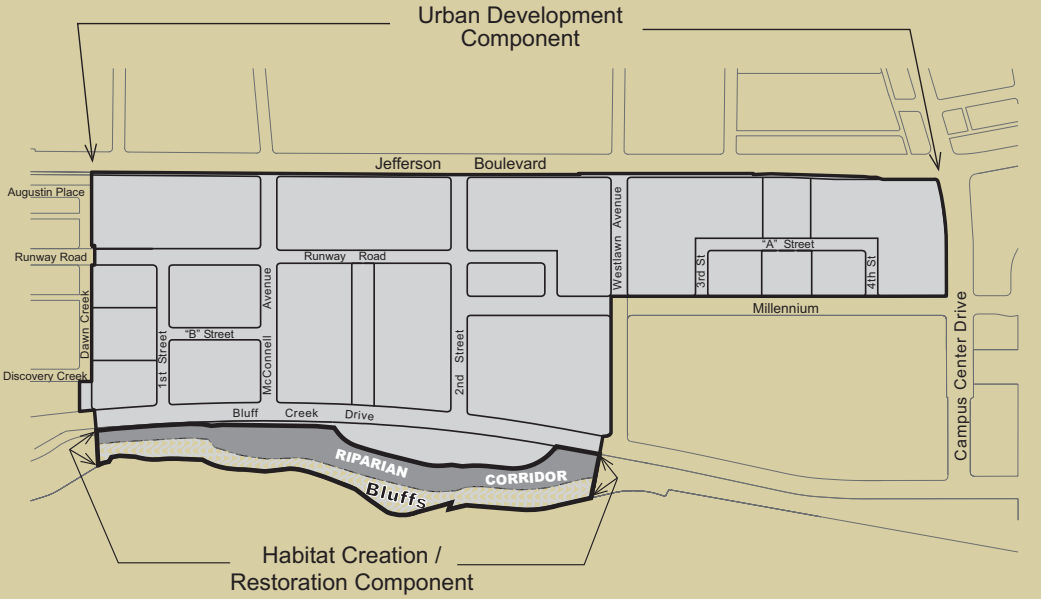
Draft Environmental Impact Report

(DEIR)

Village at Playa Vista



Volume I

Book 2

City of Los Angeles/EIR No. ENV-2002-6129-EIR

2003

State Clearinghouse No. 2002111065

DRAFT ENVIRONMENTAL IMPACT REPORT

(DEIR)

VILLAGE AT PLAYA VISTA

VOLUME I

BOOK 2

City of Los Angeles
2003

EIR No. ENV-2002-6129-EIR State Clearinghouse No. 2002111065

TABLE OF CONTENTS

Page

VOLUME I

BOOK 1

TABLE OF CONTENTS (CONTINUED)

VOLUME 1 (Continued)

BOOK 2

BOOK 3

TABLE OF CONTENTS (CONTINUED)

VOLUME 1 (Continued)

BOOK 3 (Continued)

APPENDICES

APPENDICES (Continued)

VOLUME XXIII

LIST OF FIGURES

LIST OF FIGURES (CONTINUED)

LIST OF FIGURES (CONTINUED)

LIST OF FIGURES (CONTINUED)

LIST OF TABLES

LIST OF TABLES (CONTINUED)

LIST OF TABLES (CONTINUED)

LIST OF TABLES (CONTINUED)

LIST OF TABLES (CONTINUED)

LIST OF TABLES (CONTINUED)

LIST OF TABLES (CONTINUED)

LIST OF TABLES (CONTINUED)

IV. ENVIRONMENTAL IMPACT ANALYSIS
D. BIOTIC RESOURCES

1.0 INTRODUCTION

This section addresses the potential impacts of the Proposed Project with regard to biological resources. After a discussion of the regulatory framework governing biological resources of the Project site, current site conditions are described, followed by an analysis of potential impacts of Project construction and operation.

This section summarizes information derived from the biological resource technical report, Biological Resources of the Proposed Village at Playa Vista Site (Psomas, 2003), included as Appendix G to this document. The analysis addresses the impacts that would occur for the Project as Proposed, for the Project's Equivalency Program and for the Project's secondary impacts that would occur from the implementation of the Project's off-site mitigation measures.

2.0 SETTING

2.1 Regulatory Framework

2.1.1 Federal

2.1.1.1 Clean Water Act

Section 404 of the Federal Clean Water Act regulates the dredge or fill of areas delineated as "Waters of the United States" (33 CFR 328.3). The U.S. Army Corps of Engineers (Corps) has permitting authority under Section 404. Section 401 of the Federal Clean Water Act, which in general regulates the water quality component of wetland and non-wetland Waters of the U.S., is administered by the State and Regional Water Quality Control Boards.

In July 1992, the Corps issued Permit No. 90-426-EV, which allowed fill of a total of 16.1 acres of disturbed wetlands in various portions of the former Playa Vista Planning Area, including the Proposed Project site, for construction of the Freshwater Wetland System and a mixed-use development. Within the Proposed Project site, a total of 0.7 acre delineated as wetlands were permitted for fill, consisting of the Centinela Ditch and other isolated and degraded wetlands. The time frame for the permit extends to July 2012. Pursuant to this Corps Section 404 Permit, mitigation for the fill of these wetlands is provided within a much larger,

contiguous 26.1-acre Freshwater Marsh, located about 0.5 mile to the west of the Project site. The majority of the Freshwater Marsh has been completed as part of the adjacent Playa Vista First Phase Project, with a small portion at the southern tip still under construction. In addition to the Freshwater Marsh, the Freshwater Wetland System includes a 25-acre Riparian Corridor. An 18.3-acre portion of the Riparian Corridor will be constructed as part of the adjacent Playa Vista First Phase Project; the remaining 6.7-acre central portion of the Riparian Corridor is proposed as a component of the Proposed Project. No further permit from the Corps is required for the Proposed Project.

In California, the responsibility for certifying compliance with the federal Clean Water Act has been delegated to the State Water Resources Control Board. In July 1995, the State Water Resources Control Board issued a conditional water quality certification for Corps Permit No. 90-426-EV, discussed above, certifying that the issuance of the Corps permit was in compliance with Section 401 of the Clean Water Act.

Storm water and water quality on the site, which ultimately will be managed as part of the Freshwater Wetland System in conjunction with wetland and wildlife habitat functions, are currently managed via a temporary detention basin located within the Proposed Project site. The detention basin has been constructed in compliance with the adjacent Playa Vista First Phase Project's SWPPP and Erosion Control Plan, and provides temporary storm drainage for the adjacent First Phase Project areas currently under construction that will ultimately drain into the Riparian Corridor, as well as portions of the adjacent Playa Vista First Phase Project site, located east of the Proposed Project site, which will ultimately drain to the Central Storm Drain. This temporary detention basin will cease to function and will be removed when construction of the areas of the First Phase Project site discussed above is complete and the portion of the Riparian Corridor adjacent to the First Phase Project residential areas is constructed.

2.1.1.2 Federal Endangered Species Act

The Endangered Species Act of 1973, as amended (ESA), protects species listed as endangered or threatened. The ESA also regulates actions that would modify or degrade habitat to an extent that significantly would impair essential activities of listed species (breeding, feeding, shelter). The U.S. Fish and Wildlife Service (USFWS) administers the federal ESA.

Federal agencies that undertake projects or issue permits or licenses are required to ensure that such projects or issuance of permits/licenses will not jeopardize the continued existence of any listed species. Prior to issuance of the Corps Section 404 permit, the Corps entered into an informal consultation with the USFWS to determine if the issuance of the 404 permit would affect any federal listed species. The Corps concluded that issuance of the permit would not affect any such species; USFWS concurred with this decision.

2.1.1.3 Federal Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) protects most native bird species from destruction or harm. This protection extends to individuals as well as any part, nest, or eggs of any bird listed as "migratory". Nearly all native North American bird species are on the MBTA list.

In practice, federal permits potentially impacting migratory birds typically have conditions that require pre-disturbance surveys for nesting birds and, in the event that nesting is observed, a buffer area with a specified radius would be established, within which no disturbance or intrusion would be allowed until the young had fledged and left the nest. If not otherwise specified in the permit, the size of the buffer area would vary with species and local circumstances (e.g. presence of busy roads), and would be based on the professional judgment of the monitoring biologist.

The Applicant has incorporated pre-disturbance surveys and biological monitoring into overall construction and maintenance procedures for the undeveloped portions of the property.

2.1.2 State

2.1.2.1 Fish and Game Code, Sections 335 through 337, 3503 through 3503.5 and 3511

Analogous to the MBTA, Sections 335 through 337 and Sections 3503 – 3503.5 of the California Fish and Game Code regulate the taking of migratory birds and their nests. In addition, Section 3511 of the California Fish and Game code prohibits the taking of "fully protected" birds, such as the Brown pelican and the American peregrine falcon. As with the MBTA, compliance with the California Fish and Game Code and conditions of Tract Map approvals has required incorporation of pre-disturbance surveys and biological monitoring into overall maintenance procedures for the undeveloped portions of the property.

2.1.2.2 Fish and Game Code, Section 1603

Sections 1600 through 1607 of the California Fish and Game Code regulate actions affecting streambeds. Section 1603 regulates private projects that have potential to affect streambeds. In practice, the California Department of Fish and Game (CDFG) and the Applicant agree upon the extent of impacts, mitigation measures, and other protective measures through a Streambed Alteration Agreement. In 1991, the CDFG issued a Streambed Alteration Agreement to the Applicant's predecessor, which allows for the fill of the 16.1 acres of isolated and degraded wetlands as identified in the Corps Section 404 Permit within the Proposed Project area

and the adjacent Playa Vista First Phase Project. This permit has been extended through June 2008.

2.1.2.3 California Endangered Species Act

Sections 2050 through 2089 of the California Fish and Game Code comprise the California Endangered Species Act (CESA). In general, the provisions of CESA parallel the main provisions of the federal ESA, but unlike the ESA, CESA protection extends to species proposed for listing (i.e., candidate species) in some circumstances.

No species protected by CESA have been reported by CDFG to occur on the Project site.

2.1.2.4 Native Plant Protection

Somewhat duplicative of the provisions of CESA, Sections 1900 through 1913 of the California Fish and Game Code protect California native plants. Criteria for whether or not a plant species qualifies for protection are determined by CDFG, based on presence/absence of immediate threat to the species and/or population size.

CDFG considers the rarity status of plants in their environmental analysis of a project, regardless of whether or not the species in question is officially listed as threatened or endangered. The Natural Heritage Program of CDFG administers a state database, the California Natural Diversity Database, which lists all plant and wildlife species of various ranks, including many that are not candidates and are not listed as threatened or endangered.

No species protected by Sections 1900 through 1913 of the California Fish and Game Code have been reported by CDFG to occur on the Project site.

2.2 Existing Conditions

This section summarizes information and results of recent surveys of the Project site that are described in the Biological Resources technical report (Appendix G). Plant and wildlife surveys were conducted on December 18, 2002, February 13, 2003, and February 18, 2003. In addition, previous studies encompassing about 30 years of field surveys within the former Playa Vista Planning Area were reviewed to assess the potential of the Project site to support endangered, threatened, or other special status species.

Currently, the Project site is used on an ongoing basis to stockpile soil and crushed rock, provide a recycling site for construction materials, stage construction equipment, materials and personnel, and provide for temporary stormwater detention. These activities are allowed under

permits issued, or plans approved by, the City of Los Angeles (City), Corps, and CDFG.[231] Site conditions change over time as a result of these permitted activities, as stockpiled materials are transported, equipment, material and personnel are staged in different areas, stormwater detention areas are modified, and general site maintenance activities are conducted. Therefore, the biological resources described in this report represent a "snapshot" characterizing the site at a point in time, and will be subject to ongoing change due to ongoing permitted maintenance, construction staging, and stormwater detention activities on the Project site.

Figure 34 on page 528 provides a vegetation map of the entire Project site. Table 66 on page 529 summarizes acreages of each vegetation type. The following sections address resources specific to each Project component.

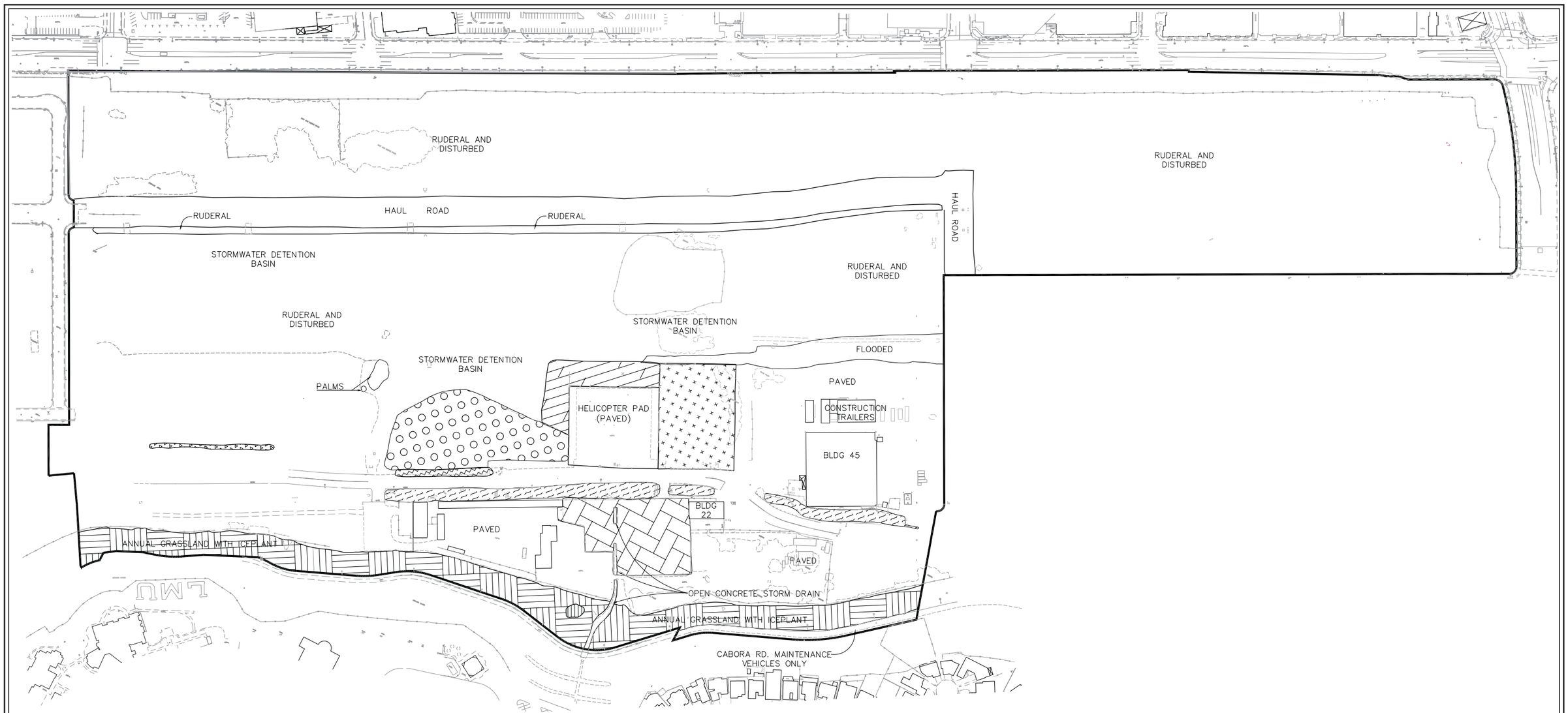
2.2.1 Urban Development Component

2.2.1.1 Flora

The site of the proposed Urban Development Component is occupied primarily by non-native weedy species. Field observations in February of 2003 support recognition of seven types of species associations, and three subtypes, as described below:

Ruderal and Disturbed (49.7 acres). Most of the proposed Urban Development Component area is occupied by ruderal vegetation in various densities. Ruderal vegetation consists of plant species that can rapidly colonize open, disturbed sites. Ruderal vegetation also occurs on unmaintained portions of paved areas and gravel parking lots. With exceptions such as telegraph weed (*Heterotheca grandiflora*), which is a native species, most ruderal plant species are not native. Some non-native species, such as castor bean (*Ricinis communis*) and pampas grass (*Cortaderia selloana*), are also highly invasive, noxious weeds. Other common species within the ruderal and disturbed community include garland chrysanthemum (*Chrysanthemum coronarium*), ripgut brome (*Bromus diandrus*), filaree (*Erodium spp*.), bristly ox-tongue (*Picris echioides*), Bermuda grass (*Cynodon dactylon*), Bermuda buttercup (*Oxalis pes-caprae*), and tree tobacco (*Nicotiana glauca*). Some native species also occur as scattered, sparsely distributed individuals within a community that is otherwise dominated by non-native species. These native species include willow (*Salix cf. lasiolepis*), mulefat (*Baccharis salicifolia*), and coyote brush (*Baccharis pilularis*). Such species are listed within parentheses in the legend of the vegetation map shown in Figure 34, and in the table of vegetation acreages (Table 66).

[231] *U.S. Army Corps of Engineers Permit No. 90-426-EV; California Department of Fish and Game 1603 Streambed Alteration Agreement No. 5-639-93.*



Vegetation dominated by Non–Native species. See Note (3)

- Pampas Grass (Castor Bean)
- Pampas Grass (Willow, Mulefat, Ruderal)
- Pampas Grass (Mulefat, Ruderal)
- Centinela Ditch (open water with iceplant or other mixed exotics on banks)
- Oleander
- Ruderal (Mulefat)
- Annual Grassland (Iceplant) (slope below Cabora Road)

Other: Ruderal as labeled

Vegetation dominated by Native species.

- Coyote Brush.
- Sagebrush

Note: (1) Aerial topography compiled from photos taken: 4/28/02, 3/19/01, and 11/21/97
(2) Site visit completed on: 2/18/03
(3) Most common subdominant(s) listed in parentheses.

Note: Areas labeled as "Paved" include areas used as roads, storage, parking, field offices, and studios. Ruderal vegetation common in unmaintained sections.

PCR

0 200 400 Feet

SOURCE: PSOMAS, July 2003

Figure 34
Project Site Vegetation Map

Table 66

VEGETATION ACREAGES

	Urban Development Component	Habitat Creation/Restoration		Total
		Riparian Corridor	Bluff Restoration	
Vegetation Dominated by Non-Native Species				
Ruderal and Disturbed	49.7	0.0	0.0	49.7
Ruderal with Mulefat	0.1	0.0	0.0	0.1
Annual Grassland with Iceplant	0.0	0.0	4.6	4.6
Pampas Grass (with Castor Bean)	2.0	0.0	0.0	2.0
Pampas Grass (with Willow, Mulefat, and Ruderal)	1.6	0.0	0.0	1.6
Pampas Grass (with Mulefat and Ruderal)	0.8	0.0	0.0	0.8
Centinela Ditch	1.0	0.2	0.0	1.2
Oleander	0.1	0.0	0.0	0.1
Palms	0.1	0.0	0.0	0.1
Total – Non-Native	**55.4**	**0.2**	**4.6**	**60.2**
Vegetation Dominated by Native Species				
Coyote Brush	1.5	0.0	0.0	1.5
Sagebrush	0.0	0.0	<< 0.1	<< 0.1
Total – Native	**1.5**	**0.0**	**<< 0.1**	**1.5**
Open Water or Flooded (Storm Water Detention)	**4.0**	**0.0**	**0.0**	**4.0**
Paved Areas, Buildings, Parking Lots, Culverts	**38.4**	**6.5**	**0.4**	**45.3**
TOTAL AREA, PROPOSED PROJECT SITE	**99.3**	**6.7**	**5.0**	**111.0**

Ruderal with Mulefat (0.1 acre). This association is similar to the ruderal community described above, except that mulefat occurs more frequently along a small, narrow strip within an area designated for expansion of the storm water detention basin.

Areas Dominated by Pampas Grass (4.4 acres). Highly invasive pampas grass is one of the most abundant plant species on the site. Relative dominance of co-occurring species is locally variable but in general, the pampas grass areas can be divided into three subtypes:

Pampas Grass with Castor Bean (2.0 acres). An association of pampas grass and castor bean occurs west of a helicopter pad, adjacent to the north side of the proposed Bluff Creek Drive. Iceplant (Carpobrotus edulis), another non-native invasive species, is a common ground cover species.

Pampas Grass with Willow, Mulefat, and Ruderal (1.6 acres). This assemblage of species occurs east of a helicopter pad, adjacent to the north side of the proposed Bluff

Creek Drive. Arroyo willow (Salix lasiolepis) and mulefat (Baccharis salicifolia), both of which are native species, co-occur with the pampas grass. The understory is dominated by ruderal species.

Pampas Grass with Mulefat and Ruderal (0.8 acre). North of the helicopter pad, and between the two other pampas grass associations described above, mulefat co-occurs with pampas grass and a ruderal understory.

Centinela Ditch (1.0 acre). Sections of Centinela Ditch located within the proposed Urban Development Component area total about one acre. The base of the ditch is covered with open water during most months of the year. Banks of the ditch are dominated almost entirely by iceplant, with castor bean and pampas grass occurring in a small clump near Building 22. This ditch is a remnant of the historical Centinela Creek, which has become highly degraded over at least a century of human alterations and occupation.

Oleander (0.1 acre). Oleander (*Nerium oleander*) is a non-native perennial shrub that was planted in the past as an ornamental hedge along the north edge of the proposed Bluff Creek Drive.

Palms (0.1 acre). A small grove of palm trees occurs adjacent to the storm water detention basin. Parts of the grove were flooded at the time of the survey. Two non-native species of palm, Canary Island date palm (*Phoenix canariensis*) and Mexican fan palm (*Washingtonia robusta*), occupy this grove.

Coyote Brush (1.5 acres). Coyote Brush is a vegetation type classification based on Sawyer and Keeler-Wolfe (2000). As the name indicates, the vegetation is dominated by coyote brush (*Baccharis pilularis*). This vegetation occupies an unpaved area adjacent to Building 22 and south of the proposed Bluff Creek Drive. Other common shrub species include castor bean, deerweed (*Lotus scoparius*), and sagebrush (*Artemisia californica*). The understory includes non-native annual grasses (brome, oat), pampas grass, iceplant, and filaree.

2.2.1.2 Fauna

The following paragraphs summarize the kinds of wildlife species observed in association with each of the vegetation types during the December 2002 and February 2003 field surveys.

Ruderal and Disturbed. Wildlife species observed foraging in ruderal vegetation include pocket gopher (*Thomomys bottae*), house sparrow (*Passer domesticus*), feral pigeon (*Columba livia*), European starling (*Sturnus vulgaris*), house finch (*Carpodacus mexicanus*), American

crow (*Corvus brachyrhynchos*), and mourning dove (*Zenaida macroura*). The house sparrow, pigeon, and starling are not native. Killdeer (*Charadrius vociferous*), a native species, was observed in association with bare ground and sparsely vegetated areas within the ruderal/disturbed designation.

Ruderal with Mulefat. No wildlife species were observed utilizing this vegetation at the time of the survey, probably due to its highly disturbed, isolated condition.

Areas Dominated by Pampas Grass. With some exceptions, wildlife species associated with stands of pampas grass are the same as those observed in association with the ruderal vegetation. An exception is killdeer, which prefers the open ground of the ruderal and disturbed areas rather than the more densely vegetated pampas grass community. Other common species observed in the pampas grass communities include blue-gray gnatcatcher (*Polioptila caerulea*), northern shrike (*Lanius excubitor*), western scrub jay (*Aphelocoma coerulescens*), and common bushtit (*Psaltriparum minimus*).

Centinela Ditch. Wildlife species observed in association with the Centinela Ditch include American coot (*Fulica americana*), mallard (*Anas platyrynchos*), common snipe (*Gallinago gallinago*), snowy egret (*Egretta thula*), and Pacific treefrog (*Hyla regilla*). Tracks of raccoon (*Procyon lotor*) and opossum (*Didelphis virginiana*) were observed in mud adjacent to the ditch.

Oleander. No wildlife species were observed to be utilizing this hedge during the winter survey, but during monitoring conducted in 2002 (Psomas, 2002), species observed to utilize the hedge along the proposed Bluff Creek Drive for nesting included northern mockingbird (*Mimus polyglottos*), California towhee (*Pipilo crissalis*), and mourning dove.

Palms. No wildlife species were observed utilizing the palm trees at the time of the survey, but the palms would be expected to provide habitat for some bird species (such as hummingbirds and orioles) during the breeding season.

Coyote Brush. Wildlife species observed in association with the coyote brush at the time of the field survey included blue-gray gnatcatcher, California towhee (*Pipilo crissalis*), and a marine blue butterfly (*Leptotes marina*).

2.2.1.3 Threatened and Endangered Species

Table 67 on page 532 lists threatened and endangered species that are either known to occur or thought to occur historically in the coastal region of Los Angeles County. No plant or

Table 67

LISTED OR PROPOSED THREATENED OR ENDANGERED SPECIES POTENTIALLY PRESENT IN THE COASTAL REGION OF LOS ANGELES COUNTY

Species	Habitat and Distribution	Status	Presence/ Absence On-Site [a]
PLANTS			
Beach spectaclepod Dithyrea maritima	Sandy soils on dunes and in coastal scrub	Federal Endangered, State Threatened	Absent Absent
California orcutt grass Orcuttia californica	Vernal pools. SW CA and northern Baja California, Mexico	Federal and State Endangered	Absent Absent
Coastal dunes milk vetch Astragalus tener var. titi	Coastal dunes & bluffs, coastal strand vegetation and in moist sandy depressions on coastal terraces. Central coast (Monterey Co.) to south coastal CA	Federal and State Endangered	Absent Absent
Gambel's watercress Rorippa gambellii	Marshes, swamps, and lake margins. South central coast and south coast CA and Mexico	Federal Endangered, State Threatened	Absent Absent
Lyon's pentachaeta Pentachaeta lyonii	Chaparral and grassland. Central south coast and south Channel Islands, CA	Federal and State Endangered	Absent Absent
Marsh sandwort Arenaria paludicola	Marshes, bogs and swamps. South coast and central coastal CA, to WA	Federal and State Endangered	Absent Absent
Saltmarsh bird's-beak *Cordylanthus maritimus* ssp. *martitimus*	Coastal salt marsh, south coastal CA, and northern Baja California, Mexico	Federal and State Endangered	Absent Absent
San Diego button-celery *Eryngium aristularum* var. *parishi*	Vernal pools, marsh, and wet meadows. South coastal and Peninsular Ranges, CA, and in Baja California, Mexico	Federal and State Endangered	Absent Absent
San Fernando Valley spine flower *Chorizanthe parryi* var. *fernandina*	Coastal scrub. Formerly presumed extinct. Extant in Ventura Co.	State Endangered	Absent
Ventura marsh milk vetch *Astragalus pycnostachyus* var. *lanosissimus*	Coastal salt marsh. Central south coast CA. Extant only in Ventura Co., formerly presumed extinct	Federal and State Endangered	Absent
INVERTEBRATES			
El Segundo blue butterfly *Euphilotes battoides allyni*	Coastal dune habitat with suitable host plants (coastal buckwheat)	Federal Endangered	Absent
Quino checkerspot butterfly *Euphydryas editha quino*	Open grassland and shrubland with suitable host plants	Federal Endangered	Absent
Riverside fairy shrimp Streptocephalus woottoni	Vernal pools filled by spring/winter rains	Federal Endangered	Absent
San Diego fairy shrimp Branchinecta sandiegonensis	Vernal pools	Federal Endangered	Absent

Table 67 (Continued)

LISTED OR PROPOSED THREATENED OR ENDANGERED SPECIES POTENTIALLY PRESENT IN THE COASTAL REGION OF LOS ANGELES COUNTY

Species	Habitat and Distribution	Status	Presence/ Absence On-Site [a]
FISH			
Santa Ana sucker *Catostomus santaanae*	Medium-sized perennial streams	Federal Threatened	Absent
Steelhead trout (So. Cal. ESU) *Oncorynchus mykiss*	Cold, clear, gravelly streams	Federal Endangered	Absent
Tidewater goby Eucyclogobius newberryi	Brackish lagoons, 8-10 ppt salinity	Federal Endangered	Absent
Unarmored threespine stickleback Gasterosteus aculeatus williamsoni	Slow moving streams with refuge vegetation	Federal and State Endangered	Absent
AMPHIBIANS			
Arroyo toad *Bufo californicus*	Flowing freshwater with shallow pools, sand or gravel substrate	Federal Endangered	Absent
California red-legged frog *Rana aurora draytonii*	Dense riparian vegetation in association with deep, perennial water	Federal Threatened	Absent
BIRDS			
Bald eagle (nesting and wintering) *Haliaeetus leucocephalus*	Seacoasts, rivers, and lakes where fish or other prey available	Federal Threatened (Proposed for Delisting), State Endangered	Absent
Belding's savannah sparrow Passerculus sandwichensis beldingi	Low pickleweed above mean high tide; salt grass; mudflats, beaches, rocks, other coastal vegetation.	State Endangered	Absent
California brown pelican (nesting colony) *Pelecanus occidentalis*	Nest - rocky offshore islands	Federal and State Endangered	Absent
California least tern (nesting colony) *Sterna antillarum browni*	Marine and estuarine shores with nearby lagoons	Federal and State Endangered	Absent
Coastal California gnatcatcher *Polioptila californica californica*	Coastal sage scrub	Federal Threatened	Absent
Least Bell's vireo *Vireo bellii pusillus*	Willow riparian vegetation	Federal and State Endangered	Absent
Light-footed clapper rail *Rallus longirostris levipes*	Coastal salt marsh	Federal and State Endangered	Absent
Southwestern willow flycatcher *Empidonax traillii extimus*	Willow riparian vegetation	Federal Endangered (southwestern subspecies only); State Endangered (all subspecies)	Absent

Table 67 (Continued)

LISTED OR PROPOSED THREATENED OR ENDANGERED SPECIES POTENTIALLY PRESENT IN THE COASTAL REGION OF LOS ANGELES COUNTY

Species	Habitat and Distribution	Status	Presence/ Absence On-Site [a]
Western snowy plover (nesting) *Charadrius alexandrinus nivosus*	Sandy beaches and lagoon margins	Federal Threatened	Absent
Mountain plover *Charadrius montanus*	Grassy or bare dirt fields.	Federal Proposed Threatened	Absent
MAMMALS			
Pacific pocket mouse *Perognathus longimembris pacificus*	Fine alluvial to gravelly soil	Federal Endangered	Absent

[a] *Conclusion of "Absent" is based on negative results of previous biological surveys and/or lack of suitable habitat. The term "Site" means the Proposed Village at Playa Vista Project Site.*

wildlife species on federal or state lists of threatened or endangered species was observed during surveys conducted in December of 2002 and February of 2003 (Psomas, 2003). Previous studies also have not found any such species to reside within the proposed Urban Development Component area.

2.2.1.4 Other Special Status Species

Plants

Habitat quality for special status plants is generally poor, and the occurrence of such species would not be expected given the disturbance history of the site and extent of paved area that is associated with previous use of the site as an airport. A previous botanical study (Henrickson, 1991) found a small group of western dichondra plants (*Dichondra occidentalis*) near an old rubble stockpile in the north-central section of the proposed Urban Development Component area. Western dichondra is on List 4 of the California Native Plant Society, meaning that the species is currently common but monitored for population trends. Field surveys since Henrickson, conducted at the appropriate time of year in 1995 and 1998, did not detect the species.

The City of Los Angeles assigns special status to oak trees through the Los Angeles Municipal Code. Protected oak species are valley oak (*Quercus lobata*) and coast live oak (*Quercus agrifolia*). Oak trees are absent from the Project site.

Wildlife

- The following special status species were observed during the December 2002 and February 2003 field surveys (Psomas, 2003): Snowy egret (*Egretta thula*). An individual of this species was observed foraging in the open water along the base of Centinela Ditch. Snowy egret, when present in a rookery, is a Federal Species of Concern. Snowy egrets have been observed at the former Playa Vista Planning Area as isolated individuals but not in rookeries.

- Cooper's hawk (*Accipiter cooperii*). An individual of this species was observed flying over the interior portion of the proposed Urban Development Component area and it is possible that this species forages over the area. Cooper's hawk, when nesting, is a California Species of Special Concern. No nesting habitat (groves of tall trees with broad canopy) occurs on the project site.

It is possible that other special status bird species may be observed occasionally in transit flights over the site or, in the case of certain raptors, observed foraging. However, the Project site lacks breeding habitat for such species. During prior surveys, common migrant species such as the common yellowthroat (*Geothlypis trichas*) that are protected (while nesting) under the federal Migratory Bird Treaty Act and California Fish and Game Code, have been observed nesting on the Project site.

2.2.1.5 Special Status Habitats

Certain habitat types, such as wetlands, are considered special status habitats by USFWS and CDFG. In July 1992, the Corps delineated 0.7 acre of small, fragmented federal jurisdictional wetlands within the Proposed Project site, including the Centinela Ditch, which the CDFG also recognized as the state wetlands in the Proposed Project site. As part of regulatory approvals for the adjacent Playa Vista First Phase Project, the Applicant obtained permits to fill the small wetlands and establish a larger, contiguous freshwater marsh and riparian corridor as mitigation for the fill. With the exception of a portion of Centinela Ditch, all of the 0.7 acre of delineated wetlands within the Proposed Project site have been filled in compliance with permits issued by the City, Corps and CDFG. Current field surveys have not identified any additional or new wetlands that are federal or state jurisdictional.

In addition to wetlands, the City recognizes certain native habitats in the Conservation Element of their General Plan (adopted September 2001). These habitats include communities such as coastal sage scrub and riparian woodland, as well as Significant Ecological Areas (SEAs). Currently, special status communities such as coastal sage scrub, riparian woodland, and SEAs do not occur on the Project site, but would be established through implementation of the habitat creation/restoration components of the Proposed Project.

2.2.2 Habitat Creation/Restoration Component

2.2.2.1 Riparian Corridor

The following sections summarize plants, wildlife, and special status species or habitats associated with the Riparian Corridor portion of the Project's Habitat Creation/Restoration Component. The biology technical report (Appendix G) provides additional details of species observed.

2.2.2.1.1 Flora

As Table 66 on page 529 shows, acreages that comprise the 6.7-acre Riparian Corridor component of the Project site are classified as follows:

- 0.2 acre of Centinela Ditch;
- 6.5 acres of paved areas, buildings, parking lots, and culverts.

Vegetation along Centinela Ditch is composed primarily of iceplant. The sparsely distributed vegetation growing on the remaining acreages consists largely of non-native ruderal species that occupy deteriorated areas of pavement and areas adjacent to buildings.

2.2.2.1.2 Fauna

Wildlife observed in association with Centinela Ditch and ruderal vegetation on the proposed mixed-use development site (Section 2.2.1) were also observed on the Riparian Corridor site.

2.2.2.1.3 Threatened and Endangered Species

Table 67 on page 532 lists threatened and endangered species that are either known to occur or thought to occur historically in the coastal region of Los Angeles County. No plant or wildlife species on federal or state lists of threatened or endangered species was observed on the Riparian Corridor site during the survey. Previous studies also have not found any such species to reside on the site or depend on the site's resources for their daily activities.

2.2.2.1.4 Other Special Status Species

Plants

No special status plant species were observed on the Riparian Corridor site during the current surveys or previous studies. The site consists of paved areas and the channelized Centinela Ditch, neither of which would be expected to support special status plant species.

Wildlife

A snowy egret (*Egretta thula*) was observed foraging in the open water along the base of Centinela Ditch during the survey. Snowy egret, when present in a rookery, is a Federal Species of Concern. Snowy egrets have been observed at the former Playa Vista Planning Area as isolated individuals but not in rookeries. No other special status species were observed on the Riparian Corridor site during the survey.

It is possible that other special status bird species may be observed occasionally in transit flights over the site or, in the case of certain raptors, observed foraging. However, the Project site lacks breeding habitat for such species. During prior surveys, common migrant species have been observed nesting on the Project site.

2.2.2.1.5 Special Status Habitats

As discussed previously for the proposed Urban Development Component area (Section 2.2.1.4), in July 1992, the Corps delineated 0.7 acre of small, fragmented federal jurisdictional wetlands within the Proposed Project site, including the Centinela Ditch, which the CDFG also recognized as the state wetlands in the Proposed Project site. As part of regulatory approvals for the adjacent Playa Vista First Phase Project, the Applicant obtained permits to fill the small wetlands and establish a larger, contiguous freshwater marsh and riparian corridor as mitigation for the fill. With the exception of a portion of the Centinela Ditch, all of the 0.7 acre of delineated wetlands within the Proposed Project site have been filled in compliance with permits issued, or plans approved by, the City, Corps and CDFG. Current field surveys have not identified any additional or new wetlands that are federal or state jurisdictional.

2.2.2.2 Bluff Restoration Area

The following sections summarize plants, wildlife, and special status species or habitats associated with the proposed 5-acre Bluff Restoration site. The biology technical report (Appendix G) provides additional details of species observed.

2.2.2.2.1 Flora

As Table 66 shows, vegetation acreages that comprise the 5.0-acre Bluff Restoration area are as follows:

- 4.6 acres of non-native annual grassland with iceplant;
- 0.4 acre consisting of concrete culvert and maintenance road;
- a very small fraction (<0.1 acre) occupied by sagebrush.

The annual grassland is composed primarily of non-native species (brome and oat). Iceplant attains nearly 100 percent cover in many areas. A small stand of sagebrush (*Artemisia californica*), a native shrub, occurs west of an open concrete culvert.

2.2.2.2.2 Fauna

Wildlife observed in association with non-native annual grassland included northern shrike, western kingbird (*Tyrannus verticalis*), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), western meadowlark (*Sturnella neglecta*), and pocket gopher. A California towhee was observed foraging in the isolated stand of sagebrush.

2.2.2.2.3 Threatened and Endangered Species

Table 67 (Section 2.2.1.3) lists threatened and endangered species that are either known to occur or thought to occur historically in the coastal region of Los Angeles County. No plant or wildlife species on federal or state lists of threatened or endangered species was observed on the Bluff Restoration site during the survey, and previous studies have not found any such species to reside on the site or depend on the site's resources for their daily activities.

2.2.2.2.4 Other Special Status Species

No special status plant or wildlife species were observed on the proposed Bluff Restoration site during the surveys and previous studies have not found such species to occupy the site or depend on the site's resources.

2.2.2.2.5 Special Status Habitats

No special status habitats, such as wetlands, occur on the proposed Bluff Restoration site. The small stand of sagebrush on the site consists of one species and does not meet multi-species

criteria to qualify as coastal sage scrub or coastal bluff scrub, which are sensitive vegetation communities that probably existed historically. The slope that comprises the proposed Bluff Restoration site does not have natural contours that are characteristic of coastal bluffs. The slope appears to have been artificially recontoured at some time in the past, an impact that would explain the absence of native plant communities on the site. It is possible that the iceplant was intentionally planted on the site at some time in the past to help stabilize the slope.

2.3 Offsite Areas

Off-site areas discussed in this section are those that are currently in open space, support some type of biological resource, and which could be impacted (adversely or beneficially) by construction of one or more of the Project components. Such impacts would potentially result from location immediately adjacent to the Project site, hydrologic connectivity to the Project site, and/or location within dispersal distance from the Project site in terms of plant or wildlife species.

Bluffs Outside of Project Site. Most of the off-site bluff area located south, southeast, and southwest of the Project site consists of a non-native annual grass and iceplant-dominated slope that was artificially contoured at some time in the past. Such vegetation does not provide habitat for species that are federally or state listed as endangered, threatened, or rare. A section of bluff southeast of the Project site has been revegetated with coastal sage scrub, and in the future may support the federally listed threatened coastal California gnatcatcher. Non-native trees planted along the top of the bluff currently have potential to support nesting raptor species. Non-native shrubs and other ornamental vegetation planted along the top of the bluff currently have potential as nesting habitat for common resident and migrant birds. However, ongoing intrusion into the site by dogs and cats reduces the value of the off-site bluffs to support coastal California gnatcatchers or other special status species.

Riparian Corridor, Adjacent Playa Vista First Phase Project. When constructed, the Riparian Corridor will extend east and west from the Project site, along the base of the adjacent bluffs to Lincoln Boulevard with a drainage connection to the Freshwater Marsh. Construction of the west segment of the adjacent Playa Vista First Phase Project portion of the Riparian Corridor is expected to be completed by late 2005 and, over time, could provide nesting habitat for common resident and migrant bird species. Without continued management of invasive species, continual input of seed material of invasive non-native vegetation from the Proposed Project site may compromise growth of the native vegetation and its future values as habitat for special status species. Predators currently in the area (dogs, cats, red foxes) may also compromise wildlife values of the corridor.

Freshwater Marsh. As part of the adjacent Playa Vista First Phase Project, the Freshwater Marsh was constructed adjacent to the west side of Lincoln Boulevard. The purpose of the Freshwater Marsh is to capture runoff from the First Phase Project and the Proposed Project site to route flows away from the Ballona Wetlands and to the Ballona Flood Control Channel. However, during large storm events (i.e., the greater than 1-year storm), an overflow weir passes freshwater from the marsh to the Ballona Wetlands. Resource values and concerns for this area are similar to those described for the Riparian Corridor, with the exception that the Freshwater Marsh provides a larger area of nesting habitat for bird species that prefer emergent vegetation. The Freshwater Marsh also provides important foraging habitat. Within its first two years of establishment, more than 40 species of birds have been observed at the Freshwater Marsh, including foraging California least tern, a federal and state listed endangered species.

Ballona Flood Control Channel. The Ballona Flood Control Channel is lined with concrete on both banks and currently supports little vegetation or habitat for terrestrial wildlife. Open water in the channel provides resting and foraging habitat for birds that feed on fish and aquatic invertebrates, although these values are somewhat compromised by ongoing predation by red fox, a non-native mammal.

Ballona Wetlands. The location of the Ballona Wetlands at the northwest and southwest ends of the Former Playa Vista Planning Area B places it at greatest distance from the Proposed Project site in comparison to the areas described above. The Ballona Wetlands, consisting of a mix of freshwater, saltmarsh and ruderal plant communities, is also hydrologically separated from the Proposed Project site except when storm flows (some of which come from the Project site) exceed the capacity of the Freshwater Marsh.

The Belding's savannah sparrow (*Passerculus sandwichensis beldingi*), a state listed Endangered species, nests in the pickleweed vegetation in the northwest part of the Ballona Wetlands, between Culver Boulevard and the Ballona Flood Control Channel. Within the City, the Ballona Wetlands are recognized as a special status habitat, called a Significant Ecological Area (SEA). The SEA designation is carried over from Los Angeles County's General Plan in 1973, which recognized a SEA as an area which, due to its high biological resource value, ". . . should receive special consideration during the formulation of the 1973 Los Angeles County General Plan" (England and Nelson, 1976). The Ballona Wetlands was designated as SEA #29. An update of the SEA designations by Los Angeles County is addressing existing and proposed SEAs within unincorporated parts of the County, but not SEAs located within City jurisdiction (PCR, 2000).

Within the Ballona Wetlands, habitat values for saltmarsh species would be expected to decline over time if predominance of freshwater hydrologic influence (rainfall), as compared to tidal influence, continues. The United States Corps of Engineers recently completed an Ecosystem Restoration Project through Section 1135 of the Clean Water Act that would affect

the north wetland portion of the Ballona Wetlands. When implemented, this project will retrofit two of the three existing 60-inch culverts in the North Wetlands and incrementally restore tidal action to a portion of the existing wetland. Tidal ebb and flow would be limited to the existing tidal channels and is expected to synchronize with the normal tidal cycle of the lower Ballona Channel.

3.0 IMPACT ANALYSIS

3.1 Methodology

Consistent with the requirements of CEQA, the impact analysis for biological resources considers the whole of the proposed Project (i.e., all Project components, including restoration of the Riparian Corridor and Bluff), as well as cumulative biological effects associated with the proposed Project. This analysis focuses on the direct impacts associated with short-term and long-term habitat loss and creation, impacts to special status species, indirect impacts, and cumulative impacts. Impacts can be considered adverse or beneficial.

The impact analysis is based on existing conditions as summarized in Section 2 and described in detail in the biological resource technical report (Appendix G), as well as information in the numerous studies of biological resources at the Former Playa Vista Planning Area that have been conducted over the past 30 years. A reference list of these studies is provided in the technical report.

3.2 Significance Thresholds

The Draft Los Angeles CEQA Thresholds Guide (pages G-5 and G-6) states that a project would normally have a significant impact on biological resources if it could result in:

- The loss of individuals, or the reduction of existing habitat, of a state or federal listed endangered, threatened, rare, protected, candidate, or sensitive species or a Species of Special Concern;

- The loss of individuals or the reduction of existing habitat of a locally designated species or a reduction in a locally designated habitat or plant community;

- Interference with wildlife movement/migration corridors that may diminish the chances for long-term survival of a sensitive species;

- The alteration of an existing wetland habitat; or

- Interference with habitat such that normal species behaviors are disturbed (e.g., from the introduction of noise, light) to a degree that may diminish the chances for long-term survival of the sensitive species.

3.3 Urban Development Component

The following subsections discuss the types of impacts anticipated for each component of the biota. A subsection follows that summarizes the analysis in terms of the City's thresholds of significance.

3.3.1 Vegetation and Wildlife

Approximately 60.9 acres of the 99.3-acre proposed Urban Development Component is undeveloped and occupied by disturbed, mostly non-native habitat that would be lost as a result of the Project. The remainder of the site is occupied by roads, parking lots, buildings, and a temporary detention basin. The impacted ruderal community includes isolated, small individuals of native plant species (mulefat, willow, coyote brush), as well as dense stands of invasive species (pampas grass, iceplant, castor bean). Of the 60.9 acres of currently undeveloped area that would be impacted, a small area (1.5 acres) is dominated by coyote brush (a native shrub species) with a mixed understory of non-native and native species.

The Urban Development Component area is utilized by a number of common wildlife species for foraging and, in the case of birds, nesting during the breeding season. This habitat would be lost as a result of the Project, but replaced in part by the Habitat Creation/Restoration Component of the proposed Project, which is expected to establish higher quality, more diverse breeding and foraging habitat than presently occurs on-site.

3.3.2 Sensitive Species

No threatened, endangered, rare, protected, candidate, or other sensitive species resides on the Project site or is dependent on the site's resources. Until the Riparian Corridor is constructed, certain sensitive species that are not threatened or endangered, such as snowy egret (when in a rookery, a federal Species of Concern), may be subject to short-term loss of resting area while in transit to or from the Ballona Wetlands. The Urban Development Component would result in a net loss of natural open space foraging area for raptors, such as Cooper's hawk.

No trees protected under the City Municipal Code (oak trees) are present on the Project site and therefore would not be impacted.

3.3.3 Sensitive Habitats

On-Site Habitats

With the exception of a portion of Centinela Ditch, all of the 0.7 acre of delineated wetlands within the Proposed Project site have been filled in compliance with permits issued, or plans approved by, the City, Corps and CDFG. Pursuant to the Corps permit and CDFG Streambed Alteration Agreement, mitigation for fill of these wetlands is provided by construction of the Freshwater Wetland System. Apart from impacts to these wetlands, no impacts on sensitive habitats are anticipated.

Off-Site Habitats

The Project site is located within the local watershed of the Ballona Wetlands SEA. This SEA has been subject to a long history of untreated runoff entering the wetlands via Centinela Ditch and other storm drains, all of which convey runoff primarily from off-site and the surrounding urbanized watershed. As discussed in Subsection 3.3.1.1 of Section IV.C.(2),Water Quality, the design of the Freshwater Marsh and Riparian Corridor, most of which is being constructed as part of the adjacent Playa Vista First Phase Project, anticipated incremental increases in runoff and pollutant loadings that would result from addition of the adjacent Playa Vista First Phase Project and the proposed Project to the existing urbanized watershed. Two main issues were addressed in the design: volume of water and pollutants. In general, urbanization tends to increase the total amount of impervious surface in a watershed and thereby increase volumes of storm water runoff. Urban areas can also be a source of pollutants.

Design considerations to address the first issue; i.e., increased volume of storm water runoff that might result from construction of the adjacent Playa Vista First Phase Project and the Proposed Project, focused on the potential for storm water to enter the saltmarsh portions of the wetlands. This volume of freshwater could potentially decrease the overall salinity levels in the marsh, leading to changes in dominant vegetation and lessening the quality of wildlife habitat. The issue of water volume was addressed in the design of the Freshwater Marsh primarily through construction of a weir that would allow overflow of water into the east part of the Ballona saltmarsh only during larger storm events (greater than 1-year recurrence interval).

The second issue was potential for pollutants contained in runoff from storms, and other sources such as irrigation, to impact the potential habitat values of the freshwater system and downstream waters including the Ballona Wetlands. The issue of pollutants was addressed through the creation of a series of Best Management Practices implemented as part of the adjacent Playa Vista First Phase Project and proposed as Project Design Features for the Proposed Project.

As discussed previously in Section IV.C.2, Water Quality, the design of the Proposed Project and the adjacent Playa Vista First Phase Project protects the habitat values of the Ballona Wetlands by diverting nearly 70 percent of total runoff that once flowed untreated into the Ballona Wetlands through the Freshwater Wetland System, which includes the Riparian Corridor and the Freshwater Marsh. Evaluated as a whole, and in light of measures implemented previously as part of the adjacent First Phase Project, it is anticipated that impacts of the Proposed Project on downstream wetland habitats and the Ballona Wetlands SEA due to an incremental increase in volume of surface runoff would be less than significant.

