. Traffic-related impacts from construction activities would not exist because no construction would take place.

Operation of this alternative would eliminate activities relating to water and energy consumption associated with the existing PFC and HAWC. This alternative, however, would result in an incremental increase in air quality impacts and traffic congestion greater than that for the Proposed Action. Military personnel would have to make additional vehicle trips during the day to off-base facilities, adding more cars to the local roadway system as well as more pollutants to the air. These minor increases, however, would not be considered significant.

The socioeconomic impact of this alternative would be greater than for the Proposed Project because of the costs involved with financing, indefinitely, the membership costs for users. In order to accommodate the HAWC programs, an appropriate facility other than the one considered for the PFC would need to be leased. Leasing costs for such facilities in addition to financing membership for military personnel would render this alternative too costly. This alternative is not considered a viable alternative in that it would potentially result in increased travel time, costs, and time away from on-base work assignments.

Cumulative Impacts

The use of existing physical fitness facilities in the vicinity of LAAFB would result in incremental cumulative impacts to land use, air quality, and traffic. Implementation and operation of Alternative No. 3 would increase the number of users at local fitness facilities. When considering the type of projects approved in the City of El Segundo and the potential vehicle trips they would generate, this alternative would contribute to the cumulative increase in air pollutants from vehicle exhaust generated by military personnel traveling to and from off-base fitness centers. A cumulative increase in traffic congestion would also occur upon implementation of this alternative because other projects (i.e., hotel, office, restaurant, mini-storage) are planned along Nash Street and El Segundo Boulevard, two streets which may be utilized by military personnel to travel to an off-site fitness center (See Table 4-1 and Figure 4-1).

5.4 ALTERNATIVE NO. 4 – BUILDING NEW PFC FACILITY OFF-BASE

Alternative No. 4 would involve the construction and operation of an off-base facility at a location yet to be identified. Because the site location has not been determined, it is difficult to assess the specific degree of impact to the sixteen (16) environmental issue areas. However, it is

assumed that new land would be purchased within the City of El Segundo or a neighboring city. Selection and availability of a site for a new off-base facility may be highly restrictive. Supporting environmental studies would be conducted to determine the viability of building an entirely new structure on previously undisturbed ground, including a geotechnical and soils investigation and a cultural resources evaluation. In the event that the land purchased is already developed, demolition of structures would likely be necessary. As with the Proposed Action, an asbestos and lead-based paint survey may also need to be completed depending on the age of the structure.

Alternative No. 4 would potentially result in a greater increase in environmental impacts on land use, climate and air quality, noise, traffic and transportation, socioeconomics, and cultural resources than those of the Proposed Action. Selection of a new site may affect existing land uses. Should the site be located near a sensitive off-base receptor (given the limited site locations available), this alternative could result in disruptive construction noise. Construction activities may result in higher traffic volumes and greater potential to expose cultural resources. Operation of a new facility off-base under Alternative No. 4 would have a greater impact on air quality and traffic than the Proposed Action for reasons that military personnel would make additional vehicles trips per day to drive to the new facility, adding more pollutants to the air from vehicle exhaust as well as adding more cars to the road during peak and non-peak hours.

Alternative No. 4 would have similar, if not less, impacts on geology and soils, water resources, biological resources, solid and hazardous waste management and disposal, and infrastructure. This assumes that the new site location would be undeveloped and within the immediate area with similar geologic and soil, water, biologic, solid and hazardous waste management disposal and infrastructure characteristics as described for the Proposed Action. It also assumes that Alternative No. 4 would serve the same number of military personnel.

Because of the high land costs in the immediate area coupled with preliminary efforts to evaluate the site, the cost to finance Alternative No. 4 would be greater than the Proposed Action.

Cumulative Impacts

Alternative No. 4 would result in similar cumulative impacts as with the Proposed Action assuming that the construction scenario for this alternative is comparable to that of the Proposed Action. Implementation and operation of Alternative No. 4 would potentially result in greater air and traffic cumulative impacts than those anticipated for the Proposed Action given that more vehicles would be added to the existing roadway system during peak and non-peak hours from military personnel traveling to and from off-base fitness centers. It is assumed that personnel

would continue to use El Segundo Boulevard and other north-south oriented roadways which would also be used by the other projects planned by the City of El Segundo.

5.5 ALTERNATIVE NO. 5 – NO ACTION

The No Action alternative would result in less impacts than the Proposed Action given that no existing buildings would be demolished, and no new structures would be built. However, Alternative No. 5 would not meet the project objectives, including the provision of adequate physical fitness facilities at LAAFB.

Cumulative Impacts

The No Action alternative would result in less cumulative impacts as identified for the Proposed Action given that no existing buildings at LAAFB would be demolished, and no new structures would be built.

Permits needed for construction of the Proposed Action include:

- Notification of asbestos removal (SCAQMD); and
- Compliance with applicable building codes.

City of El Segundo, Planning Department

City of El Segundo, Police Department

City of El Segundo, Fire Department

City of El Segundo, Public Works Department

Los Angeles Air Force Base

Los Angeles County Sanitation District

West Basin Municipal Water District

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Colleen Eadie	Intern, Research
Wendy Lamont	Document Support

The following responses are provided to the two attached comments received on the Draft EA.

Comment No. 1: Telephone call received o/a September 18, 2000, from unidentified caller at the Integrated Waste Management Board.

Response: Recycling of non-hazardous solid waste associated with construction of the Proposed Action would be recycled to the extent feasible. As identified in Section 4.8, other non-hazardous solid waste would be disposed of at a local landfill, such as the Puente Hills Landfill, which has adequate capacity to serve the project.

Comment No. 2: Letter dated September 25, 2000, from Stephen Buswell, IGR/CEQA Program Manager, California Department of Transportation (Caltrans).

Response: Construction of the project would occur over an estimated 10-month period and involve up to an average of 35 construction workers on any one given day. Construction worker commute, equipment, and material trips would be temporary and insignificant.

The proposed physical fitness center would replace identified existing fitness facilities at LAAFB. Eligibility for use of the upgraded facilities would be identical to present conditions, and would be limited to military personnel and their dependents at LAAFB. The proposed facilities would typically be used by personnel already on base, prior, during, or after their respective workday, and would not be open to the general public. Additionally, military personnel from outlying bases are not expected to make significant trips to the fitness center. Overall, the project would not be a regional traffic generator, and no new vehicle trips would be generated by operation of the project.

LAAFB currently has no plans to significantly increase the number of assigned personnel at the base over the next 20 years. The foreseeable use of the proposed facilities is not anticipated to substantially increase over existing conditions.

Based on the above, a full traffic study for the proposed physical fitness center complex is not necessary, and no further traffic analysis is needed.

TABLE 3.8-1
Daily Traffic Volumes On Local Roads

Local Road Segment	ADT	Design Capacity	Current LOS
Imperial Hwy. west of I-405 and west of Douglas St.	58,200	53,000	F
Imperial Hwy. west of Douglas St. and east of Nash St.	54,500	53,000	F
Aviation Blvd. north/south of El Segundo Blvd.	26,900	40,400	C or better
Aviation Blvd. north/south of 135th St.	28,000	40,400	C or better
Douglas St. north/south of El Segundo Blvd.	15,700	40,400	C or better
Douglas St. north/south of Mariposa Ave.	18,000	53,000	C or better
Douglas St. south of Imperial Hwy.	8,100	31,000	C or better
El Segundo Blvd. east/west of Aviation Blvd.	39,700	70,000	C
El Segundo Blvd. east/west of Douglas St.	41,300	70,000	C & D
El Segundo Blvd. east/west of Nash St.	44,6000	53,000	C & D
Nash St. north/south of Grand Ave.	10,400	53,000	C or better
Nash St. north/south of Mariposa Ave.	11,200	53,000	C or better
Nash St. south of Imperial Hwy.	12,800	40,400	C or better

Source: City of El Segundo, 2000

TABLE 3.8-2
Peak Traffic In Vicinity Of Los Angeles AFB

Street	Peak A.M.		Peak P.M.	
	Hour	Vehicle Volume	Hour	Vehicle Volume
Northbound Douglas Street (between Mariposa and El Segundo)	7:38	888	3:30	650
Eastbound El Segundo Boulevard (E/O Douglas Street)	11:00	1,101	5:00	2,133
Westbound El Segundo Boulevard (E/O Douglas Street)	7:15	2,477	12:30	1,384
Eastbound El Segundo Boulevard (E/O Aviation Boulevard)	11:00	1,110	4:45	2,092
Westbound El Segundo Boulevard (E/O Aviation Bou8levard)	7:15	2,607	12:15	1,375
Southbound Aviation Boulevard (S/O El Segundo Boulevard)	7:30	1,026	5:30	1,596
Northbound Aviation Boulevard (S/O El Segundo Boulevard)	7:45	1,160	4:30	942

Source: City of El Segundo, 2000

TABLE 4-1
Major Approved & Active Projects

No.	Address	Existing sq. ft.	Existing Use	Approved sq. ft.	Approved Use	Approval & Expiration
1	2301 Rosecrans CDC	0	Vacant	290,096	Office	Development Agreement 6/9/2002
2	1951-1961 El Segundo Blvd Xerox Phase IV	0	Parking lot	255,242 350 Room	Office Hotel	Development Agreement 3/1/2003
3	400 & 444 Continental Continental Grand	0	Vacant	233,500	Office	C of O 9/99
4	445 & 475 Continental Mattel	0	Vacant	300,000	Research & Dev. Bldg	Development Agreement 9/7/2001
5	1415 E. Grand Ave. Kizirian	30,000	Industrial	28 Units	Townhome	Subdivision Expires 5/4/01
6	700 N. Nash 800 N. Nash El Segundo Media Center	0	Vacant	630,000 220,000 377,000 273,000	Office Hotel/Retail Ent./Tech. Campus Media campus	P.C. TBD CCTBD Pending Approval
7	155-555 N. Nash	0	Vacant	Plan B: 150 Room 157,000 125,000 135,000 165 Room	Marriott Residence Inn Infonet Office Recreation Hilton Hotel	Under construction Completed In plancheck Completed Completed
8	Northwest corner of Aviation Blvd. and Rosecrans Ave.	0	Wholesale Nursery	350 Units	Mini-Storage	Under Construction
9	401 Aviation Blvd.	0	Parking lot	708 Units	Mini-Storage	In plancheck
10	1400 Holly Ave.	28,580	Medium Mfg	26 Units	Townhomes	Pending Approval
11	2260 E. El Segundo Blvd.	114,000	Industrial	38,000	Data Center	PC 7/27/00 Pending Approval

Source: City of El Segundo, 2000

TABLE 4-2
National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards [a,c]	National Standards [b]	
			Primary [c,d]	Secondary [c,e]
Ozone (O_3)	1-hour	0.09 ppm (180 µg/m^3)	0.12 ppm (235 µg/m^3)	Same as primary
	8-hour	---	0.08 ppm (157 µg/m^3)	Same as primary
Carbon monoxide (CO)	8-hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	---
	1-hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	---
Nitrogen dioxide (NO_2)	Annual	---	0.053 ppm (100 µg/m^3)	Same as primary
	1-hour	0.25 ppm (470 µg/m^3)	---	---
Sulfur dioxide (SO_2)	Annual	---	0.03 ppm (80 µg/m^3)	---
	24-hour	0.04 ppm (105 µg/m^3)	0.14 ppm (365 µg/m^3)	---
	3-hour	---	---	0.5 ppm (1,300 µg/m^3)
	1-hour	0.25 ppm (655 µg/m^3)	---	---
Suspended Particulate Matter (PM_{10})	Annual	30 µg/m^3 [f]	50 µg/m^3 [g]	Same as primary
	24-hour	50 µg/m^3	150 µg/m^3	Same as primary
Suspended Particulate Matter ($PM_{2.5}$)	Annual	---	15 µg/m^3 [g]	Same as primary
	24-hour	---	65 µg/m^3	Same as primary
Sulfates	24-hour	25 µg/m^3	---	---
Lead	30-day	1.5 µg/m^3	---	---
	Quarterly	---	1.5 µg/m^3	Same as primary
Hydrogen sulfide	1-hour	0.03 ppm (42 µg/m^3)	---	---
Vinyl chloride	24-hour	0.010 ppm (26 µg/m^3)	---	---
Visibility reducing particles [h]	8-hour (10 A.M. to 6 P.M. PST)	In sufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70 percent.	---	---

TABLE 4.5-1

***De Minimis* Levels For Determination Of Applicability Of General Conformity Rule**

		***De Minimis* Levels, tons/year**			
Air Basin	CO	NOx	ROG	NO_2	PM_{10}
South Coast	100	10	10	100	70

TABLE 4.5-2

Estimated Construction Equipment Emissions
(tons per year)

	ROG	CO	NOx	PM_{10}
Equipment Exhaust	0.15	1.18	2.48	0.16
Worker's Commute	0.036	0.453	0.031	0.003
Total	0.186	1.633	2.511	0.163
de minimis threshold	10.00	100.00	10.00	70.00

Source: SCAQMD CEQA Air Quality Handbook Emission Calculation Methodology.

TABLE 4.5-3

SCAQMD Air Quality Impact Significance Thresholds

Project	Air Contaminant Emission Rate (lb/day)					
	CO	ROG	NO_x	SO_x	PM_{10}	Lead[a]
Construction	550	75	100	150	150	3
Operation	550	55	55	150	150	3

Source: CAQMD, 1993a except as noted
a SCAQMD, 1987
lb/day pounds per day
CO carbon monoxide
ROG reactive organic gases
NO_x nitrogen oxides
SO_x sulfur oxides
PM_{10} particulate matter less than 10 microns in diameter

TABLE 4.7-1
Significance Criteria for Traffic Impacts

Intersections		
Level-of-Service(a)	**Final V/C(b)**	**Project-Related Increase in V/C**
C	>0.700 – 0.800	≥0.040
D	>0.800 – 0.900	≥0.020
E,F	>0.900	≥0.010

Local Residential Streets	
Projected ADT with Project (Final ADT)	**Project-Related Increase in Final ADT**
1,000 or more	12 percent or more of final ADT
2,000 or more	10 percent or more of final ADT
3,000 or more	8 percent or more of final ADT