The permits which authorized the construction of the Freshwater Wetland System established specific Performance Criteria relating to establishment and monitoring of vegetation and habitat for wildlife. These criteria include species diversity of breeding birds, bird utilization of the various vegetation types, plant species diversity and cover, structural diversity of the vegetation (i.e., variation in canopy heights of trees and shrubs), and extent of invasion by non-native species. Because the Freshwater Wetland System and its specific Performance Criteria were designed to accommodate the incremental storm water runoff from both the Urban Development Component of the Proposed Project and the adjacent Playa Vista First Phase Project, the Proposed Project is not anticipated to impede the ability to satisfy the Performance Criteria. Ongoing monitoring and corrective action, if necessary, is required by the applicable permits for the Freshwater Wetland System to ensure adequate water quality to support the required habitat values.[232] Therefore, the Urban Development Component is not anticipated to result in any significant impacts on habitat or any sensitive species within the Freshwater Wetland System.

The results of the most recent bird surveys[233] to monitor conformance with the Performance Criteria indicate that during its first 1.5 years, the Freshwater Marsh already has attained the 10-year performance criteria for nesting birds, which is a minimum of 12 native species. These species include waterfowl, shorebirds, and small terrestrial birds. As not all portions of the Freshwater Wetlands System have been constructed, the final buildout-related Performance Criteria relate to conditions several years from now. With regard to "pre-final" Performance Criteria, including monitoring and reporting requirements, the primary document discussing the compliance with these criteria is The Ballona Freshwater Wetlands System Operations, Maintenance and Monitoring Manual. The preliminary results of the monitoring indicate that the performance criteria for the Freshwater Marsh are being achieved, in some cases more rapidly than expected, and that the habitat provides suitable foraging and breeding opportunities for non-raptor species such as pied-billed grebe (*Podilymbus podiceps*), black-

[232] *Applicable permits include Corps Permit No. 90-426-EV and corresponding Section 401 certification, California Department of Fish and Game 1603 Streambed Alteration Agreement No. 5-639-93, and Coastal Development Permit No. 5-91-463.*

[233] *Center for Natural Lands Management, 2003.*

necked stilt (*Himantopus mexicanus*), and common yellowthroat. Therefore, while the Urban Development Component of the proposed Project would result in a loss of natural open space and foraging area for raptors such as Cooper's hawk, adverse impacts of this loss on survival and breeding capacity of non-raptor species are expected to be less than significant.

3.3.4 Wildlife Movement and Migration

The Project site is surrounded by urban development and does not serve as a movement corridor for wildlife or serve as a linkage between core habitats. As discussed in Subsection 3.4, loss of vegetation on the site may have a short-term adverse impact on nesting migrant birds, until the Habitat Creation/Restoration Component of the Project is established.

3.3.5 Interference with Habitat/Species Behavior

In addition to direct loss of habitat, evaluation of a Project's impact on biological resources must consider the potential for indirect impacts on habitats or species. Indirect impacts to biological resources are generally those that do not result in direct loss of habitat, but nevertheless potentially affect normal activities or behavior, or affect habitat quality in a manner that reduces value of the habitat for a species. Examples of factors that could cause indirect impacts include lighting, noise, and dust. As stated previously in the thresholds for significance listed in Section 3.2, the City of Los Angeles' threshold of significance in regard to impacts from such factors as light and noise is whether the normal behavior of a sensitive species would be disturbed to a degree that diminishes the chances for long-term survival of the species.

Results of the current biological survey and prior studies indicate that while special status species, such as snowy egret and Cooper's hawk, may occasionally utilize the site for foraging, no sensitive species resides on the Urban Development Component site. The Riparian Corridor and Bluff Restoration elements of the Project have the potential to provide habitat for special status species. Therefore as a whole, the Project is not expected to disturb species to a degree that diminishes the chances for long-term survival of the species. Lighting and landscape buffers adjacent to the habitat areas should be addressed with design measures to protect the potential habitat values of these areas with respect to light, glare, and traffic noise. In addition, intrusion by humans and pets should be restricted. Without such measures, use of the Habitat Creation/Restoration Component of the Project by sensitive species could be limited.

3.4 Habitat Creation/Restoration Component

Construction of the Project's Riparian Corridor element would replace 6.7 acres of pavement, structures, and storm drain (0.2 acre of Centinela Ditch) with native riparian habitat and native grassland. This impact would be beneficial due to the expected net gain of breeding

habitat for sensitive species, including southwestern willow flycatcher (federal and state Endangered) and least Bell's vireo (federal and state Endangered), which are associated with riparian vegetation, a sensitive habitat type.

If construction occurs during the breeding season, there would be potential impacts on common species of migrant birds that have been observed nesting on the site.

The Project's Bluff Restoration component would replace the existing 4.6 acres of non-native annual grassland and iceplant with native coastal sage scrub vegetation. It is assumed that the 0.4 acre of existing culvert (storm drain) would be retained to convey storm flow and landscape runoff from off-site areas.

The addition of coastal sage scrub, a sensitive habitat, to the Project site could potentially support one or more nesting pairs of the coastal California gnatcatcher (federal Threatened). No recent sightings of coastal California gnatcatchers have been reported, although the region is within the historical range of the species. It is possible that with restoration of its habitat, this species would return to the area. This impact would be beneficial.

Overall, the Habitat Creation/Restoration Component of the Project is expected to have at least two beneficial impacts, as described in more detail below: 1) increased amount of native habitat area within the region, with related increases in diversity and abundance of wildlife; 2) enhanced connectivity between habitat patches that are currently fragmented.

The Habitat Creation/Restoration Component has potential to result in an increase in the overall diversity and abundance of wildlife species due to the increased diversity of habitats compared to existing conditions. Subtracting the existing 1.5 acres of native coyote brush area that would be lost due to direct impacts of the Urban Development Component from the proposed 11.7-acre Habitat Creation/Restoration Area, the Proposed Project as a whole would result in a net gain of 10.2 acres of native habitat consisting of emergent marsh, willow scrub woodland, mixed riparian woodland, native grassland, and coastal sage scrub. As stated in Existing Conditions (Section 2.2.1), the coyote brush area, while dominated by the native coyote brush, is somewhat degraded by its small size and presence of invasive non-native species such as pampas grass. Abundance and diversity of native resident and migrant wildlife that currently forage and/or breed on the Project site would be expected to increase as a result of the increased acreage and structural diversity of the habitat. There may be short-term adverse impacts to migrant birds due to loss of nesting habitat, until the Habitat Creation/Restoration component of the Project becomes established. These impacts could be considered potentially significant if they occurred during the breeding season.

The Riparian Corridor element has potential to benefit wildlife movement in the local area by expanding riparian habitat established as part of the adjacent Playa Vista First Phase Project. The Bluff Restoration element also has potential to benefit wildlife movement by providing linkage between two existing fragments of revegetated coastal sage scrub along the Westchester Bluffs east of Lincoln Boulevard.

3.5 Summary of Impacts in Relation to Significance Thresholds

Based on the preceding discussion, the following paragraphs summarize anticipated impacts of the Project.

- **Federal and State Listed Threatened and Endangered Species.** No adverse impact. No federal or state listed threatened or endangered species reside on the Project site or are dependent on the site's resources for survival. Restoration components of the Project have potential to attract listed species (e.g. least Bell's vireo, coastal California gnatcatcher) and therefore have the potential for a beneficial impact on such species.

- **Non-Listed Sensitive Species.** If construction occurs during nesting season, potentially significant short-term impacts on migrant birds may occur. The Urban Development Component of the Proposed Project would result in a net loss of foraging area for raptors such as Cooper's hawk, but unlikely to affect long-term survival of species due to the restoration components of the Project and presence of more diverse foraging opportunities off-site in the nearby Ballona Wetlands. There is potential for long-term beneficial impacts on migrant birds and raptors due to the restoration components of the Project, which will increase the amount and diversity of native habitat on-site in comparison to current conditions.

- **Locally Designated Species, Habitat, or Plant Community.** No impact on locally designated species. Such species are absent from the Project site. Less than significant impact on off-site locally designated habitats/plant communities (Ballona Wetlands) due to design features (including habitat restoration) of the Proposed Project.

- **Interference with Wildlife Movement/Migration Corridors.** No impact on a wildlife movement corridor – the Project is surrounded by urban development and does not serve as a link between areas of core habitat for wildlife. However, the Habitat Creation/Restoration component has potential for a beneficial impact by expanding and linking existing habitats that are currently fragmented and degraded. The Riparian Corridor will link two segments of the riparian corridor that will be established as part of the adjacent Playa Vista First Phase Project. This linkage will

result in an extended movement corridor for wildlife through the Project site. Similarly, the proposed Bluff Restoration element will link existing stands of revegetated coastal sage scrub along the bluffs so as to provide a continuous expanse of native upland habitat from Lincoln Boulevard east to Centinela Avenue.

- **Alteration of Existing Wetland Habitat.** Less than significant impact. No on-site wetlands beyond those previously permitted for fill would be impacted by the Project. Potential impacts to off-site wetlands from pollutants in stormwater runoff and irrigation runoff would be less than significant due to treatment measures built into the Project design, the Riparian Corridor and the Freshwater Marsh.

- **Interference with Habitat/Species Behavior (Indirect Impacts).** Less than significant impact. The Project site is already located within an urban environment, and sensitive species that utilize the Ballona Wetlands do so in the presence of busy streets and lighting. In the future, sensitive species may also be attracted to the Habitat Creation/Restoration Component of the Project. Lighting, noise, and intrusion by humans and pets from the adjacent mixed-use development may limit use of the restored habitats by sensitive species although such factors would not be expected to diminish long-term chances for survival of the species.

3.6 Equivalency Program Impacts

The preceding biotic resources analysis addressed impacts associated with construction and operation of the Proposed Project relative to the following issues: (1) impacts on Federal and State listed threatened and endangered species; (2) impacts on non-listed sensitive species; (3) impacts on locally designated species, habitat, or plant communities; (4) interference with wildlife movement/migration corridors; (5) alteration of existing wetland habitat; and (6) interference with habitat/species behavior (indirect impacts). The proposed Equivalency Program allows for specific limited exchanges in the types of land uses occurring within the Project's Urban Development Component. No changes are proposed under the Equivalency Program to the Project's Habitat Creation/Restoration Component.

The exchange of office uses for retail and/or assisted living units would be accomplished within the same building parameters, and would occur at relatively limited locations within the Project site. Furthermore, under the Equivalency Program, there would be no substantial variation in the Project's street configurations, building pad elevations, or the depth of excavation. Potential changes in land use under the Equivalency Program would therefore have no substantial effect on the proposed earth moving activities and their associated impacts on the disturbance of habitat because only the use is changing.

All Project Design Features (as discussed in the Project Description for the Habitat Creation/Restoration Program) and/or recommended mitigation measures (discussed in Subsection 4.0, Mitigation Measures, below) to minimize biotic resources impacts under the Proposed Project would be implemented, as appropriate, under the Equivalency Program. As earth-disturbing activities would be similar to the Proposed Project under all of the Equivalency Scenarios, impacts on listed and designated species, habitats and plant communities would be similar. As building placement and volume would be similar to the Proposed Project under all of the Equivalency Scenarios, impacts on wildlife movement/migration corridors and interference with habitat/species behavior would be similar. Implementation of the Equivalency Program would therefore not cause or accelerate any adverse affects on biotic resources. Consequently, with implementation of applicable mitigation measures (discussed below), biotic resources impacts under all of the Equivalency Scenarios, as is the case with the Proposed Project, would have a potentially significant short-term impact on migrant birds during construction; and impacts on remaining issues addressed would result in no impact or less-than-significant impacts.

3.7 Impacts of Off-Site Improvements

Proposed Project development could result in secondary impacts arising from implementation of the Project's mitigation measures, as well as the direct impacts described above. Mitigation measures within Section IV.K.(1), Traffic and Circulation, require physical improvements in transportation facilities at numerous locations including roadway widening at seven locations, as described in Subsection 5.8 of that Section. In addition, as discussed in Section IV.N.(1), Water Consumption, the Proposed Project would require the construction of a water regulator station in the vicinity of Jefferson Boulevard and Mesmer Avenue.

These off-site improvements are all located in urban developed areas. All of the off-site improvements except the water regulator station occur within or adjacent to existing roadways. The water regulator station would include a small amount of piping equipment that would most likely be located just above ground. The off-site roadway improvements do not involve the construction of any buildings. Therefore, there would be no alteration in land use patterns that might affect animal movement and the off-site improvements would not generate increases in human population that might interfere with habitat/species behavior.

Most of the off-site improvements occur within hardscape areas without vegetation. Where vegetation is affected, it is in biologically disturbed areas that consist of ruderal species typical of disturbed habitat and non-native, ornamental vegetation. No special status animals breed in or substantially utilize habitat that would be disturbed as part of the proposed offsite improvements. Therefore, off-site improvements do not have the potential to reduce the numbers of any unique, rare, or endangered animal species.

The off-site improvements, based on the preceding analysis, are not expected to have adverse effects on: (1) federal and state listed threatened and endangered species; (2) non-listed sensitive species; (3) locally designated species, habitat, or plant communities; (4) wildlife movement/migration corridors; (5) existing wetland habitat; or (6) interference with habitat/species behavior (indirect impacts). Therefore, none of the off-site improvements would result in significant impacts, unto themselves, nor would the off-site improvements, in combination with the Proposed Project, result in a significant impact, not otherwise accounted for in the analysis of the Proposed Project, above.

4.0 MITIGATION MEASURES

Mitigation Measures for the Proposed Project and the Equivalency Program

The following measures shall be implemented to avoid or minimize potential impacts on biological resources:

Construction Measures

- Prior to any earthmoving activities during the breeding and nesting season, the Applicant shall have a field survey conducted by a qualified biologist to determine if active nests of breeding birds are present within the area of potential influence of the activity. This area of influence shall include the nest site as well as an appropriate buffer determined by the biologist based on field observations and the biology of the species. This survey shall be conducted within three (3) days before the clearing/ grubbing. If nesting birds protected under the Migratory Bird Treaty Act or California Fish and Game Code are found, the breeding/nesting area(s) shall be protected according to the biologist's recommendations that include, but are not limited to, a suitable buffer area around the nest, which shall not be disturbed until the young have fledged.

Increased Non-Native Plant Species

- Prior to issuance of any building permit, landscape guidelines shall be prepared by a licensed landscape architect in consultation with a qualified biologist for review and approval by the City Planning or Public Works department, if applicable. The plan shall identify non-native plants that are potentially invasive and that shall be prohibited.

  These planting guidelines shall be provided to all new business owners and residents in the Project site prior to the close of escrow and executed lease agreements. Planting guidelines shall be monitored by a licensed landscape architect.

Disposal of cuttings of any ornamental plants during Project operation in on-site or off-site open space areas shall be strictly prohibited.

Bluff Restoration

- Concurrent with the construction of the adjacent Riparian Corridor, the bluff area within the Habitat Creation/Restoration Component shall be restored as coastal sage scrub habitat.

Light and Glare/Noise

- Night lighting within 100 feet of restored habitat areas (riparian areas and bluffs) shall be directed onto the property and away from the habitat area. Such lighting shall be downcast luminaries with light patterns directed away from natural areas, and shall be coordinated with the lighting engineer and the environmental and biological resource monitor.

- Landscaping along Bluff Creek Drive shall incorporate native plant materials that will reduce the potential for intrusion of vehicle headlight glare into the Riparian Corridor.

- Landscaping along Bluff Creek Drive shall incorporate native plant materials that will buffer traffic noise and help reduce noise levels within the Riparian Corridor.

Intrusions into Habitat Areas by Humans and Pets

- The riparian corridor shall be fenced along the northern side and at strategic locations to discourage access into the habitat area.

- Signs shall be placed along recreational trails in proximity to the Habitat Creation/ Restoration Component to inform users of the proximity of the trail to sensitive habitat areas. Signs shall list rules and regulations for trail use designed to protect sensitive biological resources. Rules shall include, but not be limited to, the following: no access to off-trail areas; no excessively loud voices or other noise disturbances; no harassment of wildlife; no domestic pets; no "taking" of plants and animals; and strict adherence to trail boundaries.

5.0 UNAVOIDABLE ADVERSE IMPACTS

With the exception of impacts on raptor foraging area and short-term loss of marginal nesting habitat for common migrant birds, the Proposed Project, with implementation of the proposed mitigation measures, would not result in unavoidable adverse impacts on biological resources. The Habitat Creation/Restoration Component of the Project would result in a net gain

of 10.2 acres of native habitat, a beneficial impact. Development of the Urban Development Component for both the Proposed Project and the Equivalency Program would result in a net loss of 60.9 acres of existing undeveloped area on the site. This undeveloped area has a long history of disturbance; in the past, the area has been developed with buildings, roads, parking areas, and a runway associated with the Hughes Industrial Complex. Currently this area is used on an ongoing basis to stockpile soil and crushed rock; provide a recycling site for construction materials; stage construction equipment, materials and personnel; and provide for temporary stormwater detention. However, this highly disturbed area still provides foraging opportunities for raptors and some marginal nesting habitat for common migrant birds. Loss of undeveloped area due to the Urban Development Component would be an unavoidable impact of the Project, but unlikely to affect long-term survival of species due to the restoration components of the Project and presence of more diverse foraging opportunities off-site in the nearby Ballona Wetlands. It is concluded that while unavoidable adverse impacts on foraging raptors and nesting common migrant birds may occur due to loss of natural open space, these impacts will be less than significant. These conclusions are inclusive of the Project's Equivalency Program and the construction of the Project's off-site improvements.

6.0 CUMULATIVE IMPACTS

Of the 96 related projects identified, only two projects have the potential to result in a cumulative impact in conjunction with the Proposed Project. The two related projects of relevance are the adjacent Playa Vista First Phase Project and the proposed Catellus West Bluffs Project, on top of the Westchester Bluffs just west of Lincoln Boulevard. The Urban Development Component of the Proposed Project would incrementally reduce the total amount of undeveloped area in the region by about 60.9 acres. Without the Habitat Creation/Restoration Component of the Project, the loss of 60.9 acres of undeveloped area, in combination with the loss of undeveloped area resulting from the Playa Vista First Phase Project and the proposed Catellus West Bluffs Project, would constitute a substantial loss of undeveloped area in the Project region. However, the Habitat Creation/Restoration Component of the Proposed Project (inclusive of the Equivalency Program) would increase the total amount of native habitat in the region by about 10.2 acres, in addition to the 44.4 acres of habitat restoration (Freshwater Marsh and First Phase Riparian Corridor) that are under construction as part of the Playa Vista First Phase Project. Evaluated as a whole in combination with other known development projects in the area, with consideration of design components that will reduce pollutant levels in comparison to existing conditions, and with consideration that the Habitat Creation/Restoration Component of the Project will establish better quality, more diverse native habitat than presently occurs, it is anticipated that cumulative impacts of the Proposed Project, inclusive of the Equivalency Program and construction of the Project's off-site improvements. on biological resources will be less than significant.

1.0 INTRODUCTION

This section addresses the potential impact of the Proposed Project on the noise environment in proximity to the Proposed Project site. The analysis evaluates the potential noise impacts attributable to proposed on-site noise sources during Project construction and operations, as well as potential noise impacts associated with the motor vehicle travel generated by the Project at various locations in the Project vicinity. The analysis also evaluates the potential for off-site noise sources to have an adverse impact on on-site uses and activities. The analysis addresses the impacts that would occur for the Project as Proposed, for the Project's Equivalency Program and for the Project's secondary impacts that would occur from the implementation of the Project's off-site mitigation measures.

2.0 SETTING

2.1 Background

Noise is usually defined as unwanted sound. Noise becomes unwanted when it interferes with normal activities, when it causes actual physical harm, or when it has adverse effects on health. The definition of noise as unwanted sound implies that it has an adverse effect on people and their environment.

Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). The human ear does not respond uniformly to sounds at all frequencies, being less sensitive to low and high frequencies than to medium frequencies that correspond with human speech. In response, the A-weighted noise level (or scale) has been developed. It corresponds better with people's subjective judgment of sound levels. This A-weighted sound level is called the "noise level" and is referenced in units of dB(A). Noise is measured on a logarithmic scale and, therefore, a doubling of sound energy results in a 10 dB(A) increase in noise levels. However, changes in a community noise level of less than 3 dB(A) are not typically noticed by the human ear.[234] Changes from 3 to 5 dB(A) may be noticed by some individuals who are

[234] *Highway Noise Fundamentals (Springfield, VA: U.S. Department of Transportation, Federal Highway Administration, September 1980), p. 81.*

extremely sensitive to changes in noise; and an increase of more than 5.0 dB(A) is readily noticeable. The human ear perceives a 10 dB(A) increase in sound level as a doubling of sound.

Noise sources occur in two forms: (1) point sources, such as stationary equipment, loudspeakers, or individual motor vehicles; and (2) line sources, such as a roadway with a large number of point sources (motor vehicles). Sound generated by a point source typically diminishes (attenuates) at a rate of 6.0 dB(A) for each doubling of distance from the source to the receptor at acoustically "hard" sites and 7.5 dB(A) at acoustically "soft" sites.[235] For example, a 60 dB(A) noise level measured at 50 feet from a point source at an acoustically hard site would be 54 dB(A) at 100 feet from the source and 48 dB(A) at 200 feet from the source. Sound generated by a line source typically attenuates at a rate of 3.0 dB(A) and 4.5 dB(A) per doubling of distance from the source to the receptor for hard and soft sites, respectively.[236] Sound levels can also be attenuated by man-made or natural barriers, as illustrated in Figure 35 on page 555.

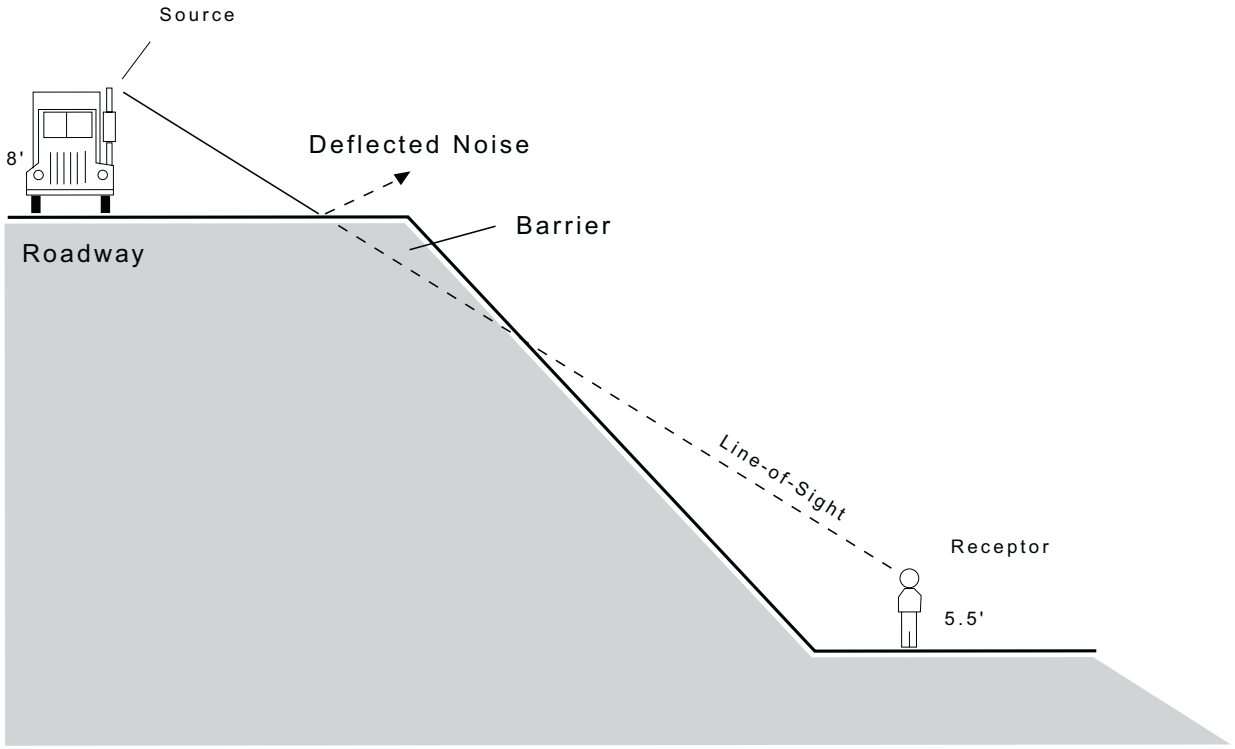
Solid walls, berms, or elevation differences typically reduce point and line source noise levels by 5.0 to 10.0 dB(A).[237] Sound levels for a source may also be attenuated 3.0 to 5.0 dB(A) by a first row of houses and 1.5 dB(A) for each additional row of houses. Noise levels are also reduced in buildings as the sound passes through walls, floors, windows, ceilings, and doors.

When assessing community reaction to noise, there is an obvious need for a scale that averages varying noise exposure over time and quantifies the result in terms of a single number descriptor. Several scales have been developed to address community noise levels. Those that are applicable to this analysis are the Equivalent Noise Level (L_{eq}), the Day Night Average Level (L_{dn}), the Community Noise Equivalent Level (CNEL), and the percentage noise level exceeded (Ln). L_{eq} is the average A-weighted sound level measured over a given time interval. L_{eq} can be measured over any time period, but is typically measured for 1-minute, 15-minute, 1-hour, or 24-hour periods. L_{dn} is an average A-weighted sound level but is measured over a 24-hour time period. However, this noise scale is adjusted to account for some individuals' increased sensitivity to noise levels during nighttime hours. An L_{dn} noise measurement accommodates this sensitivity factor by adding 10 decibels to sound levels occurring in the nighttime from 10 P.M. to 7 A.M. CNEL is another 24-hour average A-weighted sound similar to L_{dn}. This noise scale includes the same 10-decibel nighttime sensitivity factor as L_{dn}, but also adds 5 decibels to sound levels occurring in the evening from 7 P.M. to 10 P.M. For example, the logarithmic effect

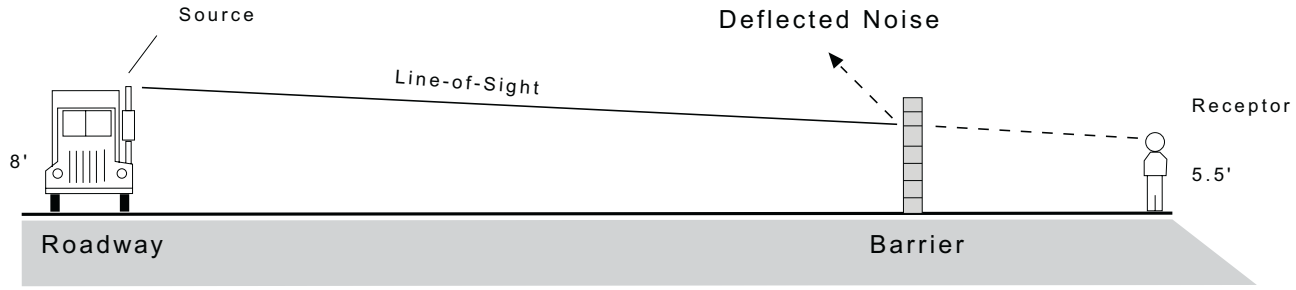
[235] *Highway Noise Fundamentals, p. 97. A "hard" or reflective site does not provide any excess ground-effect attenuation and is characteristic of asphalt, concrete, and very hard packed soils. An acoustically "soft" or absorptive site is characteristic of normal earth and most ground with vegetation.*

[236] *Highway Noise Fundamentals, p. 97.*

[237] *Highway Noise Mitigation (Springfield, VA: U.S. Department of Transportation, Federal Highway Administration, September 1980), p. 18.*



"Barrier Effect" Resulting from Differences in Elevation.



"Barrier Effect" Resulting from Typical Soundwall.

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Figure 35
Noise Attenuation by Barriers

Source: Impact Sciences © 2002

of these additions is that a 60 dB(A) 24-hour L_{eq} would result in a measurement of 66.7 dB(A) CNEL as shown in the following equation:

Computation of CNEL

$$60 \text{ dB(A) } L_{eq} = 10\log\{\frac{1}{24}[12(10^{\frac{60}{10}}) + 3(10^{\frac{60+5}{10}}) + 9(10^{\frac{60+10}{10}})]\} = 66.7 \text{ dB(A) CNEL } L_{dn}$$

L_{dn} noise levels are a fraction of a dB less than CNEL noise levels and, for all practical purposes, CNEL and L_{dn} are interchangeable. Ln is the A-weighted noise level exceeded for N percent of the measurement period. For example, L10 is the noise level exceeded 10 percent of the monitoring period, L50 the level exceeded 50 percent of the monitoring period, etc.

2.2 Regulatory Framework

In advance of presenting the existing and future noise environments, and the thresholds of significance utilized in this analysis, plans and policies which pertain to the noise conditions affecting and affected by the Proposed Project are discussed below. These include federal, state, and local plans and policies.

2.2.1 Federal Level

Federal agencies that have developed noise standards that are applicable to the Project include the Federal Highway Administration (FHWA) and the Department of Housing and Urban Development (HUD). Noise Standards established by these agencies are provided on Table 68 on page 557 and Table 69 on page 557. HUD's regulations do not contain standards for interior noise levels.[238] Rather, HUD has set forth a goal of 45 dB(A) L_{dn} and has geared its noise attenuation requirements towards achieving that goal.[239]

[238] *U.S. Department of Housing and Urban Development, Office of Environment and Energy, Environmental Planning Division, The Noise Guidebook, (Washington DC, U.S. Government Printing Office, March 1985), p. 6.*

[239] *The Noise Guidebook*, p. 6.

Table 68

FEDERAL HIGHWAY ADMINISTRATION DESIGN NOISE LEVELS

Activity Category	Design Noise Levels		Description of Activity Category
	L_{eq} Hourly	L_{10} Hourly	
A	57 dB (Exterior)	60 dB (Exterior)	Tracts of land where serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks, open spaces, or historic districts which are dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet.
B	67 dB (Exterior)	70 dB (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, and parks which are not included in Category A and residences, motels, hotels, public meeting rooms, schools, churches, libraries, and hospitals.
C	72 dB (Exterior)	75 dB (Exterior)	Developed lands, properties or activities not included in Categories A and B above.
E	52 dB (Interior)	55 dB (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Source: Data from Federal Highway Program Manual*, Volume 7, Chapter 7.*

Table 69

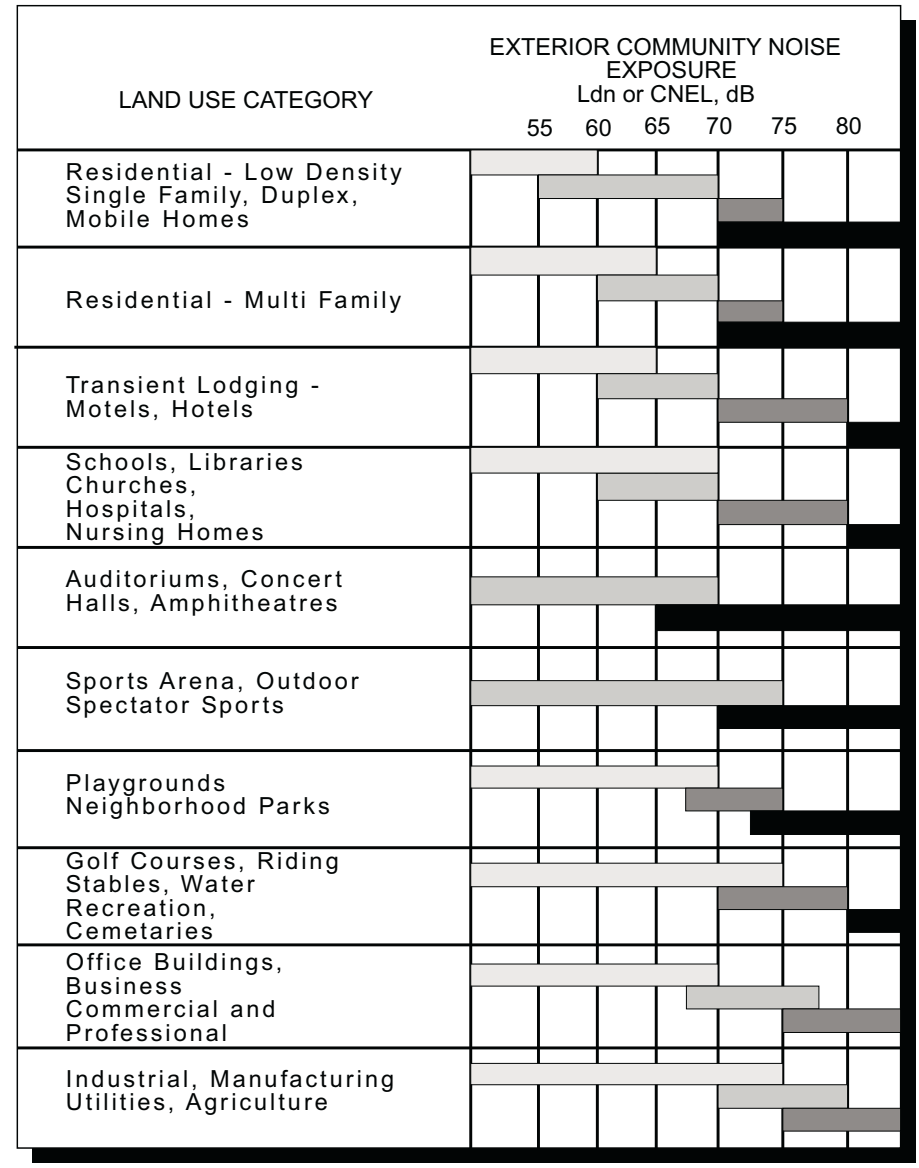
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
EXTERIOR NOISE EXPOSURE STANDARDS FOR NEW RESIDENTIAL CONSTRUCTION SITES

Category	Day-Night Sound Level (L_{dn})
Unacceptable	> 75 dB
Discretionary – Normally Unacceptable	> 65 dB, but < 75 dB
Acceptable	< 65 dB

Source: Data from HUD Environmental Criteria and Standards, 24 CFR 51, July, 1979.

2.2.2 State Level

The State of California, Department of Health Services, Environmental Health Division has published recommended guidelines for mobile source noise and land use compatibility. Each jurisdiction is required to consider these guidelines when developing its general plan noise element and determining the acceptable noise levels within its community. These guidelines are illustrated in Figure 36 on page 558. In developing these guidelines, efforts were made to maintain consistency with the Federal EPA standards and the California Noise Insulation Standards which identify an interior noise standard for residential units of 45 dB(A) CNEL.



NORMALLY ACCEPTABLE

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

CONDITIONALLY ACCEPTABLE

New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

NORMALLY UNACCEPTABLE

New construction or development should generally be discouraged. If new constuction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise reduction features included in the design.

CLEARLY UNACCEPTABLE

New construction or development should generally not be undertaken.

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Figure 36
Land Use Compatibility Guidelines for Noise

Source: California Department of Health, Office of Noise Control, Guidelines for the Preparation and Content of Noise Elements of the General Plan, February 1976

Based on these guidelines, an exterior noise level of 60 dB(A) CNEL is considered to be an acceptable level for single-family, duplex, and mobile homes involving normal, conventional construction, without any special noise insulation requirements (normally acceptable noise levels). Exterior noise levels up to 65 dB(A) CNEL are considered acceptable for multi-family units and transient lodging without any special noise insulation requirements. Between these values and 70 dB(A) CNEL, exterior noise levels are considered acceptable only if the buildings are conditioned to include noise insulation features (conditionally acceptable noise levels) to ensure a maximum interior noise level of 45 dB(A) CNEL. Conventional construction of buildings with the inclusion of fresh air supply systems or air conditioning will normally ensure that interior noise levels are acceptable. However, detailed acoustical analyses must be conducted to identify all needed noise insulation features and confirm their effectiveness. An exterior noise level of 70 dB(A) CNEL is typically the dividing line between an acceptable and unacceptable exterior noise environment for all noise sensitive uses, including schools, libraries, churches, hospitals, day care centers, and nursing homes of conventional construction. Noise levels below 70 dB(A) CNEL are acceptable for office and commercial buildings, while levels up to 75 dB(A) CNEL are acceptable for industrial uses.

2.2.3 Local Level

The Noise Element of the *General Plan* of the City of Los Angeles includes the following policies that are applicable in the development of new projects such as the Proposed Project:

- Encouragement of the use of quieter machinery and equipment;
- Consideration of the noise environment in land use planning;
- New structures such as hotels and motels to be located in noise-impacted areas are required to include noise attenuation considerations in their designs and construction.

The Noise Element also identifies the following land use criteria for locating new residential buildings:

- In areas where the daytime outdoor noise level exceeds an L50 of 60 dB(A), detached housing should not be allowed.
- In areas where the daytime outdoor noise level exceeds an L50 of 65 dB(A), apartment buildings should not be located unless the buildings are air conditioned so that windows can be closed to lessen noise intrusion.

- In areas where the outdoor noise level exceeds an L50 of 70 dB(A), special soundproofing should be required in apartment buildings.

- In noise-impacted areas, all developments should be acoustically engineered for indoor noise standards.

Chapter XI (Noise Regulation) of the Los Angeles Municipal Code (LAMC) establishes noise standards for various sources affecting neighboring properties. Relevant provisions include LAMC Section 112.02 which regulates air conditioning, refrigeration, heating, pumping and filtering equipment and provides that this equipment cannot cause the noise level on any adjacent property to exceed the ambient noise level by more than five decibels. In the absence of monitored existing noise levels, the *Noise Ordinance* assumes the minimum average ambient noise levels shown in Table 70 on page 561. LAMC Section 112.05 limits the noise from construction equipment within 500 feet of a residential zone to 75 dB(A) measured at a distance of 50 feet from the construction noise source except as may be technically infeasible. Technical infeasibility means that the noise limitations cannot be complied with despite the use of mufflers, shields, sound barriers, and/or other noise reduction devices or techniques during the operation of the equipment.

In addition, LAMC Section 41.40 regulates construction noise. Section 41.41(a) prohibits construction or repair work during the hours of 9 P.M. and 7 A.M. where equipment would be used and noise generated which would disturb sleeping persons occupying any dwelling, hotel, or other place of residence. LAMC Section 41.40(c) restricts construction within 500 feet of residences before 8 A.M. or after 6 P.M. on any Saturday or national holiday and prohibits any construction on Sunday.

2.3 Existing Conditions

Vehicular traffic along existing roadways is the dominant source of noise on, and in the vicinity of, the Proposed Project site. Other sources of noise in the area include light industrial point sources and aircraft flights associated with Los Angeles International Airport. These noise sources are discussed below.

2.3.1 On-Site Environment

The Proposed Project site is located along Jefferson Boulevard, a major roadway, and in proximity to Lincoln Boulevard. These roadways are the dominant source of noise on, and in the vicinity of, the Project site. Other sources heard on the Project site include secondary roadways and point (or stationary) sources of noise associated with existing light industrial uses. Point

Table 70

CITY OF LOS ANGELES NOISE ORDINANCE NOISE LEVELS FOR NON-ROADWAY SOURCES

Zone	Daytime Level dB(A) L_{eq}	Nighttime Level dB(A) L_{eq}
Agricultural or Residential	50	40
Parks or Commercial	60	55
Light Industry	65	65
Heavy Industry	70	70

Source: City of Los Angeles Noise Ordinance *#161,574.*

sources of noise typical of these areas include people talking, doors slamming and tire noise, truck deliveries, landscape maintenance equipment operation, stereos, domestic animals, etc.

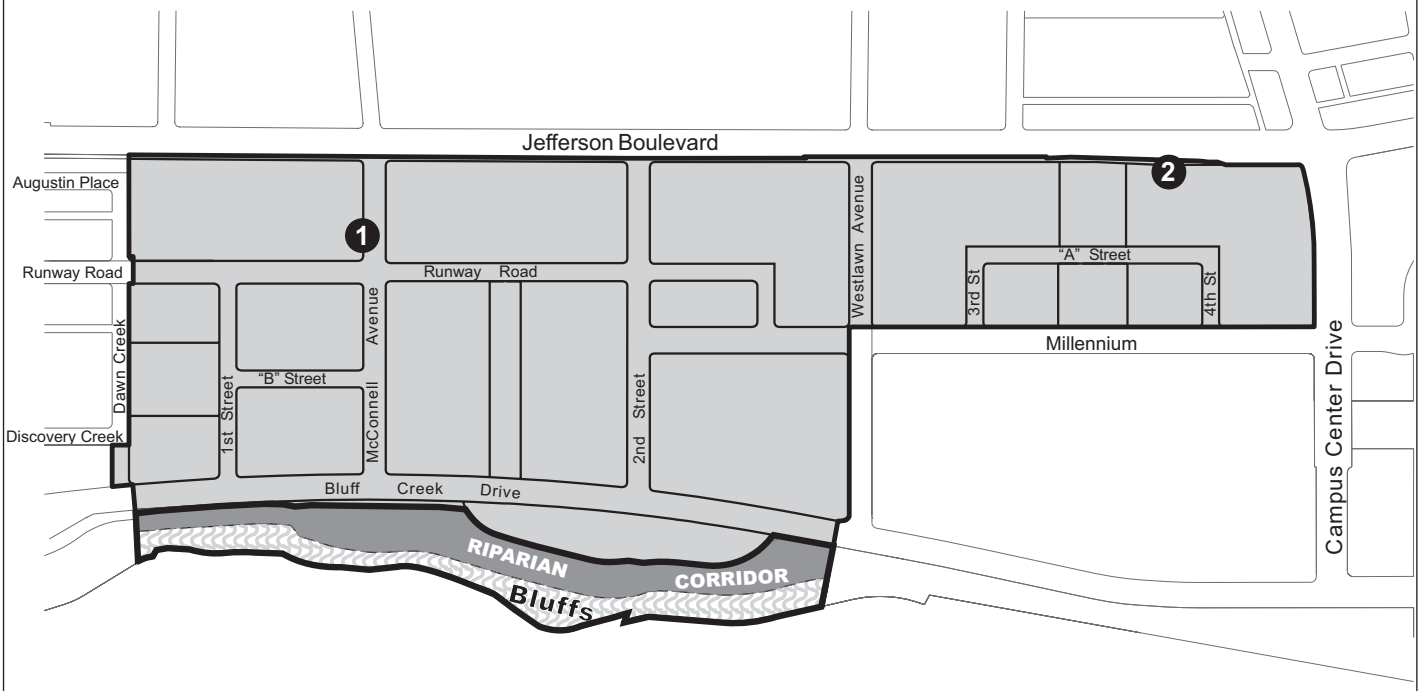
Existing daytime noise levels were monitored at two locations within the Proposed Project site in March 2003 in order to identify representative noise levels. These locations are identified in Figure 37 on page 562.

Average 24-hour on-site noise levels have also been calculated for the roadways adjacent to and through the Project site. Table 71 on page 563 identifies the noise levels calculated for reference locations 75 feet from each roadway centerline as well as the calculated distance from the roadway centerline to four noise level contours. The noise levels identified in Table 71 are characteristic of an urbanized environment.

The Proposed Project site is located approximately one mile north of Los Angeles International Airport. This is one of the busiest airports in the world with noise levels that affect large amounts of land within its approved flight paths. The Proposed Project site is not located within the flight path of this or any other airport. Los Angeles International Airport has an active noise management program, including permanent noise level monitors surrounding the airport. Two of these noise level monitors are located between the airport and the Project site. Noise levels associated with aircraft operations to and from the airport are predicted to be less than 53 dB(A) CNEL at the Project site.[240] The maximum aircraft noise level (L_{max}) would be approximately 73 dB(A).[241] These noise levels are lower than the values obtained during noise monitoring. They also do not exceed any adopted noise standards.

[240] *Heliport Consultants, Playa Vista-Second Phase Helicopter Noise Study (Thousand Oaks, CA: May 26, 1999), p.3.*

[241] *Ibid.*



LEGEND

#	Noise Monitoring Location
1	57.9 dB(A) Leq-Noise sources including vehicular traffic on Jefferson Boulevard and occasional aircraft overflights.
2	60.4 dB(A) Leq-Noise sources include vehicular traffic on Jefferson Boulevard and Centinalla Avenue, and occasional aircraft overflights.
	Habitat Creation / Restoration Component
	Proposed Village at Playa Vista

0 400 800 Feet

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Figure 37
Onsite Noise Monitoring Locations and Existing Noise Levels

Source: Impact Sciences © March 2003

Table 71

EXISTING ROADWAY NOISE LEVELS IN THE VICINITY OF THE PROJECT SITE [a]

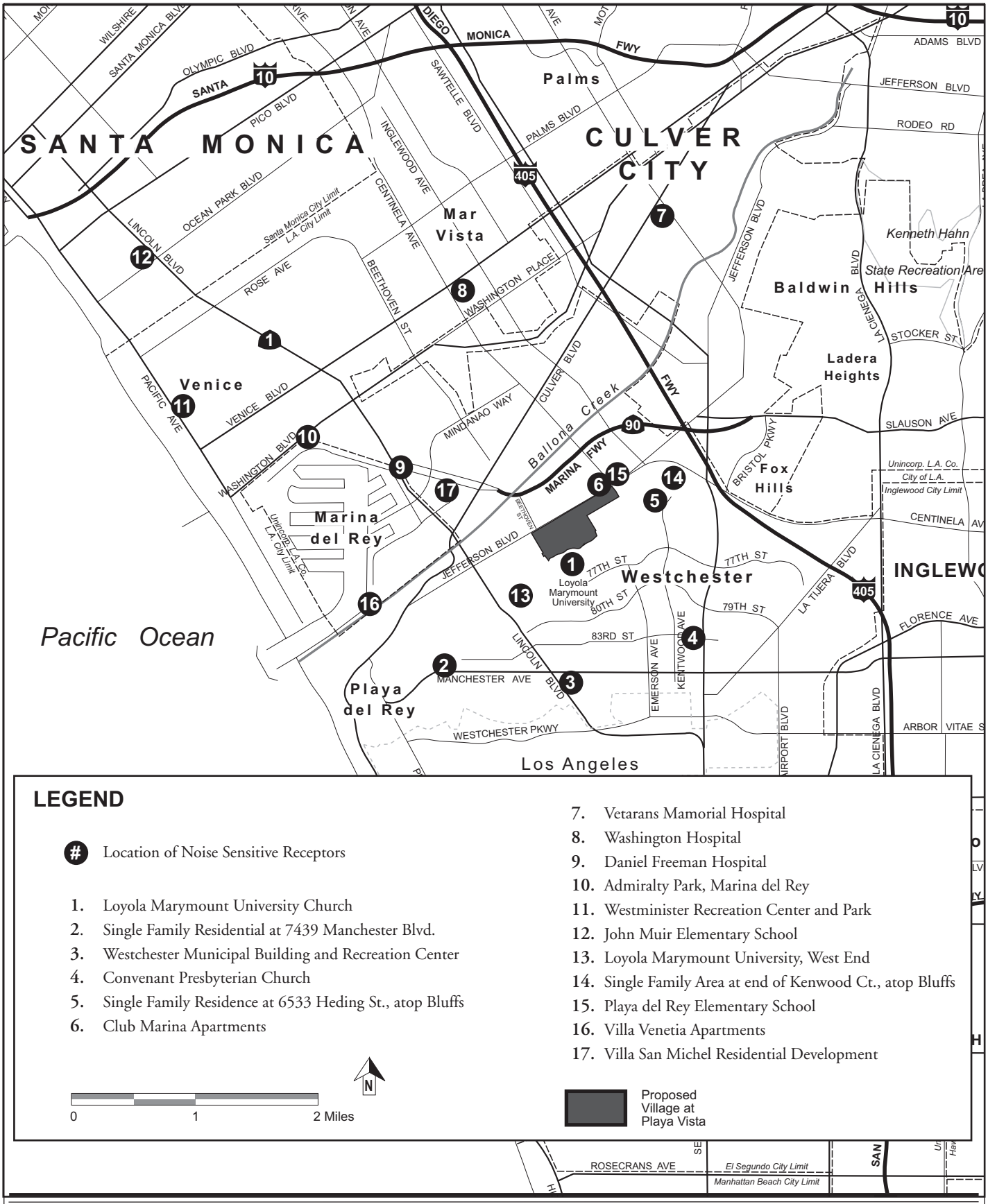
Roadway Segment	L_{eq} at 75 Feet [a]	Distance in Feet to Noise Level Contour [b]			
		75 L_{eq}	70 L_{eq}	65 L_{eq}	60 L_{eq}
PEAK HOUR TRAFFIC					
JEFFERSON BOULEVARD					
• Culver Blvd. to Lincoln Blvd.	66.9	–	–	99	225
• Lincoln Blvd. to Centinela Ave.	66.3	–	–	90	200
BLUFF CREEK (formerly known as Teale Street)					
• East of Lincoln	47.1	–	–	–	–
Roadway Segment	**CNEL at 75 Feet [a]**	**Distance in Feet to Noise Level Contour [a]**			
		75 CNEL	**70 CNEL**	**65 CNEL**	**60 CNEL**
24-HOUR TRAFFIC VOLUMES					
JEFFERSON BOULEVARD					
• Culver Blvd. to Lincoln Blvd.	67.1	–	–	101	230
• Lincoln Blvd. to Centinela Ave.	67.7	–	82	110	255
BLUFF CREEK (formerly known as Teale Street)					
• East of Lincoln	48.1	–	–	–	–

– *Noise contour is located off site and in roadway right-of-way.*
[a] *Calculated noise levels.*
[b] *Distance is from center of roadway and is applicable to both sides of the roadway.*

Source: Impact Sciences, Inc. Calculation data and results are provided in Tables N-1 and N-2 in Noise Technical Appendix incorporated as Appendix H.

2.3.2 Off-Site Noise Sensitive Locations

Vehicular traffic is the dominant source of noise affecting all noise-sensitive locations that occur within the vicinity of the Proposed Project. The primary noise effect of the Project would be increased traffic volumes along the roadways near these noise-sensitive uses. In order to identify the existing noise environment, several off-site noise-sensitive locations were selected for analysis. The locations of these noise-sensitive receptor locations are identified in Figure 38 on page 564. While other noise-sensitive locations are located in the vicinity of the Project site, these locations provide a representative analysis of the noise conditions in the Project vicinity and along the roadways that would primarily be affected by Project-generated traffic. Locations along the top of the bluffs represent noise levels typical of those across the bluff edge. Daytime noise levels were monitored at these locations by Impact Sciences, Inc. in March 2003. Peak traffic hour and 24-hour average noise levels were also calculated for these locations. The results of the noise monitoring and modeling efforts are shown in Table 72 on page 565.