Source: LADOT, 1993b
ADT Average daily traffic
V/C Volume-to-capacity ratio

(a) For purposes of this calculation, "Final V/C" shall mean the future V/C at an intersection considering impacts with project, related project, and ambient growth, but without proposed traffic mitigation.
(b) For purposes of this calculation, "Project-Related Increase in V/C" shall mean the change in V/C between the final V/C ratio and the future V/C ratio with ambient and related project growth but without project and proposed traffic mitigation. This value is presented as a ratio (Volume/Level-of-Service E Capacity)

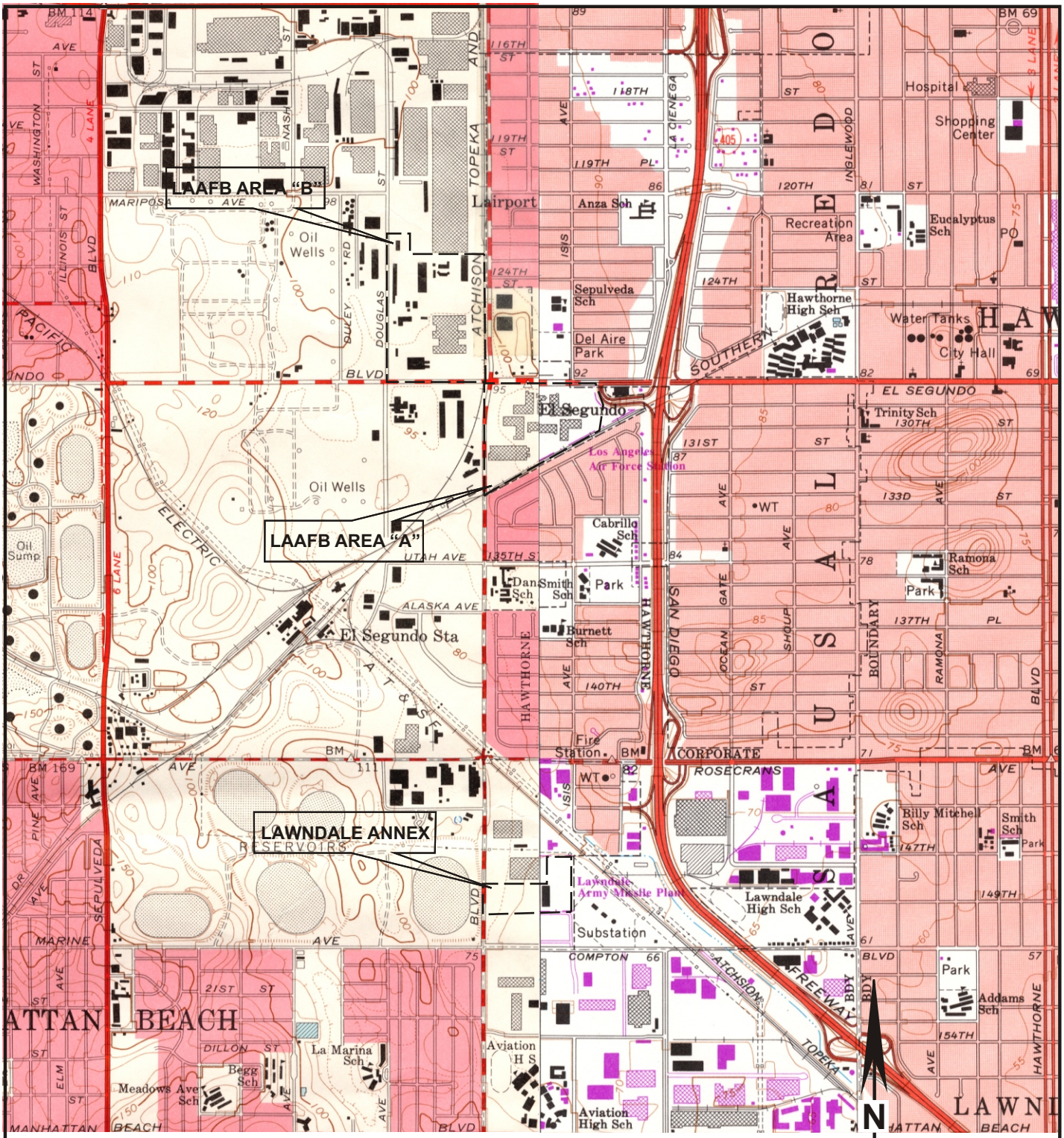
TABLE 4.7-2
Distribution of LAAFB Construction Traffic on Local Roads

Local Road Segment	ADT	Projected Construction Traffic	Design Capacity	Current LOS	Average Increase (%)
Douglas St. between El Segundo Blvd. and Imperial Hwy.	41,800	70	124,400	C or better	<1%
El Segundo Blvd. Between I-405 and Douglas St.	125,600	70	193,000	C & D	<1%
Imperial Hwy. Between I-405 and Douglas St.	112,700	70	106,000	F	<1%

Los Angeles Airforce Base Regional Vicinity and Property Map

Project No.: 41F009660201/00102	Date: August 2000	Project: Los Angeles Airforce Base	Figure: 1-1

I:\LA AIRFORCE\VIC MAP.CDR



Note: Base map taken from U.S.G.S. Topographic Quadrangle, 7.5' minute series. Venice, California, 1964. Ingelwood, California, 1964. Photorevised 1981.

Project Site Location Map

Project No.: 41F009660201	Date: August 2000	Project: Los Angeles Airforce Base	Figure: 1-2

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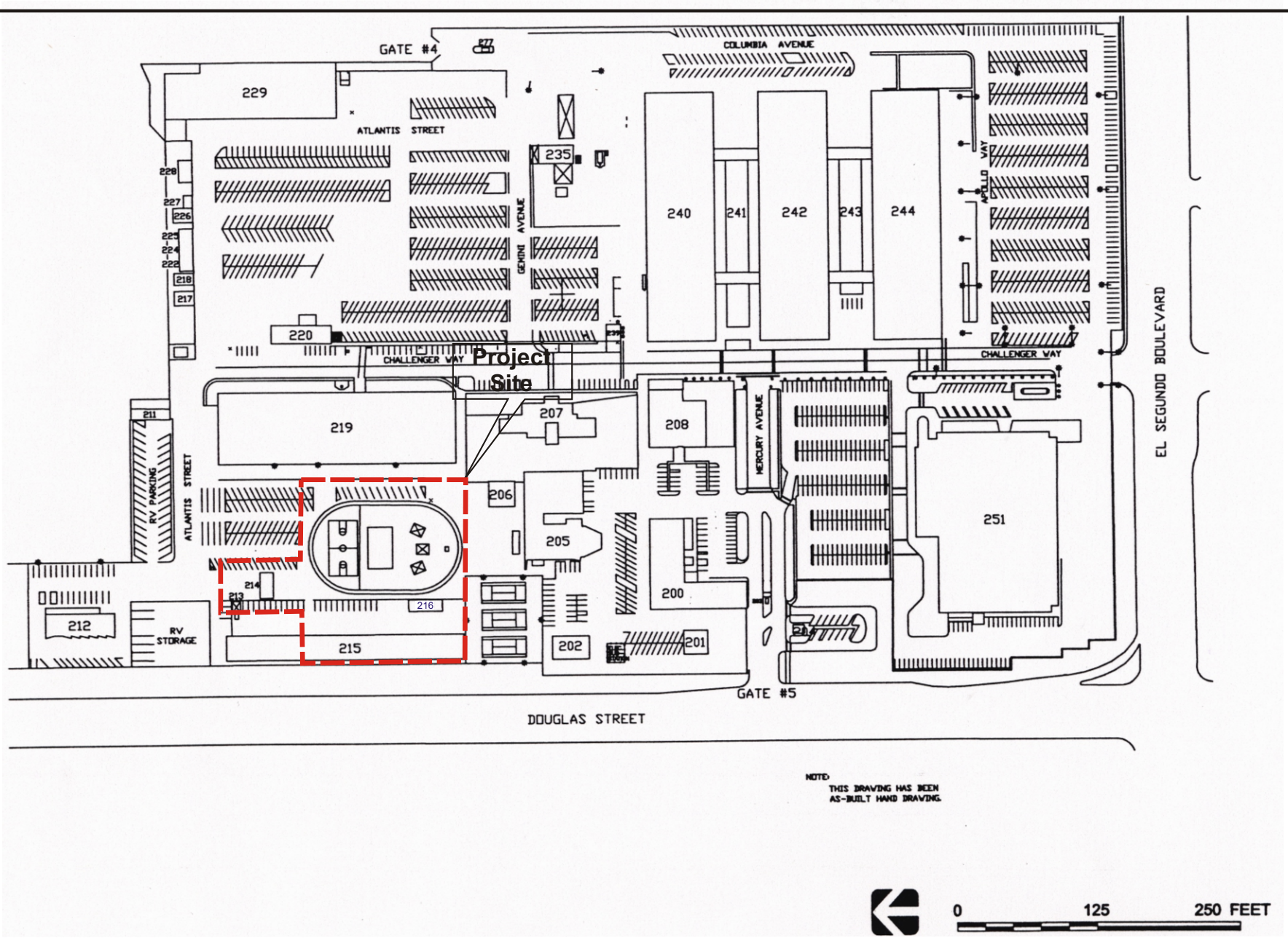

PROJECT SITE PLAN

Project No.:	41F009660201	Date:	August 2000	Project:	Los Angeles Airforce Base	Figure:	2-1

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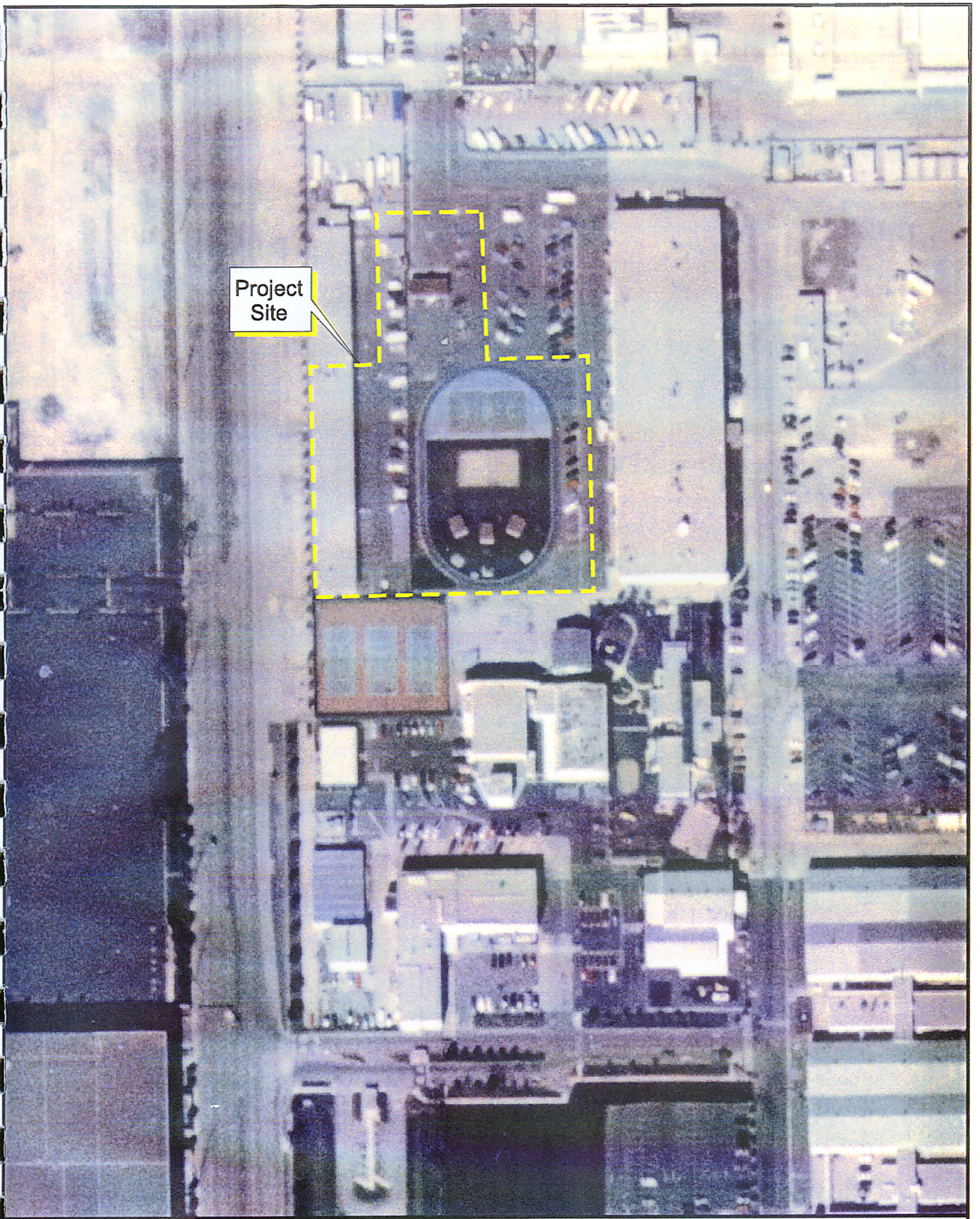

PROJECT AERIAL SITE PHOTO

Project No. 41F009660201	Date: August 2000	Project: Los Angeles Airforce Base	Figure: 2-2

Building 213 Proposed for Demolition

Project No.: 41F009660201	Date: August 2000	Project: LA Airforce Base	Fig. 2-3

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Building 214 Proposed for Demolition

Project No.: 41F009660201	Date: August 2000	Project: LA Airforce Base	Fig. 2-4

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BUILDING 215 PROPOSED FOR PARTIAL DEMOLITION

Project No.: 41F009660201	Date: August 2000	Project: Los Angeles Airforce Base	Figure: 2-2

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Building 216 Proposed for Demolition

Project No.: 41F009660201	Date: August 2000	Project: Los Angeles Airforce Base	Figure: 2-6