LEGEND

(#) Location of Noise Sensitive Receptors

1. Loyola Marymount University Church
2. Single Family Residential at 7439 Manchester Blvd.
3. Westchester Municipal Building and Recreation Center
4. Convenant Presbyterian Church
5. Single Family Residence at 6533 Heding St., atop Bluffs
6. Club Marina Apartments
7. Vetarans Mamorial Hospital
8. Washington Hospital
9. Daniel Freeman Hospital
10. Admiralty Park, Marina del Rey
11. Westminister Recreation Center and Park
12. John Muir Elementary School
13. Loyola Marymount University, West End
14. Single Family Area at end of Kenwood Ct., atop Bluffs
15. Playa del Rey Elementary School
16. Villa Venetia Apartments
17. Villa San Michel Residential Development

Proposed Village at Playa Vista

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Figure 38
Noise Monitoring and Analysis Locations

Source: PCR Services Corporation, 2003

Table 72

EXISTING NOISE LEVELS AT REPRESENTATIVE OFF-SITE NOISE SENSITIVE LOCATIONS

Location	Monitored Daytime dB(A) L_{eq}[a]	Modeled Peak Hour dB(A) L_{eq}	Modeled 24-Hour CNEL
1. Loyola Marymount University Church	59.7	47.7	48.4
2. Single Family Residence at 7439 Manchester Blvd.	66.2	64.3	65.2
3. Westchester Municipal Building and Recreation Center	68.2	58.1	59.1
4. Covenant Presbyterian Church	64.1	70.6	71.3
5. Single Family Residence at 6533 Hedding St., atop Bluffs	57.6	59.2	60.3
6. Club Marina Apartments	71.5	68.8	69.5
7. Veterans Memorial Hospital	59.4	68.8	69.7
8. Washington Hospital	68.8	67.4	68.3
9. Daniel Freeman Hospital	64.1	63.7	63.9
10. Admiralty Park, Marina del Rey	70.5	66.2	67.3
11. Westminster Recreation Center and Park	66.8	64.4	65.5
12. John Muir Elementary School	63.7	68.9	69.1
13. Loyola Marymount University, West End	51.4	53.4	53.8
14. Single Family Area at end of Kentwood Ct., atop Bluffs	51.4	70.1	71.1
15. Playa del Rey Elementary School	59.0	61.9	62.3
16. Villa Venetia Apartments	54.6	56.8	57.9
17. Villa San Michel Residential Development	59.2	60.3	61.4

[a] *Noise levels were monitored by Impact Sciences, Inc. in March 2003.*

Source: Impact Sciences, Inc. Calculation data and results are provided in Table N-9 in Noise Technical Appendix Report (Appendix H).

3.0 IMPACT ANALYSIS

3.1 Methodology

The analysis of the future noise environments presented in this Section is based on location-specific noise level monitoring, technical reports, published reports, noise prediction modeling, empirical observations and traffic volume data provided by the Project's traffic engineer. Noise levels were monitored at selected locations on the Project site and in the vicinity using a Brüel and Kjær Type 2237 integrating sound level meter which satisfies the American National Standards Institute (ANSI) for general environmental noise measurement instrumentation. Noise levels for some future stationary activities and equipment were estimated based on available technical reports and literature, which are cited in this report. Noise modeling procedures involved the calculation of future vehicular noise levels along individual roadway segments in the site vicinity. This task was accomplished using the Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108). The Model calculates

the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (energy rates) utilized in the FHWA Model have been modified to reflect average vehicle noise rates identified for California by Caltrans.[242] The Caltrans data show that California automobile noise is 0.8 to 1.0 dB(A) higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dB(A) lower than national levels.[243] Traffic volumes utilized as data inputs in the noise prediction model were provided by the Project's traffic engineer.[244]

3.1.1 Methodology for On-Site Locations

The primary concern regarding on-site noise is the potential for proposed on-site land uses to be exposed to noise levels that exceed adopted or recommended City noise standards. In essence, the analysis of on-site noise levels assesses the compatibility of proposed on-site land uses with proposed on-site activities, adjacent off-site land uses and activities, and with roadway traffic noise that would occur proximal to the Project site.

3.1.2 Methodology for Off-Site Noise Sensitive Locations

The assessment of off-site noise levels focuses on how on-site activities and increased traffic levels would impact existing land uses adjacent to, or near, the Project site. This analysis specifically focuses on impacts to existing noise-sensitive uses, or those uses that would be most sensitive to an increase in noise levels. Noise sensitive uses include single- and multi-family residential uses, schools, churches, hospitals, government centers, senior citizen centers, and recreation centers. Several off-site noise-sensitive locations that were selected for analysis are identified in Figure 38 on page 564. While other noise-sensitive locations are located in the vicinity of the Project site, these locations provide a conservative representative analysis of the noise conditions in the Project vicinity.

3.2 Significance Thresholds

3.2.1 Construction Noise Thresholds

The Draft Los Angeles CEQA *Thresholds Guide* (p. I.1-3), states that a project would normally have a significant impact on noise levels from construction if:

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[242] *Rudolf W. Hendriks, California Vehicle Noise Emission Levels (Sacramento, California: California Department of Transportation, January 1987), NTIS, FHWA/CA/TL-87/03.*

[243] *California Vehicle Noise Emission Levels.*

[244] *Srinath Raju, KAKU Associates, Santa Monica, CA, personal communication with Impact Sciences, Inc., April 24, 2003.*

- Construction activities lasting more than one day would exceed existing ambient exterior noise levels by 10 dBA or more at a noise sensitive use;

- Construction activities lasting more than 10 days in a three-month period would exceed ambient exterior noise levels by 5 dBA or more at a noise sensitive use; or

- Construction activities would exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9 P.M. and 7 A.M. Monday through Friday, before 8 A.M. or after 6 P.M. on Saturday, or at anytime on Sunday.

Based on these thresholds, the Proposed Project would have a significant construction noise impact, if:

- Project construction activities would exceed ambient exterior noise levels, averaged over a 1-hour period, by 5 dBA or more at a noise-sensitive use.

3.2.2 Operational Noise Thresholds

The Draft Los Angeles CEQA *Thresholds Guide* (p. I.2-3, 4), states that a project would normally have a significant impact on noise levels from project operations if the project causes the ambient noise level measured at the property line of affected uses to increase by 3 dBA in CNEL to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase (see the Table 73 on page 568).

These thresholds are applicable to the Proposed Project and as such, are used to determine if the Project would have a significant operational noise impact. In addition to these thresholds, a significant operational noise impact would occur if:

- On-site locations would be exposed to noise levels above the normally acceptable Land Use Compatibility Guidelines utilized by the City (i.e., 65 dB(A) CNEL for multi-family and 70 dB(A) CNEL for Commercial and Office uses); or

- On-site stationary sources (e.g., HVAC equipment) increase ambient noise levels by 5.0 dB(A) or more.

3.3 Project Design Features

The Proposed Project is a planned, mixed-use community, containing a diverse range of commercial, residential, recreational, public and open space uses. Within the Project's Urban

Table 73

L.A. CITY LAND USE COMPATIBILITY GUIDELINES FOR NOISE

Land Use	Community Noise Exposure CNEL, dB			
	Normally Acceptable	**Conditionally Acceptable**	**Normally Unacceptable**	**Clearly Unacceptable**
Single Family, Duplex, Mobile Homes	50 to 60	55 to 70	70 to 75	above 70
Multi-Family Homes	50 to 65	60 to 70	70 to 75	above 70
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 to 70	60 to 70	70 to 80	above 80
Transient Lodging – Motels, Hotels	50 to 65	60 to 70	70 to 80	above 80
Auditoriums, Concert Halls, Amphitheaters	–	50 to 70	–	above 65
Sports Arena, Outdoor Spectator Sports	–	50 to 75	–	above 70
Playgrounds, Neighborhood Parks	50 to 70	–	67 to 75	above 72
Golf courses, Riding Stables, Water Recreation, Cemeteries	50 to 75	–	70 to 80	above 80
Office Buildings, Business and Professional Commercial	50 to 70	67 to 77	above 75	–
Industrial, Manufacturing, Utilities, Agriculture	50 to 75	70 to 80	above 75	–

Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.
Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
Clearly Unacceptable: New construction or development should generally not be undertaken.

Source: City of Los Angeles Draft CEQA Thresholds Guide, citing Office of Noise Control, California Department of Health Services (DHS).

Development Component, development would occur within a specified arrangement of streets, blocks, and lots, as well as restrictions and design standards which limit the amount and type of development which can occur.

The Project also includes restrictions within which development can occur within each lot by establishing minimum setback areas shown in Table 74 on page 569. These setbacks will influence the relationship of noise receptors to sources of noise.

Table 74

PROPOSED SETBACK REQUIREMENTS

Location	Required Setback	
Thoroughfares		
Jefferson Boulevard	15 Feet	(From the right-of-way/property line, regardless of which way the building orients on the lot. This setback excludes retaining walls.)
Bluff Creek Drive	15 Feet	
Runway Road (Dawn Creek to McConnell)	15 Feet	
Runway Road (McConnell to 2nd Street)	0 to 5 Feet	(Street front retail will characterize this block.)
Millennium Road	15 Feet	
McConnell Avenue	10 Feet	
McConnell Avenue (100 feet north and south of Runway Road)	0 to 5 Feet	(Street front retail will characterize this block.)
Westlawn Avenue	10 Feet	
Campus Center Drive	15 Feet	
1st, 2nd, 3rd, and 4th Street	10 Feet	
2nd Street (100 feet north and south of Runway Road)	0 to 5 Feet	(Street front retail will characterize this block.)
A and B Streets	10 Feet	
Dawn Creek	10 Feet	
Setbacks from Adjacent Lots [a]		
Adjacent to a Residential or Commercial Lot	10 Feet	
Adjacent to a Park or Open Space Lot	5 Feet	

[a] *Multi-family structures in two separately developed Projects shall be separated by no less than 20 feet.*

Source: Playa Capital Company, 2003.

3.4 Project Impacts

3.4.1 Construction Noise Impacts

The Draft Los Angeles CEQA *Thresholds Guide* identifies three thresholds to be used for determining the significance of a project's construction noise impacts (see Subsection 3.2, above). The first threshold addresses construction activities lasting more than one day. As the second threshold identifies a different standard for construction activities lasting more than 10 days in a three month period, it is concluded that the first threshold addresses construction noise impacts occurring for more than one day, but less than 10 days in a three month period. As Project construction is expected to occur at varying levels over a few year period, it is concluded that the first threshold is not applicable to the Proposed Project. The language of the second threshold has been simplified, although the intent of the threshold has not been modified. In accordance with LAMC Section 41.40, the Project's construction hours would not extend into

the time frames set forth in the third threshold. Therefore, no analysis relative to this third threshold is required.

Development of the Proposed Project would require site preparation (i.e., grading and infrastructure construction) within both the Urban Development and Habitat Creation/ Restoration Components and construction of the proposed structures within the Project's Urban Development Component. These activities typically involve the use of heavy equipment, such as tractors, loaders, concrete mixers, cranes, etc. Pile drivers would be used in the construction of several Project structures within the Project's Urban Development Component. Trucks would be used to deliver equipment and building materials, and to haul away waste materials. Smaller equipment, such as jackhammers, pneumatic tools, saws, and hammers would also be used throughout the site during the construction phases. This equipment would generate both steady state and episodic noise that would be heard both on and off the Project site.

Noise levels have been calculated for the most active grading and construction periods based on an anticipated equipment profile provided by the applicant.[245] The resulting noise levels at the representative receptor locations that are located in close proximity to the Project site are identified in Table 75 on page 571. These noise levels represent the maximum daily noise levels that would be experienced when grading and construction activities occur in close proximity to the existing receptor locations. Noise levels at all other times would be lower.

As shown, grading and infrastructure noise levels would be greater than 5 dB(A) at locations 1, 5, 6, 13 and 15. Noise levels generated during the construction phases of development would also be greater than 5 dB(A) at locations 1, 13 and 15. It should also be noted that Project grading and construction noise levels would also affect portions of the adjacent Playa Vista First Phase development that may be developed prior to the start of the Proposed Project construction. Specifically, Project grading and construction activities could occur within 200 feet of occupied Playa Vista First Phase project uses and generate noise levels of up to 85 dB(A) L_{eq} during grading and infrastructure, and 74.0 dB(A) L_{eq} during construction.

As Project construction activities would exceed ambient exterior noise levels by 5 dBA or more at a noise sensitive use, Project construction impacts are concluded to be significant.

3.4.2 Operational Noise Impacts

Noise impacts would result from operation of the Proposed Project after the Project's construction phase is completed. It is anticipated that activities occurring within the Habitat

[245] *Playa Capital Company, Los Angeles, CA, correspondence to Impact Sciences, Inc., October 20, 1998.*

Table 75

GRADING AND CONSTRUCTION NOISE LEVELS AT OFF-SITE NOISE SENSITIVE LOCATIONS[a,b]

Sensitive Receptor Location[c]	Existing Modeled Daytime Peak-Hour dB(A) L_{eq}	Const. Noise dB(A) L_{eq}	Total Daytime dB(A) L_{eq}	Increase in Noise	Impact [d]
Grading and Infrastructure Phase					
1. Loyola Marymount University Church	47.7	79.0	79.0	31.3	Significant
5. Single Family Residence at 6533 Hedding St.	59.2	69.0	69.4	10.2	Significant
6. Club Marina Apartments	68.8	83.0	83.2	14.4	Significant
13. Loyola Marymount University, West End	53.4	72.0	72.1	18.7	Significant
14. Single Family Residential Area/Kentwood Ct.	70.1	68.0	72.2	2.1	Not Significant
15. Playa del Rey Elementary School	61.9	79.0	79.1	17.2	Significant
Construction Phase					
1. Loyola Marymount University Church	47.7	68.0	0	20.3	Significant
5. Single Family Residence at 6533 Hedding St.	59.2	59.0	62.1	2.9	Not Significant
6. Club Marina Apartments	68.8	72.0	73.7	4.9	Not Significant
13. Loyola Marymount University, West End	53.4	61.0	61.7	8.3	Significant
14. Single Family Residential Area/Kentwood Ct.	70.1	58.0	70.4	0.3	Not Significant
15. Playa del Rey Elementary School	61.9	68.0	69.0	7.1	Significant

[a] *Exterior noise levels.*
[b] *Values rounded to the nearest tenth.*
[c] *Only those locations that would be affected by construction noise have been included.*
[d] *A significant impact occurs if Project construction activities exceed ambient exterior noise levels, averaged over a 1-hour period, by 5 dBA or more at a noise-sensitive use.*

Source: Impact Sciences, Inc. Calculation data and results are provided in the Noise Technical Appendix (Appendix H).

Creation/Restoration Component would not generate noise levels that would affect any off-site uses. Please refer to Section IV.D, Biotic Resources, for an analysis of potential noise effects upon the Project's Habitat Creation/Restoration Component attributable to development of the Project's Urban Development Component. Potential noise impacts attributable to the Project's Urban Development Component would primarily result from Project-generated vehicular traffic and the increased numbers of point sources located within the Project's Urban Development Component. Each of these potential noise impacts is discussed below.

3.4.2.1 Mobile Noise Sources

3.4.2.1.1 On-Site Impacts

3.4.2.1.1.1 Traffic Noise

Future (Year 2010) roadway noise levels for locations within the Proposed Project site are shown in Table 76 on page 573. These noise levels reflect future conditions with the addition of traffic generated by the Proposed Project. Based on the information presented in Table 76, on-site residential land uses located south of Jefferson Boulevard, and north of Bluff Creek Drive would be exposed to noise levels that exceed the 65 dB(A) CNEL "normally acceptable" Land Use Compatibility Guideline for multi-family residential noise utilized by the City. This would be a significant impact without mitigation.

3.4.2.1.1.2 Helicopter and Aircraft Noise

As part of the adjacent Playa Vista First Phase Project, up to two small helistops may be located east of the Project site. While the ultimate locations of these helistops are not known, a location southeast of the intersection of Jefferson Boulevard and Centinela Avenue represents the "worst case" scenario for potential impacts to on- and off-site sensitive receptors, based on the existing locations of the currently permitted helistops. The helistop could accommodate up to approximately 200 operations (takeoff or landing) per month during the daytime and evening hours; the Applicant has indicated that no nighttime flights would be scheduled (i.e., between 10 P.M. and 7 A.M.; see Appendix J for additional information). Noise levels associated with the helistop have been calculated by Heliport Consultants using the Heliport Noise Model database provided by the Federal Aviation Administration. The future helicopter noise levels are discussed below.

Various types of helicopters may use the approved helistop. They may range in size from light helicopters, represented by a single turbine engine Bell 206, to larger twin-engine models represented by a Sikorsky S76. In order to predict future noise levels for impact evaluation purposes and to provide conservative noise predictions, Heliport Consultants selected the larger type of helicopter for the analysis. Daily operations would typically involve approximately five helicopter operations. However, a peak day would involve up to 60 helicopter operations, of which 54 operations (90 percent) would occur during daytime hours and 6 (10 percent) would occur during evening hours (i.e., between 7 P.M. and 10 P.M.; see Appendix J for additional information). The normal day and peak day helicopter noise levels are illustrated in Figure 39 on page 574 and Figure 40 on page 575, respectively. Based on this information, none of the proposed uses within the Proposed Project would be exposed to noise levels that exceed the 65 dB(A) CNEL "normally acceptable" Land Use Compatibility Guideline for multi-family residential uses nor the 70 dB(A) CNEL "normally acceptable" Land Use Compatibility

Table 76

PREDICTED 2010 WITH PROJECT ROADWAY NOISE LEVELS WITHIN THE VICINITY OF THE PROJECT SITE [a]

ROADWAY · Segment	CNEL at 75 Feet [a]	Distance in Feet to Noise Level Contour [a]			
		75 CNEL	70 CNEL	65 CNEL	60 CNEL
24-HOUR TRAFFIC VOLUMES [b]					
JEFFERSON BOULEVARD					
· **Culver Blvd. to Lincoln Blvd.**	68.9	–	–	135	315
· **Lincoln Blvd. to Centinela Ave.**	69.6	–	–	152	360
BLUFF CREEK (formerly Teale)					
• **East of Lincoln**	67.4	–	–	123	375
· **West of Centinela**	67.1	–	–	115	350
PLAYA VISTA DRIVE					
· **South of Jefferson Blvd.**	64.2	–	–	–	132
McCONNELL					
· **South of Jefferson Blvd.**	58.7	–	–	–	–
WESTLAWN					
· **South of Jefferson Blvd.**	60.5	–	–	–	80
CENTINELA AVENUE					
· **South of Jefferson Blvd.**	66.0				160

- Noise contour is located off site and in roadway right-of-way.

[a] Distance is from center of roadway and is applicable to both sides of the roadway.

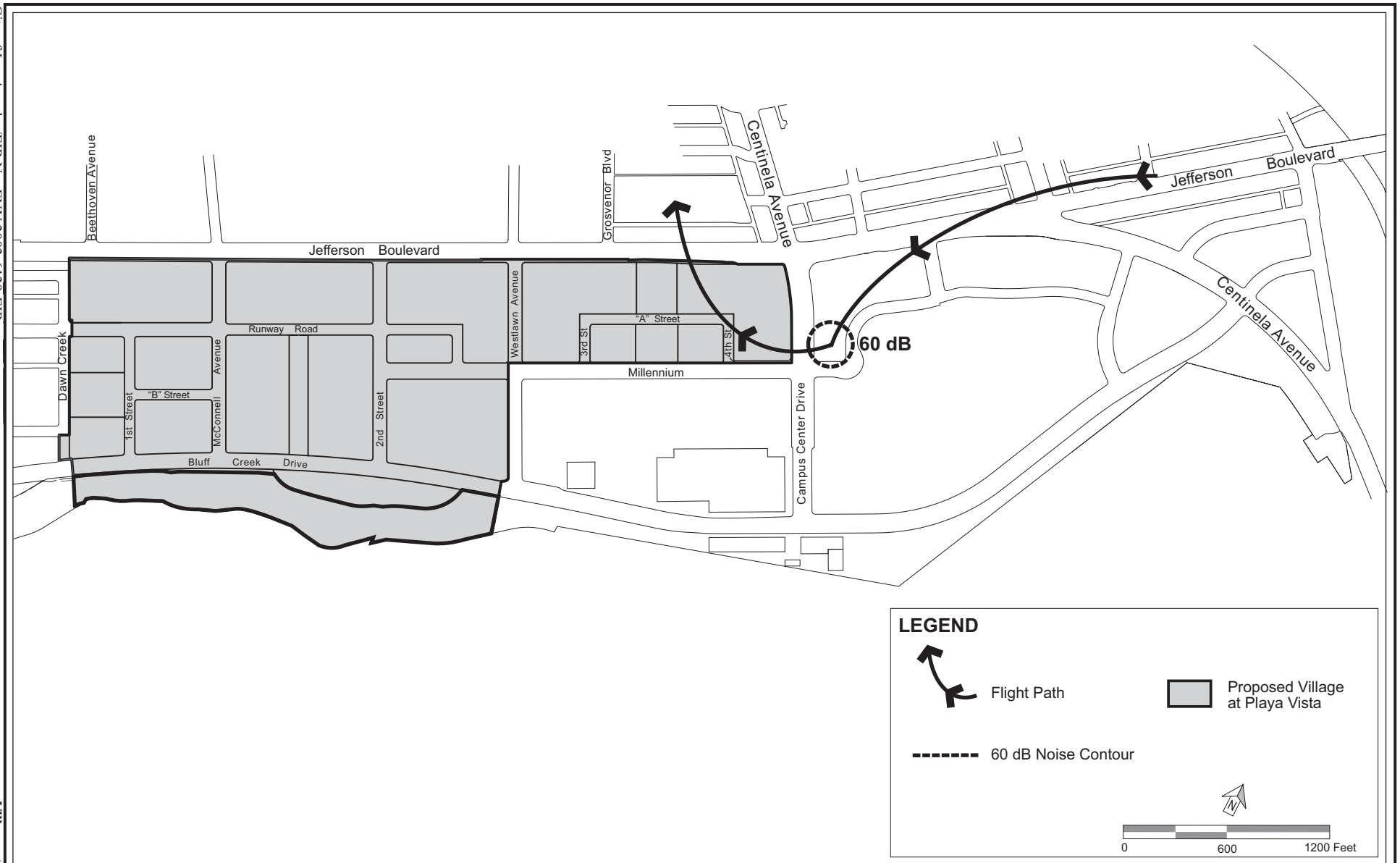
[b] Includes traffic volumes associated with the Proposed Project, the adjacent Playa Vista First Phase Project, and regional growth.

Source: Impact Sciences, Inc. Calculations are provided in Table N-7, in Noise Technical Appendix (Appendix H).

Guideline for office and commercial uses under either operations scenario. Therefore, helicopter noise would not cause a significant impact to on-site uses.

Helicopter noise would primarily affect land uses within a portion of the adjacent Playa Vista First Phase development. The effects of helicopter noise on the adjacent Playa Vista First Phase development and off-site locations were assessed as part of the Playa Vista First Phase and Master Plan EIR (September 1993). The Proposed Project would not result in any new helicopter noise impacts at these locations.

With regards to aircraft noise a Master Plan is presently being prepared for Los Angeles International Airport that incorporates provisions for expansion of the airport. It is estimated that the noise levels generated by the airport will increase in the future, but that the change in noise levels at areas as distant as the Proposed Project site will be very minor. The Proposed Project



PCR

Figure 39
Future 2010 Normal Day Helicopter Noise Levels (CNEL)

Source: Impact Sciences © 2002 and Heliport Consultats

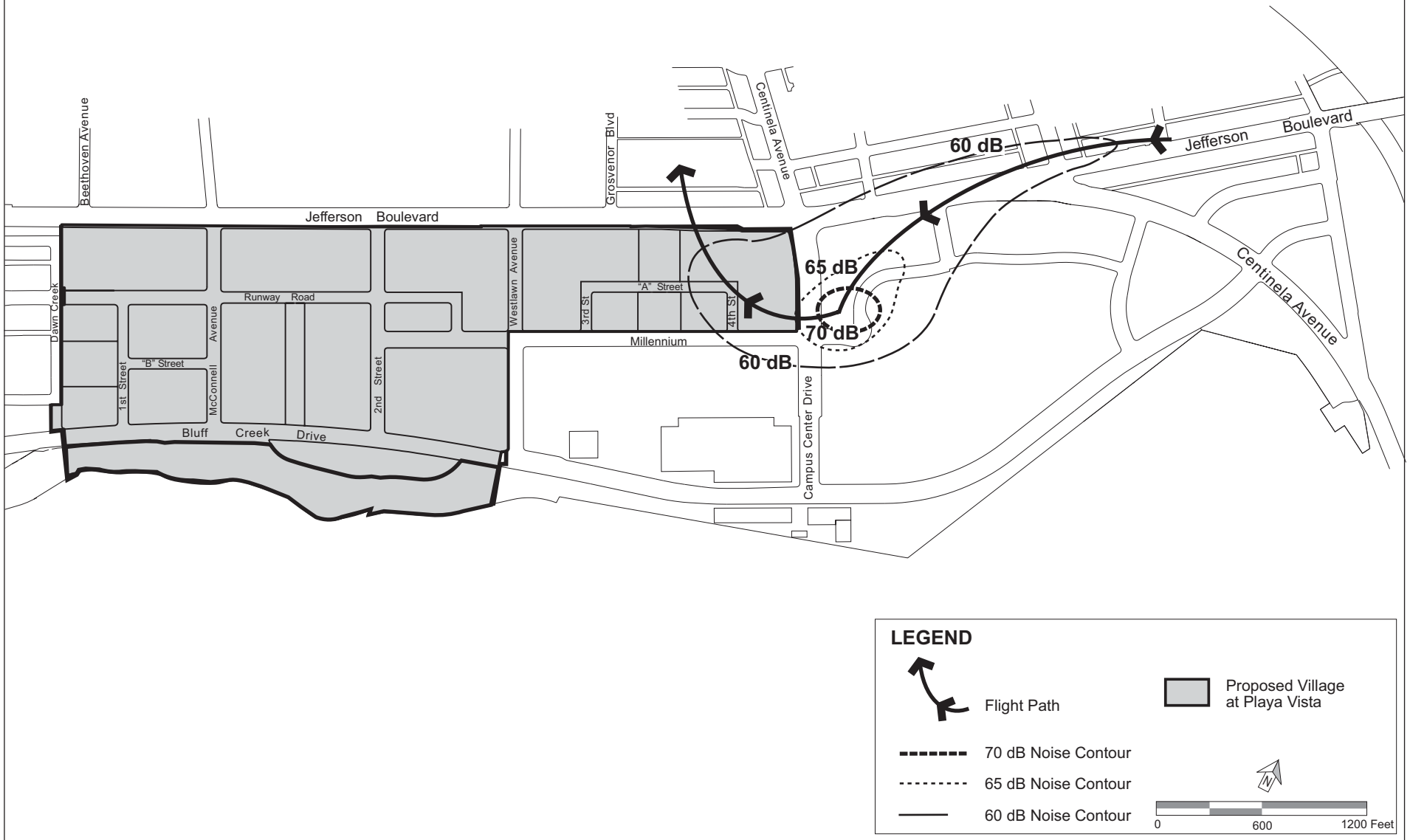


Figure 40
Future 2010 Peak Day Helicopter Noise Levels (CNEL)

Source: Impact Sciences © 2002 and Heliport Consultats

site is not currently located within the flight path of this airport and is not expected to be in the future. Vehicular traffic on roadways in the Project vicinity will continue to be the primary source of noise on the Project site.

3.4.2.1.2 Traffic Noise Impacts to Off-Site Noise Sensitive Locations

Project impacts to the representative noise receptor locations have been assessed for two scenarios: (1) the difference between existing roadway traffic volumes with and without the Project; and (2) the difference between the 2010 Baseline traffic noise levels with and without the Project. The noise levels that would be generated under these scenarios are identified in Table 77 on page 577.

As shown, the increase in noise levels at the study-area receptors would be up to 1.9 dB(A) CNEL under the Existing + Project scenario. None of the increases would exceed the thresholds of significance for operational noise. The Project's impacts would not be considered significant. Under the 2010 Baseline + Project scenario, noise levels would increase at the off-site locations by up to 0.6 dB(A) CNEL. These increases would not exceed the thresholds of significance and are not considered significant.

Two of the representative receptor locations are public elementary schools. Because these schools primarily operate during daytime hours, and because students are most sensitive to noise levels during daytime hours, peak traffic hour noise levels have been calculated for these two schools. The results of this analysis are shown in Table 78 on page 578. As shown, peak hour noise levels would increase by 0 and 0.7 dB(A) L_{eq} at the two schools under the Existing Project scenario. Peak hour noise levels would increase by no more than 0.6 dB(A) L_{eq} at the two schools under the 2010 Baseline + Project scenario. These increases would not exceed the thresholds of significance and are not considered significant.

3.4.2.2 Stationary Noise Sources

The Proposed Project would allow the development of residential, office, retail, and community serving uses. A large number of rooftop heating, ventilating and air conditioning (HVAC) units would be utilized for these uses. The City Noise Ordinance limits noise levels from such equipment to 50 dB(A) L_{eq} during the day (7 A.M. to 7 P.M.) and 40 dB(A) L_{eq} during the night (7 P.M. to 7 A.M.). Noise levels generated by rooftop HVAC units have been estimated for the representative receptor locations that are located with direct lines of sight to the Project site. These noise levels are identified in Table 79 on page 579 and are compared to the existing noise levels monitored at these locations. As shown, the HVAC operations within the

Table 77

ROADWAY TRAFFIC NOISE IMPACTS AT REPRESENTATIVE NOISE SENSITIVE LOCATIONS [a]

Sensitive Receptor Location	Modeled Existing Noise dB(A) CNEL	Existing + Project Noise dB(A) CNEL	Increase in Noise	Impact
1. Loyola Marymount University Church	48.4	50.3	1.9	Not Significant
2. Single Family Residence at 7439 Manchester Blvd.	65.2	65.2	0.0	Not Significant
3. Westchester Municipal Building and Rec. Center	59.1	59.5	0.4	Not Significant
4. Covenant Presbyterian Church	71.3	71.6	0.3	Not Significant
5. Single Family Residence at 6533 Hedding St.	60.3	60.7	0.4	Not Significant
6. Club Marina Apartments	69.5	70.1	0.6	Not Significant
7. Veterans Memorial Hospital	69.7	69.8	0.1	Not Significant
8. Washington Hospital	68.3	68.3	0.0	Not Significant
9. Daniel Freeman Hospital	63.9	64.0	0.1	Not Significant
10. Admiralty Park, Marina del Rey	67.3	67.4	0.1	Not Significant
11. Westminster Rec. Center/Senior Citizens Center	65.5	65.5	0.0	Not Significant
12. John Muir Elementary School	69.1	69.1	0.0	Not Significant
13. Loyola Marymount University, West End	53.8	54.4	0.6	Not Significant
14. Single Family Residential Area/Kentwood Ct.	71.1	71.2	0.1	Not Significant
15. Playa del Rey Elementary School	62.3	63.0	0.7	Not Significant
16. Villa Venetia Apartments	57.9	58.0	0.1	Not Significant
17. Villa Marina Residential Development	61.4	61.6	0.2	Not Significant

Sensitive Receptor Location	2010 Baseline Noise [b] dB(A) CNEL	Baseline + Project Noise dB(A) CNEL	Increase in Noise	Impact
1. Loyola Marymount University Church	53.1	53.7	0.6	Not Significant
2. Single Family Residence at 7439 Manchester Blvd.	67.1	67.1	0.0	Not Significant
3. Westchester Municipal Building and Rec. Center	60.1	60.5	0.4	Not Significant
4. Covenant Presbyterian Church	73.4	73.5	0.1	Not Significant
5. Single Family Residence at 6533 Hedding St.	61.8	62.1	0.3	Not Significant
6. Club Marina Apartments	70.6	71.1	0.5	Not Significant
7. Veterans Memorial Hospital	70.8	70.8	0.0	Not Significant
8. Washington Hospital	69.2	69.2	0.0	Not Significant
9. Daniel Freeman Hospital	64.9	65.0	0.1	Not Significant
10. Admiralty Park, Marina del Rey	68.3	68.3	0.0	Not Significant
11. Westminster Rec. Center/Senior Citizens Center	66.8	66.8	0.0	Not Significant
12. John Muir Elementary School	68.9	69.4	0.5	Not Significant
13. Loyola Marymount University, West End	56.8	57.1	0.3	Not Significant
14. Single Family Residential Area/Kentwood Ct.	71.6	71.7	0.1	Not Significant
15. Playa del Rey Elementary School	63.5	64.1	0.6	Not Significant
16. Villa Venetia Apartments	58.8	59.0	0.2	Not Significant
17. Villa Marina Residential Development	62.4	62.5	0.1	Not Significant

[a] *Exterior 24-hour CNEL noise levels.*
[b] *Includes traffic volumes associated with the adjacent Playa Vista First Phase Project and regional growth.*

Source: Impact Sciences, Inc. Calculations are provided in Tables N-9, N-10, N-11, N-12, and N-13 in the Noise Technical Appendix (Appendix H).

Table 78

PEAK TRAFFIC HOUR ROADWAY NOISE IMPACTS AT PUBLIC ELEMENTARY SCHOOLS [a]

Sensitive Receptor Location	Existing Noise dB(A) L_{eq}	Existing + Project Noise dB(A) L_{eq}	Increase in Noise	Impact
12. John Muir Elementary School	68.9	68.9	0.0	Not Significant
15. Playa del Rey Elementary School	61.9	62.6	0.7	Not Significant
Sensitive Receptor Location	**2010 Baseline Noise dB(A) L_{eq}**	**Baseline + Project Noise dB(A) L_{eq}**	**Increase in Noise**	**Impact**
12. John Muir Elementary School	68.6	69.1	0.5	Not Significant
15. Playa del Rey Elementary School	62.9	63.5	0.5	Not Significant

[a] *Exterior noise levels.*

Source: Impact Sciences, Inc. Calculations are provided in Tables N-9 and N-10 in the Noise Technical Appendix (Appendix H).

Project site would not increase noise levels at four of the six surrounding noise sensitive land uses. Consequently, the noise impacts at these locations would not be significant. The 0.9 and 0.7 dB(A) L_{eq} increase in noise levels at Loyola Marymount University would be less than 5.0 dB(A) and, consequently, not exceed the City's threshold of significance for operational noise sources.

Noise would also be generated by human activity within the Project site. This would occur in the form of people talking, doors slamming and tires squealing, truck deliveries, truck deliveries, landscape maintenance equipment operation, stereos, domestic animals, etc. Noise levels associated with these sources would not increase ambient noise levels by 5.0 dB(A) and would not be significant.

3.4.2.3 Composite Noise

The most meaningful assessment of Project noise impacts is one that considers the combined effect of all individual noise sources. Table 80 on page 579 identifies the composite noise levels at the representative noise sensitive receptor locations based on the projected future roadway noise levels identified previously in Table 77 and the mechanical equipment identified in Table 79. As shown, noise levels would increase at the off-site locations by 0 to 1.9 dB(A) CNEL. These increases would not exceed the operational thresholds of significance and are not considered significant.

Table 79

MECHANICAL EQUIPMENT (HVAC) NOISE LEVELS AT OFF-SITE NOISE SENSITIVE LOCATIONS [a]

Sensitive Receptor Location	Existing Daytime dB(A) L_{eq}	HVAC Noise dB(A) L_{eq}	Total Daytime dB(A) L_{eq}	Increase in Noise	Impact
1. Loyola Marymount University Church	48.4	42.0	49.3	0.9	Not Significant
5. Single Family Residence at 6533 Hedding St.	59.2	39.0	59.2	0.0	Not Significant
6. Club Marina Apartments	68.8	31.0	68.8	0.0	Not Significant
13. Loyola Marymount University, West End	53.4	46.0	54.1	0.7	Not Significant
14. Single Family Residential Area/Kentwood Ct.	70.1	35.0	70.1	0.0	Not Significant
15. Playa del Rey Elementary School	61.9	29.0	61.9	0.0	Not Significant

[a] *Exterior noise levels.*

Source: Impact Sciences, Inc.

3.4.3 Equivalency Program Impacts

The preceding noise analysis addressed potential impacts attributable to Project construction as well as during operations from the following sources individually as well as collectively: (1) mobile sources; (2) helicopter and aircraft noise; and (3) stationary noise sources. The proposed Equivalency Program allows for specific limited exchanges in the types of land uses occurring within the Project's Urban Development Component. No changes are proposed under the Equivalency Program to the Project's Habitat Creation/Restoration Component.

The exchange of office uses for retail and/or assisted living units would be accomplished within the same building parameters, and would occur at relatively limited locations within the Project site. Furthermore, under the Equivalency Program, there would be no substantial variation in the Project's street configurations, building pad elevations, or the depth of excavation. Potential changes in land use under the Equivalency Program would therefore have no substantial effect because only the use is changing. As a result, the amount and types of construction equipment operating at the Project site under peak construction activity levels would be the same for the Equivalency Program and the Proposed Project, although there may be minor differences in the overall duration of construction activities due to the limited changes in the amount of development that could occur. Therefore, the Equivalency Program, as is the case with the Proposed Project, would result in significant impacts as construction activities would exceed ambient exterior noise levels by five dBA or more at a noise sensitive use. In addition, development under the Equivalency Program would not cause or exacerbate any construction noise impacts that would occur under the Proposed Project.

Table 80

COMPOSITE NOISE IMPACTS AT REPRESENTATIVE NOISE SENSITIVE LOCATIONS [a]

Sensitive Receptor Location	2010 Baseline Noise [b] dB(A) CNEL	Baseline + Composite Project Noise dB(A) CNEL	Increase in Noise	Impact
1. Loyola Marymount University Church	53.1	54.9	1.8	Not Significant
2. Single Family Residence at 7439 Manchester Bl.	67.1	67.1	0.0	Not Significant
3. Westchester Municipal Building and Rec. Center	60.1	60.5	0.4	Not Significant
4. Covenant Presbyterian Church	73.4	73.5	0.1	Not Significant
5. Single Family Residence at 6533 Hedding St.	61.8	62.2	0.4	Not Significant
6. Club Marina Apartments	70.6	71.1	0.5	Not Significant
7. Veterans Memorial Hospital	70.8	70.8	0.0	Not Significant
8. Washington Hospital	69.2	69.2	0.0	Not Significant
9. Daniel Freeman Hospital	64.9	65.0	0.1	Not Significant
10. Admiralty Park, Marina del Rey	68.3	68.3	0.0	Not Significant
11. Westminster Rec. Center/Senior Citizens Center	66.8	66.8	0.0	Not Significant
12. John Muir Elementary School	68.9	69.4	0.5	Not Significant
13. Loyola Marymount University, West End	56.8	58.4	1.6	Not Significant
14. Single Family Residential Area/Kentwood Ct.	71.6	71.7	0.1	Not Significant
15. Playa del Rey Elementary School	63.5	64.1	0.6	Not Significant
16. Villa Venetia Apartments	58.8	59.0	0.2	Not Significant
17. Villa Marina Residential Development	62.4	64.3	1.9	Not Significant

[a] *Exterior noise levels.*
[b] *Includes traffic volumes associated with the adjacent Playa Vista First Phase Project and regional growth.*

Source: Impact Sciences, Inc.

Potential mobile source noise impacts during operations under the Equivalency program would be comparable to those of the Proposed Project as the trip generation and trip distribution characteristics of the Equivalency Program and the Proposed Project would also be comparable. There would also be no change in potential noise impacts from helicopter or airport operations or from on-site stationary noise sources as only the uses at a limited number of locations would change. As all three categories of noise sources would be the same under the Proposed Project and the Equivalency Program, composite noise levels would be similarly unchanged. Therefore, the Equivalency Program, as is the case with the Proposed Project, would result in less-than-significant operational noise impacts.

All Project Design Features (as discussed in Subsection 3.3 above) and/or recommended mitigation measures (discussed in Subsection 4.0, Mitigation Measures, below) to minimize noise impacts under the Proposed Project would be implemented, as appropriate, under the Equivalency Program. Consequently, noise impacts attributable to the Equivalency Program would be comparable to the Proposed Project. Specifically, construction noise impacts would be

significant and operational noise impacts would be less than significant under the Proposed Project as well as the Equivalency Program.

3.4.4 Impacts of Off-Site Improvements

Proposed Project development could result in secondary impacts arising from implementation of the Project's mitigation measures, as well as the direct impacts described above. Mitigation measures within Section IV.K.(1), Traffic and Circulation, require physical improvements in transportation facilities at numerous locations including roadway widening at seven locations, as described in Subsection 5.8 of that Section. In addition, as discussed in Section IV.N.(1), Water Consumption, the Proposed Project would require the construction of a water regulator station in the vicinity of Jefferson Boulevard and Mesmer Avenue.

These infrastructure improvements would reduce the traffic and water utility impacts of the Proposed Project. They would not add new population to the area, nor add buildings to the area.

3.4.4.1 Construction

Construction of the off-site improvements, however, would result in short-term noise impacts resulting from demolition of existing pavement and curbs, the laying of road bed and pavement, clearing and grubbing of vegetated areas, and the construction of new curbs and sidewalks. There would also be noise associated with the delivery and hauling of construction materials to the site, hauling of demolition debris, and operations of construction equipment.

Noise levels generated by heavy-duty construction equipment can range from approximately 68 dBA L_{eq} to over 95 dBA L_{eq} when measured at 50 feet from the source. Noise levels above 75 dBA L_{eq} would exceed City of Los Angeles Noise Ordinance standards. The application of technically feasible mitigation measures, per the provisions of the City's Noise Ordinance, would reduce potential construction noise impacts, and eliminate any violations of the City's Noise Ordinance. These measures would limit the hours of construction activity. Mitigation measures to limit noise impacts are listed below.

Increases in noise from the construction of the proposed off-site improvements would also result in a temporary increase in existing noise levels in the area that is comparable to similar construction projects. Depending on the types and numbers of equipment being used, the construction activities could increase noise levels at nearby sensitive uses, such as single and multi-family residences at several locations and the St. Gerard Majella School at the intersection of Culver Boulevard and Inglewood Boulevard, by more than 5 dBA L_{eq}. This would be a significant impact. Conventional mitigation measures are expected to reduce potential

construction noise impacts to some extent. Work adjacent to the school could be scheduled for non-school hours. However, temporary construction noise levels would occasionally remain significant.

3.4.4.2 Operations

Implementation of off-site improvements would facilitate increased traffic flow on roadways and intersections in the Project area. Increases in vehicular traffic at these locations could alter the existing noise environment at some locations. Of the various roadway widenings, the Centinela Avenue Corridor would include construction adjacent to the front yards of residential units, which are considered to be sensitive receptors. Roadway improvements along Centinela Avenue could potentially affect noise levels at nearby residences by allowing for faster travel by automobiles, or by moving the travel lanes closer to the residential units. The roadway speeds are currently controlled by speed limits and would continue to be in the future. Therefore, speed levels are not expected to increase notably with the improvements. Placing the roadways closer to the units would increase the noise levels, but the increases would be less than 3 dBA. (As a general rule, the distance between a sound source and a receptor would need to be halved to cause a 3 dBA increase. The proposed relocations of the traffic lanes is only a fraction of that.) This magnitude of noise would not be audible to sensitive receptors located proximal to off-site improvements and, therefore, impacts are not considered significant.

The off-site roadway improvements at the remaining locations facilitate turning movements at the intersections, but do not include larger roadways over which speed could be increased. Any increases in noise levels would be negligible at these locations.

Mitigation measures to address the impacts of construction noise at the off-site locations are identified below. Measures based on the provisions of the Los Angeles Municipal Code would be applicable to the off-site improvements as well as the Proposed Project. It is recommended that improvements in other jurisdictions, e.g. Culver City, follow equivalent procedures, per their existing regulations and standard practices for reducing construction noise impacts.

4.0 MITIGATION MEASURES

4.1 Construction Noise

Mitigation Measure for the Proposed Project and the Equivalency Program

- Prior to the issuance of any grading, excavation, foundation, or building permits, the Applicant shall provide proof satisfactory to the Advisory Agency that all construction documents require contractors to comply with Los Angeles Municipal Code Section 41.40 which requires all construction and demolition activity located within 500 feet of a residence to occur between 7 A.M. and 6 P.M. Monday through Friday and 8 A.M. and 6 P.M. on Saturday, and that a noise management plan for compliance and verification has been prepared by a monitor retained by the Applicant. At a minimum, the plan shall include the following requirements:

  – Pile drivers used in proximity to sensitive receptors shall be equipped with noise control having a minimum quieting factor of 10 dB(A);

  – Loading and staging areas must be located on site and away from the most noise-sensitive uses surrounding the site as determined by the Advisory Agency;

  – Program to maintain all sound-reducing devices and restrictions throughout the construction phases;

  – An approved haul route authorization that avoids noise-sensitive land uses to the maximum extent feasible; and

  – Identification of the noise statutes compliance/verification monitor, including his/her qualifications and telephone number(s).

Additional Construction Mitigation for the Off-Site Improvements

- All construction and demolition activity located within 500 feet of a residence shall occur between 7 A.M. and 6 P.M. Monday through Friday and 8 A.M. and 6 P.M. on Saturday.

- Contractors shall ensure that construction equipment is fitted with modern sound-reduction equipment.

- When construction operations occur adjacent to occupied residential areas, the contractor shall implement all technically feasible mitigation measures, pursuant to the LAMC, that include, but are not limited to, changing the location of stationary construction equipment, shutting off idling equipment, notifying adjacent residences

in advance of construction work, and installing temporary acoustic barriers around stationary construction noise sources.

- Haul routes that avoid noise-sensitive land uses shall be utilized to the maximum extent feasible.

4.2 Operational Noise

Mitigation Measures for the Proposed Project and the Equivalency Program

- Construct all exterior walls, floor-ceiling assemblies (unless within a unit) and windows having a line of sight (30 degrees measured from the horizontal plane) of Jefferson Boulevard and Bluff Creek with double-paned glass or an equivalent and in a manner to provide an airborne sound insulation system achieving a Sound Transmission Class of 50 (45 if field tested) as defined in the UBC Standard No. 35-1, 1982 edition. Advisory Agency sign-off shall be required prior to obtaining a building permit. The subdivider, as an alternative, may retain an engineer registered in the State of California with expertise in acoustical engineering, who shall submit a signed report for an alternative means of sound insulation satisfactory to the Advisory Agency which achieves a maximum interior noise of CNEL 45 (Residential).

- All HVAC and related rooftop mechanical equipment shall be installed in accordance with Los Angeles Municipal Code Section XI. Prior to issuance of certificates of occupancy for each building, an acoustical inspection shall be performed for each building to ensure building compliance with applicable interior and exterior noise criteria as specified by the City of Los Angeles Municipal Code Section XI.

5.0 UNAVOIDABLE ADVERSE IMPACTS

The mitigation measures recommended in this section would reduce the noise levels associated with grading and construction activities attributable to the Project, Equivalency Program and the identified off-site improvements to some extent. However, these activities would continue to substantially increase the daytime noise levels at nearby noise-sensitive uses by more than 5.0 dB(A) L_{eq}. This would be considered a significant and unavoidable short-term impact when grading and construction activities associated with the Project, Equivalency Program, or the off-site improvements occur near noise sensitive uses.

The mitigation measures recommended in this section would ensure that roadway and HVAC noise at the Project site would meet adopted City standards. No significant impacts associated with helicopter noise, off-site traffic noise, or composite noise levels would occur.

This conclusion applies to the Project, Equivalency Program, and the construction of the Project's off-site improvements.

6.0 CUMULATIVE IMPACTS

Cumulative construction noise impacts occur when one or more related projects or the Project's off-site traffic improvements, are located in close proximity to the Project site. Construction activities occurring at related projects and off-site improvements that do not meet this criterion would be located sufficiently distant to the Project site so as to not contribute to a cumulative effect. The only related project that meets the criterion for potential cumulative impacts is the adjacent Playa Vista First Phase Project, assuming that construction of this related project is not completed before start of Proposed Project construction. In the event that construction of the Proposed Project, inclusive of the Equivalency Program, is occurring concurrently with construction of the adjacent Playa Vista First Phase Project, cumulative impacts would be significant because Proposed Project impacts are significant unto themselves and Playa Vista First Phase Project construction would generate construction noise levels that are comparable to those generated by the Proposed Project.

Cumulative noise impacts would also occur as a result of increased traffic on local roadways due to the Proposed Project, inclusive of the Equivalency Program, and other developments in the Project study area. The implementation of the Project's off-site improvements would not affect traffic volumes or travel speeds and thus would not contribute to any cumulative impact during Project operations. Therefore, cumulative noise level impacts have been assessed for the off-site locations in the Project vicinity based on the difference between noise generated by existing traffic volumes and traffic volumes projected for the future buildout of the Project and the identified related projects. It should be noted that future on-site noise contours were also modeled to determine cumulative on-site impacts, which was provided earlier in Table 76 on page 573. The noise levels that would be generated by these traffic volumes adjacent to the study area noise sensitive land uses, and the difference between existing and future noise levels, are identified in Table 81 on page 586.

As shown, the increase in noise levels at the study-area receptors would range from 0.3 to 5.3 dB(A) CNEL. Noticeable increases of 3.0 dB(A) or more would occur at locations 1 and 13. The impact at location 13 would not be significant because the resulting noise levels would not exceed the "normally acceptable" noise standards for the land uses located in proximity to this location. The impact at location 1, although below the 65 dB(A) CNEL threshold level would, however, be significant as the resulting change would exceed the 5 dB(A) CNEL threshold. The noise level increases at all other locations would be less than 3.0 dB(A) and would not exceed the operational thresholds of significance. Therefore, the Proposed Project, inclusive of the Equivalency Program, and the development of the related projects would result in a significant cumulative mobile source noise impact.