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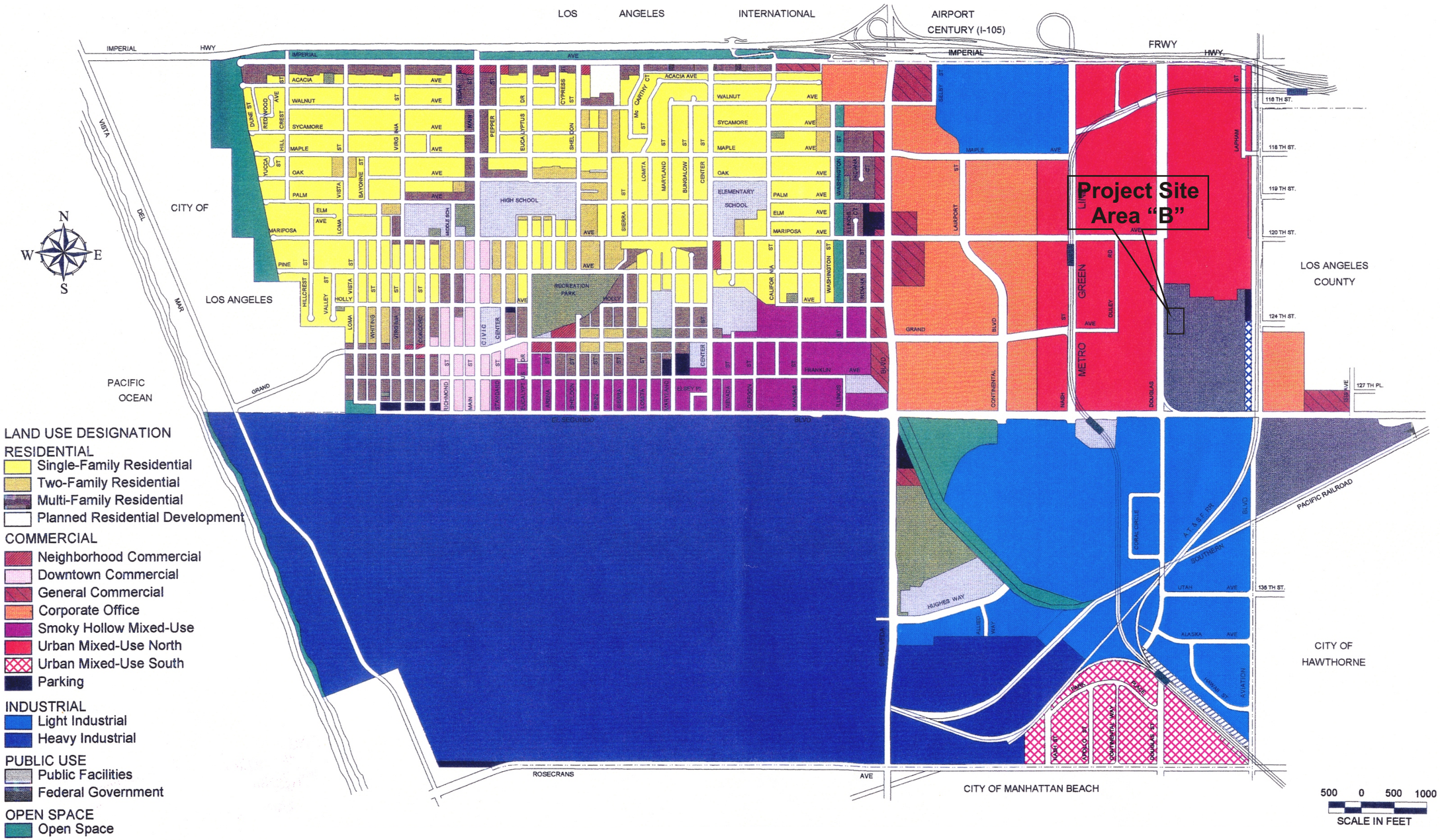


LAND USE DESIGNATION

RESIDENTIAL
- Single-Family Residential
- Two-Family Residential
- Multi-Family Residential
- Planned Residential Development

COMMERCIAL
- Neighborhood Commercial
- Downtown Commercial
- General Commercial
- Corporate Office
- Smoky Hollow Mixed-Use
- Urban Mixed-Use North
- Urban Mixed-Use South
- Parking

INDUSTRIAL
- Light Industrial
- Heavy Industrial

PUBLIC USE
- Public Facilities
- Federal Government

OPEN SPACE
- Open Space
- Parks

SPECIFIC PLAN DISTRICTS
- 124th Street Specific Plan
- Aviation Specific Plan

- Existing Green Line Station
- Proposed Green Line Station

500 0 500 1000
SCALE IN FEET

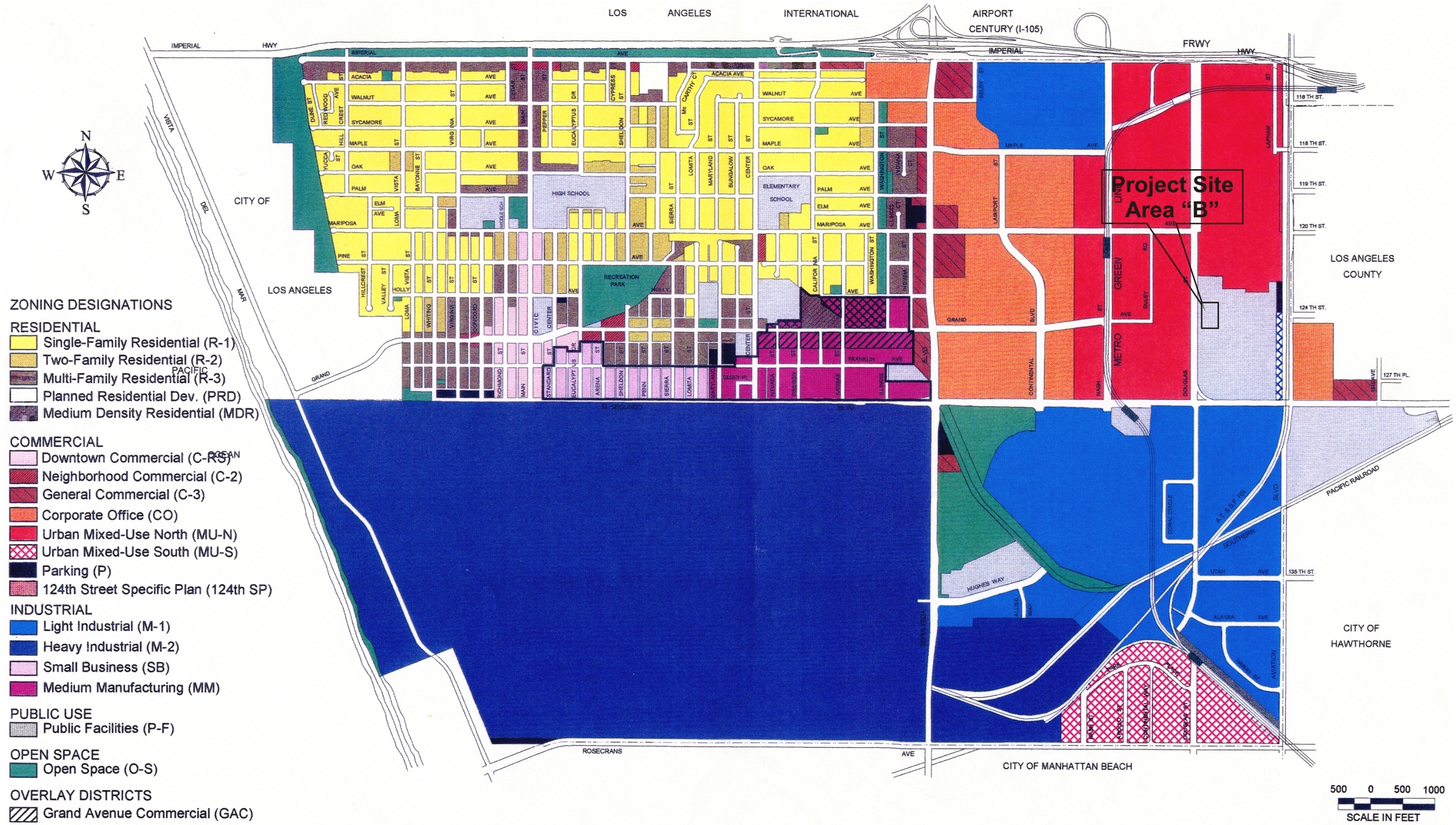
I:\LA Airforce\land use.cdr

Source:
City of El Segundo.

URS

CITY OF EL SEGUNDO
LAND USE MAP

Project: Los Angeles Airforce Base	Date: Aug. 2000
Project No.: 41F0096602.01	Figure: 3-1



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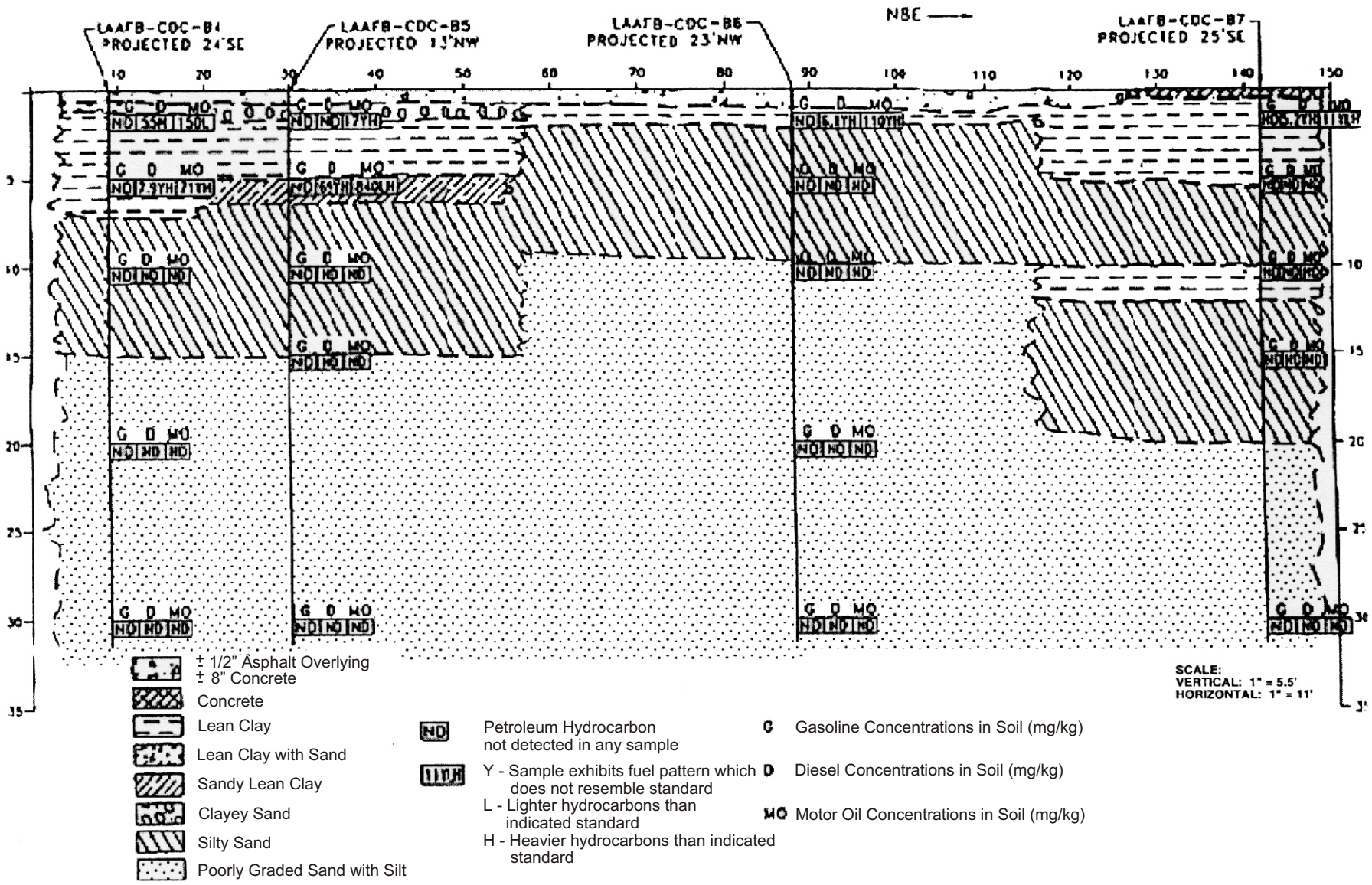
Source:
City of El Segundo.

URS

CITY OF EL SEGUNDO
ZONING MAP

Project: Los Angeles Airforce Base	Date: Aug. 2000
Project No.: 41F0096602.01	Figure: 3-2



Source: U.S. Airforce Installation Restoration Program April 17, 1998.

Generalized Geologic Cross Section

Project No.: 41F0096602.01	Date: August 2000	Project: Physical Fitness Center Complex	Figure: 3-3

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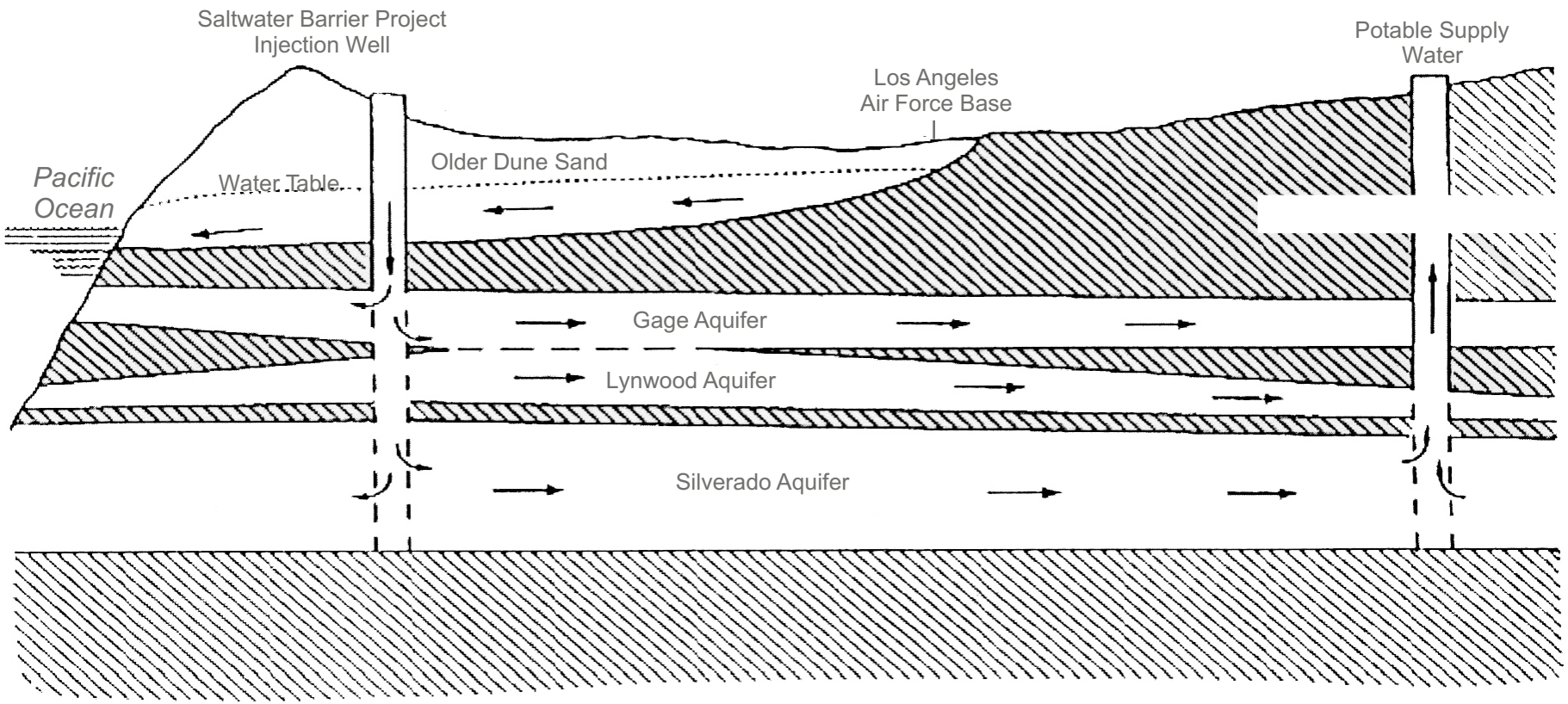