Table 81

CUMULATIVE OPERATIONAL NOISE IMPACTS AT NOISE SENSITIVE LOCATIONS WITH PROJECT

Sensitive Receptor Locations	Existing Noise dB(A) CNEL	2010 Baseline [a] + Project dB(A) CNEL	Increase in Noise	Impact
1. Loyola Marymount University Church	48.4	53.7	5.3	Significant
2. Single Family Residence at 7439 Manchester Bl.	65.2	67.1	1.9	Not Significant
3. Westchester Municipal Building and Rec. Center	59.1	60.5	1.4	Not Significant
4. Covenant Presbyterian Church	71.3	73.5	2.2	Not Significant
5. Single Family Residence at 6533 Hedding St.	60.3	62.1	1.8	Not Significant
6. Club Marina Apartments	69.5	71.1	1.6	Not Significant
7. Veterans Memorial Hospital	69.7	70.8	1.1	Not Significant
8. Washington Hospital	68.3	69.2	0.9	Not Significant
9. Daniel Freeman Hospital	63.9	65.0	1.1	Not Significant
10. Admiralty Park, Marina del Rey	67.3	68.3	1.0	Not Significant
11. Westminster Rec. Center/Senior Citizens Center	65.5	66.8	1.3	Not Significant
12. John Muir Elementary School	69.1	69.4	0.3	Not Significant
13. Loyola Marymount University, West End	53.8	57.1	3.3	Noticeable but Not Significant [b]
14. Single Family Residential Area/Kentwood Ct.	71.1	71.7	0.6	Not Significant
15. Playa del Rey Elementary School	62.3	64.1	1.8	Not Significant
16. Villa Venetia Apartments	57.9	59.0	1.1	Not Significant
17. Villa Marina Residential Development	61.4	62.5	1.5	Not Significant

[a] *Includes traffic volumes associated with the adjacent Playa Vista First Phase project and regional growth.*
[b] *Significant noise increase but resulting noise level is within the "normally acceptable" noise standard for the analyzed land use.*

Source: PCR Services Corporation. Calculations are provided in Tables N-9 and N-12 in the Noise Technical Appendix (Appendix H).

Two of the representative receptor locations are public elementary schools. Because these schools primarily operate during daytime hours, and because students are most sensitive to noise levels during daytime hours, cumulative traffic peak traffic hour noise levels have also been calculated for the two representative receptor locations that are public elementary schools. The results of this analysis are shown in Table 82 on page 587. As shown, peak hour noise levels would increase by 0.2 and 1.6 dB(A) L_{eq} at the two schools with the addition of cumulative development traffic. Both increases in cumulative noise levels would not exceed the operational thresholds of significance and therefore, cumulative impacts of the Project, inclusive of the Equivalency Program, would not be significant.

Table 82

CUMULATIVE PEAK TRAFFIC HOUR ROADWAY NOISE IMPACTS AT PUBLIC ELEMENTARY SCHOOLS

Sensitive Receptor Locations	Existing Noise dB(A) L_{eq}	2010 Baseline [a] + Project dB(A) L_{eq}	Increase in Noise	Impact
12. John Muir Elementary School	68.9	69.1	0.2	Not Significant
15. Playa del Rey Elementary School	61.9	63.5	1.6	Not Significant

[a] *Includes traffic volumes associated with the adjacent Playa Vista First Phase project and regional growth.*

Source: Impact Sciences, Inc. Calculations are provided in Tables N-9 and N-10 in the Noise Technical Appendix (Appendix H).

As the Proposed Project does not involve any helicopter facilities, other than those required by the Los Angeles Municipal Code for emergency purposes, cumulative noise impacts from helicopter operations would not occur. With regard to stationary noise sources (e.g., HVAC equipment), each related project would be required to comply with the provisions of the Los Angeles Municipal Code. Given the stringent noise limitations set forth in the Los Angeles Municipal Code, cumulative stationary source noise impacts would be less than significant as cumulative noise levels from this particular noise source would be below ambient noise levels and therefore would not be discernible in the context of the community noise environment. Cumulative composite noise impacts would be the same, and thus significant, as those generated by cumulative mobile sources, as described above, since this would be the dominant noise source in the area. Based on these analyses, development of the Proposed Project, inclusive of the Equivalency Program and the identified off-site improvements, in conjunction with the development of the identified related projects would result in significant cumulative noise impacts.

IV. ENVIRONMENTAL IMPACT ANALYSIS
F. LIGHT AND GLARE
(1) NATURAL LIGHT-SHADING

1.0 INTRODUCTION

This section of the EIR addresses the blockage of direct sunlight by buildings on adjacent uses. The analysis is based on how long uses, which contain routinely useable outdoor spaces, have expectations for sunlight for light, warmth, and overall quality of life are shaded. These uses are termed "shadow sensitive." Uses typically considered shadow sensitive include: swimming pools, tanning areas and solar collectors. Other uses that may be shadow sensitive include residential and recreation areas. Whether shading of such uses is in fact adverse, or even beneficial, is dependent on the specific activities being performed and the expectations of the population.

This Project site also includes a riparian habitat corridor and bluff faces which may be sensitive to shading effects. The potential effects of development on wildlife and plants, if any were to occur, would result from complex issues pertaining to individual species within a habitat, the interplay of many ecosystem factors, and the interplay of multiple development effects arising from artificial light, proximity of human beings and buildings, as well as shading. Accordingly, this shading analysis considers whether shading would occur on habitat areas, and by extension, whether shading effects on habitat, if they were to occur, need to be considered in other sections of the EIR.

The analysis addresses the impacts that would occur for the Project as Proposed, for the Project's Equivalency Program and for the Project's secondary impacts that would occur from the implementation of the Project's off-site mitigation measures.

2.0 SETTING

2.1 Regulatory Framework

Shading policies affecting the Proposed Project site are included in the Playa Vista Area D Specific Plan, Ordinance 165,639 (170,785 as amended, 1996). Section 7.B.1.b. states the following:

"All proposed buildings shall be designed so as not to cast shadows on any residential development adjacent to the Specific Plan Area between the hours of 9 A.M., and 3 P.M. at the spring equinox."

2.2 Existing Conditions

The existing land uses in the vicinity of the Project Site that are potentially sensitive are shown on Figure 41 on page 590. The portion of the adjacent Playa Vista First Phase Project located immediately west of the Proposed Project site is currently vacant. The nearest Playa Vista First Phase Project residential units are located approximately ¼ mile west of the Proposed Project site. The Playa Vista First Phase Project area immediately to the east of the Proposed Project site includes vacant areas and the former Hughes Plant site, which is a non-sensitive shadow use.

Existing off-site shadow sensitive uses that are located to the north of the Proposed Project include the Club Marina Apartments, Playa Marina Apartments, and an unnamed apartment building in a cluster to the west of Centinela Avenue. These apartments consist of three story buildings located between Grosvenor Boulevard and Centinela Avenue on the north side of Jefferson Boulevard, approximately 125 feet north of the Project site. Also, the City of Los Angeles residential neighborhood of Del Rey is located east and west of Centinela Avenue, north of Jefferson Boulevard. Playa Del Rey Elementary School is located at the southwest corner of the Del Rey neighborhood on Centinela Avenue.

Other off-site shadow sensitive uses are located to the south of the Project site. These include the Westchester single-family neighborhood and Loyola Marymount University (LMU). The Westchester residential neighborhood consists primarily of one- and two-story single family detached units. LMU consists of academic, dormitory and office buildings up to approximately five stories, playing fields and outdoor activity areas. Both the Westchester residential neighborhood and LMU are separated from the Proposed Project site by both distance and elevation as they sit atop the Westchester Bluffs. This neighborhood and the University are both located a minimum of approximately 200 feet from, and 125 feet above, the Proposed Project site.

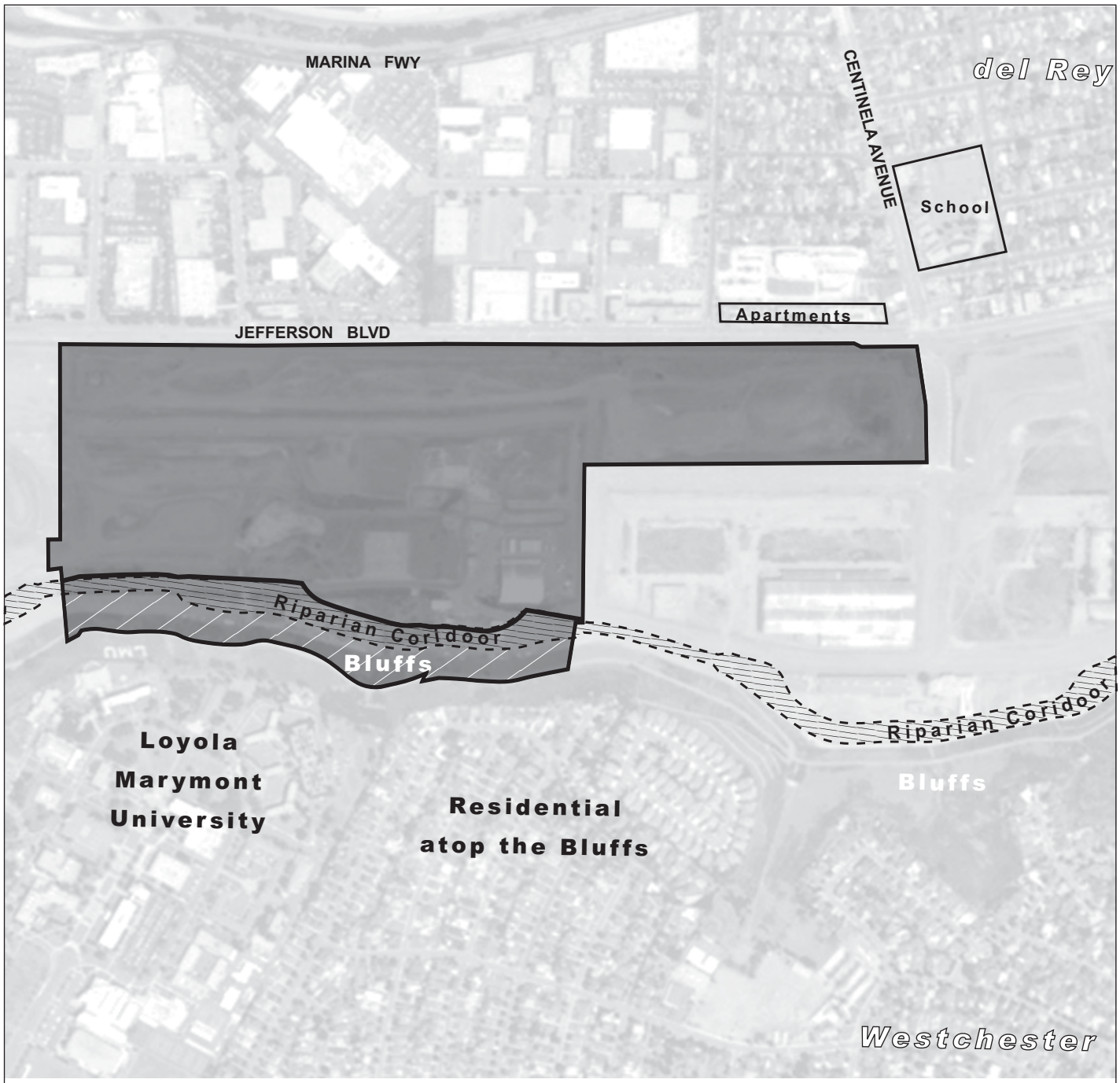


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Figure 41
Existing Sensitive Uses

Source: Los Angeles City Public Library, 1996

3.0 IMPACT ANALYSIS

3.1 Methodology

Shadows are a function of the season, latitude and longitude, the height and shape of the structure casting the shadow, and topography. Due to the earth's rotation and annual revolution around the sun, the sun's position relative to any structure is constantly changing throughout the annual cycle. Consequently, shadows cast by a structure change substantially during the day, and from day to day throughout the year. Early morning shadows are quite long in westerly directions, shortening into northerly midday directions as the sun moves from an eastern rise to a southern zenith, then gradually lengthening into easterly directions as the sun approaches its late afternoon or evening setting location in the west. In winter, when the period of sunlight is shorter and the sun is lower in the sky, shadows are uniformly longer than in summer for the same time of day.

The analysis of potential shading impacts is based on the maximum potential height of buildings in the Proposed Project, the length of shadow that would be cast by the potential buildings, and the relation of the shadow to sensitive uses. The shading diagrams illustrate the shadow patterns that would occur from proposed development. Since no specific buildings are currently proposed for the Project site, the analysis evaluates the shading effects from building envelopes defined by the maximum height and minimum setbacks proposed on an individual lot. This produces a shadow effect that is equal to the greatest shadow impact that might occur from Project buildings. However, the Proposed Project includes additional limitations on the amount of development and lot coverage permitted and maximum floorplate restrictions associated with the height limit on each lot. Thus the analysis of building envelopes results in a conservative analysis since the actual shading likely to occur, would be less than that analyzed.

A sample shading diagram is shown in Figure 42 on page 592. The sample diagram illustrates the maximum shading that could occur from a fully developed building envelope. As indicated, the diagram displays the building envelope, with shadows extending and represented in grey. Shadows are shown for three times of the day in increasing greytone densities. An arc connects the outermost corner of the three shadows to illustrate the movement of the shadow during the day as the sun moves across the sky. The diagram also indicates the proposed use and maximum building height associated with the building envelope.

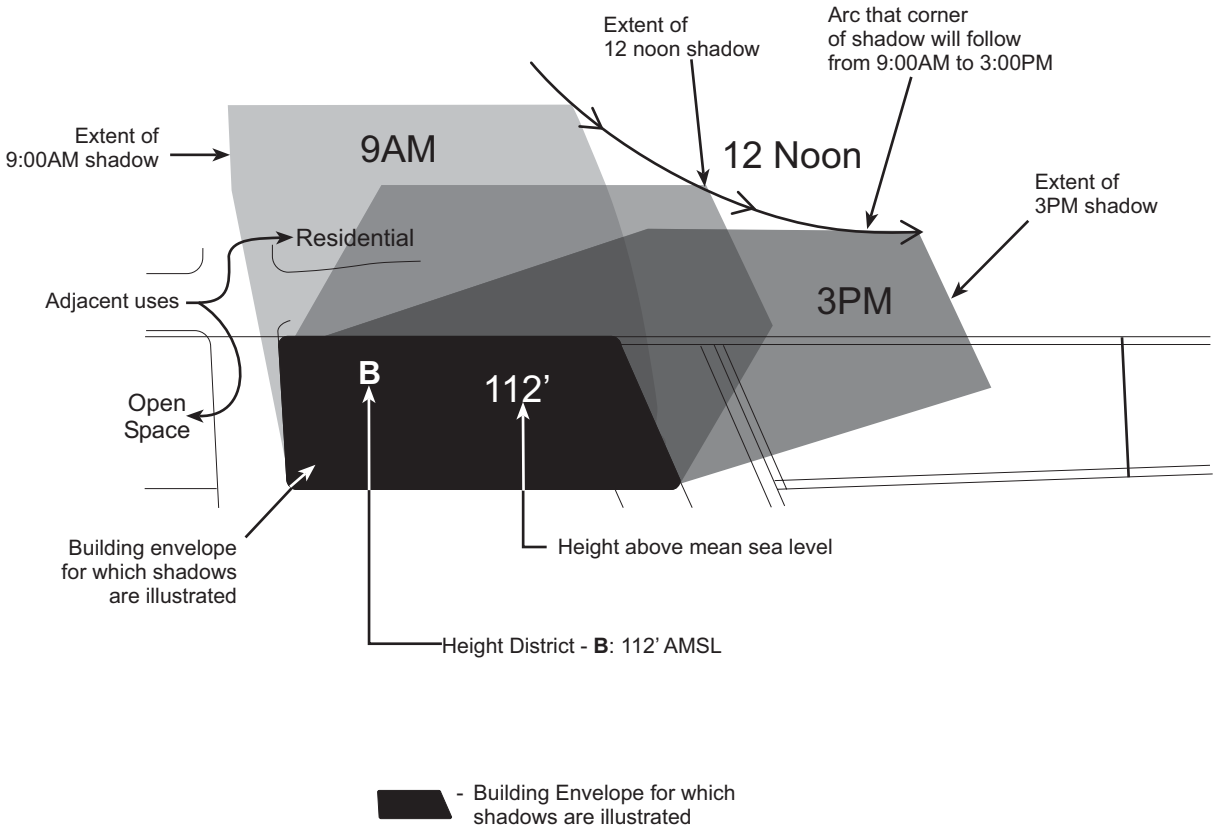

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Figure 42
Sample Shading Diagram

Source: PCR Services Corporation, 2003

The diagrams were prepared for the following seasons and times:

- Winter Solstice December 21 9:00 A.M. to 3:00 P.M.
- Spring/Fall Equinox March 20/September 23 9:00 A.M. to 3:00 P.M.
- Summer Solstice June 21 9:00 A.M. to 5:00 P.M.

The dates selected represent the extreme shadows which can occur over a year's time. The spring/fall equinoxes were also chosen because they are the reference times in City policies which regulate shading. The times of day selected for each of the seasons reflects times of the day when expectations for access to the sun typically occur.

The shading diagrams were prepared for three locations around the Proposed Project site, inclusive of locations closest to the shadow-sensitive uses. The locations were selected to illustrate the shadow impacts on all of the sensitive uses surrounding the Project site, and on typical on-site uses. Each diagram has been interpreted by measuring the proportionate shading coverage during the time intervals to determine whether or not shadows would extend to off-site sensitive locations, and the duration of any shading which would occur. The shading durations are then summarized in a tabular format.

3.2 Significance Thresholds

The City of Los Angeles Draft CEQA Thresholds Guide (1998, p.L.3-2) states:

- A project impact would normally be considered significant if shadow-sensitive uses would be shaded by project-related structures for more than three hours between the hours of 9:00 A.M. and 3:00 P.M. Pacific Standard Time (between late October and early April), or for more than four hours between the hours of 9:00 A.M. and 5:00 P.M. Pacific Daylight Time (between early April and late October).[246]

The following building standard established in the existing Area D Specific Plan (Section 7.B.1.b) has been included as an additional threshold:

- A Project impact would be considered significant if a proposed building or structure casts shadows on any residential development adjacent to the (Area D) Specific Plan Area between the hours of 9 A.M. and 3 P.M. at the spring equinox.

[246] *Time durations refer to the total amount of time within the hours indicated.*

3.3 Project Design Features

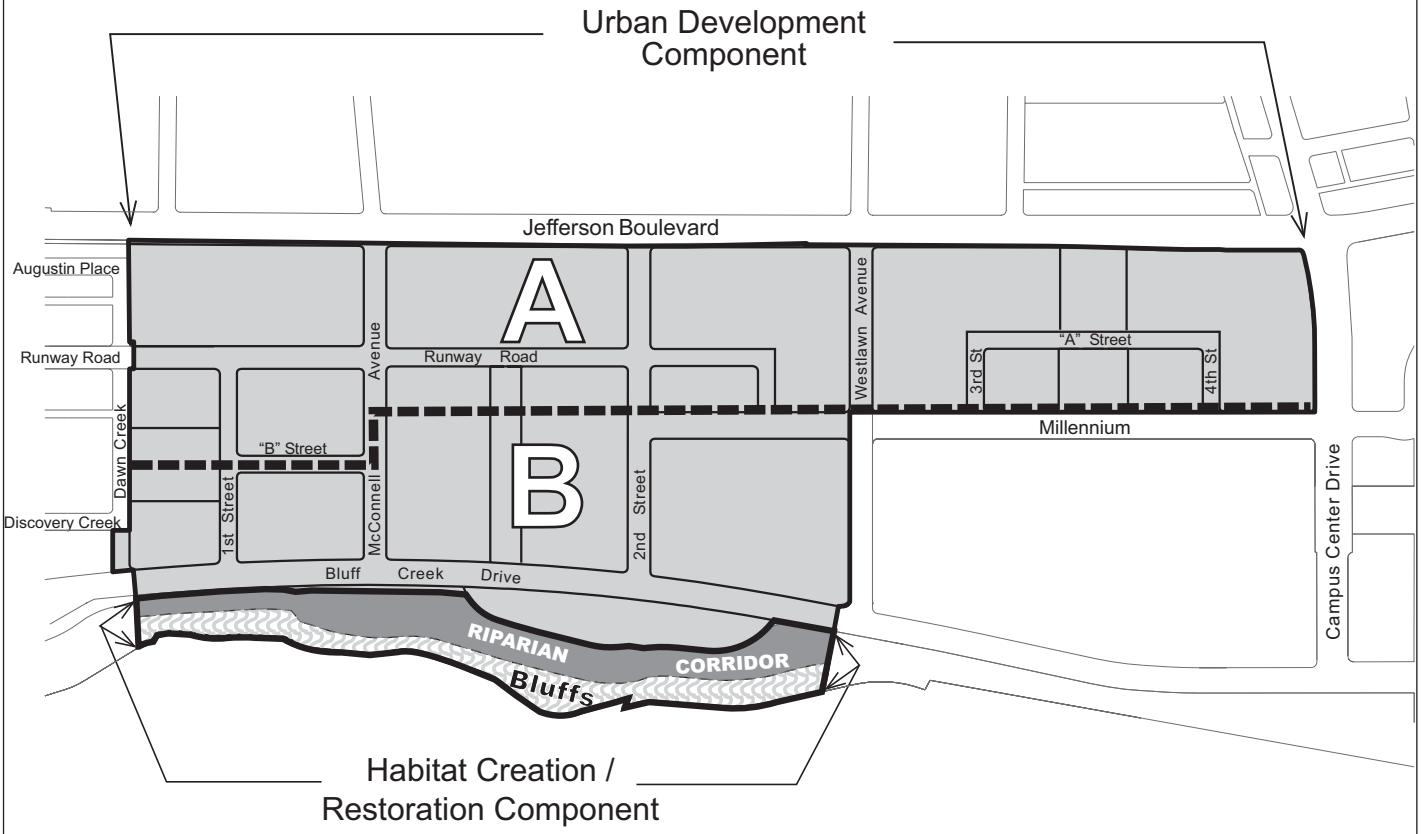
The Proposed Project's Development Plan includes land use designations, a land use program that specifies allowable uses, and development standards that would guide and shape the Projects' physical form. The Project's building locations, height limits and setback requirements would define the maximum extent of shading that could occur. The Project's building locations and height limits are shown in Figure 43 on page 595.

The height limits are expressed in feet above mean sea level (AMSL). By expressing these limits in terms of elevation rather than height above ground, direct comparisons can be made to the elevations associated with the various visual vantage points outside of the Project site. For descriptive purposes, building heights expressed in feet above mean sea level, are correlated to actual building heights in the legend of Figure 43 on page 595.

The Proposed Project also includes design standards that pertain to the portions of lots in which development can occur. This is accomplished by establishing roadway and side-lot setback areas. The proposed setback standards are shown in Table 83 on page 596.

The height and setback standards define building envelopes in which development can occur. While development can occur at any location within one of these envelopes, only portions of the envelope can be developed. This is due to two factors. First, the Project restricts the total amount of development which may occur. Second, the Project includes lot coverage restrictions that limit the coverage for residential lots to 55 percent, for commercial and mixed-use to 60 percent and for park sites (e.g. recreational facilities) to 25 percent.

These additional restrictions, beyond height and setback restrictions, would limit the amount of shading that could occur on off-site uses. However, neither they nor their limitations are considered in the shading analyses which follow. The analyses assume that the building envelopes as defined by height and setback restriction would be fully developed. This conservative assumption assures that the analysis will identify all potential impacts.



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Height District	Above Mean Sea Level (AMSL)	Above Finished Grade [a]	Above Existing Grade [a]
A	95'	68' - 72'	71' - 88'
B	112'	85'-89'	88'-105'

[a] Height above finished grade and above existing grade are approximate. Finished grades will be approximately 23' to 27' AMSL. Existing grades vary from approximately 7' to 24' AMSL.
Westchester Bluffs: Approximately 140' AMSL

Urban Development Component

Habitat Creation / Restoration Component

0 400 800 Feet

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Figure 43
Proposed Height Limits

Source: PCR Services Corporation, July 2003

Table 83

PROPOSED SETBACK REQUIREMENTS

Location	Required Setback	
Thoroughfares		
Jefferson Boulevard	15 Feet	(From the right-of-way/property line, regardless of which way the building orients on the lot. This setback excludes retaining walls.)
Bluff Creek Drive	15 Feet	
Runway Road (Dawn Creek to McConnell)	15 Feet	
Runway Road (McConnell to 2nd Street)	0-5 Feet	(Street front retail will characterize this block.)
Millennium Road	15 Feet	
McConnell Avenue	10 Feet	
McConnell Avenue (100 feet north and south of Runway Road)	0-5 Feet	(Street front retail will characterize this block.)
Westlawn Avenue	10 Feet	
Campus Center Drive	15 Feet	
1st, 2nd, 3rd, and 4th Street	10 Feet	
2nd Street (100 feet north and south of Runway Road)	0-5 Feet	(Street front retail will characterize this block.)
A and B Streets	10 Feet	
Dawn Creek	10 Feet	
Setbacks from Adjacent Lots [a]		
Adjacent to a Residential or Commercial Lot	10 Feet	
Adjacent to a Park or Open Space Lot	5 Feet	

[a] *Multi-family structures in two separately developed Projects shall be separated by no less than 20 feet.*
Source: Playa Capital Company, 2003.

3.4 Project Impacts

3.4.1 Proposed Project Impacts

The Proposed Project's Urban Development Component includes a development program that would add new buildings and structures to the site that could cause shading. The Habitat Creation/Restoration component of the Proposed Project includes habitat that may be subject to shading, but would include no structures and would generate no shading impacts. As such the following discussion addresses impacts occurring from development within the Project's Urban Development Component and notes potential shading, or lack thereof on the Habitat Creation/Restoration Component.

The main focus of the analysis is on the potential impacts of the Proposed Project on uses adjacent to the Project site to determine whether such impacts would be significant. The analysis

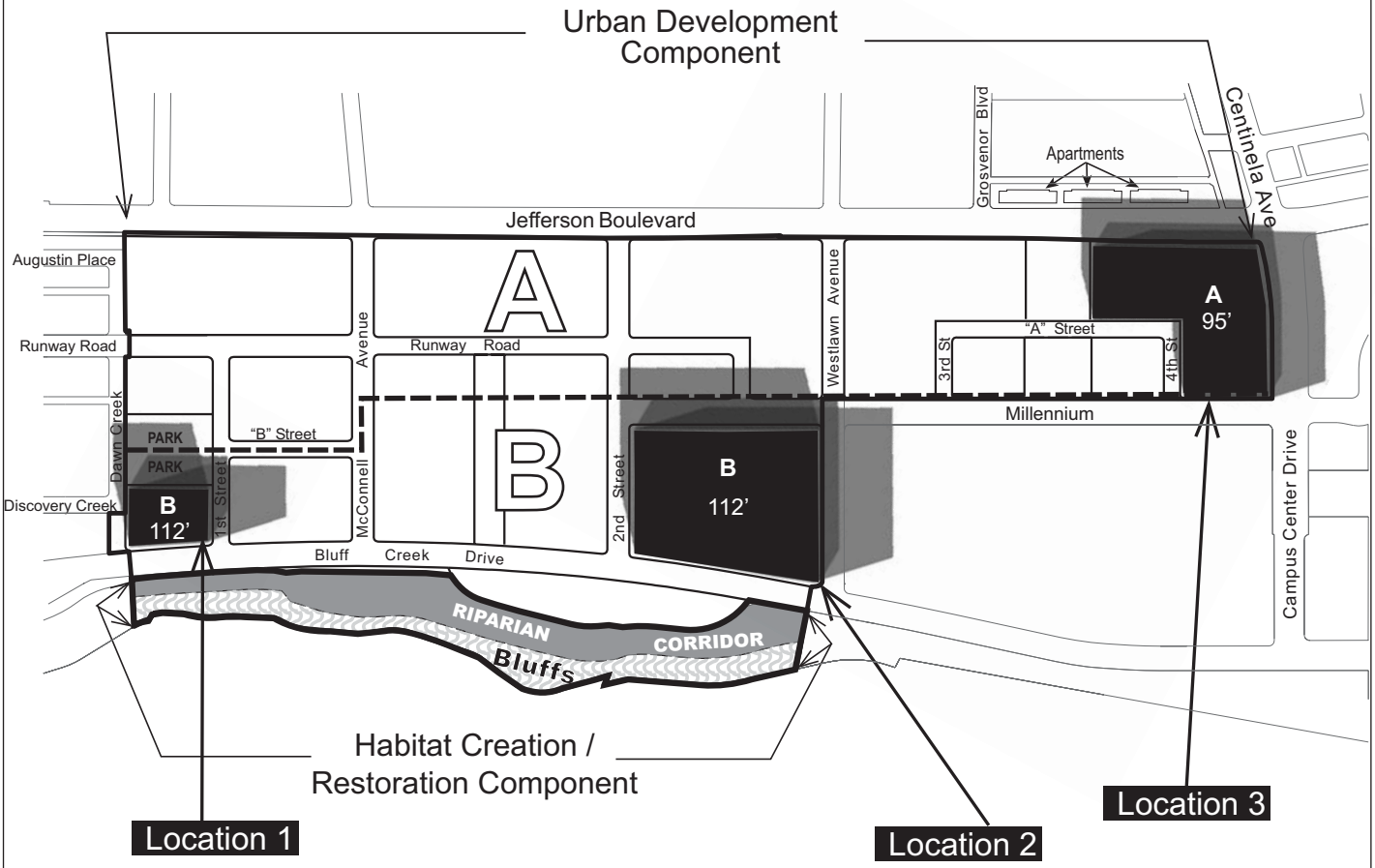
also describes, for informational purposes, the anticipated nature of shading which would occur within the Proposed Project site.

As described in the methodology section above, the greatest potential shading effects of the Proposed Project are illustrated on diagrams which indicate the potential shading at selected analysis locations. These diagrams are presented in Figure 44, Figure 45, and Figure 46 on pages 598, 599, and 600, respectively, which identify the potential shadows for the winter solstice, fall/spring equinox, and summer solstice. The Methodology Section above, and Figure 42 on page 592 in particular, provides additional information regarding how to interpret the diagrams.

As described above, the shading impacts that are actually expected to occur would be less than those indicated on the shading diagrams, due to development restrictions. Performing the analysis on the basis of the maximum building envelopes conservatively assures that the analysis will identify all potential impacts.

Each of the Shading Diagrams has been interpreted to indicate the duration of shading indicated, inclusive of the shading on the off-site sensitive uses. The resulting shading durations are summarized in Table 84 on page 601.

LMU and the Westchester neighborhoods atop the bluffs are at higher elevations than the Proposed Project buildings and hence would not be subject to shading. For the most part, the residential development and the school in the Del Rey neighborhood are somewhat distant from the Proposed Project site. The closest shadow sensitive uses adjacent to the Proposed Project that are subject to shading are the apartment buildings along the north side of Jefferson Boulevard. There would be no shading on these buildings during the equinox (or summer) time periods analyzed. There would be up to 1.5 hours of early morning shading during the winter hours analyzed, and no shading at the equinox, or summer times analyzed. (See Location 3 on Figure 44.) Based on the amount of shading that would occur at the winter solstice (1.5 hours), the extreme level of shading during the late October to early April interval in the significance threshold is less than the amount of shading the significance threshold would allow: 3 hours between the hours of 9:00 A.M. and 3:00 P.M. With no shading at the summer solstice between the hours of 9:00 A.M. and 5:00 P.M., the amount of shading during the early April to late October interval (4 hours) would not be exceeded. Further, consistent with the second significance threshold, there would be no shading during the hours of 9:00 A.M. and 3:00 P.M. at the time at the equinox. Therefore, impacts on shading of off-site/existing residential development would be less than significant.



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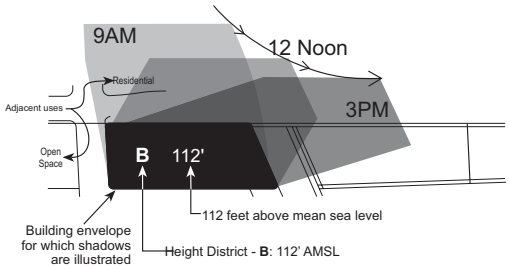
Shading Diagram



Height Districts

Height Districts (in feet above sea level)

A	95' AMSL
B	112' AMSL

Urban Development Component

Habitat Creation / Restoration Component

0 400 800 Feet

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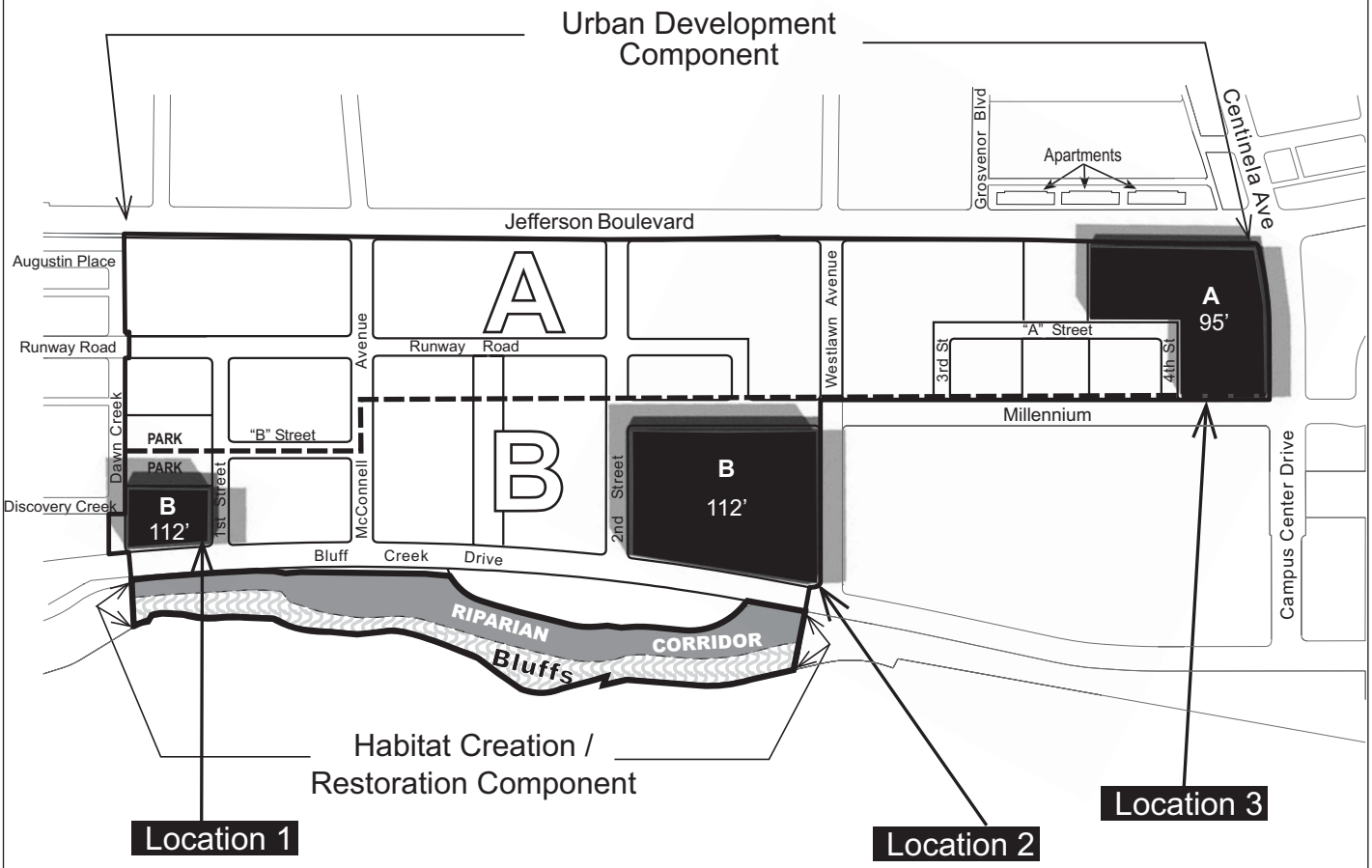
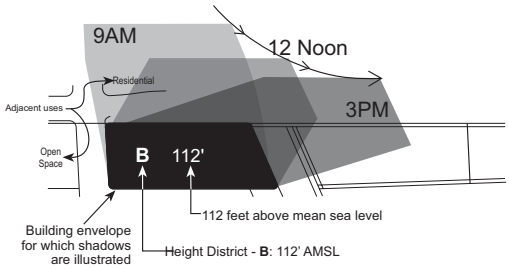
Figure 44
Shading Diagram for Winter Solstice

Source: PCR Services Corporation, July 2003



LEGEND

Shading Diagram



Height Districts

Height Districts (in feet above sea level)

A	95' AMSL
B	112' AMSL

Urban Development Component

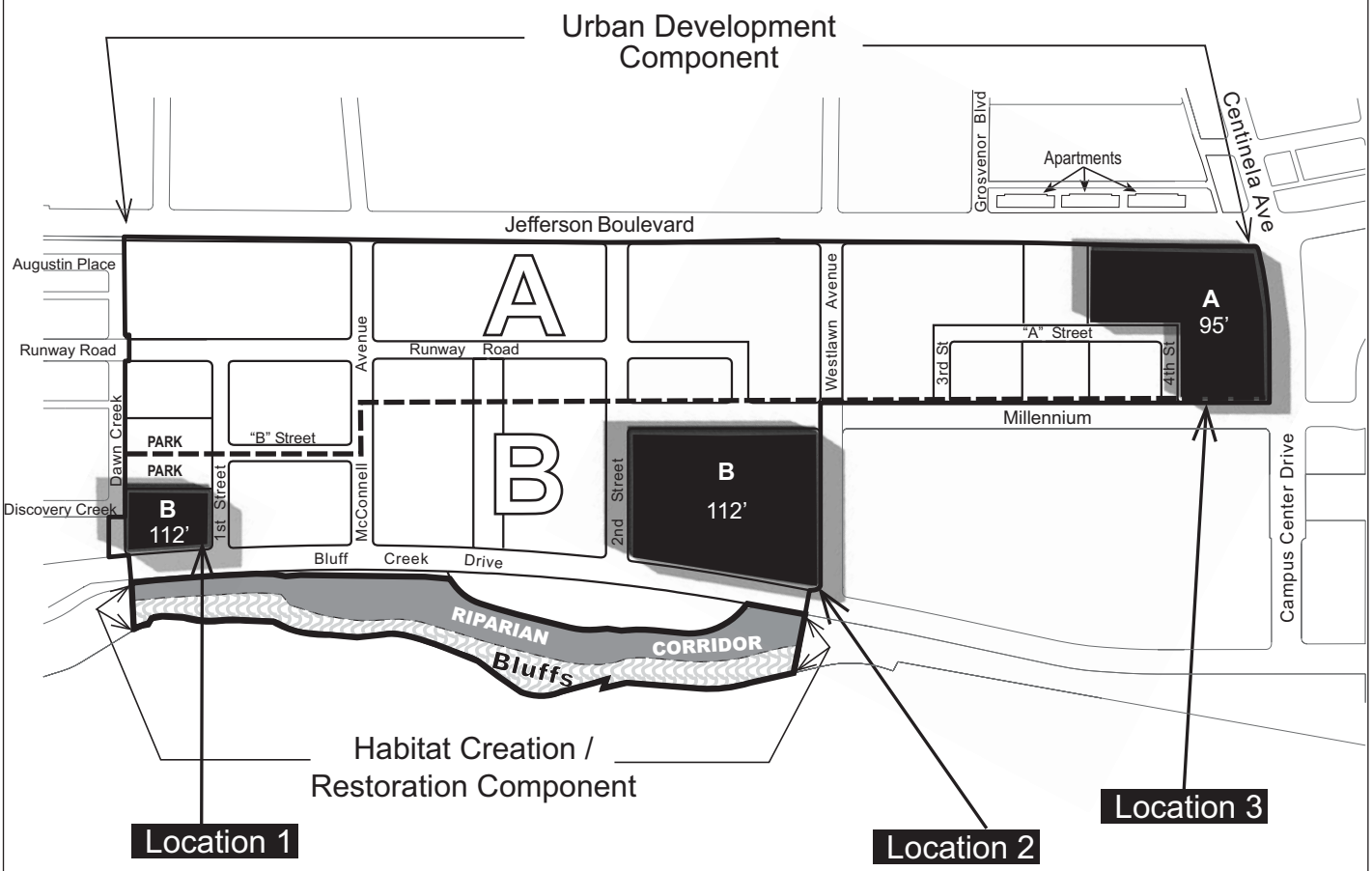
Habitat Creation / Restoration Component

0 400 800 Feet

PCR

Figure 45
Shading Diagram for Spring/Fall Equinox

Source: PCR Services Corporation, July 2003



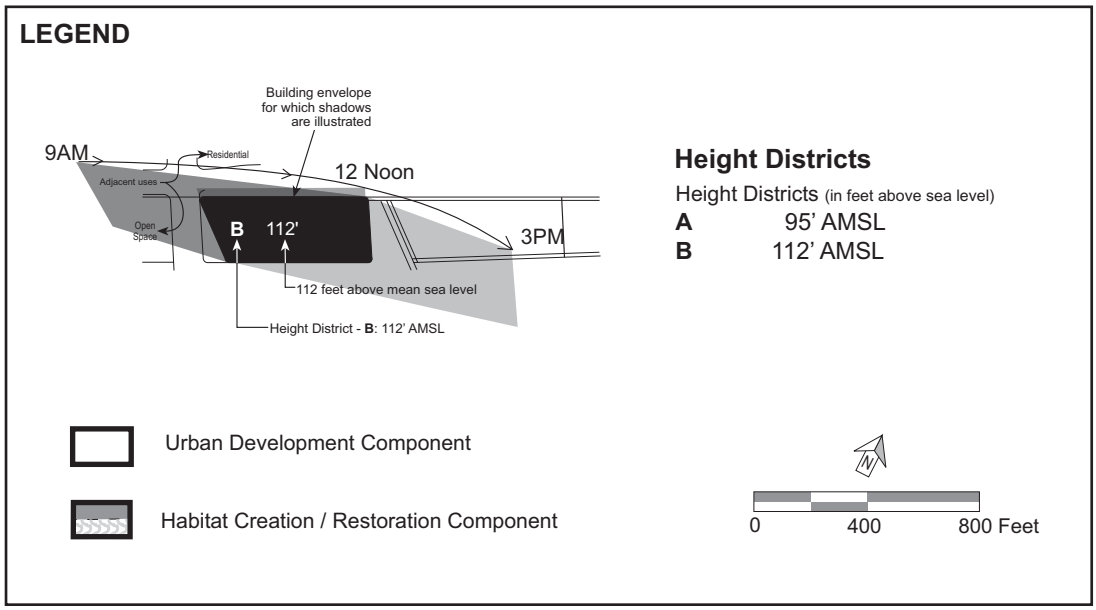


Figure 46
Shading Diagram for Summer Solstice

Source: PCR Services Corporation, July 2003

Table 84

DURATION OF SHADING ON SHADOW-SENSITIVE USES

Location [a]	Adjacent Uses	Winter	Spring/Fall	Summer	Significance [b]
1	Riparian Corridor/Bluffs	No Impact	No Impact	No Impact	—
2	Riparian Corridor/Bluffs	No Impact	No Impact	No Impact	—
3	**Existing Apartments**	**1.5 hours**	**No Impact**	**No Impact**	**NSI**

NSI = Non-Significant Impact

[a] *These locations are defined on the shading diagrams, Figure 44, Figure 45, and Figure 46.*
[b] ***Bold Face designations** represent potentially sensitive uses outside of the Proposed Project site.*

As indicated in the figures, there would be no shading on the riparian corridor or bluffs during the hours analyzed. (See Locations 1 and 2 on Figure 44 through Figure 46 on pages 598 to 600.)

3.4.2 Equivalency Program Impacts

The preceding analysis addressed potential shading impacts on shade-sensitive uses that could occur with the development of the Proposed Project. Such potential impacts were analyzed on the basis of the tallest buildings that could occur on the Project site, at the locations nearest to the sensitive uses.

The exchange of office uses for retail and/or assisted living units would be accomplished within the same building parameters. Under the Equivalency Program, this exchange would occur within the Proposed Project's street configurations, subject to the same height and setback restrictions as the Proposed Project. Therefore, development under the Equivalency Program would not exceed the building heights analyzed for the Proposed Project and would not cause shading that would be greater than that identified for the Proposed Project. As with the Proposed Project, shading on sensitive uses would not exceed the threshold of no shading during the equinox. Also, shading on sensitive uses would not exceed the hourly thresholds of seasonal shading: three hours between the hours of 9:00 A.M. and 3:00 P.M. between late October and early April, or four hours between the hours of 9:00 A.M. and 5:00 P.M. between early April and late October. Impacts under all of the Equivalency Scenarios, as is the case with the Proposed Project, would be less than significant.

3.4.3 Impacts of the Off-Site Improvements

Proposed Project development could result in secondary impacts arising from implementation of the Project's mitigation measures, as well as the direct impacts described

above. Mitigation measures within Section IV.K.(1), Traffic and Circulation, require physical improvements in transportation facilities at numerous locations including roadway widening at seven locations, as described in Subsection 5.8 of that Section. In addition, as discussed in Section IV.N.(1), Water Consumption, the Proposed Project would require the construction of a water regulator station in the vicinity of Jefferson Boulevard and Mesmer Avenue. These infrastructure improvements would reduce the traffic and water utility impacts of the Proposed Project. They would not add new buildings to the area, and would therefore have no impacts on shading. Therefore, no shading impacts would occur beyond those identified in the above analyses. Impacts of the Proposed Project on shading, inclusive of the off-site improvements would be less than significant.

4.0 MITIGATION MEASURES

As indicated in the above analysis, the Project would not generate significant shading impacts. Therefore, no mitigation measures are required or recommended for the Proposed Project, inclusive of the Equivalency Program and off-site improvements.

5.0 UNAVOIDABLE ADVERSE IMPACTS

Proposed Project shading on off-site shadow sensitive uses, inclusive of the Equivalency Programs and off-site improvements, would be limited. There would be no shading of existing residential buildings during the equinox or summer seasons, and a maximum of 1.5 hours of shading on two specific apartment complexes across Jefferson Boulevard during the winter mornings. This level of the shading would be less than that allowed under the significance thresholds: 4 hours of shading between 9:00 A.M. and 5:00 P.M. between early April to late October, 3 hours of shading between the hours of 9:00 A.M. to 3:00 P.M. between late October and early April, and no shading at the equinox. No other existing shadow sensitive areas which rely on sun for their activities would be impacted. All of these impacts are less than significant. Shading patterns within the Project site would vary according to location, season and time of day.

6.0 CUMULATIVE IMPACTS

Shading impacts are extremely localized in nature. Unless two Projects stand sufficiently near to each other, they cannot cause shadows to fall on the same sensitive use. Thus, possibilities for impacts which are singularly non-significant, but cumulatively significant, are limited.

New related projects in the areas surrounding the Proposed Project site could potentially generate their own significant shading impacts on their nearby uses. However, except as noted below, none of the related projects are located sufficiently close to contribute to a cumulative impact with the Proposed Project.

Related Project Number 40, the Playa Vista First Phase Project, would increase the amount of shading on off-site uses. The main effect of this shading would be on thoroughfares through the area. The portions of Jefferson Boulevard subject to shading would be cumulatively greater than with either project alone. However, this road is not considered a shadow sensitive use. There are no shadow sensitive uses which would be subject to cumulative impacts, and therefore no significant cumulative shading affects are anticipated to occur.

Completion of the Playa Vista First Phase Project will include the development of new residential uses adjacent to the westerly edge of the Proposed Project. The potential shading on these uses is illustrated on the shading diagrams in Section. (See Location 1 on Figure 44 through Figure 46 on pages 598 to 600.) As shown therein, Proposed Project shading on the Playa Vista First Phase Project would not exceed the applicable significance thresholds: 3 hours between the hours of 9:00 A.M. and 3:00 P.M. between late October and early April, or 4 hours between 9:00 A.M. and 5:00 P.M. during the early April to late October interval. The significance threshold pertaining to equinox shading, as set forth in the Area D Specific Plan, focuses on shading impacts on shadow-sensitive uses occurring outside of Playa Vista Area D. As the Playa Vista First Phase Project is located within, rather than outside the area governed by the Area D Specific Plan, the equinox shading significance threshold is not applicable to the Playa Vista First Phase Project. Cumulative impacts inclusive of the Project's Equivalency Program and off-site improvements would be less than significant.

IV. ENVIRONMENTAL IMPACT ANALYSIS
F. LIGHT AND GLARE
(2) ARTIFICIAL LIGHT AND GLARE

1.0 INTRODUCTION

This section of the EIR addresses the potential impacts from nighttime artificial lighting and daytime glare. The analysis of artificial lighting focuses on effects of Proposed Project lighting on the night-time appearance of the Proposed Project site, and on human activity at nearby off-site locations. The potential effects of artificial light on plant and animal species are also identified here, but they are considered in more detail in Section IV.D, Biotic Resources.

The analysis of glare focuses on the potential interference with the performance of off-site activities from light reflecting off of buildings or other Project surfaces. The most common adverse affect from glare is sunlight reflecting into the eyes of drivers along thoroughfares. Impacts may also affect outdoor activities and residential uses.

The analysis addresses the impacts that would occur for the Project as Proposed, for the Project's Equivalency Program and for the Project's secondary impacts that would occur from the implementation of the Project's off-site mitigation measures.

2.0 ENVIRONMENTAL SETTING

2.1 Regulatory Framework

The City of Los Angeles has incorporated into its Municipal Code several requirements pertaining to lighting within development projects. In addition, the City relies on CEQA mitigation measures for additional lighting standards if necessitated by potential Project impacts. Sections of the Municipal Code which are relevant to the Proposed Project include the following:

- Chapter 9, Article 3, Sec. 93.0117. No exterior light source may cause more than two footcandles (21.5 lx) of lighting intensity or generate direct glare onto exterior glazed windows or glass doors; elevated habitable porch, deck, or balcony; or any ground surface intended for uses such as recreation, barbecue or lawn areas or any other property containing a residential unit or units.

- Chapter 1, Article 2, Sec. 12.21 A5(k). All lights used to illuminate a parking area shall be designed, located and arranged so as to reflect the light away from any streets and any adjacent premises.

- Chapter 1, Article 7, Sec. 17.08C. Plans for street lighting system shall be submitted to and approved by the Bureau of Street Lighting.

- Division 62, Sec. 91.6205M. No sign shall be arranged and illuminated in such a manner as to produce a light intensity of greater than three footcandles above ambient lighting, as measured at the property line of the nearest residentially zoned property.

2.2 Existing Conditions

2.2.1 Regional Context

The regional area surrounding the Proposed Project site consists of a built environment with a generally suburbanized to urbanized nature. It offers paths of street lighting, and highly lit special uses amidst a backdrop of subdued neighborhood lighting. As such, the region offers a base of substantial ambient lighting conditions.

2.2.2 Topography

The portion of the Proposed Project site that is slated for development, the Project's Urban Development Component, is primarily flat and low-lying, with elevations ranging from approximately 7 feet above mean sea level (AMSL) to 24 feet AMSL. At the south of the Project site, starting at, and extending beyond the Habitat Creation/Restoration Component, the Westchester Bluffs rise above the Proposed Project site at levels which average approximately 140 feet AMSL (approximately 120 feet above the Project site).

2.2.3 Land Uses Within the Proposed Project Site

There are two buildings on the Proposed Project site, Building 22 and Building 45, which remain from the former McDonnell Douglas Helicopter/Hughes Aircraft Company plant. Building 22 is a warehouse used for storage, and Building 45 is used occasionally for filming and other activities. Other small buildings, such as shed, minor storage structures, and construction trailers associated with development of the adjacent Playa Vista First Phase Project also exist in the Former Salvage Yard area of the Proposed Project site. The Proposed Project site is mostly unlit, with some minimal lighting related to the former Plant Site uses.

2.2.4 Light Sensitive Uses Surrounding the Proposed Project

The light sensitive uses surrounding the Proposed Project site are the same as those for shading, as illustrated in Figure 41 on page 590 of Section IV.F(1), Shading. As indicated in the previous section, the Playa Vista First Phase Project immediately west of the Proposed Project site is currently vacant, with recently completed residential buildings located approximately 0.25 mile west of the Proposed Project site. This vacant area is approved for construction of First Phase residential development. The Playa Vista First Phase area to the east of the Proposed Project site includes the former Hughes Plant site which exhibits minimal lighting. This area is approved for office and commercial uses, including entertainment, media and technology uses. Most of the potentially sensitive uses in the surrounding area are somewhat isolated from the Proposed Project site through distance and/or elevation. The only sensitive uses identified in close proximity are the apartment units along Jefferson Boulevard west of Centinela Avenue, and residential units along the top of the bluffs. The other uses around the Proposed Project site, which include light industrial and commercial activities, would not be considered particularly light sensitive, but could still be adversely affected by light or glare shining directly onto their property. Travelers along Jefferson Boulevard, adjacent to the Project site, could also be affected by lighting from artificial and/or reflected sources.

The existing lighting characteristics adjacent to the Proposed Project are consistent with those expected of the uses present: soft lighting, predominated by street lighting in residential and light industrial areas; and brighter lighting in commercial areas with well lit parking areas, buildings and signage.

3.0 IMPACT ANALYSIS

3.1 Methodology

The analysis identifies the uses and types of lighting expected to occur within the Proposed Project, and the expected building materials. It then determines whether such lighting and building materials might contribute to adverse light and/or glare impacts in surrounding areas. Finally, it identifies measures for mitigating potential impacts.

3.2 Significance Thresholds

According to the City of Los Angeles Draft CEQA Thresholds Guide (1998, p.L.1-3), the determination of significance shall be made on a case-by-case basis, considering the following factors:

- The change in ambient illumination levels as a result of project sources; and
- The extent to which project lighting would spill off the project site and effect adjacent light-sensitive areas.

Based on these factors, the Proposed Project would have a significant impact on nighttime lighting, if:

- If Project lighting would substantially alter the character of off-site areas surrounding the Project.
- If Project lighting would interfere with the performance of an off-site activity.
- If reflective light would interfere with the performance of an off-site activity.

3.3 Project Design Features

The Proposed Project would be required to comply with existing regulations regarding artificial lighting. The Proposed Project includes no additional Project Design Features that would mitigate impacts.

3.4 Project Impacts

The Draft Los Angeles CEQA Thresholds Guide (Guide) identifies two factors to be used for determining the significance of a project's impacts on artificial lighting. Both factors identify components that would contribute to an adverse lighting effect, and have been integrated into the first two significance thresholds. The Guide does not address impacts from artificial lighting. Therefore, a threshold was created that parallels the second threshold for nighttime lighting.

3.4.1 Impacts from Artificial Lighting

As the Proposed Project site is surrounded with urban/suburban development containing typical nighttime lighting, and is being further lit with Playa Vista First Phase development, the Proposed Project would not alter the general ambient lighting characteristics of off-site neighborhoods. However, Project lighting would cause an infill of development within a currently vacant area. The impacts of this alteration would be most notably experienced from Jefferson Boulevard adjacent to the Proposed Project site. Impacts could also be noticed from locations along the top of the Westchester Bluffs, but they would not alter the predominant nightscape scene of the city from these locations.

Ambient lighting effects along Jefferson Boulevard are dominated by existing Jefferson Boulevard lighting. Development from the Proposed Project would be located atop a slope that faces the roadway, lessening potential lighting impacts. Night-time views from the top of the bluffs would only be noticed by viewers at the bluff edge. Lighting views from this location would be dominated by the existing urban lighting beyond Jefferson Boulevard, and to a lesser extent, Playa Vista First Phase Project lighting. Project lighting would be soft in nature, similar to that associated with similar uses in surrounding areas.

A portion of the uses facing the Proposed Project site along Jefferson Boulevard are light industrial or commercial in nature. These uses illuminate their sites at night, and would not be adversely affected by the Proposed Project. These uses also contribute to the existing baseline conditions surrounding the Project site. Residential units atop the bluffs along the southern edge of the Proposed Project are separated from Project development by both vertical and horizontal distance.

With regard to potential impacts from spot lighting, the City has, for many years, routinely required shielding of outdoor lighting to preclude glare impact to off-site properties. The City has also adopted specific lighting requirements in its Municipal Code to limit adverse impacts from artificial lighting. City code requirements which are applicable to the Proposed Project are presented in Subsection 2.1, above.

The implementation of such requirements will assure that the Project does not significantly affect an off-site population. Mitigation measures are included below to elaborate upon such procedures. Effects of lighting on habitat areas (e.g., the riparian corridor and bluffs) is discussed further in the Biotic Resource Section of the EIR, which also includes a related mitigation measure.

Proposed Project uses along the edge of the site are similar in nature to the uses they face in surrounding areas, Project lighting would be soft in nature and typical of such lighting in other neighborhoods, and the Project is expected to include standard lighting practices that would preclude spot lighting from being directed on off-site areas. In any case, the Proposed Project would be required to meet the City Code requirements. Therefore, the Proposed Project would not substantially alter the lighting character in surrounding communities and would not interfere with the performance of off-site activities. Impacts would be less than significant.

3.4.2 Impacts from Glare

Development associated with the Project is anticipated to use building materials which are typical of those used throughout the area and which are low-reflective in nature. Further, the view from the area most prone to glare effects, Jefferson Boulevard would be located at lower

elevations than the Proposed Project buildings and would offer views of landscaped areas and slopes. Therefore, adverse impacts are not expected. However, since there are no binding requirements on the Proposed Project to preclude potential impacts from glare, impacts are considered potentially significant, and mitigation measures are recommended below to preclude the generation of such impacts.

3.4.3 Equivalency Program Impacts

The preceding analysis addressed impacts that could occur with increases of artificial lighting on the Project site or reflection from new development. Such effects are a function of the street lighting required, the volume and location of buildings, the lighting needs of the various uses and the choice of building materials.

The exchange of office uses for retail and/or assisted living units would be accomplished within the same building parameters. This exchange in the use of a building would occur at relatively limited locations within the Project site. Furthermore, under the Equivalency Program, there would be no substantial variation in the Project's street configurations. Overall building profiles would be similar to those of the Proposed Project.

All LAMC requirements (as discussed in Subsection 2.1 above) and/or recommended mitigation measures (discussed in Subsection 4.0, Mitigation Measures, below) to minimize lighting impacts would be implemented, as appropriate, under the Equivalency Program. Street lighting, and lighting requirements for the uses under all Equivalency Scenarios would be similar to those of the Proposed Project. Further similar building materials would be used, and the volume and location of buildings would be similar. Implementation of the Equivalency Program would therefore not cause the amounts of artificial lighting or reflected lighting to be greater than that described for the Proposed Project. Lighting under all of the Equivalency Scenarios would not substantially alter the character of off-site areas nor interfere with the performance of off-site activities. As with the Proposed Project, impacts would be less than significant.

3.4.4 Impacts of Off-Site Improvements

Proposed Project development could result in secondary impacts arising from implementation of the Project's mitigation measures, as well as the direct impacts described above. Mitigation measures within Section IV.K.(1), Traffic and Circulation, require physical improvements in transportation facilities at numerous locations including roadway widening at seven locations, as described in Subsection 5.8 of that Section. In addition, as discussed in Section IV.N.(1), Water Consumption, the Proposed Project would require the construction of a water regulator station in the vicinity of Jefferson Boulevard and Mesmer Avenue.

The only potential effects on lighting would occur from the relocation of street lights that would be moved closer to the adjacent uses from the existing locations to accommodate the roadway widenings. Several streetlights would be relocated along the Centinela Corridor and at the intersection of Centinela Avenue and La Tijera Boulevard. One or two streetlights would be relocated at the remaining locations. The relocated lighting would be similar to the currently existing lighting. New light standards would be shielded so that the light source is directed toward the street and sidewalk and away from sensitive uses, consistent with Los Angeles Bureau of Street Maintenance requirements. Accordingly, no adverse lighting impacts are anticipated from the off-site improvements. Therefore, none of the off-site improvements would result in significant impacts, unto themselves; and impacts of the Proposed Project, inclusive of the off-site improvements would be less than significant.

4.0 MITIGATION MEASURES

Mitigation Measures for the Proposed Project and the Equivalency Program

The following mitigation measures protect human population and activity. An additional measure to protect habitat areas is included in Section IV.D, Biotic Resources.

With regard to artificial lighting:

- All outdoor lighting, other than signs, shall be limited to those required for safety, security, highlighting and landscaping.

- Animated building identification signs shall be prohibited. Illuminated residential building signs shall not be permitted above the first level.

With regard to glare:

- The Applicant shall use exterior building materials and façades which eliminate or minimize highly reflective materials. At the time of plan check review for specific development projects, building materials shall be reviewed to assure that they do not exceed the reflectivity of standard building materials. If the Applicant should desire to use more reflective materials in locations isolated from major thoroughfares, adequate analysis must be presented to the Department of Building and Safety to determine that the building, due to location, would not cause glare impacts on motorists or nearby population.

- Direct glare from automobile headlights in parking structures shall be shielded by walls, louvers, landscaping, and/or other similar measures.

5.0 UNAVOIDABLE ADVERSE IMPACTS

The Proposed Project and its Equivalency Program would add lighting to the Project site that would be noticeable from off-site locations. Such lighting would be similar to lighting in adjoining areas. It would not substantially alter the lighting character of off-site areas surrounding the Project site, and would not be directed off-site in a manner which would interfere with the performance of off-site activity. Furthermore, the Proposed Project, inclusive of the Equivalency Program and off-site improvements, would not be expected to generate off-site reflective glare, so as to interfere with the performance of an off-site activity. Therefore, no significant impacts are expected after mitigation.

6.0 CUMULATIVE IMPACTS

The only Related Project in the immediate vicinity of the Proposed Project is Related Project 40, the Playa Vista First Phase Project. Existing and future development within the First Phase Project site will add additional nighttime lighting to the community. As is the case with the Proposed Project, lighting would be soft in nature, would be similar to lighting in surrounding neighborhoods and would not cause direct lighting on off-site adjacent uses.

The one major related project that might generate notable off-site lighting is the LAX Master Plan Project. As indicated, in the LAX Draft EIS/EIR, the project would not generate significant off-site lighting impacts on adjacent properties, that are located approximately 1.75 miles south of the Proposed Project.[247] Therefore, that Project would not contribute to a cumulative impact with the Proposed Project. Otherwise, related projects in the larger region consist of smaller in-fill development. The additional lighting associated with these projects would be similar to the existing lighting in the areas where the developments occur and would not substantially alter the character of those areas. The lighting would blend with the existing suburban-urban lighting base which occurs in the area. The related projects would be subject to regulations which require the shielding of outdoor lighting. These projects would cause or not cause lighting impacts on their adjacent uses independently of development from the Proposed Project.

[247] *Draft Environmental Impact Statement/Environmental Impact Report, January 2001, California State Clearinghouse, No: 1997061047.*

Lighting from the Proposed Project, in conjunction with lighting associated with related projects, would contribute to the general level of ambient lighting surrounding the Project site. However, existing lighting already establishes a suburban-to-urban level of lighting condition baseline, and new sources would not significantly alter the nighttime appearance of the surrounding area. The Proposed Project would not create nighttime glare that would interfere with off-site activities, and there are no related projects that would contribute with the Proposed Project to an off-site interference of an activity. Cumulative impacts regarding nighttime illumination, inclusive of the Proposed Project, its Equivalency Program, and its off-site improvements, would be less than significant.

Glare impacts occur on a project-by-project basis, and when they occur they are considered significant without respect to cumulative effect. The Proposed Project is not expected to create daytime glare that would interfere with the performance of off-site activities, and there are no related projects that would contribute with the Proposed Project to such an effect. Therefore, no significant cumulative impacts are anticipated from glare, inclusive of the Proposed Project, its Equivalency Program, and its off-site improvements.

IV. ENVIRONMENTAL IMPACT ANALYSIS
G. LAND USE

1.0 INTRODUCTION

This section addresses the type and patterns of land use activity associated with the Proposed Project with regard to the existing uses in the surrounding neighborhoods, and the surrounding region. The analysis addresses the land use mix and site activities with regard to the regulatory framework which is applicable to the Proposed Project site and with regard to the existing (mix and distribution) of land uses. The analysis focuses on the general character of the uses proposed – whether such uses are consistent with those anticipated in existing plans, and whether uses would divide an existing neighborhood, community or land uses. Specific environmental effects on surrounding neighborhoods are addressed in other sections of the EIR such as Traffic (Section IV.K.(1)), Noise (Section IV.E), and Air Quality (Section IV.B). The analysis addresses the impacts that would occur for the Project as Proposed, for the Project's Equivalency Program and for the Project's secondary impacts that would occur from the implementation of the Project's off-site mitigation measures.

2.0 ENVIRONMENTAL SETTING

2.1 Regulatory Framework

2.1.1 Federal Level

In 1992, the Project Applicant was granted a federal permit by the United States Army Corps of Engineers (USACE) for the fill of wetlands on portions of the land located within the former Playa Vista Planning Area (USACE Permit No. 90-426EV). The areas covered by this permit included several small wetland pockets within the Proposed Project site consisting in the aggregate of approximately 0.7 acres. Proposed Development is pursuant to that permit, and the related Programmatic Agreement (per regulations which implement Section 106 of the National Historic Preservation Act) for excavation that is applicable to the Proposed Project site. (The Programmatic Agreement is described further in Section IV.P.(2), Cultural Resources.)

2.1.2 Regional Level

The Proposed Project site is located within the six-County region which comprises the Southern California Association of Governments (SCAG) planning area. SCAG is a Joint

Powers Agency with numerous roles and responsibilities relative to regional issues that cross jurisdictional boundaries. SCAG's responsibilities have included preparation of the Regional Comprehensive Plan and Guide (RCPG, 1996) in conjunction with its constituent members and other regional planning agencies.[248] The RCPG provides a general overview of the plans of the various regional agencies that will affect local governments, or that respond to the significant issues facing Southern California, including growth management. It is intended to serve as a framework for decision-making with respect to the growth and changes that can be anticipated by the year 2015 and beyond. In addition, the RCPG proposes a voluntary strategy for local governments to use to assist them in addressing issues related to future growth and in assessing the potential impacts of proposed development projects within the regional context.

Fourteen subregions have been identified. These subregions provided input in the preparation of the RCPG regarding local concerns. This input formed the basis for the region's "bottom-up" planning process. The Proposed Project is located within the City of Los Angeles subregion.

The RCPG includes five core chapters (Growth Management, Regional Mobility, Air Quality, Water Quality, and Hazardous Waste Management) that respond directly to the federal and state requirements placed on SCAG and form the basis for certification of local plans. Ancillary chapters within the RCPG (Economy, Housing, Human Resources and Services, Finance, Open Space and Conservation, Water Resources, Energy, and Integrated Waste Management) reflect other regional plans, but do not contain actions or polices required of local governments.

Adopted policies related to land use are contained primarily in Chapter 2, Growth Management. The purpose of the Growth Management chapter is to present forecasts that establish the socio-economic parameters for the development of the Regional Mobility and Air Quality chapters of the RCPG and to address issues related to growth and land consumption. These parameters encourage local land use actions which could ultimately lead to the development of an urban form that will help minimize development costs, protect natural resources, and enhance the quality of life in the region. Policies within the Growth Management chapter which relate to the Proposed Project include:

- Encourage patterns of urban development and land use which reduce costs on infrastructure construction and make better use of existing facilities;

[248] *Major portions of the Plan, e.g. the Growth Management Section, were originally approved in 1994, and reprinted in the 1996 version.*

- Support local jurisdictions' efforts to minimize the cost of infrastructure and public service delivery, and efforts to seek new sources of funding for development and the provision of services;

- Support provisions and incentives created by local jurisdictions to attract housing growth in job rich subregions and job growth in housing rich subregions;

- Encourage existing or proposed local jurisdictions' programs aimed at designing land uses which encourage the use of transit and thus reduce the need for roadway expansion, reduce the number of auto trips and vehicle miles traveled, and create opportunities for residents to walk and bike;

- Encourage local jurisdictions' plans that maximize the use of existing urbanized areas accessible to transit through infill and redevelopment;

- Support local plans to increase density of future development located at strategic points along the regional commuter rail, transit systems, and activity centers;

- Support local jurisdictions strategies to establish mixed-use clusters and other transit-oriented developments around transit stations and along transit corridors;

- Encourage development in and around activity centers, transportation corridors, underutilized infrastructure systems and areas needing recycling and redevelopment;

- Encourage settlement patterns which contain a range of urban densities;

- Encourage planned development in locations least likely to cause adverse environmental impact; and

- Support local jurisdictions and other service providers in their efforts to develop sustainable communities and provide, equally to all members of society, accessible and effective services such as: public education, housing, health care, child care, social services, recreational facilities, law enforcement and fire protection.

RCPG policies related to regional mobility are addressed in Section IV.K, Transportation and Circulation, of this EIR. Policies related to air quality are discussed in Section IV.B, Air Quality, of this EIR.

2.1.3 County Level – Los Angeles County Airport Land Use Plan

The Los Angeles County Airport Land Use Commission, with assistance from the County of Los Angeles Department of Regional Planning, has prepared an airport land use plan.

The Los Angeles County Airport Land Use Plan was adopted by the Los Angeles County Airport Land Use Commission on December 19, 1991.[249] The Airport Land Use Commission has delineated planning boundaries for the Los Angeles International Airport (LAX) and the Santa Monica Airport in the Plan. These boundaries show areas subject to noise impacts including a 65 Community Noise Equivalent Level (CNEL) contour; and areas subject to safety hazards including Runway Protection Zones (RPZs). The Plan presents land use compatibility guidelines based on the noise contour lines. Based on these guidelines, less noise sensitive uses can occur in close proximity to an airport and more sensitive uses should occur further from the airport. The RPZ is an area at ground level that provides an unobstructed path for aircraft landings and in which allowed uses are limited for safety. LAX's four RPZs are shown as trapezoidal areas surrounding the runways in the County Airport Land Use Plan. Santa Monica Airport has two RPZs, one on each end of the airport boundary.

2.1.4 Local Level

2.1.4.1 City of Los Angeles General Plan

The Proposed Project site lies within an area that was annexed to the City of Los Angeles on February 10, 1986, and is subject to the land use regulations set forth within the City of Los Angeles General Plan, Planning and Zoning Code and Specific Plan Ordinance pertaining to the Project area.

The City of Los Angeles General Plan Framework (Framework), adopted in December 1996 and readopted in August, 2001, provides current general guidance regarding land use issues for the entire City of Los Angeles. This document supersedes the Concept Los Angeles and Citywide Plan elements of the General Plan.[250] Concept Los Angeles declared the intent of the City government toward the future form and long-range development of the City. The Citywide Element specified objectives, policies, and programs for the main elements of the General Plan. The general concept underlying the Concept Los Angeles and Citywide Plan Elements is the preservation of the low-density character of existing Los Angeles neighborhoods by encouraging

[249] *Los Angeles County Airport Land Use Plan, Los Angeles County Airport Land Use Commission, Prepared by the Department of Regional Planning, Adopted December 19, 1991.*

[250] *"The Citywide General Plan Framework," City of Los Angeles, August 2001, Chapter 1, General Plan System "Comparison of the Existing General Plan Structure with the New General Plan System."*

growth in higher density Centers.[251] The General Plan Framework was not intended to either override or mandate changes to the community plans (discussed below).[252]

The General Plan Framework sets forth a citywide comprehensive long-range growth strategy and defines citywide polices regarding land use, housing, urban form, neighborhood design, open space and conservation, economic development, transportation, infrastructure and public services. The Land Use chapter of the Framework identifies objectives and supporting policies relevant to the Proposed Project.

The Long Range Land Use Diagram contained in the Framework designates the area around the intersections of Jefferson and Lincoln Boulevards and Culver and Lincoln Boulevards for a Regional Center. Under the concept presented there, regional serving uses would be concentrated at the intersection of Jefferson and Lincoln Boulevards and extended/blended eastward into related uses in adjoining areas, extending through the Proposed Project site.[253] Regional Centers are intended to be focal points of regional commerce, identity and activity with a diversity of uses such as corporate and professional offices, residential, retail commercial malls, government buildings, major health facilities, major entertainment and cultural facilities and supporting services. Generally, different types of Regional Centers will fall within the range of floor area ratios (i.e., the amount of building floor area, divided by the amount of lot area) from 1.5:1 to 6.0:1. Some will only be commercially oriented; others will contain a mix of residential and commercial uses. Generally, Regional Centers are characterized by 6 to 20 stories (or higher). Regional Centers are usually major transportation hubs.

The Framework Element also includes Objectives and Policies in addition to the Land Use Diagram and its designated areas. Objectives and policies in the Framework Element that are applicable to the Proposal Project include the following: [254]

- Accommodate a diversity of uses that support the needs of the City's existing and future residents, businesses and visitors;
- Identify areas on the Land Use Diagram and in the Community Plans sufficient for the development of a diversity of uses that serve the needs of existing and future

[251] *Los Angeles Citywide General Plan Framework Element, Executive Summary, page 1.*

[252] *"The Citywide General Plan Framework." City of Los Angeles, August 2001, West/Coastal Los Angeles, Long Range Land Use Diagram, Figure 3-3, Key and Legend Information.*

[253] *The various Centers designated in the Long Range Land Use Diagram in the Framework are approximate locations.*

[254] *Los Angeles Citywide General Plan Framework Element, Land Use chapter, pages 3-1 to 3-35, approved by the City Council on December 11, 1996.*

residents (housing, employment, retail, entertainment, cultural/institutional, educational, health, services, recreation, and similar uses), provide job opportunities, and support visitors and tourism;

- Identify areas for the establishment of new open space opportunities to serve the needs of existing and future residents. These opportunities may include a citywide linear network of parklands and trails, neighborhood parks, and urban open spaces;

- Provide for the spatial distribution of development that promotes an improved quality of life by facilitating a reduction of vehicular trips, vehicle miles traveled, and air pollution;

- Establish, through the Framework Land Use Diagram, Community Plans, and other implementing tools, patterns and types of development that improve the integration of housing with commercial uses and the integration of public services and various densities of residential development within neighborhoods at appropriate locations;

- Provide for the development of land use patterns that emphasize pedestrian/bicycle access and use in appropriate locations;

- Accommodate expected population and employment growth within the City and each Community Plan Area and plan for the provision of adequate supporting transportation and utility infrastructure and public services;

- Provide for the stability and enhancement of multi-family neighborhoods and allow for growth in areas where there is sufficient public infrastructure and services and residents' quality of life can be maintained or improved;

- Ensure that the character and scale of stable single-family residential neighborhoods is maintained, allowing for infill development, provided that it is compatible with and maintains the scale and character of existing development;

- Reinforce existing and establish new Neighborhood Districts[255] which accommodate a broad range of uses that serve the needs of adjacent residents, promote neighborhood activity, are compatible with adjacent neighborhoods, and are developed as desirable places to work and visit;

- Reinforce existing and encourage new Community Centers, which accommodate a broad range of uses that serve the needs of adjacent residents, promote neighborhood and community activity, are compatible with adjacent neighborhoods, and are

[255] *Neighborhood Districts are defined as focal points of surrounding residential neighborhoods and serve populations of 15,000 to 25,000 residents. They contain a diversity of uses that serve daily needs.*

developed to be desirable places in which to live, work and visit, both in daytime and nighttime;

- Accommodate land uses, locate and design buildings, and implement street amenities that enhance pedestrian activity; and

- Encourage new multi-family residential, retail, commercial, and office development in the City's neighborhood districts, community, regional, and downtown centers as well as along primary transit corridors/boulevards, while at the same time conserving existing neighborhoods and related districts.

2.1.4.2 Community/District Plans

As part of the City of Los Angeles General Plan, the Community/District Plans are intended to provide an official guide for future development and propose approximate locations and densities of land use. The Plans, as amended, provide standards and criteria for the development of housing, and commercial and industrial uses, as well as circulation and service systems.

The Proposed Project is included within the boundaries of the Westchester-Playa del Rey Community Plan that was adopted March 20, 1974. The Plan has been amended numerous times, and was amended in 1985 to include the area in which the Proposed Project is located, in conjunction with its annexation into the City. As part of a Community Plan Update (CPU) program to update all of the City's 35 Community Plans, the City is currently sponsoring community meetings and studies in connection with its revision of the current Westchester-Playa del Rey Plan.

The Proposed Project site is designated for low and high-medium density multi-family residential, public/quasi-public open space, and light industrial land uses. (See Figure 47 on page 620.) In the Plan, Jefferson Boulevard adjacent to the Proposed Project is designated as a Divided Major Highway.

2.1.4.3 Specific Plans

The City of Los Angeles implements its General Plan through its Planning and Zoning Code and Specific Plans. A Specific Plan was developed for the Area D portion of the former Playa Vista Planning Area concurrent with the annexation of Area D into the City (Ordinance Number 160,523). The Plan received final approval in November 1985, and was amended in 1996 (Ordinance Number 170,785).

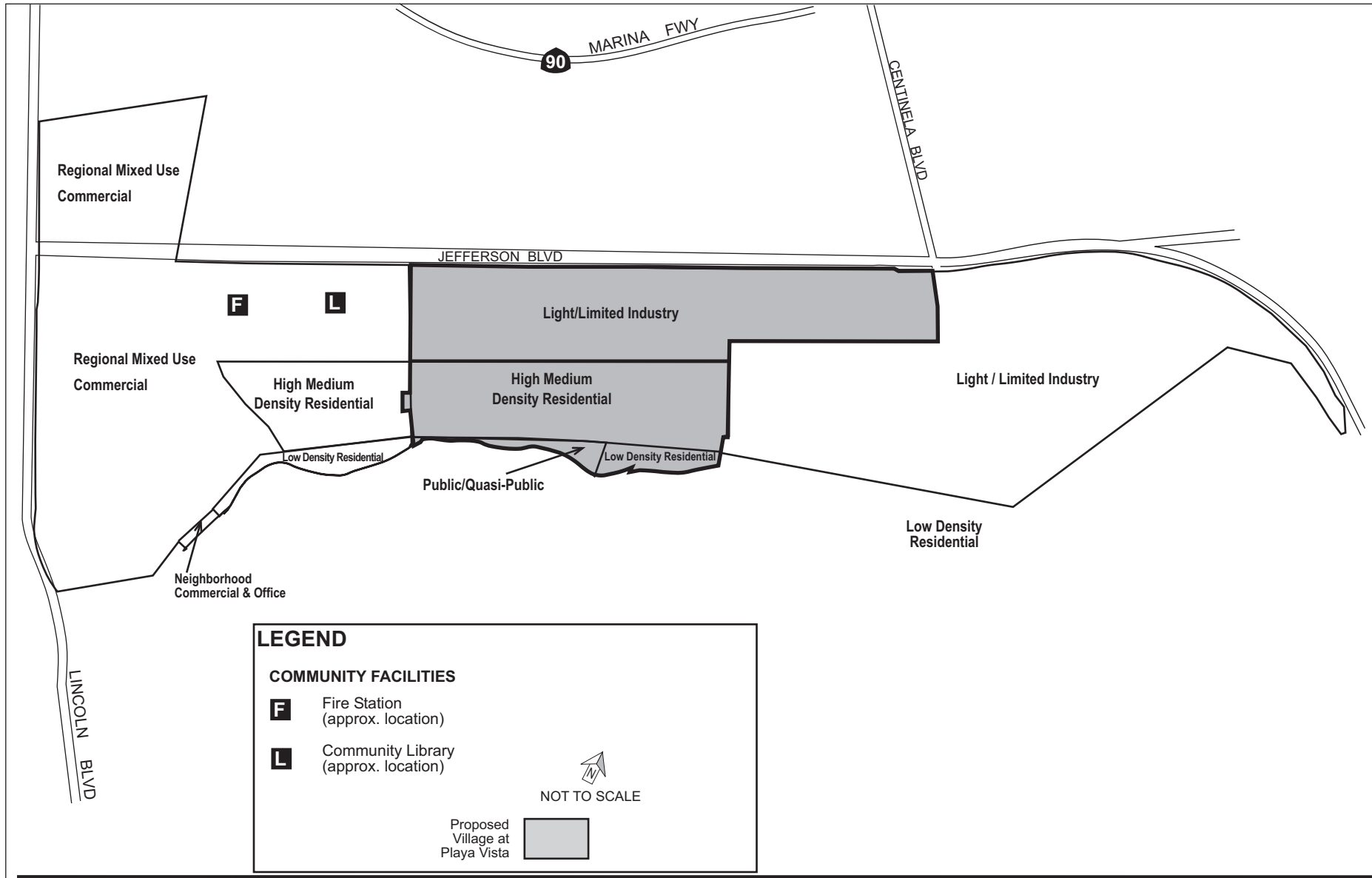


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Figure 47
Westchester-Playa del Rey
Community Plan Map

Source: Westchester-Playa del Rey Plans, as amended through December, 1995.

The intent of the Area D Specific Plan is to provide, together with the regulations set forth in the Planning and Zoning Code, regulatory controls and incentives for the systematic implementation of the portion of the Westchester-Playa del Rey Plan which includes the area within its boundaries. Area D is located outside of the California Coastal Zone.

Incorporated into the City's Zoning Code, the Specific Plan for Area D specifies permitted uses, densities and floor areas, as well as design standards, maximum building heights, landscaping standards, and parking requirements. The zoning designations are illustrated in Figure 48 on page 622. The commercial and community-serving floor areas and number of housing units permitted by the Specific Plan are described in Table 85 on page 623. Table 85 also includes a description of the remaining development allowed under the existing Specific Plan, taking into account the previously approved development within the Playa Vista First Phase Project.

The Area D Specific Plan also requires that the proposed Hughes Way (now known as Bluff Creek Drive) be connected to Centinela Avenue, and that parks and recreation space be provided in the amount of 100 square feet per residential dwelling unit.

The Coastal Transportation Corridor Specific Plan also regulates development within the Proposed Project site. This Plan is solely focused on transportation issues and is therefore discussed further in Section IV.K, Transportation and Circulation.

2.2 Existing Conditions

2.2.1 Proposed Project Site

The Proposed Project contains a total of 111.0 acres. Of these, 99.3 acres are located within the boundaries of the Urban Development Component and 11.7 acres are located within the Habitat Creation/Restoration Component.

The portion of the Proposed Project site that is proposed for the Urban Development Component, is flat and vacant except for two former plant site buildings, and other small buildings, such as sheds, minor storage structures, and construction trailers associated with development of the adjacent Playa Vista First Phase Project. Two buildings remain from the former Hughes Aircraft Company/McDonnell Douglas Helicopter plant. Building 22 is a warehouse used for storage and Building 45 is used occasionally for filming and other activities.

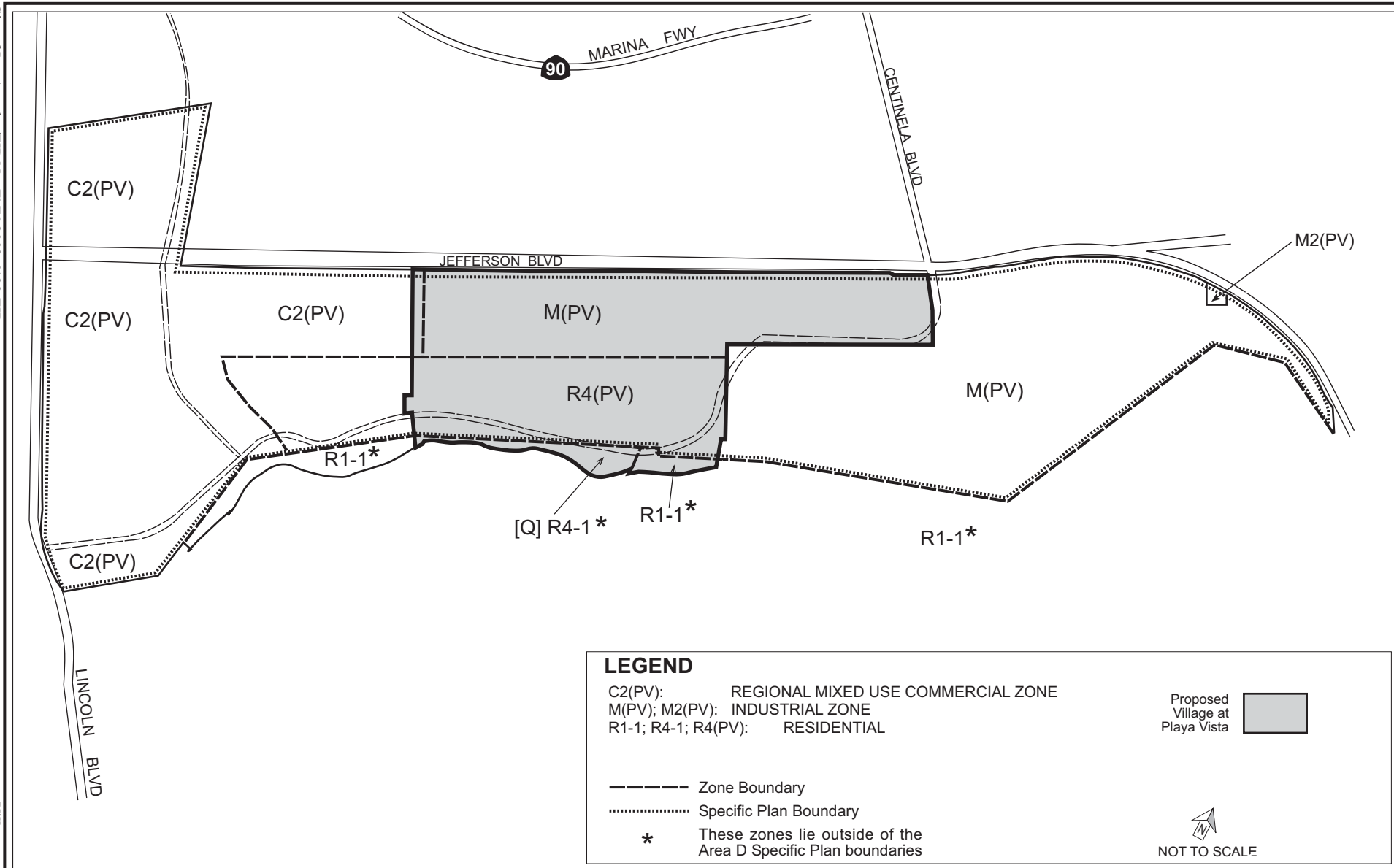

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Figure 48
Existing Zoning in Area D Specific Plan and Adjacent Project Property

Source: Playa Vista Area D Specific Plan, Ordinance #160,523 (November, 1985); Amended Ordinance #170, 785 (January 1996).

Table 85

DEVELOPMENT ALLOWED
EXISTING PLAYA VISTA AREA D SPECIFIC PLAN

	Entire Area D Specific Plan Area	First Phase Project [a]	Remaining [b]
Office (sq.ft.)	5,000,000 [c]	3,241,950 [d]	1,758,050
Housing (du)	3,246	3,246	0
Retail (sq.ft.)	650,000 [e]	35,000	615,000
Hotel (rooms)	600	—	600 [f]
Public/Civic (sq.ft.)	— [f]	120,000	—

[a] *Includes approvals for the previously CEQA-certified Playa Vista First Phase Project, which includes the Playa Vista Entertainment, Media and Technology District (EMT).*

[b] *Remaining development allowed under existing zoning is calculated based on the provisions of the Specific Plan less development approved as part of the Playa Vista First Phase Project.*

[c] *Includes 2,050,000 sq.ft. in C2(PV) and 2,950,000 sq.ft. in M (PV) zones.*

[d] *Includes 1,701,950 sq.ft. in TTM 52092 and 1,540,000 sq.ft. in VTTM 49104. The 1,540,000 sq.ft. includes 1,505,000 sq.ft. plus an additional 35,000 sq.ft. that are allowed in the event that a recycling center is not approved on Lot 145 of VTTM 49104 (per the First Phase Subdivision, Proposed Development Criteria, October 5, 1998, Footnote 21, page A-7).*

[e] *Includes 600,000 sq.ft. of retail permitted in C2(PV) under Section 5.B of the Specific Plan and 50,000 sq.ft. of commercial for mixed-use developments per Section 4.G.*

[f] *The Specific Plan for Area D states that public and civic type uses do not count towards the maximum floor area, provided such uses do not exceed 25 percent of the total floor area allowed within the Specific Plan Area.*

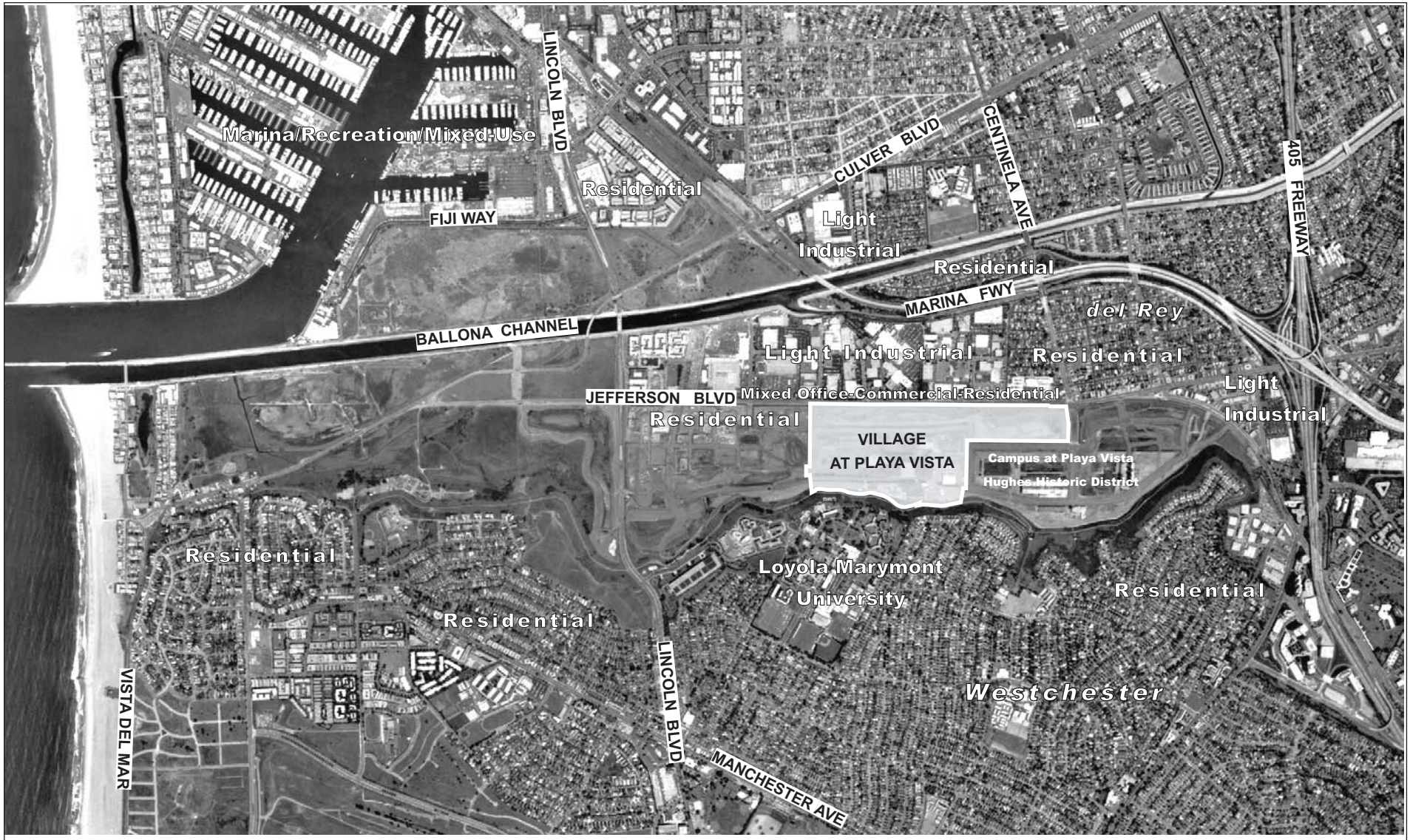
Source: Playa Vista Area Specific Plan, November 19, 1985 (amended January 13, 1996, Ordinance #170,785).

The Proposed Project site is currently used for a number of permitted activities associated with the construction of the adjacent Playa Vista First Phase Project, including stockpiling excavated soils, temporary stormwater detention, groundwater remediation, rock crushing and stockpiling, and equipment staging and parking. A roadway that bisects the Proposed Project site (Runway Road) is also under construction as part of the adjacent Playa Vista First Phase Project, to connect the east and west ends of the Playa Vista First Phase Project site.

The Project's Habitat Creation/Restoration Component includes that portion of the Westchester Bluffs within the Proposed Project boundary to the south of the proposed Urban Development Component.

2.2.2 Surrounding Areas

The land uses surrounding the Proposed Project site are shown in Figure 49 on page 624. The neighborhoods located in the vicinity of the Proposed Project site, and extending further into the region are shown in Figure 50 on page 625. The areas surrounding the Proposed Project site are comprised of a widely diverse range of uses and conditions.



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Proposed Village at Playa Vista

Figure 49
Surrounding Land Uses

Source: Playa Capital Company, 2003

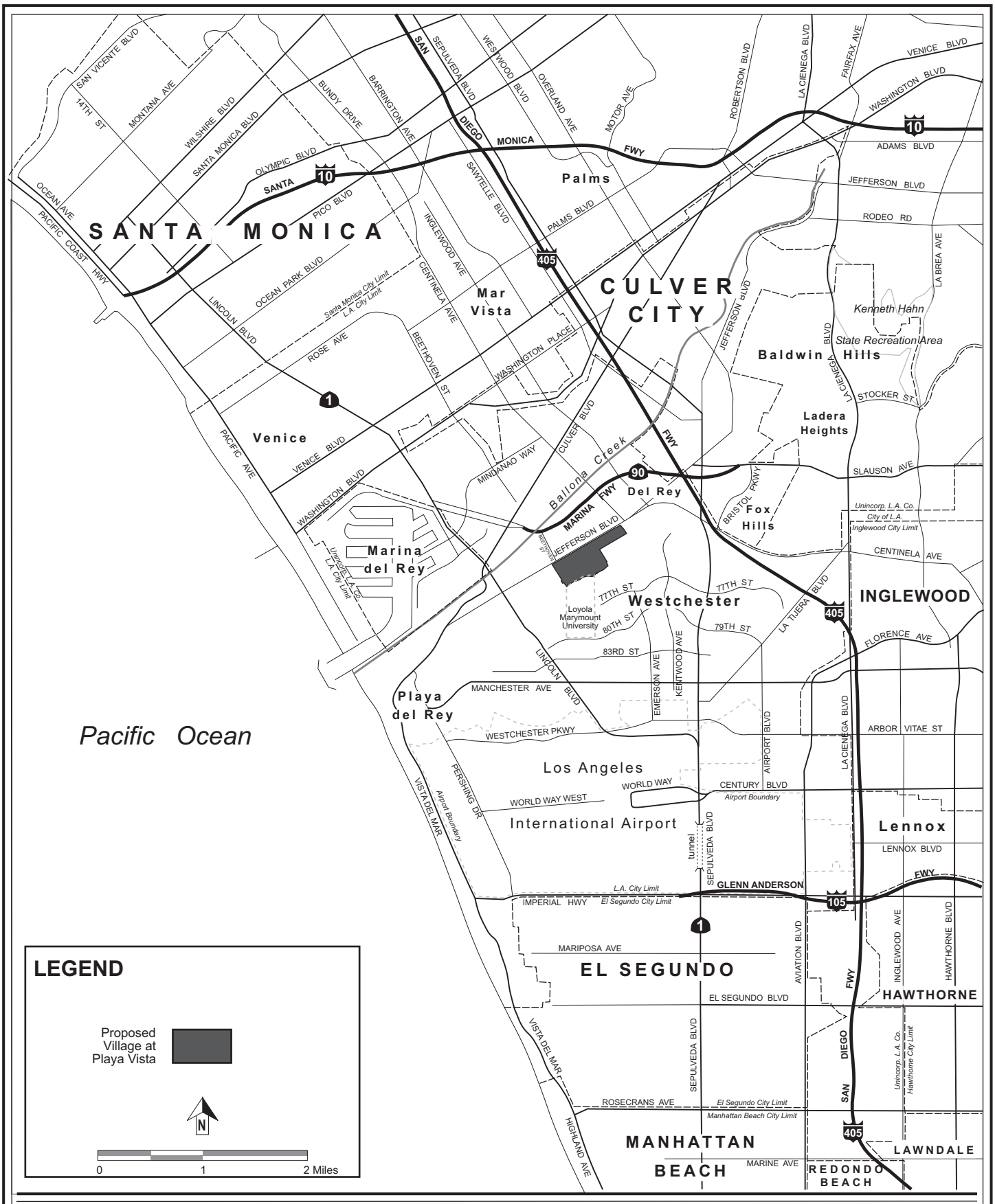


Figure 50
Location of Surrounding Communities

Source: PCR Services Corporation, 2003

Land immediately to the west and east of the Proposed Project site is approved for development as part of the Playa Vista First Phase Project, with construction already underway approximately 0.25 mile to the west of the Proposed Project site and extending to Lincoln Boulevard. The vacant land adjacent to the Proposed Project site contains support activities for the current First Phase development and preparation for future development. When construction is completed, the land adjacent to the west of the Proposed Project site will include predominantly residential uses, with some mixed uses, in mid-rise buildings. Buildings will range from two to six stories.

Land immediately to the east of the Proposed Project site is approved for office and commercial uses, including entertainment, media and technology uses. The land is currently vacant in some locations, and developed with former plant site buildings in other locations. Eleven former plant site buildings remain within the Playa Vista First Phase Project site. These buildings are to be preserved as components of the Hughes Industrial Historic District. Buildings range in height from 32 to 90 feet AMSL (or approximately 15 to 75 feet above existing grade level).

Development along Jefferson Boulevard at the northern edge of the Proposed Project site is comprised of small manufacturing and commercial uses, newer mid-rise office buildings, a few apartment buildings and larger facilities, such as a Home Depot store and a regional postal sorting center. Further to the north and east is the residential community of Del Rey. Further to the east, adjacent to the eastern-most edge of the Playa Vista First Phase site is a complex of light industrial and commercial uses. These uses extend into Culver City located to the east with commercial and residential uses beyond.

South of the Proposed Project site, development sits atop the Westchester Bluffs and includes single-family residential units located in the community of Westchester, and the Loyola Marymount University campus. Land uses atop the Playa del Rey Bluffs to the west of Lincoln Boulevard, include vacant land on which the West Bluffs residential project is under construction, Westchester residential units, and the Playa del Rey community. Land uses below the Playa del Rey Bluffs, beyond the Playa Vista First Phase Project site include the Ballona Wetlands approximately 1.1 miles southwest of the Proposed Project site. Southern California Gas Company facilities are located approximately 1.2 miles southwest of the Proposed Project site.