Source: U.S. Army Corps of Engineers, April 1996.

Generalized Groundwater Flow Direction in the Vicinity of LAAFB

Project No.: 41F0096602.01	Date: August 2000	Project: Physical Fitness Center Complex	Fig.: 4

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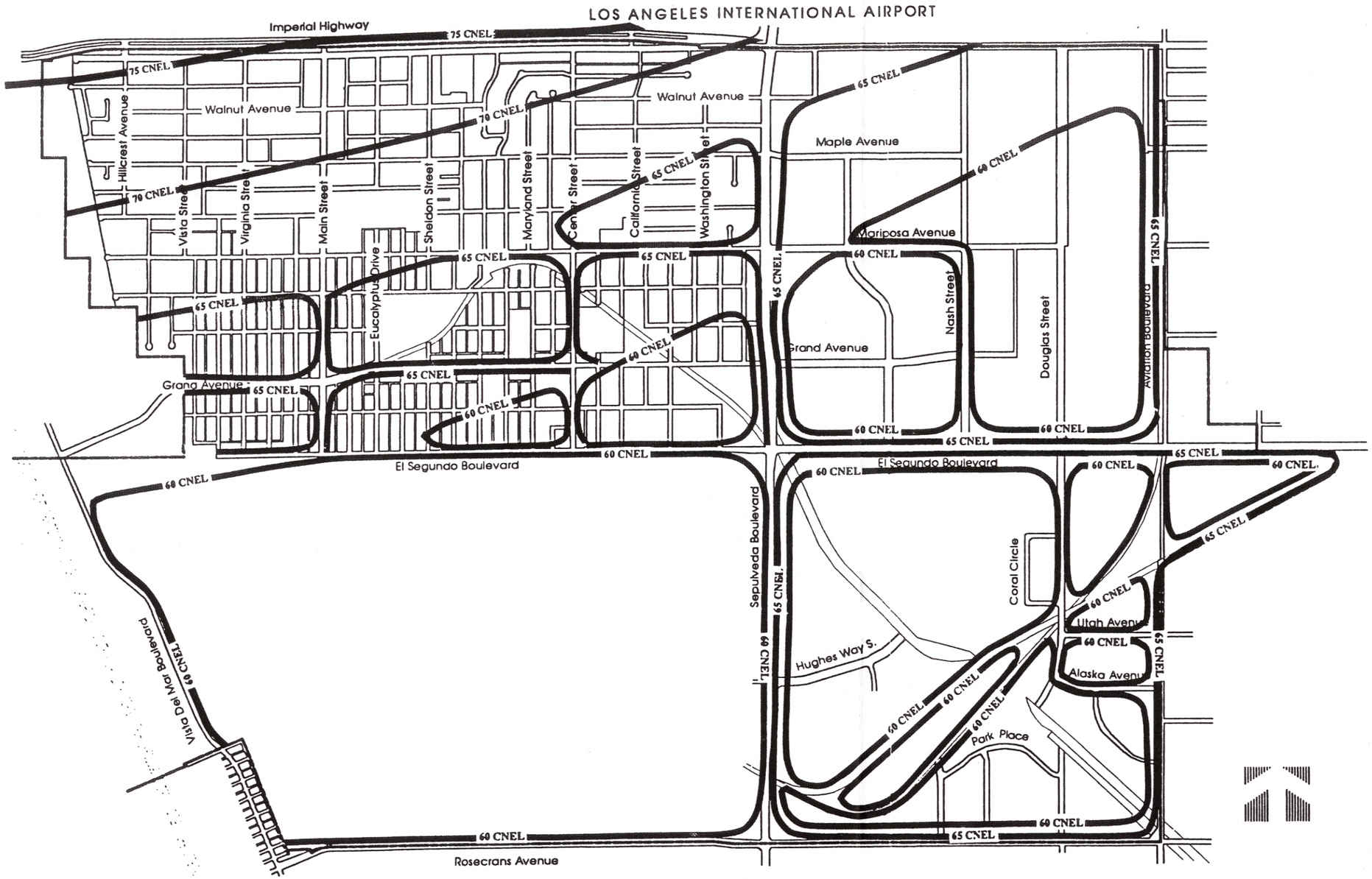

Legend

70 CNEL

Source:
City of El Segundo.