Extending further outward into the greater Los Angeles basin are areas comprised of single family residential neighborhoods, with higher density residential units and commercial uses located along major thoroughfares; and occasional pockets of clustered, more dense activity areas. Marina del Rey is located approximately 1.5 miles to the west of the Proposed Project site. The Marina includes a small craft harbor with recreational and commercial uses, as well as residential development comprised of medium- to high-rise condominium and apartment

buildings. Lincoln Boulevard extends to the north and the south as a major commercial artery. The communities of Venice, Culver City and Fox Hills lie beyond the immediate area to the north and east. Westchester and Playa del Rey extend to the Los Angeles International Airport and its related office, commercial and light industrial areas. The coastally related activities associated with Marina del Rey link with similar activities along the Pacific shoreline to the north and south of the Marina, with a continuation of the visitor serving amenities and commercial uses.

3.0 IMPACT ANALYSIS

3.1 Methodology

The analysis regarding the regulatory framework compares the proposed uses to the uses recommended, encouraged and/or facilitated in local and regional plans and policies. This analysis identifies applicable plans, policies and goals, delineates the pertinent sections, and discusses the relationship between the proposed uses and the regulatory guidelines.

The analysis regarding the Project's relationship to existing uses compares the proposed uses to the existing land uses surrounding the Proposed Project site to determine whether the Project's uses would disrupt, divide or isolate existing neighborhoods communities, or land uses. The existing land use information is based on aerial photographs and land use maps, which were revised and confirmed through field surveys of the Proposed Project site and surrounding area.

3.2 Significance Thresholds

The Draft Los Angeles CEQA Thresholds Guide (p.A.1-2) states that the determination of significance on Land Use Consistency shall be made on a case-by-case basis, considering the following factors:

- Whether the proposal is inconsistent with the adopted land use/density designation in the Community Plan, redevelopment plan or specific plan for the site; and

- Whether the proposal is inconsistent with the General Plan or adopted environmental goals or policies contained in other applicable plans.

Based on these factors, the Proposed Project would have a significant impact on Land Use Consistency, if:

- The Proposed Project would not be compatible with the land use/density designation in the Community Plan or Specific Plan, and with the applicable General Plan or adopted environmental goals and policies of the community.

The Draft Los Angeles CEQA Thresholds Guide (p.A.2-3) states that the determination of significance on Land Use Compatibility shall be made on a case-by-case basis, considering the following factors:

- The extent of the area that would be impacted, the nature and degree of impacts, and the type of land uses within that area;
- The extent to which existing neighborhoods, communities, or land uses would be disrupted, divided or isolated, and the duration of the disruptions; and
- The number, degree, and type of secondary impacts to surrounding land uses that could result from implementation of the proposed project.

Based on these factors, the Proposed Project would have a significant impact on Land Use Compatibility if:

- The Proposed Project would disrupt, divide or isolate existing neighborhoods, communities, or land uses.

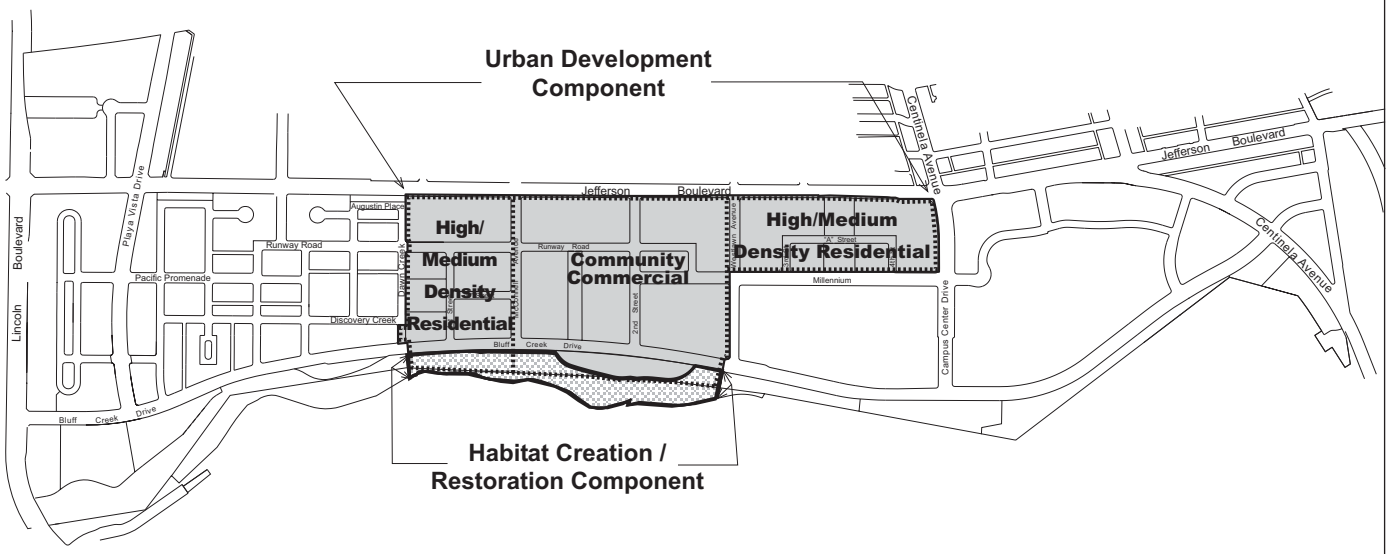
3.3 Project Design Features

3.3.1 Urban Development Component

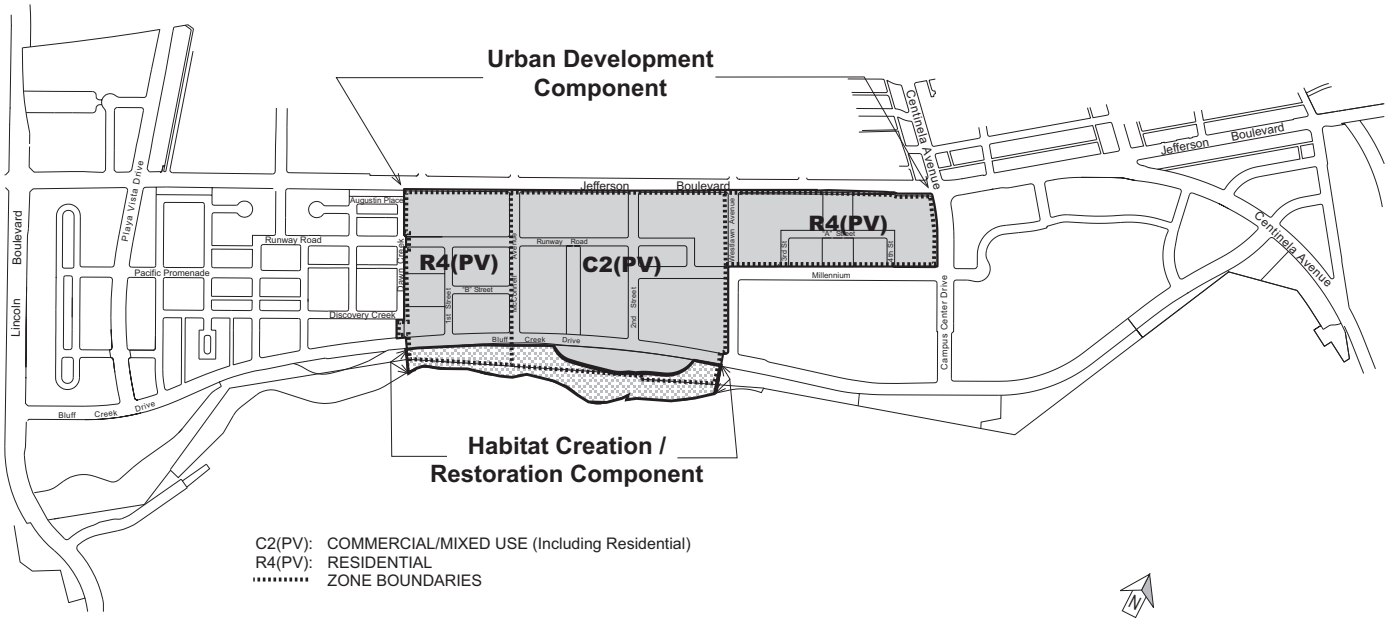
The Proposed Project's Urban Development Component would create a planned, mixed-use community, containing a diverse range of commercial, residential, recreational, public and open space uses. The Project design includes a specified land use arrangement of streets, blocks, and lots, as well as development standards which limit the amount and type of development which can occur. The Proposed Project would be implemented via amendments to the Westchester-Playa del Rey Community Plan and the Playa Vista Area D Specific Plan. The proposed land use arrangement and plan designations are presented in Figure 51 on page 629.

The Urban Development Component includes a series of residential neighborhoods organized around a Village Center. The Village Center is envisioned as an area defined by mixed-use development centered on a public plaza that may include ground floor retail uses with additional retail, office and/or residential uses located above. The development program for the Proposed Project is shown in Table 86 on page 630.

Proposed General Plan Designations



Proposed Specific Plan/Zoning Designations



C2(PV): COMMERCIAL/MIXED USE (Including Residential)
R4(PV): RESIDENTIAL
ZONE BOUNDARIES

0 600 1200 Feet

NOTE:
Locations of roadways and land use boundaries are approximate.
Precise placement will be determined as part of subdivision process.

PCR

Figure 51
Proposed Plan Designations

Source: Playa Capital Company, July 2003

Table 86

PROPOSED PROJECT DEVELOPMENT COMPONENTS

Land Areas	Size (acres)	Totals
Urban Development Component		
Urban Development	87.5[a]	
Parks	11.4[b]	
Passive Open Space	0.4[c]	
Subtotal		99.3
Habitat Creation/Restoration Component		
Riparian Corridor	6.7	
Bluffs	5.0	
Subtotal		11.7
Total Area		111.0
Urban Development Program[d]		
Land Uses	**Size**	
Office	175,000 sq.ft.	
Residential Units	2,600 du	
Retail	150,000 sq.ft.	
Community-Serving	40,000 sq.ft.	

[a] *Includes 1.0 acres of bicycle lanes*

[b] *Park acreage is approximate. Actual park acreage will be provided in accordance with the Project's adopted conditions of approval, based on the number of dwelling units ultimately constructed.*

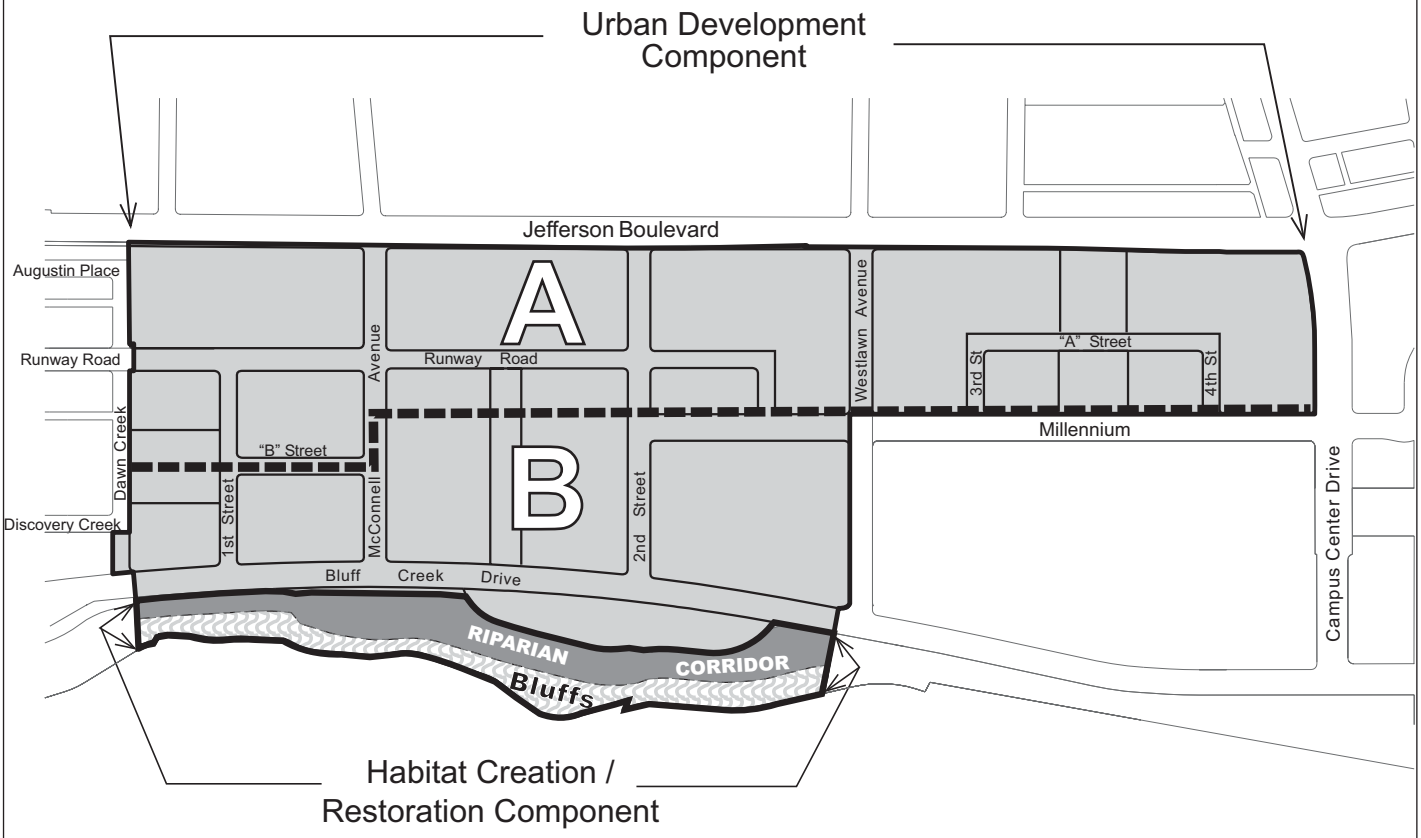
[c] *Located along the south side of Bluff Creek Drive, just to the north of the Proposed Project's Habitat Creation /Restoration Component.*

[d] *The Proposed Project would also include an Equivalency Program to allow a limited exchange of office uses for additional retail uses and/or assisted living uses.*

Source: Playa Capital Company, 2003.

The shapes and locations of the building envelopes in which development could occur would be limited by restrictions on building heights, on developable floor area as a percentage of lot area, and minimum setbacks. The proposed height limit designations for the site are shown in Figure 52 on page 631. The height limits are expressed in feet AMSL. By expressing the height limits in terms of elevation rather than height above ground, direct comparisons can be made to the elevations associated with the various visual vantage points outside of the Project site, such as the Westchester Bluffs. For descriptive purposes, building heights, as expressed in feet above mean sea level, are correlated to building heights above ground level in the legend for Figure 52.

The Proposed Project further restricts the mass of development by placing limits on the percentage of total lot area which may be developed through the Project's Development Criteria and Guidelines. The limitations on floor area varies according to land uses, as follows:



LEGEND

Height District	Above Mean Sea Level (AMSL)	Above Finished Grade [a]	Above Existing Grade [a]
A	95'	68' - 72'	71' - 88'
B	112'	85'-89'	88'-105'

[a] Height above finished grade and above existing grade are approximate. Finished grades will be approximately 23' to 27' AMSL. Existing grades vary from approximately 7' to 24' AMSL.
Westchester Bluffs: Approximately 140' AMSL

Urban Development Component

Habitat Creation / Restoration Component

0 400 800 Feet

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Figure 52
Proposed Height Limits

Source: PCR Services Corporation, July 2003

- Residential Lots: The maximum lot coverage would be 55 percent
- Commercial and Mixed Use Lots: The maximum lot coverage would be 60 percent
- Park Sites: The maximum lot coverage would be 25 percent (for recreational and park structures).

The design and development criteria set forth in the tract condition would establish further regulations pertaining to the portions of individual developments sites within which development can occur. This is accomplished by establishing minimum front, side and rear lot setback areas. The proposed setback requirements are shown in Table 87 on page 633.

3.3.2 Habitat Creation/Restoration Component

The Project's Habitat Creation/Restoration Component includes the construction of a 6.7-acre Riparian Corridor and the restoration and maintenance of a five-acre portion of the Westchester Bluffs, located to the south of the Riparian Corridor.

The proposed Riparian Corridor would include habitat such as emergent, willow scrub woodlands and mixed riparian woodlands, as well as native grasslands. The construction of this Project component would complete a 25-acre riparian corridor that also includes sections east and west of the proposed Riparian Corridor, ultimately feeding into the Playa Vista First Phase Freshwater Marsh (west of Lincoln Boulevard and south of Jefferson Boulevard), thus establishing a 51-acre Freshwater Wetland System. The proposed bluff restoration program would enhance the bluffs as a coastal sage scrub community with increased habitat value.

3.4 Project Impacts

3.4.1 Impacts Regarding the Urban Development Component

3.4.1.1 Regulatory Framework

3.4.1.1.1 Federal Level

The USACE has previously issued a permit for the fill of all existing wetlands in the Proposed Project site. Therefore, no further federal permitting is required. No adverse land use impacts associated with federal regulations would occur. (Implementation of the Programmatic Agreement for the protection of cultural resources are discussed further in the Cultural Resources Section of the EIR, Section IV.P.(2).

Table 87

PROPOSED SETBACK REQUIREMENTS

Location	Required Setback	
Thoroughfares		
Jefferson Boulevard	15 Feet	(From the right-of-way/property line, regardless of which way the building orients on the lot. This setback excludes retaining walls.)
Bluff Creek Drive	15 Feet	
Runway Road (Dawn Creek to McConnell)	15 Feet	
Runway Road (McConnell to 2nd Street)	0-5 Feet	(Street front retail will characterize this block.)
Runway Road (2nd Street to Millennium)	15 Feet north side, 10 Feet south side	
Millennium Road	15 Feet	
McConnell Avenue	10 Feet	
McConnell Avenue (100 feet north and south of Runway Road)	0-5 Feet	(Street front retail will characterize this block.)
Westlawn Avenue	10 Feet	
Campus Center Drive	15 Feet	
1st, 2nd, 3rd, and 4th Street	10 Feet	
2nd Street (100 feet north and south of Runway Road)	0-5 Feet	(Street front retail will characterize this block.)
A and B Streets	10 Feet	
Dawn Creek	10 Feet	
Setbacks from Adjacent Lots [a]		
Adjacent to a Residential or Commercial Lot	10 Feet	
Adjacent to a Park or Open Space Lot	5 Feet	

[a] *Multi-family structures in two separately developed Projects shall be separated by no less than 20 feet.*
Source: Playa Capital Company, 2003.

3.4.1.1.2 Regional Level

The Southern California Association of Governments (SCAG) has prepared the Regional Comprehensive Plan and Guide (RCPG 1994/1996), in conjunction with its constituent members and other regional planning agencies. The RCPG is intended to serve as a framework for decision-making with respect to the growth and changes that can be anticipated by the year 2015 and beyond. In addition, the RCPG proposes a voluntary strategy for local governments to use to assist them in addressing issues related to future growth and in assessing the potential impacts of proposed development projects within the context of the region.

Chapter 2 of the RCPG, Growth Management, includes policies related to land use distribution and patterns. The purpose of the Growth Management chapter is to present forecasts which establish the socio-economic parameters for the development of the Regional Mobility and Air Quality chapters of the RCPG and to address issues related to growth and land consumption by encouraging local land use actions which could ultimately lead to the

development of an urban form that will help minimize development costs, protect natural resources, and enhance the quality of life in the region. Many of the policies pertain to SCAG forecasting, SCAG actions, and development or environmental settings different than those of the Proposed Project. The policies which most pertain to the Proposed Project are listed in Subssection 2.1.2 on page 613.

The Proposed Project is based on a mixed-use concept with a range of related and complementary uses, both internally, and in conjunction with the Playa Vista First Phase Project. The Project's proposed land use mix would provide a balance of jobs and housing. The Proposed Project's land use mix would also cluster development so as to create an activity center and provide for efficient provision of infrastructure. The Proposed Project's land use mix would provide mutually supportive employment, housing, recreation, commercial and community-serving activities so as to meet a range of needs internally to the Project. It would emphasize public transit and non-motorized transportation through the provision of an internal shuttle system and the provision of bikeways and walkways. In addition, the Proposed Project's land use mix has been designed to save and enhance important natural features of the Project site; i.e., the bluffs and a riparian corridor at the base of the bluffs. All of these Project Design Features are supportive of, and would help to implement, the policies listed in Subsection 2.1.2, above. The proposed land use mix and its relationship to surrounding uses is addressed further in this Land Use discussion at Subsection 3.4.1.2, as well as in Section IV.K.(1), Traffic and Circulation, and Section IV.J, Population, Housing and Employment. Because the Proposed Project would be compatible with the policies listed above, impacts associated with regional level land use regulations would be considered less than significant.

3.4.1.1.3 County Level – Los Angeles County Airport Land Use Plan

The Los Angeles County Airport Land Use Plan delineates both 65 CNEL noise contour line and Runway Protection Zones (RPZs) for the Los Angeles International and Santa Monica Airports. The Proposed Project is approximately 1.5 miles from the nearest 65 CNEL contour and RPZ at Los Angeles International Airport and approximately 3.5 miles from the nearest 65 CNEL contour and RPZ at the Santa Monica Airport. Based on the compatibility criteria in the Los Angeles County Airport Land Use Plan, the Proposed Project's uses would be well outside of the noise and safety zones and would be compatible with the Plan. Therefore, potential impacts regarding airport plans would be less than significant.

3.4.1.1.4 City of Los Angeles General Plan

3.4.1.1.4.1 General Plan Framework Element

The City of Los Angeles General Plan Framework, adopted in December 1996 and re-adopted in August 2001, provides guidance regarding land use issues for the entire City of

Los Angeles including the Proposed Project. The General Plan Framework was not intended to either override or mandate changes to the community plans (as discussed below).[256]

The Long Range Land Use Diagram contained in the Framework designates the area around the intersections of Jefferson and Lincoln Boulevards and Culver and Lincoln Boulevards as the approximate area for a Regional Center. Under the concept presented there, regionally serving uses would be concentrated at the intersection of Jefferson and Lincoln Boulevards and extended/blended eastward into related uses in adjoining areas, including the Proposed Project site.[257]

The Framework also sets forth a Citywide comprehensive long-range growth strategy and defines Citywide polices regarding land use, housing, urban form, neighborhood design, open space, economic development, transportation, infrastructure, and public services. The Land Use chapter of the Framework identifies objectives and supporting policies relevant to the Proposed Project. Further description of the Regional Centers, and a listing of relevant land use related policies are provided in Subsection 2.1.4.1 on page 616.

The Proposed Project would be compatible with these policies. The Proposed Project is based on a mixed-use concept with a range of related and complementary uses both internally, and in conjunction with the adjacent, Playa Vista First Phase Project. The use mix would provide a balance of jobs and housing, and it would cluster development so as to create an activity center and provide for efficient provisions of infrastructure. The Proposed Project's use mix will also provide mutually supportive employment, housing, recreation, commercial and community-serving activities so as to meet a range of needs internally to the Project and would emphasize public transit and non-motorized transportation through an internal shuttle system and the provision of bikeways and walkways. The Proposed Project's Habitat Creation/Restoration Component has been designed to save and enhance important natural features of the Project site; i.e., the bluffs and riparian corridor. The proposed use mix and its relationship to surrounding uses is addressed further in this land use discussion at Subsection 3.4.1.2, as well as in Section IV.K.(1), Traffic and Circulation, and Section IV.J, Population, Housing and Employment. Because the Proposed Project would be compatible with the City's Framework policies, impacts regarding the General Plan Framework would be less than significant.

[256] *"The Citywide General Plan Framework." City of Los Angeles, December 1996, West/Coastal Los Angeles, Long Range Land Use Diagram, Figure 3-3, Key and Legend Information.*

[257] *The various Centers designated in the Long Range Land Use Diagram in the Framework are approximate locations.*

3.4.1.1.4.2 Community/District Plans and Specific Plans

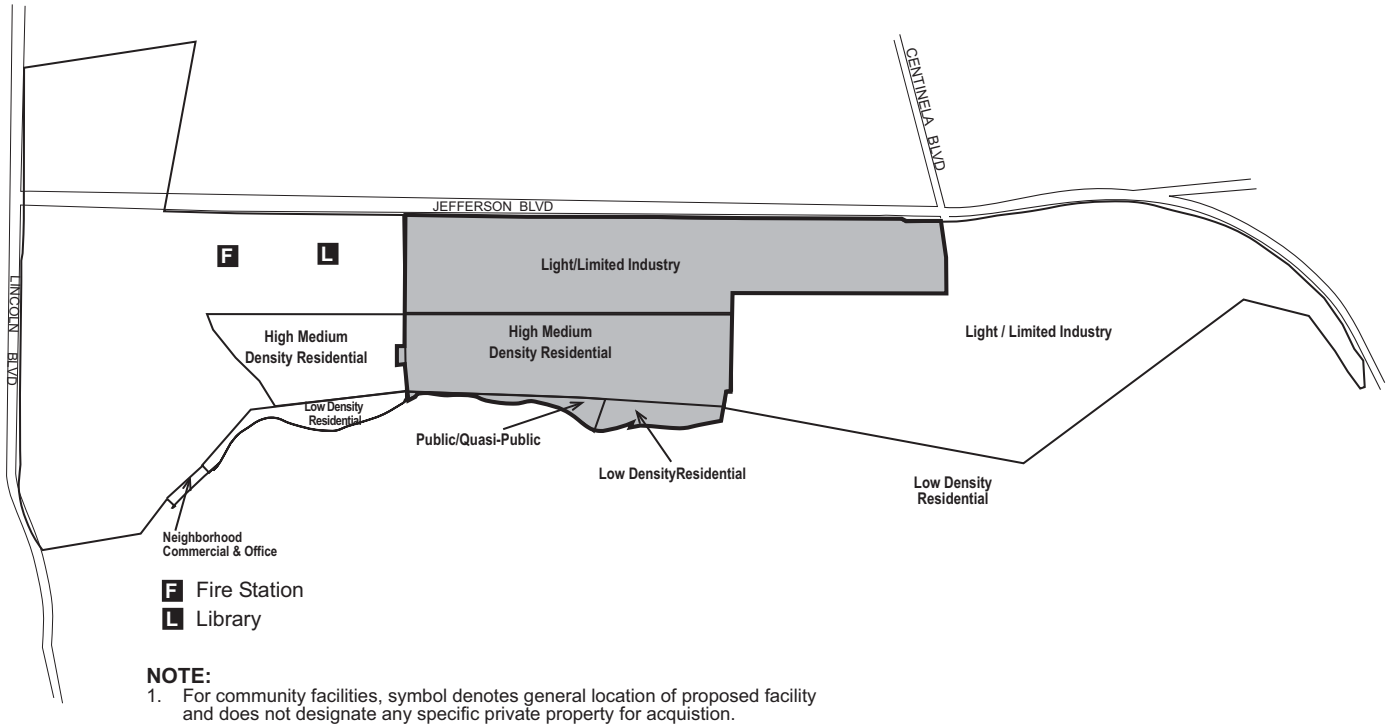
The Proposed Project site is regulated under the Westchester-Playa del Rey Community Plan of the City of Los Angeles (a component of the Land Use Element of the General Plan) and the existing Area D Specific Plan, both of which would be amended by the Proposed Project. Community/District plans are a mechanism for expressing City General Plan requirements at the neighborhood level. The plans include a Land Use Map, and general development policies. The Community Plan has been designed to accommodate the anticipated growth in population and employment in Westchester-Playa del Rey to the year 2000. As part of a Community Plan Update (CPU) program to update all of the City's 35 Community Plans, the City is currently sponsoring community meetings and studies in connection with its revision of the current Westchester-Play del Rey Plan.

The existing Specific Plan for Area D is intended to implement the City's General/ Community Plan land use provisions. As such, the provisions of the Specific Plan are consistent with the Community Plan, and include appropriate zoning regulations pertaining to the types and amounts of development which may occur. The Specific Plan also includes regulations pertaining to site design with standards for subdivisions, design review, landscaping, parking, park space and procedural matters.

The Proposed Project Design Features described in Subsection 3.3, above, include proposed land use map designations, a development program with proposed entitlement (types and amounts of land uses) and a design that would define the Project's maximum heights, minimum setbacks and maximum density. The Project's proposed plan map designations are compared to the existing District Plan and Specific Plan designations on Figure 53 and Figure 54 on pages 637 and 638, respectively. The Proposed Project's Development program is compared to the development program that could occur under the Area D Specific Plan in Table 88 on page 639. The comparison contrasts the types and amount of development of the Proposed Project within the amount of development remaining within the Specific Plan after buildout of the adjacent Playa Vista First Phase Project.

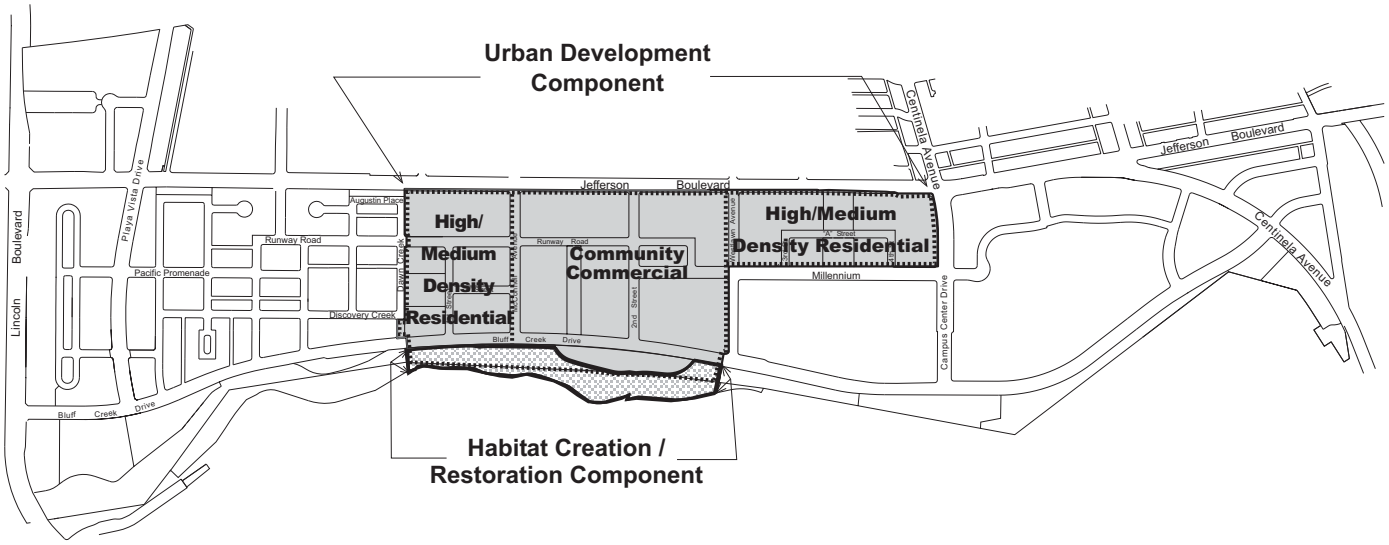
A comparison of existing and proposed land use designations, and development programs (types and amounts of development allowed) of the existing plans is provided in Table 89 on page 640. Table 89, in addition to comparing proposed conditions, analyzes and discusses the land use implications of implementing the Proposed Project to determine whether the Proposed Project's Design Features would be compatible with the existing regulations. The Proposed Project's Design Features would be implemented via amendments to the existing Specific Plan and it zoning designations, establishing new boundaries for R4(PV) and C2(PV) zone areas in place of existing R4(PV) and M(PV) zone areas. The zone changes would support the Project's proposed exchange between housing uses in place of office, retail and hotel uses. The exchange

Existing General/Community Designations Plan



NOTE:
1. For community facilities, symbol denotes general location of proposed facility and does not designate any specific private property for acquistion.

Proposed General/Community Plan



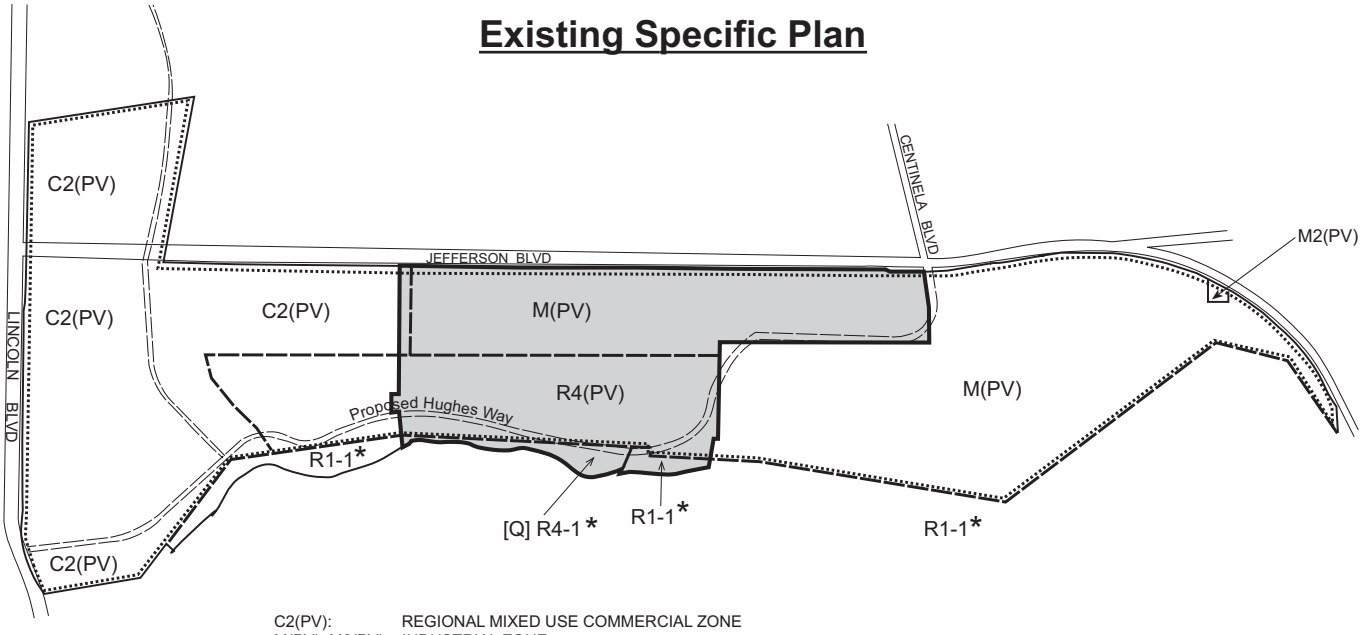
NOTE:
Locations of roadways and land use boundaries are approximate.
Precise placement will be determined as part of subdivision process.

PCR

Figure 53
Comparison of the Existing District Plan and the Proposed Designations

Source: Playa Capital Company, 2003

Existing Specific Plan



C2(PV): REGIONAL MIXED USE COMMERCIAL ZONE
M(PV); M2(PV): INDUSTRIAL ZONE
R1-1; R4-1; R4(PV): RESIDENTIAL

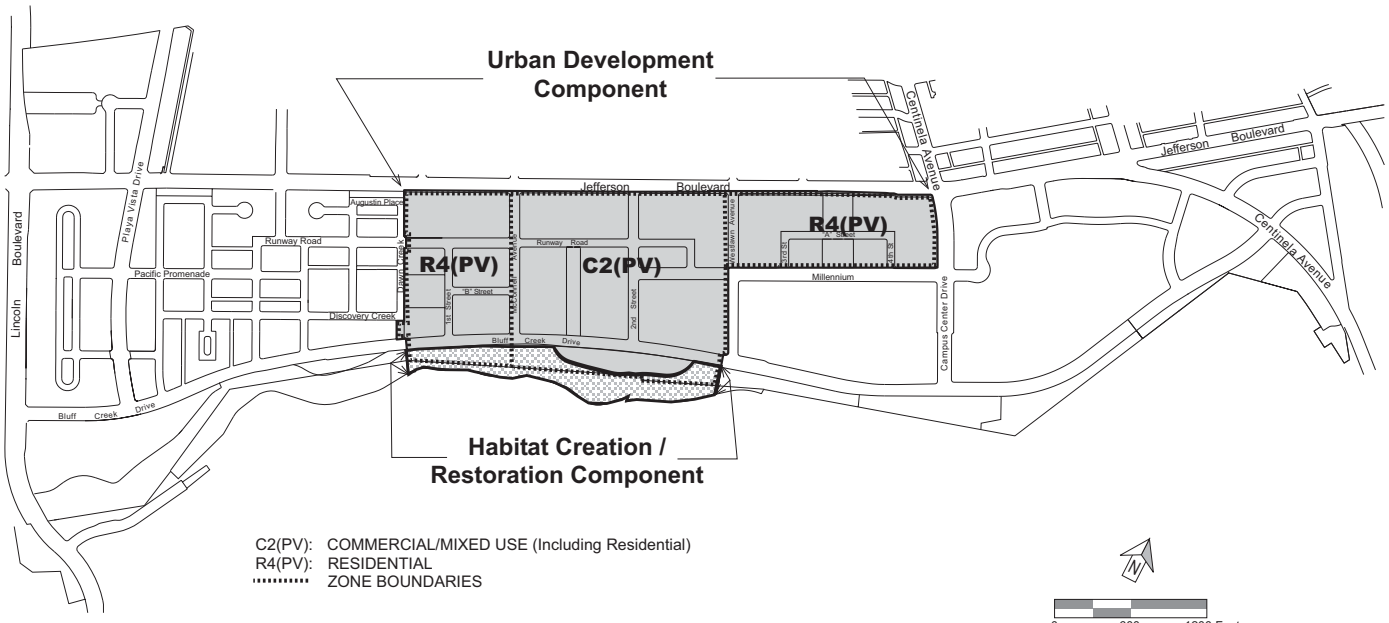
Zone Boundary
Specific Plan Boundary

NOTE:

All conditions placed upon Specific Plan at the time of adoption by the City are also applicable. Existing Area D Specific Plan adopted November 21, 1985, amended 1996.

* These zones lie outside of the Area D Specific Plan boundaries

Proposed Specific Plan/Zoning Designations



C2(PV): COMMERCIAL/MIXED USE (Including Residential)
R4(PV): RESIDENTIAL
ZONE BOUNDARIES

NOTE:
Locations of roadways and land use boundaries are approximate.
Precise placement will be determined as part of subdivision process.

PCR

Figure 54
Comparison of the Existing Specific Plan and the Proposed Designations

Source: Playa Capital Company, 2003

Table 88

COMPARISON OF AREA D SPECIFIC PLAN USES AND PROPOSED USES

	Maximum Permitted by Specific Plan*	First Phase Project [a]	Remaining [b]	Proposed Project**	Change From Remaining	Maximum Permitted by Proposed Specific Plan [h]
Office (sq.ft.)	5,000,000 [c]	3,241,950 [d]	1,758,050	175,000	-1,583,050	3,575,000
Housing (du)	3,246	3,246	0	2,600 [e]	+2,600	5,846
Retail (sq.ft.)	650,000 [f]	35,000	615,000	150,000	-465,000	185,000
Hotel (rooms)	600	0	600	0	-600	0
Public/Civic (sq.ft.)	—	120,000 [g]	—	40,000	+40,000	NA

Note: The Proposed Project also includes 11.4 acres of parks

* *Playa Vista Area D Specific Plan, Ord. # 160,523, November 19, 1985 (amended January 13, 1996, Ordinance #170,785).*

** *The Proposed Project would also include an Equivalency Program to allow a limited exchange of office uses for additional retail uses and/or assisted living uses.*

[a] *Includes approvals for the previously CEQA-certified Playa Vista First Phase Project, which includes the Playa Vista Entertainment, Media and Technology District (EMT).*

[b] *Remaining development allowed under existing zoning is calculated based on the provisions of the Specific Plan less development approved as part of the Playa Vista First Phase Project.*

[c] *Includes maximum 2,050,000 sq.ft. of office permitted in C2(PV) and 2,950,000 sq.ft. permitted in M(PV).*

[d] *Includes 1,701,950 sq.ft. in TTM 52092 and 1,540,000 sq.ft. in VTTM 49104. The 1,540,000 sq.ft. includes 1,505,000 sq.ft. plus an additional 35,000 sq.ft. that are allowed in the event that a recycling center is not approved on Lot 145 of VTTM 49104 (per the First Phase Subdivision, Proposed Development Criteria, October 5, 1998, Footnote 21, page A-7). It has been determined by the City's Director of Planning and the City Engineer that the recycling center is not feasible. (Letter from Con Howe, Director of Planning, January 8,2003.*

[e] *Exceeds the maximum permitted by the existing Specific Plan and requires amendments to the Specific Plan.*

[f] *Includes 600,000 sq.ft. of retail permitted in the C2(PV) and 50,000 sq.ft. of convenience commercial for mixed-use developments per Section 4.G of the Area D Specific Plan (Ordinance 160,523).*

[g] *The Specific Plan for Area D states that public and civic type uses do not count towards the maximum floor area, provided such uses do not exceed 25 percent of the total floor area allowed within the Specific Plan Area.*

[h] *This amount includes 108,050 sq.ft. of development in the M(PV) zone and 50,000 sq.ft. in the C2(PV) zone that are not a part of either the Proposed Project or the First Phase Project. This space allows flexibility in the location of office development within one zone or the other, but does not change the total amount of office space permitted.*

Table 89

LAND USE IMPLICATIONS OF PROPOSED DEVELOPMENT

Category	Westchester-Playa del Rey Community Plan and Playa Vista Area D Specific Plan	Proposed Project	Land Use Implications
Land use and zone designations/ boundaries	District Plan: High/Medium Density Housing & Light/Limited Industry Specific Plan: R4(PV), M(PV)	District Plan: High/Medium Density Housing & Community Commercial Specific Plan: R4(PV), C2(PV)	The changes in the land use and zone designations would occur as amendments to the Westchester Playa del Rey Community Plan and Playa Vista Area D Specific Plan/zoning designations. The proposed modification of zone boundaries, as shown in Figure 53 and Figure 54 on pages 637 and 638, supports the Project's design concept by locating residential uses surrounding a commercial/mixed-use village center, and providing a continuity of uses within the Area D Specific Plan. The modification in boundaries would change those land use and zone designations. Implementation of the Project would include a re-designation of Lot 113 of VTTM 49104 from open space to development. Such a re-designation could only occur upon a demonstration by the Advisory Agency that the open space acreage is not needed to meet the open space requirements of VTTM 49104. A mitigation measure, below, requires such determination.
Types and amounts of development remaining under Area D Specific Plan (Ordinance #170,785)	Housing: 0 units Office: 1,758,050 sq.ft. Retail: 615,000 sq.ft. Hotel: 600 Rooms Community Serving: Allowed, amount not specified	Housing: 2,600 units Office: 175,000 sq.ft. Retail: 150,000 sq.ft. Hotel: 0 Rooms Community Serving: 40,000 sq.ft.	As additional housing is not permitted by the existing Area D Specific Plan, development of the proposed 2,600 housing units would require a Specific Plan Amendment. The Proposed Project's office, retail and community serving uses could be developed as proposed, pursuant to the provisions of the existing Specific Plan. However, the Applicant is proposing an amendment to the Area D Specific Plan to eliminate the office, retail and hotel uses that could occur beyond the development of the Proposed Project and previously approved Playa Vista First Phase Project. This would result in the following: a reduction of 1,583,050 sq.ft. of office space, a reduction of 465,000 sq.ft. of retail space, and a reduction of 600 hotel rooms. The exchange between housing uses in place of office, retail and hotel uses is offered in the context of an overall planning concept for the Proposed Project. The proposed planning concept would support

Table 89 (Continued)

LAND USE IMPLICATIONS OF PROPOSED PLAN AMENDMENTS

Category	Westchester-Playa del Rey Community Plan and Playa Vista Area D Specific Plan	Proposed Project	Land Use Implications
			conversion of the regional center anticipated in existing plans to a more local, neighborhood, residentially oriented mixed-use community. The proposed uses are more in keeping with the existing surrounding uses, than those of a regional center. Further, they constitute a mix of uses that offers a generally perceived sense of intensity which is less than that of a regional center, and increase the job/housing ratio in the region which is currently jobs rich. For these reasons, the proposed uses would support the general planning goals and objectives for the Project site, including those supporting mixed-use development, albeit in a less intense configuration, but one that is more in keeping with surrounding land uses. Therefore, the proposed uses are considered compatible with the existing District and Specific Plans.
Heights	Limited by only FAA regulations on 10 percent of the lots, 240 feet above grade (263 feet to 267 feet AMSL) on 20 percent of the lots and 140 feet AMSL on the remainder of the lots.	95 feet AMSL (68 feet to 72 feet above finished grade) on the northern portion of the Project site (north of Millennium Road). 112 feet AMSL (85 feet to 89 feet above finished grade) on the southern portion of the Project site	The Proposed Project would establish new height districts in the context of the Project's tract conditions. These heights are substantially less than those that could occur under the existing Specific Plan. The new heights would enhance the aim of the existing plans to constrain the potential impacts of building massing, and would provide protection of views over the Project site from the Westchester Bluffs that may not necessarily occur with development pursuant to the existing Specific Plan. Therefore, the Project's proposed height limits would be more restrictive and therefore, compatible with the existing Plans.
Setbacks/Lot Coverage	R-4 (PV): R-4 standards, or lesser yards if compatible with adjacent buildings, structures and uses. R-4 (Per City's Planning and Zoning Code):	Jefferson Boulevard, Bluff Creek Drive, Runway Road (part-way), Millennium Road, Campus Center Drive: 15 feet McConnell Avenue,	The Proposed Project would implement a set of setback standards through the tract conditions that are based on the design principles of the Proposed Project. The standards are tied to the character of street frontages and adjacent uses rather than to the zone designation. The Proposed Project's setback requirements would be supplemented with lot coverage restrictions that could

Table 89 (Continued)

LAND USE IMPLICATIONS OF PROPOSED PLAN AMENDMENTS

Category	Westchester-Playa del Rey Community Plan and Playa Vista Area D Specific Plan	Proposed Project	Land Use Implications
	Front: 15 feet Side: 5 feet + 1 ft/story over 2nd Rear: 15 feet + 1 ft/story over 3rd Lot Coverage: None C-2 (PV): Setbacks: None	Westlawn Avenue, 1st Street, 2nd Street, 3rd Street, 4th Street, A Street, B Street, and Dawn Creek: 10 Feet. Limited Locations (Short segments of Runway Road, McConnnell Avenue and 2nd Street): 0 – 5 feet per character of street front retail. Adjacent Lot – adjacent to residential or commercial lot: 10 feet (multifamily structures in two separately developed Projects separated by no less than 20 feet). Adjacent to park/open space lot: 5 feet. Lot Coverage: Residential – 55%; Commercial and Mixed-Use – 60%; Parks – 25% (Recreation/park facilities)	result in deeper setbacks at many locations. The establishment of the setbacks by roadways and adjacent uses is an alternative planning approach with advantages over the standards based on broad zone categories. This approach better addresses the mixed-use concept that contains varied building orientations, it applies the standard to all of the development, not just the residential uses; it supports the continuity of design between commercial and residential uses, and addresses compatibility between uses. There could be cases whereby a residential use at a particular location with a particular street orientation could be built consistent with specific Plan provisions and have setbacks that would be less than those typically included in R-4 zoning per the City Zoning Code. However, resulting setbacks would also be greater at locations throughout the Project site due to the following: (1) the setbacks would apply to commercial as well as residential uses, (2) 10 feet setbacks adjacent to residential and commercial lot, and 20 feet between two separately developed projects would typically exceed the typical standards, and (3) the lot coverage restrictions would result in more space around buildings than could occur under the typical standards. For these reasons the proposed setbacks are considered to be compatible with the existing, applicable zoning.

Table 89 (Continued)

LAND USE IMPLICATIONS OF PROPOSED PLAN AMENDMENTS

Category	Westchester-Playa del Rey Community Plan and Playa Vista Area D Specific Plan	Proposed Project	Land Use Implications
Residential Density	R-4(PV): 800 sq.ft. per dwelling unit/400 sq.ft. per dwelling unit Residential in C-2(PV) is equivalent to R-5: 400 sq.ft./200 sq.ft. per dwelling unit.	2,600 Units on 99.3 acres.	Residential density in the Proposed Project would be controlled by the limitation on the total number of units allowed: 2,600 units. This is approximately 26 units per gross acre (based on the area of the Project's Urban Development Component, or approximately 38 units per net acre (based on the approximately 68 acres of lots in which residential development could occur). The R-4(PV) zone is equivalent to the City's standard R-4 zone. Under Los Angeles City Ordinance No. 174,994, the maximum residential net densities allowed in R-4 and R-5 zones is 400 and 200 sq.ft. per dwelling unit, respectively. This equates to approximately 110 and 220 units per net acre, respectively. The Proposed Project's density would be well below these levels, and thus, would be compatible with the City's densities requirements for the proposed zone designations.

is offered in the context of the overall planning concept for the Proposed Project. As indicated in Table 89, the Project's design features would be compatible with the existing land use/density designations plans, and therefore regulatory impacts with regard to the Community and Specific Plans would be less than significant.

The discussion in Table 89 addresses the general land use characteristics of the Proposed Project. The more specific impacts of development on environmental topics such as traffic and noise that could occur under the Proposed Project versus allowable development under the existing plans is addressed in the Alternatives Section of the EIR. (See the discussion of Alternative 3 in Section VII, Subsection 4.3, for an issue-by-issue comparison of development under the Proposed Project and the development currently allowed under the existing Specific Plan for Area D.) In addition, other specific plan requirements pertaining to specific environmental topics are addressed in Section IV.K.(2), Parking; Section IV.L.(4), Parks and Recreation; and Section IV.O, Visual Qualities.

3.4.1.2 Relationship to Existing Uses

The Draft Los Angeles CEQA Thresholds Guide identifies three factors to be used for determining the significance of a project's impacts on land use compatibility (see Subsection 3.2, above.) The first factor identifies land use considerations that should be addressed in the analysis and have been so considered below. The second factor identifies adverse effects on surrounding uses that have been applied directly in the thresholds. The third factor addresses the "secondary" impacts that might result from the land use distribution. Such "secondary" impacts are analyzed separately in this EIR under the remaining Environmental Topics in Section IV, as applicable.

The following discussion focuses on the types of uses proposed for the Proposed Project and their relationship to the surrounding region and adjacent areas. For a discussion of the Proposed Project's development in contrast to surrounding areas in terms of design standards, height limits, etc., refer to Section IV.O, Visual Qualities. Also refer to Sections IV.K, Traffic and Circulation; IV.E, Noise; and IV.B, Air Quality for "secondary" Project impacts on surrounding neighborhoods that would result with the proposed land use distribution.

The existing uses surrounding the Proposed Project site are shown in Figure 49 on page 624. The surrounding communities are identified in Figure 50 on page 625.

3.4.1.2.1 Relationship to Adjacent Communities

Proposed development includes residential (2,600 units), office (175,000 sq.ft.), retail (150,000 sq.ft.), and community-serving (40,000 sq.ft.) uses. There are also sites for open space uses. The Proposed Project's Urban Development Component is intended to provide a mix of

commercial uses which would serve and provide an activity focus for both the Proposed Project and adjacent Playa Vista First Phase Project. Land immediately to the west and east of the Proposed Project site is approved for development as part of the Playa Vista First Phase Project, with construction already underway approximately 0.25 mile to the west of the Proposed Project site and extending to Lincoln Boulevard. When construction is completed, the land adjacent to the west of the Proposed Project site will include predominantly residential uses, with some mixed uses in mid-rise buildings (typically 3- to 5-story buildings, with some buildings extending an additional 2 to 3 stories). Land immediately to the east of the Proposed Project site is approved for office and commercial uses, including entertainment, media, and technology uses. As such, the Proposed Project provides a continuity between its development area and the Playa Vista First Phase Project areas which abut the Proposed Project on its east and west sides.

Existing development to the south of the Proposed Project site, is located atop the bluffs, and would not have its arrangement and activity affected by the Proposed Project. Project height limits restrict development to a level well below the average height of the bluffs creating a distinct separation between neighborhoods.

Development north of the Proposed Project site includes office, commercial, and apartment uses along Jefferson Boulevard. Proposed Project uses facing the existing development would be almost completely residential with a potential for a minimal amount of mixed-use. Development would be mid-rise in nature and would sit atop a landscaped berm facing Jefferson Boulevard. Thus, the Proposed Project would not alter the general character of existing nearby development. Light industrial uses, and the residential community of Del Rey further to the north are separated from the Project site by existing development along Jefferson Boulevard. Accordingly, the Proposed Project would not divide an existing neighborhood, community or land uses and would not result in a significant land use impact.

3.4.1.2.2 Relationship to the Larger Region

The land uses adjacent to the Proposed Project site are, in turn, surrounded by a larger ring of communities featuring residential, office/commercial, and light industrial uses. These communities are more removed from the Proposed Project site than the adjacent uses. As such, these communities would have a less direct relationship to proposed development, and would not become divided due to its development.

The land use patterns surrounding the Proposed Project extend outward into the greater Los Angeles basin comprised of single family residential neighborhoods, with higher density residential units and commercial uses located along major thoroughfares; and occasional pockets of clustered, more dense activity areas. Lincoln Boulevard extends to the north and the south as a major commercial artery. Jefferson Boulevard and Centinela Avenue extend to commercial activity to the east. The communities of Venice, Culver City, and Fox Hills lie beyond the

immediate area to the north and east. Westchester and Playa del Rey extend south to the Los Angeles International Airport and its related office, commercial and light industrial areas. Marina del Rey to the west links with other coastally-oriented development along the Pacific shoreline to the north and south of the Marina, with a continuation of visitor serving amenities and commercial uses.

The Proposed Project would contribute to a cluster of mixed-use activity pocketed between the surrounding communities and would contribute to the overall form of the region. As described in the regulatory section above, the overall form of the region is addressed in General Plan documents for the City of Los Angeles, as well as SCAG's Regional Comprehensive Plan and Guide. Each of these documents considers the regional land use relationships, and proposes development guidelines to attain a land use mix and distribution that best serves the needs of the region. These documents address the full variety of development goals and objectives, and needs for diversity of neighborhoods.

All of these documents have identified the Proposed Project area as a more intense activity center within the regional fabric, an area of higher density activity lying between surrounding neighborhoods of lesser density. (Subsections 3.4.1.1.2 and 3.4.1.1.4.1, above, address the regional form per Regional (SCAG) and City of Los Angeles policies, respectively.) For the reasons expressed in those plans, the proposed development would contribute to a regional pattern which is compatible with the attainment of land use goals.

Proposed plan amendments associated with the Proposed Project would lessen the development's regional role, and give it a more local character. The proposed mixed-use neighborhoods, with a larger residential component than anticipated in the existing Area D Specific Plan, would offer more continuity of character across the surroundings than the more regionally oriented commercial retail and office center anticipated in existing plans. Therefore, impacts associated with the relationship to the larger region would contribute to the planned pattern of in-fill of activity areas, amongst lower density neighborhoods. The Proposed Project would not divide any existing neighborhoods, communities, or land uses and would provide for additional development outside of existing neighborhoods. Impacts would be less than significant for the Proposed Project.

Placement of a new activity center within the area would generate certain environmental effects throughout surrounding communities, mostly arising from people passing through the surrounding communities on their way to or from the Proposed Project site. Those effects are addressed in the other Sections of the EIR such as Traffic (Section IV.K(1)), Noise (Section IV.E), and Air Quality (Section IV.B). The analyses in each of those sections addresses the topical impacts on a regional basis and with regard to surrounding neighborhoods.

3.4.2 Impacts Regarding the Habitat Creation/Restoration Component

The Habitat Creation/Restoration area of the Proposed Project lies to the south of the Urban Development Component. The existing plan designations for the area in the Westchester-Playa del Rey Community Plan include public/quasi-public, low-density residential and high medium-density residential uses. The existing zoning, based on the Area D Specific Plan and City Zoning Map, include R1-1, [Q]R4-1-1, and R4(PV).

The Habitat Creation/Restoration Component would commit this portion of the Proposed Project site to open space and enhanced habitat. Such uses are permitted within all of the existing plan designations. Also, such uses are considered a community amenity that supports the attainment of regional and City policies for the provision of open space. Therefore, the proposed uses would be compatible with the existing regulations and impacts on the regulatory framework would be less than significant.

The Habitat Creation/Restoration Component lies within an existing buffer area between the Proposed Project site and the Westchester Community and Loyola Marymount University lying atop the bluffs to the south. Kept in open space, the area will continue to serve as a buffer that currently defines the edge of these uses. As such, the maintenance of the site would not disrupt, divide or isolate existing neighborhoods, communities or land uses. Impacts with regard to the relationship with existing uses would be less than significant.

3.4.3 Summary of Land Use Impacts

The above analysis provides separate evaluations of the potential impacts of the Proposed Project's Urban Development and Habitat Creation/Restoration Components. In both cases impacts were considered regarding the regulatory framework under which the Proposed Project would be developed and regarding the Proposed Project's relationship to surrounding uses.

The Proposed Project would be implemented via amendments to the existing Specific Plan and its zoning designations, establishing new boundaries for R4(PV) and C2(PV) zone areas in place of existing R4(PV) and M(PV) zone areas. The Specific Plan amendment and zone changes would enable the Project's proposed development of housing uses in place of office, retail and hotel uses allowed under the existing plan. The exchange is offered in the context of the overall planning concept for the Proposed Project. Implementation of the Urban Development Component would be compatible with the land use/density designation in the Community Plan and Specific Plan, and the adopted environmental goals and policies of the community, and impacts regarding the regulatory framework would be less than significant. Development of the Proposed Project would support policies for mixed-use, clustered development, enhancement of jobs/housing balance, efficient provision of infrastructure, and emphasis of public transit and non-motorized transportation. Further, the Proposed Project would support such activity at a location identified for such uses in existing plans.

Implementation of the Urban Development Component would not disrupt, divide, or isolate any existing neighborhoods, communities, or land uses, and impacts regarding the relationship to existing uses would be less than significant. The Proposed Project would integrate with and provide continuity with development between the portions of the Playa Vista First Phase Project lying to the east and west of the Proposed Project site. Existing development to the south of the Project site, is located atop the bluffs, and would not have its physical arrangement affected by the Proposed Project. Project height limits restrict development to a level well below the average height of the bluffs creating a distinct separation between neighborhoods. The Project would not alter the character or distribution of uses to the north of the Proposed Project. Further, the Proposed Project would support a clustered development allowing for growth outside of existing localized neighborhoods.

Implementation of the Habitat Creation/Restoration Component would provide an environmental enhancement and neighborhood amenity. This Project Component is compatible with existing land use regulations and would not have a significant impact on the regulatory framework. The Habitat Creation/Restoration Component would enhance an existing buffer area and would not disrupt, divide or isolate any existing neighborhoods, communities or land uses. Impacts regarding the relationship to surrounding uses would be less than significant.

3.4.4 Equivalency Program Impacts

The preceding land use analysis addressed impacts associated with the regulatory framework that is applicable to the Proposed Project site and the relationship between the Project's uses to those in the surrounding area. Conclusions regarding the first topic are based on whether the Project would be compatible with existing plans and land use density designations. Conclusions regarding the second topic are based on whether the new development would disrupt, divide or isolate existing neighborhoods or land uses.

The exchange of office uses for retail and/or assisted living units would be accomplished within the same building parameters. This exchange in the use of buildings would occur at relatively limited locations within the Project site. There would be no substantial variation in the Project's street configurations or relationship to the surrounding community. The development would be subject to the same design criteria (e.g., height limits, setbacks, etc.) as the Proposed Project.

The exchange of office uses for retail and/or assisted living units would constitute a slight variation in the overall use mix of the Proposed Project. Under the Equivalency Program the amount of office space could be reduced by as much as 71 percent, while the amount of retail space could be increased by as much as 38 percent, and up to 200 assisted living units could be constructed. These variations would not substantially alter the overall mixed-use character of the Project. They would allow flexibility in the land use mix to address market conditions and the

future needs of those who live and work at the Project site. Furthermore, the assisted living units would enhance the mixed-use character of the Project by adding an additional use that is compatible with the other uses in the Project.

Under the Equivalency Program, the total amount of retail space could be 206,832 sq.ft., as opposed to 150,000 sq.ft. under the Proposed Project. This is still 408,168 sq.ft. less than the 615,000 sq.ft. of remaining retail permitted in the Area D Specific Plan, after First Phase Development. The 200 assisted living units would be consistent with the Specific Plan's stated intent for the C2(PV) zone of providing for "alternative housing styles" (per Section 4.G of the Specific Plan). Therefore, the uses that could occur under the Equivalency Program, as is the case with the Proposed Project, would be compatible with the existing plans and planned densities, and impacts regarding the regulatory framework would be less than significant.

Development under the Equivalency Program would occupy the same development areas, as the Proposed Project and the overall character of development would be essentially the same as with the Proposed Project. Therefore, the relationship to surrounding neighborhoods and communities would be the same under the Equivalency Program as with the Proposed Project, as described above, and would not divide a surrounding neighborhood, community or land use. As was the case with the Proposed Project, impacts regarding the relationship to the surrounding community under all Equivalency Scenarios would be less than significant.

3.4.5 Impacts of Off-Site Improvements

Proposed Project development could result in secondary impacts arising from implementation of the Project's mitigation measures, as well as the direct impacts described above. Mitigation measures within Section IV.K.(1), Traffic and Circulation, require physical improvements in transportation facilities at numerous locations including roadway widening at seven locations, as described in Subsection 5.8 of that Section. In addition, as discussed in Section IV.N.(1), Water Consumption, the Proposed Project would require the construction of a water regulator station in the vicinity of Jefferson Boulevard and Mesmer Avenue.

None of the off-site improvements includes demolition of existing buildings, or construction of new buildings. All of the off-site improvements except the water regulator station occur within or adjacent to existing roadways. They would act as enhancements to the existing roadways and would not alter the layout of the roadway network. The water regulator station would include a small amount of piping equipment that would most likely be located just above ground. The off-site improvements do not include any buildings. Therefore, the off-site improvements would not change any land use patterns and would not divide any existing neighborhoods or land uses.

All of the off-site improvements have been designed as integrated components of roadway and utility infrastructure plans applicable to the Proposed Project and the larger vicinity in which it is located. As such, all of the improvements are compatible with existing plans, and would not have adverse effects with regard to the regulatory framework.

Of the various off-site improvements, only one would require acquisition outside of existing right-of-ways. The widening at the intersection of Culver Boulevard and Centinela Avenue would require the acquisition of a small area within the MTA median between North Culver and South Culver Boulevards.

Of the various off-site improvements, only one could have a potential effect on existing uses. The off-site improvement that would occur along the Centinela Corridor includes roadway widening of 6 feet on the western side and 8 feet on the eastern side between Milton Street and Wagner Street. This roadway widening would include redesign of the parkways and existing sidewalks fronting residential uses (as well as commercial uses) along the roadway. The widening would not encroach into any privately held land and would occur within the right-of-way designated for transportation uses. The widening would reduce the size of some existing parkways. At the same time this widening would maintain the existing sidewalks and infill sidewalks at many locations where none currently exist, thus enhancing pedestrian facilities within the public right-of-way. However, during construction the laying of new sidewalks and landscaping would occur immediately adjacent to privately owned lands. Such construction could have short-term effects on private landscaping and fencing adjacent to the new sidewalk, during the time of construction. It is anticipated that any private land so affected would be restored to its former state. A mitigation measure is included below to ensure that such is the case.

4.0 MITIGATION MEASURES

Mitigation Measure for the Proposed Project and the Equivalency Program

- Prior to recordation of the tract map, the Proposed Project development standards and guidelines shall be incorporated as tract map conditions including, but not limited to, building height, setbacks, lot coverage, density, and land uses, as analyzed in ENV-2002-6129-EIR. Any changes shall be subject to additional environmental review and implementation of proper mitigation measures if additional impacts associated with such changes are identified.

- Lot 113 of VTTM 49104 shall remain as open space unless the Advisory Agency determines that this lot is not need to meet the open space requirements of VTTM 49104.

Additional Mitigation Measure for the Off-site Improvements

- Any private property that is affected during the construction of off-site improvements shall be restored to be consistent with conditions prior to construction, to the extent feasible.

5.0 NET UNAVOIDABLE ADVERSE IMPACTS

The Proposed Project's Design Features, inclusive of the Equivalency Program, would be implemented via amendments to the existing Specific Plan and it zoning designations, establishing new boundaries for R4(PV) and C2(PV) zone areas in place of existing R4(PV) and M(PV) zone areas. The zone changes would support the Project's proposed exchange between housing uses in place of office, retail and hotel uses. The exchange is offered in the context of the overall planning concept for the Proposed Project. The Proposed Project would provide development that is compatible with the land use/density designation in the Community Plan and Specific Plan, and the policies, goals and objectives of applicable plans and would therefore be compatible with the regulatory framework. The Proposed Project (inclusive of the Equivalency Program and the Project's off-site improvements) would not disrupt, divide or isolate any existing neighborhoods, communities or land uses. Land Use Impacts would be less than significant.

6.0 CUMULATIVE IMPACTS

6.1 Regulatory Framework

The Westchester-Playa del Rey Plan, the community plan in which the Proposed Project is located, is currently being updated under the Community Plan Update (CPU) Program. It is anticipated that the plan update will address growth in the area and address land use issues. The only known related project, which would likely require an amendment to this plan, is the proposed expansion of LAX. The City of Los Angeles is currently considering various alternatives for extensive improvements at LAX, as envisioned to occur within the context of a proposed LAX Master Plan. With the exception of a "No Action/No Project Alternative," all of the build alternatives being considered for the LAX Master Plan include a variety of airport and roadway improvements. Some of the alternatives would require acquisition of land within the

Westchester-Playa del Rey Plan area, and related plan amendments. The activities associated with the LAX Project have been considered in the cumulative analyses of the various environmental sections of this EIR. Such Plan amendments would not preclude, nor be precluded by the Proposed Project's Plan amendments. The Proposed Project, inclusive of the Equivalency Program and the Project's off-site improvements, would be compatible with the regulatory framework and therefore would not contribute to a significant cumulative impact regarding regulations. It is anticipated that other development would be consistent with applicable regulations and the updated Community Plan, or would amend the plan through appropriate review and CEQA analysis as required by law. Cumulative impacts regarding the regulatory framework would be less than significant.

6.2 Relationship to Existing Uses

In conjunction with the environmental analyses for the Proposed Project, a list of related projects has been identified for the area surrounding the Project site. This list of anticipated new development which could contribute cumulatively to changes in the area includes 96 projects located throughout a large area extending several miles to the north, south and east of the Proposed Project site. These projects would contribute, in conjunction with the Proposed Project, to the general development character of the West Los Angeles region. The full list of Related Projects, as well as a graphic illustrating the location of each Related Project, is included in Section III.B of this EIR.

In a general sense, the West Los Angeles region, including the immediate vicinity of the Project site, is predominantly developed. While some intensification of activity is occurring due to infill on the remaining undeveloped land parcels and conversion to more intense uses on a parcel-by-parcel basis, the basic land use character and major distribution patterns of the region have been established. Intensification of development will have cumulative impacts on particular environmental issues such as traffic, noise and air pollution. Such impacts are the focus of other sections of the EIR that address cumulative impacts associated with the Proposed Project.

With regard to the issues addressed here, pertaining to land use mix and distribution, the development of the Proposed Project in conjunction with the related Projects is not anticipated to alter the general land use patterns and relationships in the Proposed Project vicinity. Except as noted below, the related projects are located at some distance from the Proposed Project and within different neighborhoods. The related projects would typically be of an infill nature, and would not alter the general land use patterns of their local area. To the extent changes do occur, those changes would be localized.

Only two related projects are located in the immediate vicinity of the Proposed Project. Related Project 25, LMU expansion, is occurring along the top of the bluffs, adjacent to the Proposed Project site. This LMU expansion is an enhancement to the existing University facilities and would not alter the nature of the existing land use.

Related Project 40, the Playa Vista First Phase Project, is currently under construction. Future Playa Vista First Phase development will be consistent with the previously approved plan, and the existing/under development uses on the First Phase site. The Playa Vista First Phase Project and Proposed Project would form a unified development pattern with a continuity of uses – a cluster of development within the area bounded by the bluffs on the south, Lincoln Boulevard on the west, Jefferson Boulevard on the north, and Centinela Avenue on the east. As is the case with the Proposed Project alone, the combined First Phase Playa Vista Project and Proposed Project would not disrupt, divide or isolate existing neighborhoods, communities, or land uses. The Westchester community and Loyola Marymount Campus lie atop the bluffs, isolated from these Projects by both vertical and horizontal distance. Uses across from these Project sites along Jefferson Boulevard and Centinela Avenue lie within a distinct district that is not connected to the southerly uses atop the bluffs.

In summary, the Proposed Project (inclusive of the Equivalency Program and the Project's off-site improvements) in conjunction with related projects would not disrupt, divide or isolate existing neighborhoods, communities, or land uses. Cumulative impacts on land use compatibility would be less than significant.

IV. ENVIRONMENTAL IMPACT ANALYSIS
H. MINERAL RESOURCES

1.0 INTRODUCTION

This section addresses the potential impacts of the Proposed Project on mineral resources (i.e., sand, gravel and petroleum). The analysis describes the regulatory setting and the existing physical conditions of the Proposed Project site as related to such mineral resources. Impacts are addressed in terms of whether implementation of the Proposed Project would result in the permanent loss of, or loss of access to, any such resources occurring within the Proposed Project site.

The analysis addresses the impacts that would occur for the Project as Proposed, for the Project's Equivalency Program, and for the Project's secondary impacts that would occur from the implementation of the Project's off-site mitigation measures.

2.0 ENVIRONMENTAL SETTING

2.1 Regulatory Framework

Regulations related to the issue of mineral resources include restrictions on the depletion of minerals located in significant quantities (termed Mineral Resource Zones, designated by the California Geological Survey (CGS)).

2.2 Existing Conditions

2.2.1 Regional Conditions

Mineral Resource Zone areas containing notable sand and gravel deposits are not located in, or near the Proposed Project site.

2.2.2 Local Conditions

The geologic makeup at the Proposed Project site consists of fill, alluvium, and San Pedro Formation. The fill soils contain primarily silt, clay, and sand and range in thickness depending on location. Beneath the fill, recent age alluvium ranges from 40 to 120 feet thick.

The upper portion of alluvium consists of soft silty clay and clay with layers of silt and sand. The middle portion consists of clay and silt. The bottom section of alluvium is characterized by sand and gravel. The San Pedro Formation, the Lower (older) Pleistocene deposition that underlies the fill and alluvium, is approximately 300 feet thick and consists of sand and gravel along with beds of silty sand and silt. The upper 100 to 280 feet of the formation is water-bearing and is known as the Silverado Aquifer, one of the major groundwater aquifers of the Los Angeles Basin. Approximately 6,500 feet of Tertiary age sedimentary rocks underlie the San Pedro Formation. A more detailed discussion of geologic materials can be found in Subsection 2.0, Environmental Setting, of Section IV.A, Earth, in this EIR.

Although some sand and gravel is found within the geologic materials below the Proposed Project site, the area has not been recognized as having a significant potential for mineral extraction, and is not designated a Mineral Resource Zone by the CDMG (map is included as Appendix I).[258] Furthermore, the City of Los Angeles General Plan Framework EIR indicates that significant sand and gravel resources are not present on the Proposed Project site.

Historically, oil extraction has occurred near the Proposed Project site. However, petroleum resources (i.e., fossil fuels) beneath the Proposed Project site, if any, are not known to be substantial.[259]

3.0 IMPACT ANALYSIS

3.1 Methodology

Existing information sources were reviewed to determine whether any portions of the Proposed Project site contain significant mineral resources and to evaluate how these resources, if any, would be affected by the Proposed Project.

3.2 Significance Thresholds

The Draft Los Angeles CEQA Thresholds Guide (p. C.4-2) states that the determination of significance for mineral resources shall be made on a case-by-case basis, considering the following factors:

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[258] *California Department of Conservation, Division of Mines and Geology, Aggregate Resources in the Los Angeles Metropolitan Area 1999, Miscellaneous Map No. 010.*

[259] *Curtis, David, Environmental Engineer, California Department of Conservation, Division of Oil, Gas, and Geothermal Resources, personal communication, comment letter re: "Notice of Preparation (NOP) for the Village at Playa Vista, ENV-2002-6129-EIR, Los Angeles County," November 19, 2002.*

- Whether, or the degree to which, the project might result in the permanent loss of, or loss of access to, a mineral resource that is located in a MRZ-2 area or other known or potential mineral resource area; and

- Whether the mineral resource is of regional or statewide significance, or is noted in the Conservation Element as being of local importance.

Based on these factors the Proposed Project would have a significant impact if:

- The Project would result in the permanent loss of, or loss of access to, a mineral resource that is located in a MRZ-2 area or other known or potential mineral resource area, including those noted in the Conservation Element as being of local importance.

3.3 Project Design Features

Because no significant mineral resources are present at the Proposed Project site, there are no Project Design Features specific to mineral resources.

3.4 Project Impacts

The Draft Los Angeles CEQA Thresholds Guide identifies two factors to be used for determining the significance of a project's impacts on mineral resources (see Subsection 3.2, above). The first factor has been established as the Proposed Project's significance threshold. The second factor focuses on resources that are of regional or statewide significance. As the established threshold applies to all resources, including those of regional or statewide significance, the second factor is addressed within the following discussion of impacts on mineral resources.

As discussed in Subsection 2.0, Environmental Setting, the Proposed Project is not located in a MRZ-2 area or other known or potential mineral resource area, including those noted in the Conservation Element as being of local importance, and would not result in loss of access to any such mineral resource area. As such, a less-than-significant impact would occur based on the fact that implementation of the Proposed Project would not result in permanent loss of, or loss of access to, a mineral resource that is located within a MRZ-2 area or other known or potential mineral resource area, including those noted in the Conservation Element as being of local importance.

Construction of uses proposed to occur within the Urban Development Component would require the use of mineral resources such as sand and gravel, as well as various refined forms of petroleum resources, such as gasoline and diesel fuels. Inasmuch as the construction of the

Urban Development Component would require mineral resources from off-site areas, the Proposed Project would result in the reduction of mineral resources supplies on a regional basis. However, based on the incremental demand that a typical construction project similar to the Proposed Project in size and intensity would create, it is anticipated that the mineral construction material and petroleum fuel requirements for this component of the Proposed Project would not result in a substantial reduction in available supplies relative to demand. Additionally, the Proposed Project includes Project Design Features, (see Subsection 3.3 of Sections IV.A, Earth, and IV.M, Energy) such as the Residential Sustainable Performance Guidelines (Appendix M-1 of this EIR) that serve to reduce the consumption of such mineral resources. The Proposed Project would not result in the permanent loss of, or loss of access to, a mineral resource area, including those noted in the Conservation Element as being of local importance. As such, a less-than-significant impact is anticipated relative to mineral resources.

In summary, implementation of the Proposed Project would not result in a significant impact to a MRZ-2 area, or other known or potential mineral resource area, including those noted in the Conservation Element as being of local importance, since no such areas occur at, or near, the Proposed Project site.

3.5 Equivalency Program Impacts

The preceding mineral resources analysis addressed impacts associated with construction and operation of the Proposed Project. The proposed Equivalency Program allows for specific limited exchanges in the types of land uses occurring within the Project's Urban Development Component. No changes are proposed under the Equivalency Program to the Project's Habitat Creation/Restoration Component.

The exchange of office uses for retail and/or assisted living units would be accomplished within the same building parameters, and would occur at relatively limited locations within the Project site. Furthermore, under the Equivalency Program, there would be no substantial variation in the Project's street configurations, building pad elevations, or the depth of excavation. Very minor variations regarding foundation types or in the preparation of landscaping areas could occur, however such variation would be within the range of construction procedures anticipated to occur with the Proposed Project. None of these variations in land use configurations would affect any designated mineral resources on- or off-site, as the Equivalency Program would be implemented within the Proposed Project site, which contains no such resources. Implementation of the Equivalency Program would therefore not result in the permanent loss of, or loss of access to, a mineral resource that is located in a MRZ-2 area or other known or potential mineral resource area, including those noted in the City General Plan Conservation Element as being of local importance. Consequently, mineral resources impacts attributable to the Equivalency Program, as is the case with the Proposed Project, would be less than significant.

3.6 Impacts of Off-Site Improvements

Proposed Project development could result in secondary impacts arising from implementation of the Project's mitigation measures, as well as the direct impacts described above. Mitigation measures within Section IV.K.(1), Traffic and Circulation, require physical improvements in transportation facilities at numerous locations including roadway widening at seven locations, as described in Subsection 5.8 of that Section. In addition, as discussed in Section IV.N.(1), Water Consumption, the Proposed Project would require the construction of a water regulator station in the vicinity of Jefferson Boulevard and Mesmer Avenue. These off-site improvements are all located in developed urban areas. All of the off-site improvements, with the exception of the water regulator station, would occur within, or adjacent to, existing roadways. The water regulator station includes a small amount of above-ground piping equipment, a common element of the urban environment. Implementation of the Project's mitigation measures does not involve the construction of any buildings.

While the construction of the proposed improvements would require the use of various mineral resources (e.g., sand, gravel, and concrete/asphalt for roadbeds, paving, and footings), none of the proposed improvement areas contain known mineral resources, and none are delineated on local plans as containing important mineral resources. As such, the proposed improvements would not result in the permanent loss of, or loss of access to, a mineral resource that is located in a MRZ-2 area or other known or potential mineral resource area, including those noted in the Conservation Element as being of local importance. No impacts to regional or locally important mineral resource supplies would occur.

4.0 MITIGATION MEASURES

No significant impacts are expected relative to mineral resources; hence, no mitigation measures are required for the Proposed Project, inclusive of the Equivalency Program and off-site improvements.

5.0 UNAVOIDABLE ADVERSE IMPACTS

Implementation of the Proposed Project, inclusive of the Project's Equivalency Program and off-site improvements, would not result in any significant impacts relative to mineral resources. The Proposed Project would not result in the permanent loss of, or loss of access to, a mineral resource that is located in a MRZ-2 area, or other known or potential mineral resource area, including those noted in the Conservation Element as being of local importance. Therefore, no mitigation measures are required.

6.0 CUMULATIVE IMPACTS

Based on the fact that there are no MRZ-2 areas, or other known or potential mineral resource areas, including those noted in the Conservation Element as being of local importance in or near the Proposed Project site, implementation of the Proposed Project, including the Project's Equivalency Program and off-site improvements, in conjunction with all related projects would not result in a permanent loss of, or loss of access to, mineral resources within such areas.

With respect to off-site mineral resources (e.g., sand and gravel, and petroleum), the consumption of such resources for the construction of other projects in the local vicinity is expected to be typical of new development, as provided for by the building materials and transportation fuels industries. The consumption of natural resources associated with the Proposed Project is relatively small, compared to the overall amount of resources that the market provides.

Overall, the Proposed Project in conjunction with the related projects is not anticipated to have a significant cumulative impact to a mineral resource that is located in a MRZ-2 area, or other known or potential mineral resource area and there are no mineral resources at or near the Proposed Project site that are noted in the Conservation Element as being of local importance.

IV. ENVIRONMENTAL IMPACT ANALYSIS
I. SAFETY/RISK OF UPSET

1.0 INTRODUCTION

This section addresses the potential impacts of the Proposed Project that relate to public health and safety. The analysis describes the historical and current operations at the Proposed Project site and relevant activities in the immediate vicinity, including those activities within adjacent properties. This section also evaluates potential impacts related to safety and the risk of upset associated with development of the Proposed Project. Issues related to safety/risk of upset, but which are discussed in detail in other sections include: erosion control, dewatering, and subsidence, which are more fully described in Section IV.A, Earth; air emissions, which are more fully described in Section IV.B, Air Quality; and impacts to surface and groundwater, which are more fully described in Section IV.C.(2), Water Quality, in this EIR.

The analysis addresses the impacts that would occur for the Project as Proposed, for the Project's Equivalency Program, and for the Project's secondary impacts that would occur from the implementation of the Project's off-site mitigation measures.

2.0 ENVIRONMENTAL SETTING

2.1 Regulatory Framework

2.1.1 Federal Level

2.1.1.1 Hazardous Materials Management

The Federal Resource Conservation and Recovery Act (RCRA) was enacted in 1976 and mandated a national waste management program. Under the RCRA regulations, as established by the United States Environmental Protection Agency (EPA), hazardous wastes must be tracked from the time of generation to the point of disposal. The RCRA program also sets out standards for hazardous waste treatment, storage and disposal units, which are intended to have hazardous wastes managed in a manner that minimizes the present and future threat to the environment and human health. At a minimum, each generator of hazardous waste must register and obtain a hazardous waste activity identification number. If hazardous wastes are stored for more than 90 days, or treated or disposed at a facility, any treatment, storage or disposal unit must be permitted under RCRA. Several former users associated with the former Hughes Aircraft

Company and former McDonnell Douglas Helicopter Company (as described below under Subsection 2.2.2.2, Historical and Current Activities) of the Proposed Project site were known to generate hazardous waste as defined by RCRA. These former uses no longer occur at the site. However, remediation of existing contamination may subject the Proposed Project site to certain RCRA requirements that apply to contaminated soil or groundwater. Furthermore, some future commercial uses at the Proposed Project site may generate or handle hazardous wastes, which could subject the Proposed Project to RCRA requirements. EPA has largely delegated responsibility for implementing the RCRA program to the State of California, which implements this program through the California Hazardous Waste Control Law (discussed below).

EPA has also established a National Emission Standards for Hazardous Air Pollutants (NESHAP) that governs the use, removal, and disposal of asbestos-containing material (ACM). Several structures from former uses currently remaining on-site may contain ACM, and therefore would be subject to the standards of NESHAP. Responsibility for implementing these requirements has been delegated to the State of California, which in turn has delegated the responsibility to the South Coast Air Quality Management District (SCAQMD). SCAQMD implements the NESHAP through its Rule 1403, which is discussed below.

Federal occupational safety and health regulations also contain provisions with respect to hazardous materials management. The applicable federal law is the Occupational Safety and Health Act of 1970, as amended, which is implemented by the Occupational Safety and Health Administration (OSHA) (29 U.S.C., sec. 651-678). Federal OSHA requirements, set forth in 29 Code of Federal Regulations (CFR) §§ 1910, et seq., are designed to promote worker safety, worker training, and worker right-to-know. A major component of the federal OSHA regulations is the requirement that employers implement the OSHA Hazard Communication Standard (HCS), in order to provide information to employees about the existence and potential risks of exposures to hazardous substances in the workplace. As part of the HCS, employers must: (1) obtain material safety data sheets (MSDSs) from chemical manufacturers which identify the types and handling requirements of hazardous materials used in given areas; (2) make the MSDSs available to their employees; (3) label chemical containers in the workplace; (4) develop and maintain a written hazard communication program; (5) and develop and implement programs to train employees about hazardous materials. Employers are also required to train a team of employees to appropriate federal OSHA-defined (29 CFR 1910.120, Hazardous Waste Operations and Emergency Response [HAZWOPER] Standards) levels to respond to accidental releases of hazardous materials and, as appropriate, to retain on-call contractors to perform hazardous materials accidental release responses.

OSHA also establishes standards regarding safe exposure limits for chemicals to which construction workers may be exposed. Safety and Health Regulations for Construction (29 CFR 1926.65 Appendix C), contains Compliance Guidelines for construction activities, which include occupational health and environmental controls to protect worker health and safety. These

Guidelines articulate the required health and safety plan(s) to be developed and implemented during construction, including associated training, protective equipment, evacuation plans, chains of command, and emergency response procedures. Due to the known and potential existence of hazardous materials on-site, adherence to applicable hazard-specific OSHA standards would be required to maintain worker safety. For example, standards applicable to the Proposed Project site include soil gases, such as hydrogen sulfide at a permissible exposure limit (PEL) of 10 parts per million by volume (ppmv), benzene at a PEL of 1 ppmv, toluene at a PEL of 50 ppmv, and ethylbenzene and xylene at a PEL of 100 ppmv each. Methane is regulated by OSHA under 29 CFR Part 1910.146 relative to worker exposure to a "hazardous atmosphere" within confined spaces where the presence of flammable gas vapor or mist is in excess of 10 percent of the lower explosive limit. Lead exposure during construction activities is regulated by the OSHA Lead Standard under 29 CFR 1926.62, Lead Exposure in Construction – Interim Final Rule – Inspection and Compliance Procedures. The Lead Standard focuses on minimizing the potential for workers to be exposed to lead-contaminated soils or building materials during demolition and construction activities.

2.1.1.2 Soil/Groundwater Contamination

The comprehensive Environmental Response Compensation and Liability Act (CERCLA) was enacted in 1980, and principally sets forth a framework for the remediation of hazardous waste disposal sites. Pursuant to CERCLA, the President, who has delegated the authority to the United States Environmental Protection Agency (EPA), uses a Hazard Ranking System (HRS) to determine sites to be added to the National Priorities List (NPL) of uncontrolled sites that necessitate a response action. The HRS is a numerical screening system that uses data from a preliminary site assessment to evaluate the relative potential for a site to pose a threat to human health or the environment. If the overall resulting site score is low, no further action is taken. If the overall site score is high, the site is proposed for a listing on the NPL, and public comments are accepted and responded to by EPA. If, after public comment, the site continues to meet the requirements for listing, generally the site is placed on the NPL. If requested by a state, final NPL listing can be deferred if the state, or a party under agreement with or order from the state, is conducting a response action in compliance with a state program and the response action will provide long-term protection to human health and the environment.

CERCLA then authorizes the President, who has delegated the authority to EPA, to undertake "removal" or "remedial" actions at NPL sites, and creates the Hazardous Substances Trust Fund (Superfund) to pay for the removal and remedial actions. CERCLA also provides that generators and transporters of hazardous substances, and owners and operators of facilities at which there has been a release of hazardous substances, are liable for the costs of the removal and remedial actions and can be ordered to perform the actions. Soil and groundwater contamination has occurred as a result of past activities, including aircraft-related and other industrial activities conducted by HAC and MDHC, on or adjacent to the Proposed Project site.

The existing contamination may subject the Proposed Project site and/or adjacent Playa Vista First Phase Project to CERCLA.

2.1.1.3 Aviation Hazards

Federal Aviation Regulation (FAR) Part 77 "Objects Affecting Navigable Airspace," in addition to providing navigable airspace criteria for airports, also provides imaginary surface criteria for heliports. Specifically, the approach imaginary surface for civil (i.e., non-military) heliports extends at a 8:1 slope upward from the heliport primary surface (i.e., the designated take off and landing area) for a distance of 4,000 feet, and the heliport transitional surface extends from the lateral boundary of both the primary surface and approach surface at a 2:1 slope for a distance of 250 feet. Due to the Proposed Project site's proximity local private heliports, regulations pertinent to aviation hazards apply to the Proposed Project site. Potential impacts relative to these issues are addressed in Section IV.G, Land Use, in this EIR.

2.1.2 State Level

2.1.2.1 Natural Gas Storage/Recorded and Unrecorded Gas & Oil Wells

The California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) regulates the underground storage of natural gas, oil, and wells. The state requires that gas storage fields be closely monitored by facility operators to ensure their safe operation and to establish that no damage to health, property, or natural resources occurs (Title 14, California Code of Regulations [CCR], Section 1724.10), and the state conducts quarterly and annual site inspections for technical and safety purposes. The Southern California Gas Company (SCGC) natural gas storage operations, located approximately 1.25 miles west of the Proposed Project site, are subject to these regulations.

Section 3200, et. seq. of the Public Resources Code regulates the permitting, establishment, completion, and abandonment/reabandonment of gas and oil wells. DOGGR is the state agency with primary responsibility for the enforcement of these regulations. DOGGR is also the state agency responsible for conducting construction site plan review for development proposed in proximity to gas or oil wells. Local jurisdictions may require completion of a construction site plan review by DOGGR to confirm the location and condition of wells (i.e., tested for leaks, evaluation as to proper abandonment, etc.) prior to issuance of grading or building permits for such development. Unrecorded oil wells remaining from oil production activities that occurred from approximately 1929 to the 1950s that are found during excavation and grading may require proper abandonment as regulated by DOGGR under CCR Title 14. In addition, DOGGR may require re-abandonment of wells in the proximity of planned development in accordance with present standards. Should any soil or groundwater

contamination occur, or be found, in conjunction with well abandonment or re-abandonment, an assessment to determine the extent of the contamination, and remediation of the contamination would occur pursuant to the requirements of the jurisdictional state agency(ies). The California Regional Water Quality Control Board – Los Angeles Region (RWQCB) is the lead agency responsible for oversight of such contamination issues (see additional discussion below). Due to the potential for unrecorded gas or oil wells to be discovered on-site during construction activities, any or all of the above regulations may apply to the Proposed Project.

2.1.2.2 Hazardous Materials Management

In the State of California, the State Hazardous Waste Control Law (HWCL) is the primary statute setting out requirements that govern RCRA and non-RCRA hazardous waste. The CalEPA, Department of Toxic Substances Control (DTSC), is the primary regulatory agency administering the State hazardous waste program; however, DTSC has delegated to local agencies the authority to inspect and regulate hazardous waste generators. The requirements of the HWCL may apply to management of remediation-generated wastes on the Proposed Project site, and to activities of future users of the site.

Any business handling hazardous materials (as defined in Section 25500 of California Health and Safety Code [CH & SC], Division 20, Chapter 6.95) is required to obtain a local fire department permit, and must pay a fee in order to register the business as a hazardous materials handler, as described below. Such businesses are also required to comply with California's Hazardous Material Response Plans and Inventory Law (AB 2185), which is also known as the Waters Bill. The Waters Bill requires immediate reporting to the local administrating agency and the State Office of Emergency Services of any release or threatened release of a hazardous material to a workplace or the environment, if the release or threatened release pose a significant present or potential hazard to human health and safety, property, or the environment, regardless of the amount of hazardous materials handled by the business. Given the existence of hazardous materials in soil and groundwater that resulted from former uses of the property, the Proposed Project site may be subject to the reporting requirements of the Waters Bill if there is such a release or threatened release of such materials that meets the statutory standard. However, such an obligation does not apply if such releases or threatened releases are associated with activities that have been authorized by a governmental agency. This exception will likely apply to remediation that occurs at the Proposed Project site, since such remediation is being done under the direction and oversight of the RWQCB (see discussion under Soil/Groundwater Contamination below). In addition, a business handling at any one time greater than 500 pounds of solid, 55 gallons of liquid, or 200 cubic feet of gaseous hazardous material, is required to file a Business Plan, which outlines the facility's emergency response procedures and provides a chemical inventory, with the local administering agency. Future users of the Proposed Project site may be subject to these requirements.

The Safe Drinking Water and Toxic Enforcement Act, better known as Proposition 65, was passed into law by the voters of California in 1986. This initiative measure was developed in order to improve public health by reducing the incidence of cancer and adverse reproductive outcomes that might result from exposure to potentially hazardous chemicals. To carry out this mission, Proposition 65 requires the creation of a list of chemicals and substances, and the levels at which they are believed to have the potential to cause cancer or deleterious reproductive effects in humans. The law also restricts discharges of these listed chemicals into known drinking water sources at levels above the regulatory levels of concern. Finally, in what is its main effect, the Act requires that a clear and understandable warning must be given prior to a known and intentional exposure to a listed substance. The Proposed Project site is subject to the provisions of Proposition 65 due to the potential for exposure of persons to Proposition 65 listed chemicals.

The U.S. Department of Labor has delegated the authority to administer the Occupational Safety and Health Act to California, based on its finding that the State has a state plan with provisions at least as stringent as those required by the Act. Cal/OSHA is very similar to the federal OSHA program, although, in addition to the provisions identified above, Cal/OSHA requires employers to implement a comprehensive, written Injury and Illness Prevention Program (IIPP). An IIPP is an employee safety program that is required to cover the full range of workplace hazards, including those associated with hazardous materials. Since the Proposed Project includes the demolition of structures and construction activities that have the potential to release lead and asbestos, and expose workers to soil gases, these are specifically identified below as potential workplace hazards.

Cal/OSHA regulates lead exposure during construction activities under Title 8, Section 1532.1, Lead, which establishes the rules and procedures for conducting demolition and construction activities such that worker exposure to lead contamination is minimized or avoided. Compliance with Cal/OSHA regulations and associated programs would be required for the Proposed Project, due to the potential hazards posed by on-site construction activities and contamination from former uses.

Cal/OSHA regulates exposure to airborne contaminants (e.g., soil gases such as benzene, ethylbenzene, hydrogen sulfide, toluene, and xylene) during construction under Title 8, Section 5155, Airborne Contaminants, which establishes which compounds are considered a health risk, the exposure limits associated with such compounds, protective equipment, workplace monitoring, and medical surveillance required for compliance. Compliance with these Cal/OSHA regulations and associated programs would be required for the Proposed Project, due to the potential hazards posed to construction workers from soil gas compounds known to exist on-site.

The SCAQMD regulates asbestos through Rule 1403, Asbestos Emissions from Renovation/Demolition Activities. The Rule regulates asbestos as a toxic material and controls the emissions of asbestos from demolition and renovation activities by specifying agency notifications, appropriate removal procedures, and handling and clean up procedures. The Rule applies to owners and operators involved in the demolition or renovation of asbestos-containing structures, asbestos storage facilities, and waste disposal sites. SCAQMD also regulates volatile organic compounds (VOC) emissions from contaminated soil through Rule 1166, Volatile Organic Compound Emissions From Decontamination of Soil. Rule 1166 sets requirements to control the emission of VOCs from excavating, grading, handling, and treating VOC-contaminated soil as a result of leakage from storage or transfer operations, accidental spillage, or other deposition. The SCAQMD regulates emissions from remediation-related air strippers through Rule 1167, Air Stripping Operations.[260] The Proposed Project would be required to comply with Rules 1403 due to the potential presence of ACM in existing structures to be demolished on-site. The Proposed Project would be required to comply with Rule 1166 due to the potential for dispersion of VOCs during grading and/or remediation activities. The Proposed Project would be required to comply with Rule 1167 if there is a need to operate an air stripper to remediate any impacted groundwater.

2.1.2.3 Soil/Groundwater Contamination

The RWQCB is the lead agency for remediation of the existing soil and groundwater contamination that resulted from historical uses at the Proposed Project site. The RWQCB has provided oversight for remedial activities since the 1980s, and in 1998, issued Cleanup and Abatement Order (CAO) No. 98-125 under the authority of the Porter-Cologne Water Quality Act of 1970 (Porter-Cologne Act),[261] which directed the Applicant to address historical discharges of contaminants into soil and groundwater from past operations. CAO No. 98-125 reviews the Playa Vista property's historical uses, proposed development plans, and previous remedial activities including investigation, remedial implementation and monitoring activities. It summarizes results of previous investigations, lists RWQCB permits held at the time of the CAO issuance, and describes the RWQCB designations for the area that includes the Playa Vista property. The RWQCB enlists the California Office of Environmental Health Hazard

[260] *South Coast Air Quality Management District website, "Rules and Regulations" http://www.aqmd.gov/rules/rulesreg.html. November 13, 2002.*

[261] *The Porter-Cologne Act grants the State Water Resources Control Board and the RWQCBs, agencies within the umbrella of the California Environmental Protection Agency (CalEPA), authority and responsibility for, among other things, the cleanup of discharges of hazardous materials and other pollutants. California also has the Carpenter-Presley-Tanner Hazardous Substance Account Act (HSAA), which is a state Superfund program. The HSAA is administered by the Department of Toxic Substances Control (DTSC), which has authority to order, oversee, and perform cleanups of hazardous substances releases. Thus, the authority of the RWQCBs and the DTSC may overlap. For the Playa Vista site, CalEPA has determined that the RWQCB is the lead agency. If lead agency status were to change, DTSC could direct the investigation and remediation of the Playa Vista site, and different response actions may be required.*

Assessment (OEHHA), a part of CalEPA, for assistance with review of all analyses using risk assessment methods. Further, the City of Los Angeles is acting in cooperation with the RWQCB in the management of the site. The City of Los Angeles Department of Building and Safety (DBS) consults with the RWQCB as part of the review process for the issuance of grading and/or building permits. Because of the complexities of environmental issues, the RWQCB, as lead agency, will also consult and coordinate with other appropriate regulatory agencies to assure that human health and the environment are protected and to address any issues that may arise from the development and implementation of the remediation plan. In this regard, the RWQCB regularly confers with staff from OEHHA, DTSC, and the EPA to ensure that needs of all agencies are met as the remediation proceeds.[262] The CAO also lists requirements for coordination with and notification to the RWQCB regarding ongoing site activities.

In accordance with the CAO's approach for addressing contamination and remediation, remediation goals have been developed to guide soil and groundwater remediation efforts within the adjacent Playa Vista First Phase Project site. As a first step, health-based remediation goals (HBRGs) were developed for the different uses using federal and State guidance that establishes very conservative assumptions (i.e., protective of human health) regarding exposure types, maximum exposure levels, and extended exposure durations for each contaminant of concern.[263] For soil and for groundwater and soil gas, HBRGs for uses in the commercial portion of the adjacent Playa Vista First Phase Project were approved in July 2000 and November 2002, respectively, by the RWQCB and OEHHA.[264] Using a similar approach and conservative criteria, HBRGs were also developed to address soil groundwater and soil gas within areas intended for recreational and residential land use.[265, 266] The RWQCB, after consultation with OEHHA and DTSC, authorized implementation of these additional commercial and residential HBRGs in November 2002.[267, 268]

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[262] *Camp Dresser & McKee Inc., "Soil and Groundwater Remediation Plan – Test Site 2." Prepared for Playa Capital Company, LLC. March 5, 2002.*

[263] *Integrated Environmental Services, Inc., "Health-Based Remediation Goals, Playa Vista, Los Angeles, California," February 2000.*

[264] *RWQCB, "Approval of Health-Based Cleanup Levels, Playa Vista Site," Letter from John Geroch to David Chernik, July 7, 2000.*

[265] *Camp Dresser & McKee Inc., Letter to Ms. Rebecca Nevarez, California Regional Water Quality Control Board, "Responses to Comments on Phase 1 Residenital Health-Based Remediation Goals, Playa Vista Development Project, Los Angeles, California," September 19, 2002.*

[266] *RWQCB, "Approval of Addendum to Phase I Commercial Health-Based Remediation Goals, Playa Vista Development Project, 6775 Centinela Avenue, Los Angeles, California," November 4, 2002.*

[267] *RWQCB, "Approval of Addendum to Phase I Commercial Health-Based Remediation Goals, Playa Vista Development Project, 6775 Centinela Avenue, Los Angeles, California," November 4, 2002.*

[268] *RWQCB, "Approval of Addendum to Phase I Residential Health-Based Remediation Goals, Playa Vista Development Project, 6775 Centinela Avenue, Los Angeles, California," November 1, 2002.*

All commercial, recreational and residential HBRGs that have been approved for the adjacent Playa Vista First Phase Project are used as guidance in this analysis, and are expected to be applied to, or modified for, the Proposed Project, as appropriate and approved by the RWQCB. Remediation will be initially targeted to reduce current contamination levels below applicable HBRGs to eliminate potential health risk. Moreover, remediation by active treatment systems and natural attenuation processes is expected to achieve residual levels much lower than HBRG levels. Finally, once contaminant levels reach thresholds that are acceptable to the RWQCB, a post-remediation risk assessment for the various areas requiring remediation at the Proposed Project site will be performed to confirm the absence of any human health risk resulting from prior land use activities.[269] The post-remediation risk assessments will be approved first by OEHHA and then the RWQCB.