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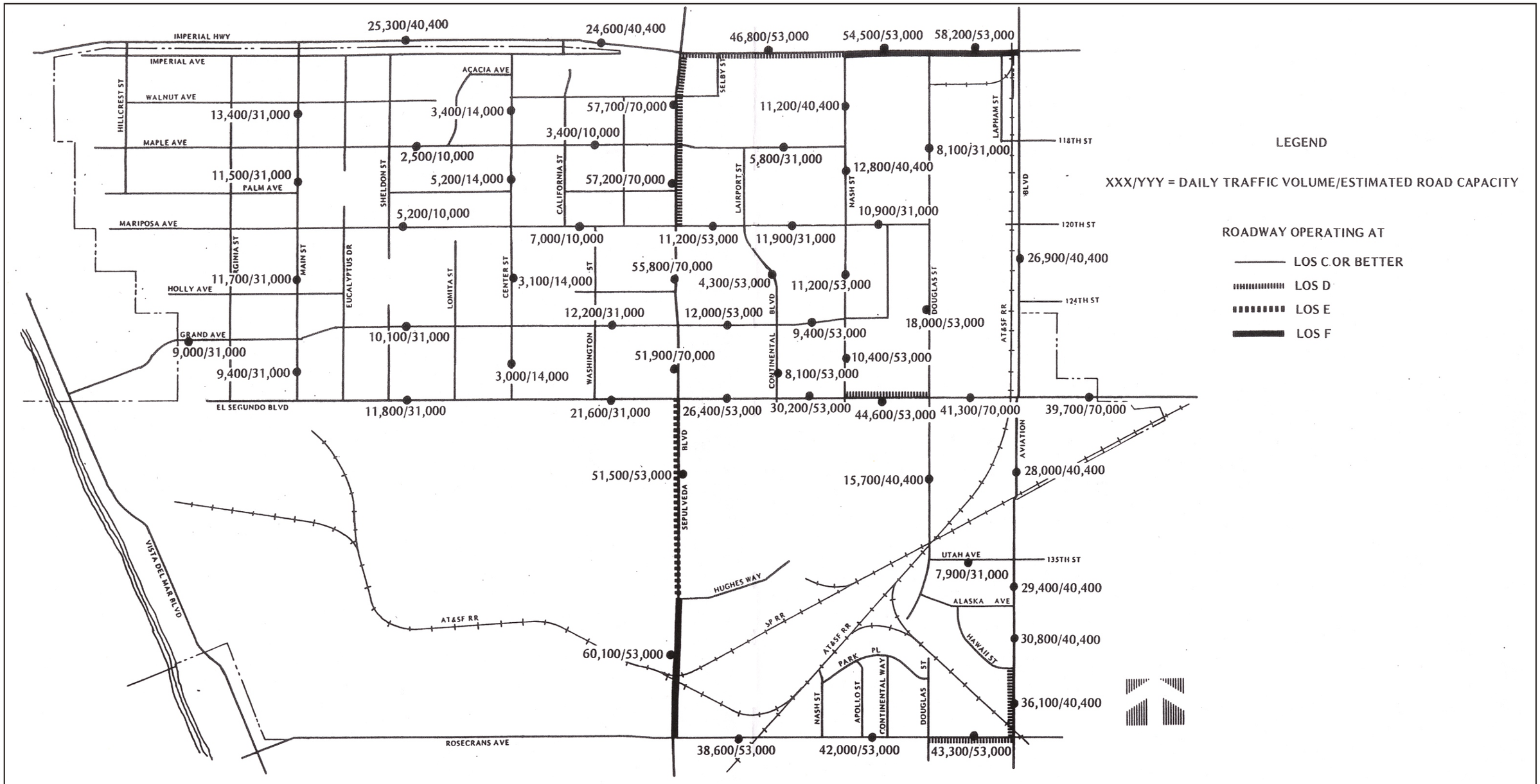
EXISTING CNEL NOISE CONTOURS

Project: Los Angeles Airforce Base	Date: Aug. 2000
Project No.: 41F0096602.01	Figure: 3-5



LEGEND

XXX/YYY = DAILY TRAFFIC VOLUME/ESTIMATED ROAD CAPACITY

ROADWAY OPERATING AT

- LOS C OR BETTER
- LOS D
- LOS E
- LOS F

SOURCE: CITY OF EL SEGUNDO 1988 TRAFFIC COUNT PROGRAM

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SUMMARY OF EXISTING DAILY ROADWAY OPERATION

Project: Los Angeles Airforce Base	Date: Aug. 2000
Project No.: 41F0096602.01	Fig.: 3-6

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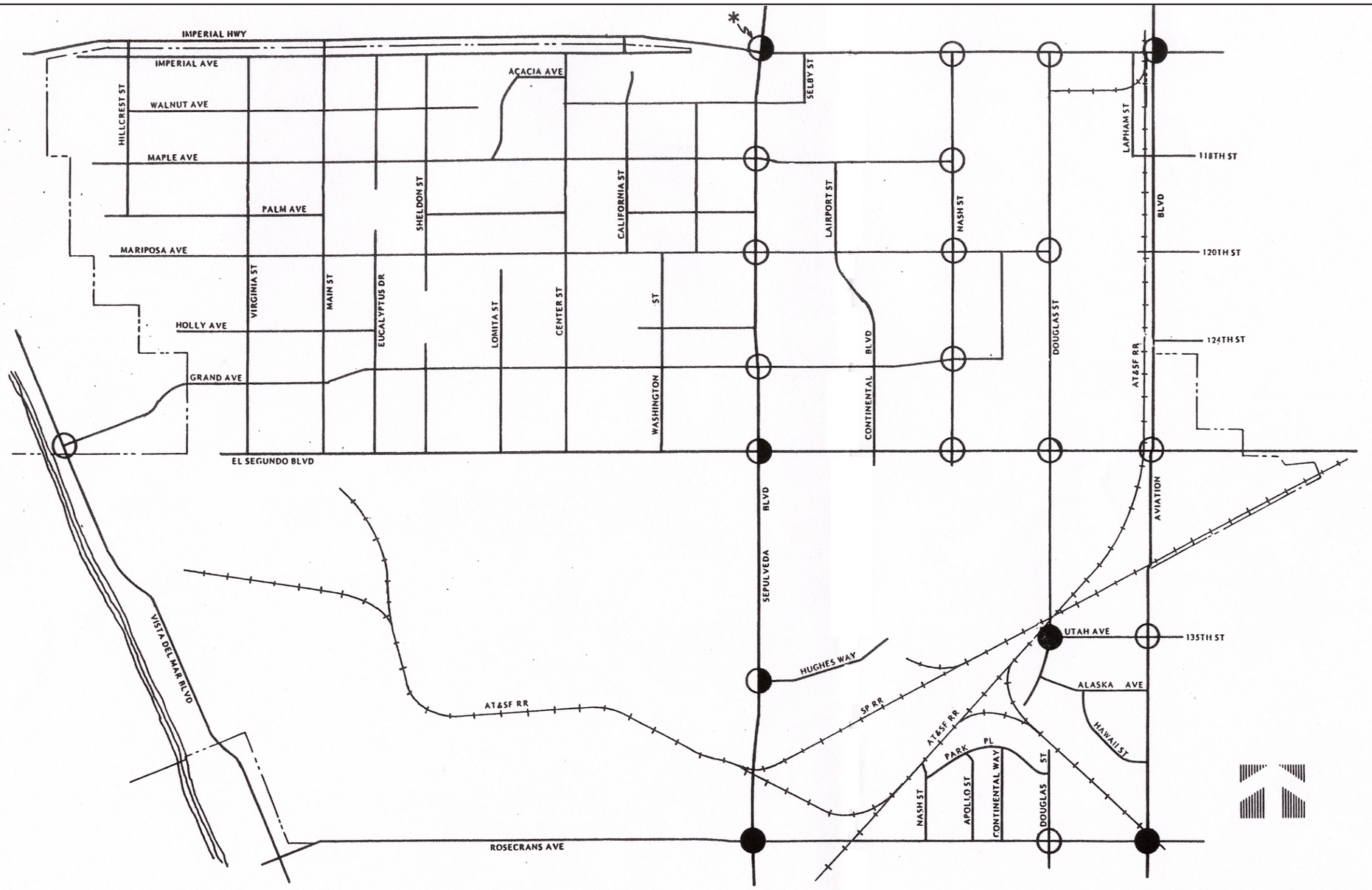

LEGEND

- AM AND PM LOS D OR BETTER
- AM LOS E OR F
- PM LOS E OR F
- AM AND PM LOS E OR F
- * AM COUNTS NOT AVAILABLE

SOURCE: CITY OF EL SEGUNDO, CITY OF MANHATTEN BEACH AND COUNTY OF LOS ANGELES

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SUMMARY OF EXISTING PEAK HOURLY INTERSECTION OPERATION

Project: LA Airforce Base	Date: Aug. 2000
Project No.: 41F0096602.01	Fig.: 3-5

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