2.1.2.4 Aviation Hazards

The California Department of Transportation (Caltrans), Division of Aeronautics regulates the siting and operation of private use heliports, such as those located within and in the vicinity of the Proposed Project site (discussed below under Subsection 2.2, Existing Conditions).

2.1.3 Local Level

2.1.3.1 Hazardous Materials Management

The lead agency regulating hazardous materials for the City of Los Angeles is the Los Angeles Fire Department (LAFD). LAFD issues permits for hazardous materials handling, enforces AB 2185, and administers the applicable sections of the Los Angeles City Fire Code, including Division 8, "Hazardous Materials Disclosures." Those businesses that store hazardous waste or hazardous materials must submit a Certificate of Disclosure to the LAFD. As described below, the City Department of Building and Safety (LADBS) is responsible for the enforcement of the provisions of the Los Angeles Building Code that are related to methane. Because the Proposed Project site is subject to the provisions and requirements of RCRA, it is also subject to those of the Los Angeles City Fire Code, as enforced by the LAFD.

[269] *Camp Dresser & McKee Inc., Letter to Mr. Adnan Siddiqui, California Regional Water Quality Control Board, "Second Addendum to the Phase 1 Commercial Area Health-Based Remediation Goals, Playa Vista Development Project, Los Angeles, California," November 26, 2002.*

2.1.3.2 Soil/Groundwater Contamination

Pertaining to the regulation of groundwater, particularly groundwater used for beneficial uses, the Los Angeles County Department of Health Services Division of Environmental Health's Water, Sewage, and Subdivision Program regulates the installation and abandonment of water supply wells and other special use wells. The Program processes applications for installation/abandonment of special use wells (such as groundwater monitoring and extraction wells), including field inspection and issuance of permits.[270] Although no beneficial use of groundwater occurs at the site, installation and abandonment of special use wells occurs currently, and will continue to, occur on-site. As such, the Proposed Project is regulated by the County's Water, Sewage, and Subdivision Program.

2.1.3.3 Soil Gas

Division 71 of the Los Angeles City Building Code defines Methane Seepage District Regulations for the control of methane intrusion emanating from geologic formations. The Regulations define the boundaries of, and requirements for High Potential Methane Zones and Potential Methane Zones. Requirements for new construction within such zones include installing a barrier (i.e., a membrane shield) between the building and underlying earth, installing a vent system(s) beneath the barrier and/or within the building, and installing a gas (methane) detection system. While these building requirements are intended to apply primarily to construction within the defined Zones, they may also apply to any area outside the Zones where the LADBS determines that a methane hazard may exist. The Proposed Project must comply with, or exceed the requirements of, the Los Angeles Building Code Methane Seepage District Regulations, as the LADBS has determined that a methane hazard may exist on-site.

In conjunction with Division 71 of the Building Code, the Department of Building and Safety's Memorandum of General Distribution (MGD) #92 provides additional detail and specifications regarding building requirements for new construction and building modifications within methane zones. Various tables within MGD #92 set forth specific methane management requirements for existing and new construction, indicating required systems for specific types of structures occurring within High Potential Methane Zones and Potential Methane Zones. Similar to Division 71 of the Building Code, the requirements of MGD #92 focus primarily on the installation of underground barriers, ventilation systems, and gas detection systems. A copy of MGD #92 and Division 71 of the City Building Code are included in Appendices I-4 and J-5, respectively. LADBS is in the process of completing the draft of a methane mitigation ordinance to update the requirements of Division 71 of the Los Angeles Building Code for site methane testing and mitigation (see Appendix J-14).

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[270] *County of Los Angeles Department of Health Services website, Environmental Health Water, Sewage, and Subdivision Program: http://lapublichealth.org/eh/progs/envirp/ehwater.htm. Accessed November 13, 2002.*

LADBS currently requires prospective developers at the adjacent Playa Vista First Phase Project to complete a methane site assessment to establish the appropriate methane mitigation level for design of a building methane mitigation system. The assessment consists of collection of soil gas samples to evaluate the maximum detected methane concentration in soil gas. Based on the results, the site is classified as requiring Level 1, 2, or 3 methane mitigation requirements, as required by LADBS (see Appendix J-6).

2.2 Existing Conditions

2.2.1 Natural Gas Storage and Transmission

2.2.1.1 Underground Storage and Facilities

This section discusses oil and gas fields, associated transmission and extraction facilities, and maintenance activities. SCGC closely monitors its operations for compliance with safety standards established by the DOGGR and OSHA.[271]

2.2.1.1.1 Natural Gas Storage Reservoir

The Playa del Rey oil field, located along the Ballona Escarpment northward to Venice, was discovered in 1929. The oil field originally consisted of three reservoirs: the Del Rey Hills area, the Venice area, and the Kidson area. These reservoir areas are shown in Figure 55 on page 671. The Del Rey Hills area, the only reservoir used for natural gas storage, is situated approximately 1.25 miles west of the Proposed Project site, on the north and south sides of the Ballona Channel at a depth of more than 1 mile (approximately 6,200 feet) below the surface. The Venice area, which is not currently used for oil or natural gas production or storage,[272] is located beneath and west of Marina del Rey (extending into the Pacific Ocean to the west), south of Washington Boulevard, and north of the Ballona Channel. The Kidson area, which has long been abandoned, is located north of Fiji Way, east of Lincoln Boulevard, and south of the

[271] *Cardiff, Steve, Storage Field Engineer, The Gas Company, Personal Correspondence dated May 9, 1996, and Mr. J.F. Tierney, General Superintendent, Southern California Gas Company, Personal Correspondence dated August 6, 1990. Updated by Thompson, John, Storage Field Operations Manager, Southern California Gas Company, Personal Communication, September 19, 2002.*

[272] *The Venice Beach Oil Field was depleted in the early 1990s. Source: The North American Integration and Development (NAID) Center, School of Public Policy and Social Research, University of California, Los Angeles. Venice History Articles: "The Discovery of Oil," http://naid.sppsr.ucla.edu/venice/articles/oil.htm. Visited April 17, 2003. Additionally, according to the DOGGR, the Venice Oil Field has been abandoned, and no well activities (including well construction, well abandonment and reabandonment, oil or gas production and storage) have occurred in recent years. Source: California Department of Conservation, Division of Oil, Gas, and Geothermal Resources. Oil, Gas, and Geothermal Fields in California 2001 (map) and California Department of Conservation, Division of Oil, Gas, and Geothermal Resources. 2001 Annual Report of the State Oil and Gas Supervisor, 2002.*

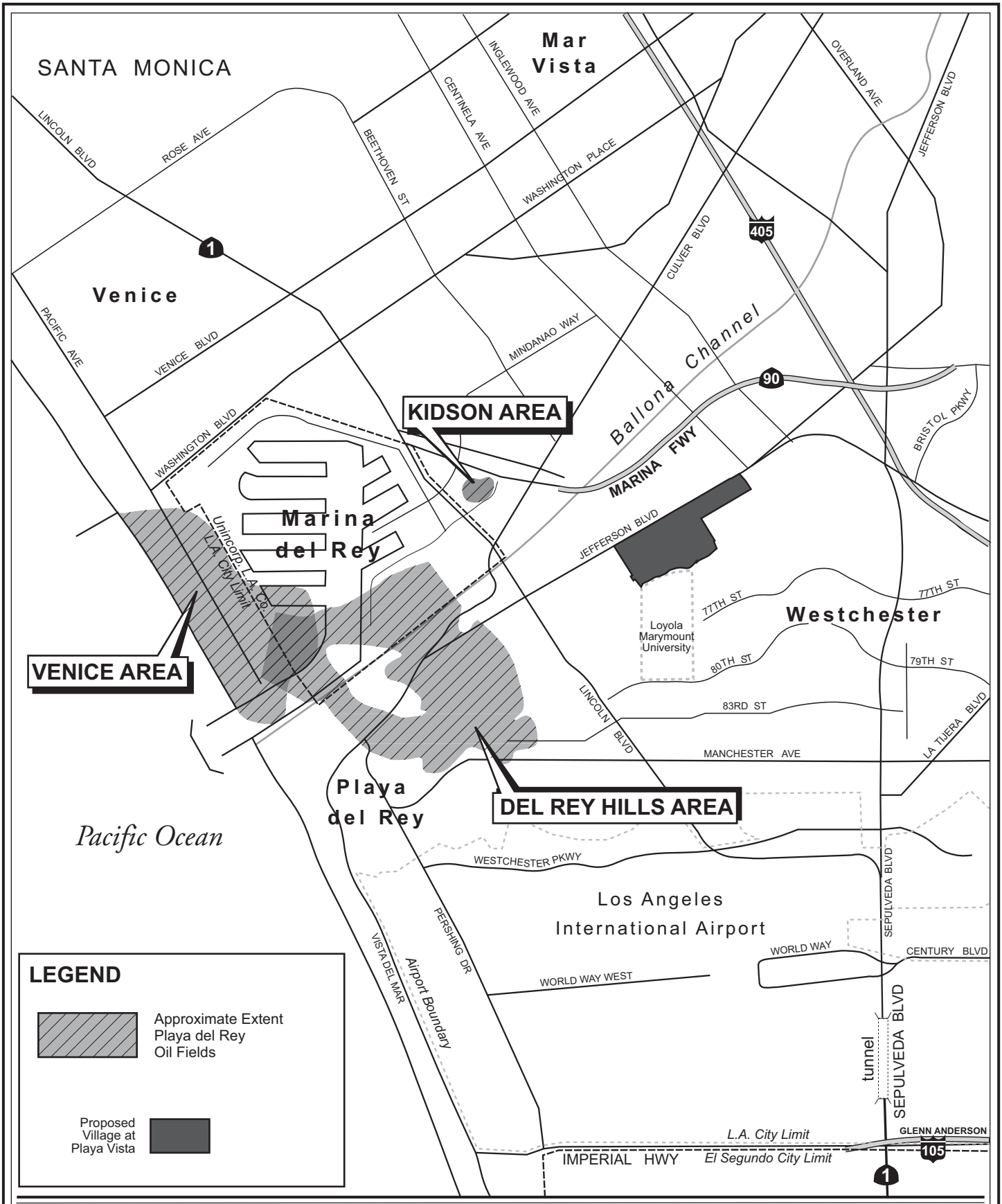

Figure 55
Playa del Rey Oil Fields

Source: California Division of Oil, Gas and Geothermal Resources

western terminus of the Marina Expressway (State Route [SR] 90). Large portions of these areas, particularly the Venice and Kidson areas, are characterized by dense urban uses, which were developed over the former oil fields when oil/gas activities were deemed no longer commercially viable. The Playa del Rey oil field was in production until the mid-1940s, at which time the United States government began natural gas storage operations to assure adequate gas supplies for the war effort. SCGC acquired the gas storage operation after the war and has operated the facility since that time. Natural gas is piped from areas outside California such as Texas, Wyoming, and Canada, as well as from some areas within California. The natural gas is compressed, cooled, and compressed again prior to injection into the porous sandstone reservoir that lies beneath a thick, impervious shale cap. The reservoir is located at depths of one mile or more below the ground surface and has a maximum working capacity of 2.6 billion cubic feet (bcf). Working capacity is defined as the amount that can be injected or withdrawn on an ongoing basis. The field also contains 4.5 bcf of cushion gas that remains in the reservoir to provide a minimum reservoir pressure. When recovery of the stored gas is required, it is withdrawn from the storage reservoir under natural pressure flow, and any liquids accumulated during the storage process are removed.[273, 274] SCGC is regulated by DOGGR, which requires monthly reports on injection and extraction, and frequent periodic surface and downhole monitoring of wells.

2.2.1.1.2 Transmission and Extraction Facilities

SCGC's facilities are located at the top of the Playa del Rey Bluffs on land owned by SCGC and on and under portions of the Ballona Wetlands, approximately 1.25 miles west of the Proposed Project and south of the Ballona Channel, pursuant to various leases and easements. SCGC has easements for pipelines and wells located in both this area and the area north of the Ballona Channel (west of Lincoln Boulevard and south of Marina del Rey Harbor), as shown in Figure 56 on page 673.

SCGC operates and maintains the following units at these locations: injection and withdrawal wells, observation wells, fluid removal wells, gas cooling equipment, gas/liquid separation equipment, oil/brine separation equipment, oil storage tanks, and wastewater (brine) treatment.[275]

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[273] *Cardiff, Steve, Storage Field Engineer, The Gas Company, Personal Correspondence dated May 9, 1996, and Mr. J.F. Tierney, General Superintendent, Southern California Gas Company, Personal Correspondence dated August 6, 1990. Updated by Thompson, John, Storage Field Operations Manager, Southern California Gas Company, Personal Communication, September 19, 2002.*

[274] *SCGC, 1997, "Playa del Rey Storage Field Annual Report."*

[275] *Cardiff, Steve, op. cit., May 9, 1996. Updated by Thompson, John, Storage Field Operations Manager, Southern California Gas Company, Personal Communication, September 19, 2002.*

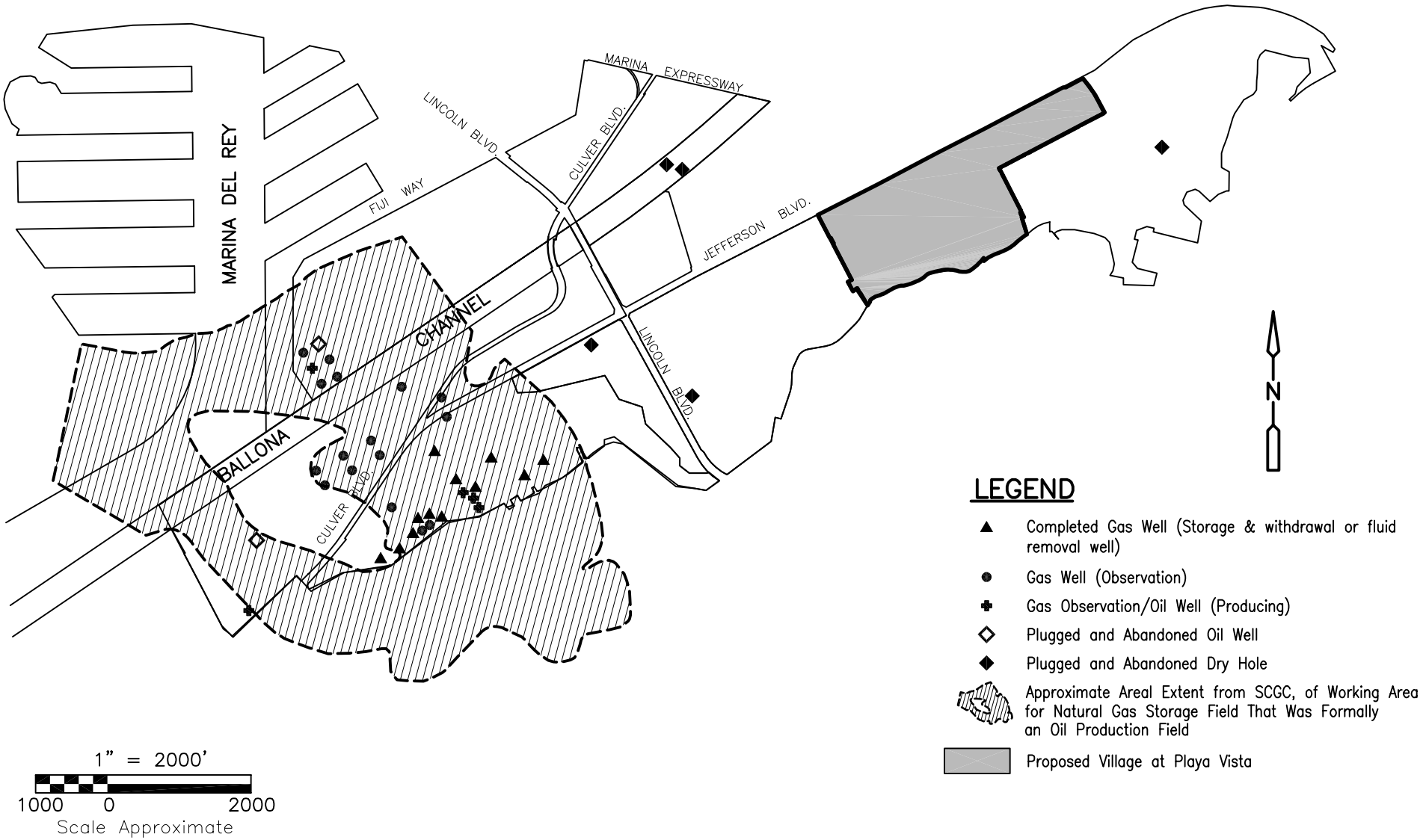

Figure 56

Facilities Near SCGC
And The Proposed Project Site

CDM

SCGC has no easements to the abandoned and plugged gas injection/extraction wells. Numerous pipelines are located within the easement areas, including lines for water, high-pressure gas, transit wastewater, low-pressure gas, and fluid production. The majority of the wells resulted from oil field activities, which took place prior to SCGC's operation of its storage field.[276]

According to the DOGGR, there are no known wells (or dry holes) that exist in the Proposed Project site.[277]

2.2.1.2 Monitoring and Maintenance

SCGC maintains a comprehensive monitoring program to ensure safety and that no damage to health, property, or natural resources occurs. Critical storage wells (defined by Title 14, CCR, Section 1720 as those within 300 feet of any building dedicated for human occupancy or within 100 feet of a public street or recreation area) that are capable of flow to the surface are equipped with both surface and subsurface well safety devices.[278] The safety system valves automatically shut for abnormally high or low pressure, sand erosion probe failure, or if fire melts a fusible plug (located in the safety system pneumatic lines). There is also a manual remote system to shut off the well. When a well is in operation (i.e., flowing), it is monitored/checked by SCGC personnel on a 12-hour basis. When a well is not in operation (i.e., not flowing), it is monitored/checked on a weekly basis. The safety systems are tested semi-annually.[279]

There have been two unusual occurrences at the SCGC storage facility in recent months. On April 2, 2003, a leak caused a pressure drop in the emergency shutdown pipeline system. This pressure drop necessitated an intentional shutdown of the operations by the operating personnel. During the emergency shutdown process, a valve on the gas pipeline failed to close, resulting in the release of natural gas for 25 minutes. Along with the natural gas, an oily reside within the pipeline was also vented, affecting cars, streets, and homes in the neighborhood. SCGC is in the process of installing new valves and other associated equipment to help ensure this does not happen again.

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[276] *Cardiff, Steve, op. cit., May 9, 1996. Updated by John Thompson, Storage Field Operations Manager, Southern California Gas Company, Personal Communication, September 19, 2002.*

[277] *Curtis, David, Environmental Engineer, California Department of Conservation, Division of Oil, Gas, and Geothermal Resources. Letter to City of Los Angeles Department of City Planning, "Notice of Preparation (NOP) for the Village at Playa Vista, ENV-2002-6129-EIR, Los Angeles County," November 19, 2002.*

[278] *Thompson, John, Storage Field Operations Manager, Southern California Gas Company, Personal Communication, September 19, 2002.*

[279] *Thompson, John, Storage Field Operations Manager, Southern California Gas Company, Personal Communication, September 30, 1998, updated September 19, 2002.*

On June 5, 2003, a 4-inch flow line from a fluid removal well experienced a connection failure in a fiberglass portion of the line under a roadway within the SCGC facility, resulting in a spill of approximately five barrels of crude oil and five barrels of brine water, impacting approximately 1,000 sq.ft. of soil and ice plant within the facility's fence line. Cleanup was completed on the same day, with all visible traces of oil removed. No areas outside of the facility were affected.

2.2.1.2.1 Venting and Odors

Odor is added to natural gas for safety purposes; thus, when natural gas is vented, the odor may be detected. SCGC pipelines, process facilities, tanks/vessels, and wells are "closed systems" that do not vent gas during normal operation; however, when maintenance work is required on this equipment, some gas venting is required to relieve the gas pressure and allow employees to perform the work. Some safety systems may also release a controlled amount of gas during an "upset" condition in surface equipment, such as a broken pipe, blocked valve, or an exceedance of pressure limits.

Prior to venting any gas for maintenance work, the gas pressure is reduced to the minimum level possible by first routing the gas to lower pressure systems and devices before any release to the air occurs. Additionally, when operations permit, venting is scheduled at times when there is little or no wind or when wind is directed away from residential areas.[280]

SCGC has worked to reduce vented volumes of gas since 1991 by changing various maintenance procedures. While efforts to minimize venting continue and are stated to be a high priority for SCGC, temporary increases in venting may periodically be necessary to accommodate additional maintenance activities or if the gas pressure within facilities to be serviced cannot be reduced by other means.[281]

In order to characterize the potential health risks from natural gas venting activities to nearby residences in the vicinity of the Del Rey Hills storage facility, the SCAQMD conducted ambient air monitoring downwind of the gas storage facilities, and reported concentrations of the trace chemicals associated with natural gas, benzene and toluene, at less than 2 parts per billion (ppb) and 5.9 ppb, respectively.[282] It should be noted that ambient concentrations of these

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[280] *Cardiff, Steve, op. cit., May 9, 1996. Updated by John Thompson, Storage Field Operations Manager, Southern California Gas Company, Personal Communication, September 19, 2002.*

[281] *Thompson, John, Storage Field Operations Manager, Southern California Gas Company, Personal Communication, March 16, 1999, updated September 19, 2002.*

[282] *South Coast Air Quality Management District, Report of Micrometeorological and Ambient Air Quality Monitoring Conducted in Playa del Rey Near the Southern California Gas Company Treasure Eight Facility, November 1989.*

chemicals in the vicinity of the Del Rey Hills gas storage facilities are influenced by a number of sources including vehicle exhaust and fueling operations. The SCAQMD has not established emission limits for benzene or toluene. These chemicals are recognized by the SCAQMD as toxic air compounds under Rule 1401 that require completion of a health risk assessment. However, the monitored levels indicated above are considered to be low (i.e., 3 to 4 orders of magnitude below Permissible Exposure Limits), and less than levels that warrant a screening risk assessment pursuant to the requirements of the SCAQMD.[283] SCGC conducts ongoing air monitoring at the Del Rey Hills facility and reports air monitoring data to SCAQMD as part of the requirements of the SCAQMD Title V/RECLAIM Air Quality Compliance operating permit.[284] Moreover, SCAQMD conducts periodic inspection of SCGC facilities to monitor tanks, vessels, seals, sumps, flanges, and other equipment for odor.[285, 286]

SCAQMD has established significance thresholds for various emissions, including volatile organic compounds (VOCs). Under SCAQMD Rule 1173, amended December 2002, facilities with components exclusively handling commercial natural gas are exempt from the provisions of the Rule, and further, the Rule's definition of VOCs specifically excludes methane (which is the main constituent of natural gas); therefore, the venting activity by SCGC is exempt from SCAQMD regulations for VOCs, but is still monitored and reported annually to the SCAQMD as fugitive emissions per the requirements of SCGC's operating permit, as discussed above.

2.2.1.2.2 Gas Migration Issues

Residents in the area had previously expressed concern that natural gas may be migrating from the Del Rey Hills natural gas storage field to the surface in Ballona Channel, as well as to areas adjacent to the reservoir, such as portions of the adjacent Playa Vista First Phase Project and Proposed Project sites. The basis for these concerns was a 1953 report filed with DOGGR as well as visual observation of bubbles near the confluence of Ballona Channel and Centinela Channel. In response to these concerns, SCGC retained consultants to test the gas bubbles in Ballona Channel and Centinela Channel, near their confluence. Samples were taken on three

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[283] *South Coast Air Quality Management District, Risk Assessment Procedures for Rules 1401 and 212, November 1998.*

[284] *South Coast Air Quality Management District. Facility Permit to Operate: So Cal Gas Co/Playa del Rey Storage Facility, 8141 Gulana Ave., Playa del Rey, CA 90293. January 1, 2003.*

[285] *South Coast Air Quality Management District (SCAQMD), Rule 1173, Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants, Amended December 6, 2002; and Mr. Jack Broadbent, Planning and Rules Manager, SCAQMD, Telephone Communication, November 11, 1990; updated by Mr. Steve Cardiff, op. cit., May 9, 1996, and John Thompson, Storage Field Operations Manager, Southern California Gas Company, Personal Communication, September 19, 2002.*

[286] *Cardiff, Steve, op. cit., May 9, 1996, and Thompson, John, Storage Field Operations Manager, Southern California Gas Company, Personal Communication, September 19, 2002.*

occasions in November and December 1993. Only one sampling event was successful (as discussed below).[287] The samples from all three sampling events were analyzed by a laboratory that was mutually acceptable to SCGC and the interested members of the public. Results from the first two sampling events indicate that the collected gas was substantially diluted by air due to equipment problems. Comparison testing between samples from the third sampling event of the bubbling gas with samples of natural gas stored in SCGC's underground facility indicated that the gases emitted from the drainage channels did not originate from SCGC reserves.[288]

In April through September 2000, Exploration Technologies, Inc., Camp Dresser & McKee, Inc. (CDM), and Zymax Forensics conducted sampling of soil gas within the adjacent Playa Vista First Phase Project and Proposed Project sites. Laboratory analysis of these samples concluded that the methane detected at the surface within the Proposed Project site and adjacent areas studied does not originate from the SCGC storage reservoir. This conclusion is reiterated in the City of Los Angeles Office of the Chief Legislative Analyst Report investigating soil gas issues at the adjacent Playa Vista First Phase Project site (see Subsection 2.2.4, Soil Gas, below).

2.2.2 Hazardous Materials Management

2.2.2.1 Government Lists of Contaminated Sites On and In the Vicinity of the Proposed Project

Various government lists, as summarized below, were reviewed to identify potential areas of groundwater and/or soil contamination on, or within 0.25 mile of, the Proposed Project site. Additionally, a computerized government records search for the areas in and around the adjacent Playa Vista First Phase Project and Proposed Project sites was completed in September 2002.[289] See Table 90 on page 678 for a summary of the records search results.

- CalEPA's Hazardous Waste Information System (HAZNET) includes hazardous waste facility and manifest data, which is extracted from copies of hazardous waste

[287] *Global GeoChemistry Corporation, "Comparison of Chemical Properties of Gases Collected in Bubbles Emerging from Centinela and Ballona Creeks, Marina del Rey, California," January 20, 1994, page 4.*

[288] *Global GeoChemistry Corporation, "Comparison of Chemical Properties of Gases Collected in Bubbles Emerging from Centinela and Ballona Creeks, Marina del Rey, California," January 20, 1994, page 4. While the 1993-1994 investigation conducted by Global GeoChemistry Corporation (GCC) found that the gas bubbles in the Ballona Channel and Centinela Ditch were of biogenic origin, subsequent soil gas investigations conducted in 1999 and 2000 found that soil gas at Playa Vista includes a combination of biogenic and thermogenic (petrogenic) methane. Notwithstanding, the subsequent analyses reaffirmed the previous GCC conclusion that there is no evidence that the methane within on-site soil gas originates from the SCGC storage reservoir.*

[289] *Environmental Data Resources, Inc., "The EDR Area Study Report for the Playa Vista 2nd Phase Project," September 25, 2002.*

Table 90

SUMMARY OF ENVIRONMENTAL DATABASE SEARCH RESULTS

Regulatory List	Number of Sites Found On or within 0.25 Mile of Project Site
HAZNET	91
FINDS	37
RCRIS-SQG	36
RCRIS-LQG	2
RCRIS-TSD	1
CA FID UST	29
HIST UST	19
HMS	17
LUST	14
CORTESE	9
SLIC	7
UST	7
ERNS	6
CA WDS	4
CERCLIS-NFRAP	3
CAL-SITES	3
NOTIFY 65	1
CA BOND EXP. PLAN	1
TRIS	1
L.A. CO. SITE MITIGATION	1
CLEANERS	1

Source: Environmental Data Resources (EDR), 2002

manifests received each year by the Cal EPA Department of Toxic Substances Control (DTSC).

- EPA's Facility Index System/Facility Identification Initiative Program Summary Report (FINDS) contains both facility information and "pointers" to other sources that contain more detailed information.

- The EPA/National Technical Information Service's (NTIS) Resource Conservation and Recovery Information System (RCRIS) includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Designations include SQG (small quantity generator), LQG (large quantity generator), and TSD (treat, storage, disposal).

- CalEPA's Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank (UST) locations from the State Water Resource Control Board (SWRCB).

- The SWRCB's Hazardous Substance Storage Container Database (HIST UST) is a historical listing of UST sites.

- The Los Angeles County Department of Public Works' Street Number List (HMS) contains industrial waste and UST sites within the county jurisdiction.

- The SWRCB's Leaking Underground Storage Tank Information System (LUST) includes leaking UST incident reports. LUST records contain an inventory of reported leaking UST incidents.

- The CalEPA Office of Emergency Information's (OEI) "Cortese" Hazardous Waste and Substances Sites List (CORTESE) lists sites contained in other hazardous waste databases, such as those of the SWRCB for LUSTs, the California Integrated Waste Management Board (CIWMB) for Solid Waste Facilities/Landfills (SWF/LF), and DTSC for CAL-SITES.

- RWQCB's Spills, Leaks, Investigations, and Cleanups (SLIC) lists non-UST sites where soil or groundwater contamination have occurred. Many of these sites are former industrial facilities and dry cleaners, where chlorinated solvents were spilled, or have leaked into the soil or groundwater.

- The SWRCB's Active UST Facilities (UST) contains lists of active USTs gathered from local regulatory agencies.

- The EPA/NTIS' Emergency Response Notification System (ERNS) records and stores information on reported releases of oil and hazardous substances.

- The SWRCB's Waste Discharge System (CA WDS) contains sites which have been issued waste discharge requirements.

- The EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) No Further Remedial Action Planned (NFRAP) database contains sites designated as "No Further Remedial Action Planned" which were removed from the CERCLIS database list as of February 1995.

- The CalEPA DTSC's Calsites database (CAL-SITES) contains potential or confirmed hazardous substance release properties.

- The SWRCB's Proposition 65 Records database (NOTIFY 65) contains facility notifications about any release which could impact drinking water and thereby expose the public to a potential health risk.

- The California Department of Health Services' (DHS) Bond Expenditure Plan (CA BOND EXP. PLAN) was developed as a site-specific expenditure plan to function as the basis for the appropriation of Hazardous Substance Cleanup Bond Act funds.

- The EPA's Toxic Chemical Release Inventory System (TRIS) identifies facilities which release toxic chemicals to the air, water, and land in reportable quantities under SARA Title III Section 313.

- The Los Angeles County Department of Health Services' Site Mitigation List (L.A. CO. SITE MITIGATION) contains industrial sites that have had some sort of spill or complaint.

- CalEPA DTSC's Cleaner Facilities database (CLEANERS) lists drycleaner related facilities that have EPA identification numbers.

Areas within and adjacent to the Proposed Project site associated with the former Hughes Aircraft Company (HAC) and former McDonnell Douglas Helicopter Company (MDHC) were identified on the ERNS, CA FID UST, UST, HAZNET, and RCRIS generators lists; however, there are no NPL sites within the Proposed Project site.[290] Table 90 summarizes the results of the database search (see Appendix J-1 for a more detailed description of each site).

An investigation of the Playa Vista site was conducted by EPA under CERCLA guidelines in the late 1980s, and the EPA determined that the site did not meet criteria for listing the site on the National Priorities List (NPL). Changes to the CERCLA guidelines in the mid-1990s, which placed additional emphasis on surface water runoff to sensitive receptors such as wetlands areas, prompted the EPA to re-evaluate Playa Vista under the new, more stringent listing guidelines. Although the EPA collected additional data at the Playa Vista site in 1999, its reevaluation is ongoing. As discussed in Subsection 2.1.1.2 above, if the Playa Vista site scores low on the re-evaluation, no further action will be required. If the Playa Vista site scores high enough for potential listing on the NPL, EPA may propose the site for listing or may defer the site because of the ongoing state ordered remediation. If the Playa Vista site is listed on the NPL, EPA may direct the continued investigation and remediation of the site or may permit the state to continue to direct the response actions. EPA has previously stated that, even if the Playa Vista site were to score high enough for possible listing, because the investigation and remediation of contamination at the site is proceeding adequately under CAO No. 98-125, it may

[290] *Environmental Data Resources, Inc., "The EDR Area Study Report for the Playa Vista 2nd Phase Project," September 25, 2002.*

not list the site. If EPA, or another regulatory agency, becomes lead agency, response actions different from those described below may be required. However, a change in lead agency status would still result in the remediation of contamination within the developed areas of the Proposed Project to acceptable regulatory standards as described in Subsection 3.4.2 below.

2.2.2.2 Historical and Current Activities

Past land uses on portions of the Proposed Project site included industrial facilities that stored and used hazardous materials and generated hazardous wastes. Soil and groundwater contamination has occurred as a result of past activities, including aircraft-related and other industrial activities conducted by HAC and MDHC on or adjacent to the Proposed Project site.

Between the early 1940s and late 1994, HAC and MDHC leased portions of the adjacent Playa Vista First Phase Project and Proposed Project sites, including most of the eastern portion of the adjacent Playa Vista First Phase Project area and some of the Proposed Project site, from the former property owner. Specific processes that were performed on-site included aircraft manufacturing, cleaning and maintenance, metal plating, painting and machining, and small armament development, manufacturing, and testing. HAC leased property within the area of the adjacent Playa Vista First Phase Project for aerospace research and manufacturing. Generally, HAC assembled electrical components at the facility.[291] HAC was overseen by the DTSC and the Los Angeles County Fire Department (LACFD), since hazardous wastes were generated at this facility.

The MDHC leased property in portions of the adjacent Playa Vista First Phase Project and Proposed Project sites (mostly the adjacent Playa Vista First Phase Project site), and was a hazardous waste generator overseen by DTSC and LACFD. MDHC manufactured and assembled small helicopters and parts, and other aircraft and ordinance subassemblies in a facility comprised of several buildings, trailers mounted on ground structures, and sheds. Many of these structures have been demolished or removed.

A 1994 building inspection revealed the presence of asbestos-containing materials (ACM) throughout the former leased facilities. Areas of known ACM include, but are not limited to, steam pipes, condensation lines, spray-on acoustical ceiling coating, and floor tiles. ACMs occur in the Proposed Project site within Building Nos. 22 and 45[292] and are anticipated to also occur within various other small buildings (sheds and minor storage structures) at the former

[291] *Kabalik, Jim, Manager of Safety, Health, and Environmental Affairs, Hughes Aircraft Company, Telephone Communication, December 12, 1990.*

[292] *National Econ Corporation, Laboratory Reports, Playa Vista Site, Volume II (for Buildings 22 and 45), October 21, 1994.*

Salvage Yard. Asbestos abatement prior to and during demolition or remodeling is required by federal, state, and local regulations.

No lead-based paint survey has been performed for structures within the Proposed Project site. Prior to demolition of structures, a lead-based paint abatement survey would be performed as appropriate.

Current activities within the Proposed Project site include various temporary activities (e.g., filming, production-related activities, and storage). Current activities within the adjacent Playa Vista First Phase Project site include construction, intermittent filming and production-related activities, and soil/groundwater remediation.

2.2.3 Soil/Groundwater Contamination

2.2.3.1 Background and Overview of Soil/Groundwater Issues

Historical operations on and adjacent to the Proposed Project site resulted in the contamination of soil and groundwater. Between 1984 and the present, multiple investigations and remedial activities have been completed within the Proposed Project site, as well as within the adjacent Playa Vista First Phase Project site. A soil/groundwater remediation program was underway for several years prior to the issuance of CAO No. 98-125 to address contaminated soil and groundwater beneath the adjacent Playa Vista First Phase Project and Proposed Project sites, and is in the process of being enhanced through the implementation of the remediation plans for areas within the adjacent Playa Vista First Phase Project pursuant to CAO No. 98-125. As mentioned previously, the CAO No. 98-125 reviews the Playa Vista property's historical uses, proposed development plans, and previous remedial activities including investigation, remedial implementation and monitoring activities. It summarizes results of previous investigations, lists RWQCB permits held at the time of the CAO issuance, and describes the RWQCB designations for the area that includes the Playa Vista property. The CAO also lists requirements for coordination with and notification to the RWQCB regarding ongoing site activities.

Soil and groundwater remediation activities are expected to continue as necessary and appropriate to meet regulatory requirements. Additional soil and groundwater investigations within the Proposed Project site have substantially progressed over the past year, and any remaining evaluation will help clarify and refine the remediation timeframes associated with the overall adjacent Playa Vista First Phase Project and Proposed Project sites. Notwithstanding, it is reasonable to assume that substantial additional progress in the remediation of existing soil and groundwater contamination would be made between now and 2010. It is unknown if remediation of the existing contaminated groundwater would be fully completed by 2010.

2.2.3.2 Hughes Aircraft Company (HAC) and McDonnell Douglas Helicopter Company (MDHC) – Former Plant Site and Vicinity

Howard Hughes Properties conducted an extensive site investigation throughout the adjacent Playa Vista First Phase Project and Proposed Project areas from 1984 to 1987 to determine the extent of soil and groundwater contamination. Reports regarding these investigations at the Hughes Plant site are included as Appendices J-12 and J-13. Soil samples were collected and analyzed for volatile organic compounds, petroleum hydrocarbons, heavy metals, pesticides, and PCBs. These compounds were determined to be present or to have been used in the past at the site.[293] To date, most of the accessible soil contamination identified in the 1987 evaluation has been remediated.[294] However, in accordance with CAO No. 98-125 and other regulatory requirements, additional investigation has been, and will continue to be, conducted to ensure that the area has been thoroughly investigated and remediated as appropriate. Additionally, any contamination unexpectedly encountered during site development activities will be assessed and remediated in accordance with the requirements of CAO No. 98-125. Site health and safety procedures, already in place, and certain risk management protocols that apply to the adjacent Playa Vista First Phase Project and Proposed Project will protect construction workers and maintenance workers against unacceptable exposures from contamination encountered during development (see Project Design Features in Subsection 3.3).

The following subsections provide a summary of historical operations, site characterization activities, and remedial actions for areas of contamination within the Proposed Project site, and portions of the adjacent Playa Vista First Phase Project that could affect the Proposed Project site. Six study areas within the Proposed Project site and three areas within the western (up-gradient) portion of the adjacent Playa Vista First Phase Project site are described.

2.2.3.2.1 Former Hughes Aircraft Company Plant Activity Areas Located Within the Proposed Project Site

In addition to the six former Hughes Aircraft Company Plant activity areas described in detail below, there are two existing buildings and other smaller structures (i.e., sheds) within the Proposed Project site that were associated with the former Hughes Plant. Buildings 22 and 45 are existing structures located near the southeast corner of the Proposed Project site. Various other small buildings (sheds and minor storage structures) are located within the former Salvage Yard Area of the Project site. All of these buildings would be demolished under the Proposed Project. There are six study areas of potential environmental concern within the Proposed Project site (see Figure 57 on page 684). All of the study areas have undergone preliminary

[293] *McLaren Environmental Engineering, "Site Investigation and Evaluation of Remedial Measures Report, Howard Hughes Property Plant Site, Los Angeles, California," May 1987.*

[294] *McLaren Environmental Engineering, Annual Update Report on Plant Site Remediation, March 1990, page 5.*

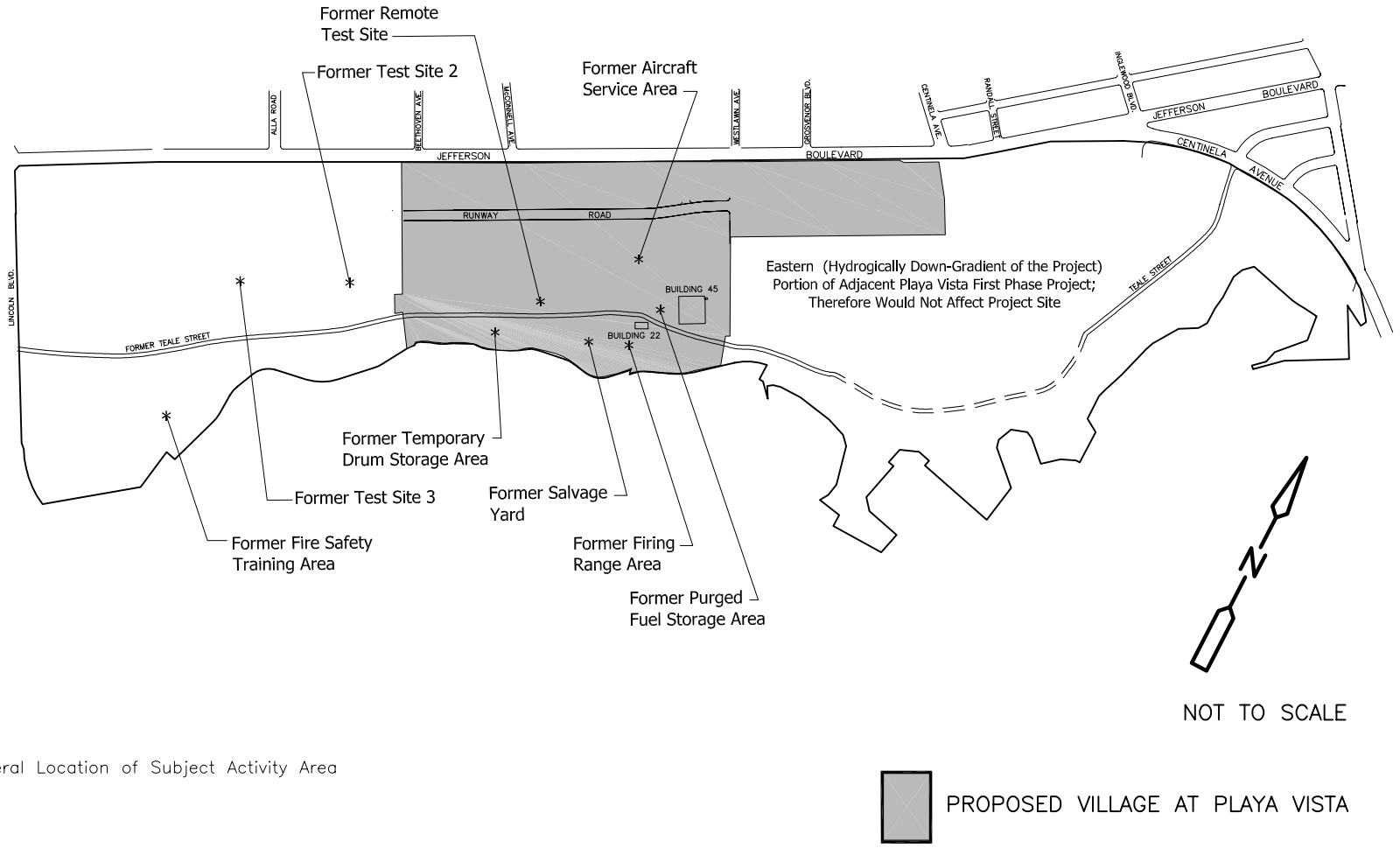

Figure 57

Areas of Potential Environmental (Contamination) Concern Relevant to the Proposed Project Site

CDM

characterization (see Appendix J-3). One of the study areas, the former Temporary Drum Storage Area (discussed below), has been fully remediated through removal of contaminated soils. Additional characterization has recently been performed in the remaining study areas (see Appendix J-15). The need for further action, if necessary, will be determined by the RWQCB in accordance with CAO No. 98-125.

The assessment and remediation of contaminants from the six areas being directed by the requirements of CAO No. 98-125 are described below:

Former Temporary Drum Storage Area: The former Temporary Drum Storage Area consisted of an asphalt area south of Building 29 (now demolished) and an unpaved area east of the building; both areas were used for at least 25 years to store drums with various chemicals (i.e., kerosene, lubricating oils, hydraulic fluids, degreasers, solvents, and antifreeze). Drums of chemicals were stored on the asphalt area on five gravel-covered spill traps, and on a leakage collection tray that drained into an underground sump. This facility was taken out of service in 1986-87.

Total petroleum hydrocarbons (TPH) were detected in soils throughout the area. Benzene and VOCs were detected in the soils beneath the paved area. Low levels of VOCs (including chloroform) were detected in the unpaved area. Soils at the former Temporary Drum Storage Area did not exceed Total Threshold Limit Concentration (TTLC) criteria for hazardous waste. VOC concentrations did not exceed the RWQCB-approved soil cleanup levels recommended by McLaren Environmental Engineering (MEE) in 1987. However, TPH concentrations exceeded the MEE recommended cleanup levels. Due to the TPH concentrations exceeding cleanup criteria, soil was excavated to a total depth of 5 feet in March of 1987. Based on the overall amount and distribution of contaminants in the soil, CDM determined that sufficient characterization of soil exists for the former Temporary Drum Storage Area.[295]

Groundwater samples were collected under the site during the First Quarter 1999 through the First Quarter 2003, and down-gradient of previously remediated areas in early 2002.[296, 297] During the First Quarter 1999 through the Second Quarter 2000, no TPH or pesticides were detected in groundwater, and VOCs and total metals were not detected above drinking water maximum contaminant levels (MCLs). MCL standards are used as benchmarks for comparative purposes since the groundwater in the area of the Proposed Project is not currently pumped for

[295] *Camp Dresser & McKee Inc., "Soil and Groundwater Investigation Report, Phase 2 Portion of the Area D Project Area, Playa Vista Site," May 15, 2002.*

[296] *Camp Dresser & McKee Inc., "Soil and Groundwater Investigation Report, Phase 2 Portion of the Area D Project Area, Playa Vista Site," May 15, 2002.*

[297] *Camp Dresser & McKee Inc., "Soil and Groundwater Investigation Report, Phase 2 Portion of the Area D Project Area, Playa Vista Site," July 15, 2002.*

beneficial uses (i.e., drinking water or industrial or agricultural supply). See Section IV.C.(2), Water Quality, for a detailed discussion of groundwater quality. During subsequent monitoring events, TPH was not detected above laboratory reporting limits and metals were not detected above California drinking water MCLs in the first groundwater encountered (at shallow depths within the upper Bellflower Aquitard). Cis-1,2-DCE was detected at concentrations up to 7.8 micrograms per liter (µg/L), which is slightly above the California drinking water MCL (6 µg/L). Although additional groundwater sampling was not performed during the supplemental characterization in 2003, ongoing groundwater monitoring occurs at three wells (two wells monitor the Bellflower Aquitard and one well monitors the Ballona Aquifer).

Based on the existing data, the former Temporary Drum Storage Area may qualify for "No Further Action" (NFA) approval from the RWQCB. The need for any further activity, if any, will be determined by the RWQCB in conjunction with continued implementation of CAO No. 98-125.

Former Remote Test Site: The former Remote Test Site was used to test aerospace engines, aircraft components, and lasers. Before the 1970s, the test site was used to test rockets and was known as the Rocket Test Site. Most improvements at the former Remote Test Site, including pavement, were demolished and removed in November 1986. Three sumps and a small (approximately 3 feet in diameter) burn area were also formerly located at the site. Low concentrations of VOCs (mainly benzene) were found at the site. The soils of the small burn area had concentrations of copper that exceeded TTLC criteria and were therefore disposed of as hazardous waste. Other soils at the site did not exceed TTLC criteria for hazardous waste and VOCs were not present in concentrations exceeding the MEE recommended soil cleanup levels. In 1987, the soil remediation was considered complete because soils with copper concentrations exceeding hazardous waste criteria had been removed.

The former Remote Test Site burn area was resampled in May of 2000. Copper was detected at low concentrations in shallow soil. Low concentrations of metals and TPH were detected in groundwater samples, with only mercury (2.6 µg/L) in slight exceedance of California drinking water MCL (2.0 µg/L).

The former Phoenix Flight Line was located in an area northwest of the former Remote Test Site. In 1965, two of the structures in this area were utilized as nose hangars, and a jet silencer facility (abandoned in the early 1970s) was located in the eastern portion of this area. All of the structures in this area were demolished between 1988 and 1989. The former Phoenix Flight Line area was sampled in May 2000 by CDM.[298] Low concentrations of VOCs, TPH and arsenic were detected in soil samples. Except for arsenic, all VOC and metals concentrations in

[298] *Camp Dresser & McKee Inc., "Soil and Groundwater Investigation Report, Phase 2 Project Area, Former Proposed Temporary Detention Basin Area," July 25, 2000.*

soil samples are below the residential HBRGs, a conservative health-based cleanup criteria. Arsenic concentrations were detected up to 23 mg/kg, which is higher than the residential and recreational HBRG. The residential and recreational HBRG for arsenic is equal to the mean site background concentration of 5.2 mg/kg. Arsenic impacted soil requiring remediation will be carried out as required by RWQCB under CAO No. 98-125.

In early 2002, 13 soil and 9 groundwater samples were collected down-gradient of former potential source areas. Low levels of acetone, cis-1,2-DCE, TPH, and metals, were detected in the soil samples, however the concentrations were below the residential HBRGs or, where there are no residential HBRGs for a particular contaminant, below EPA Region IX residential Preliminary Remediation Goals (PRGs) for soils. Low levels of VOCs (primarily cis-1,2-DCE, 1,1-DCA and vinyl chloride), TPH, and metals were detected in the groundwater samples down-gradient from the former source areas.[299] Based on the overall amount and distribution of contaminants in the soil, CDM determined that sufficient characterization of soil exists regarding the former Remote Test Site. Though the observed VOC contamination in groundwater is below residential HBRGs requiring active remediation, additional groundwater sampling was recently performed in early 2003 to complete the delineation of VOC-impacted groundwater within the Bellflower Aquitard and the Ballona Aquifer.

In early 2003, groundwater samples were collected at ten hydropunch and from three monitoring wells to supplement the data previously collected in the Bellflower Aquitard and Ballona Aquifer within and down gradient of the former Remote Test Site (see Appendix J-15). VOCs were detected in the Bellflower Aquitard samples at concentrations up to 64 µg/l (1,2-dichlorobenzene). Other VOCs, including 1,4-dichlorobenzene, 1,1-DCA, cis- and trans-1,2-DCE, TCE, chlorobenzene, and vinyl chloride, were also detected but at much lower concentrations. In the Ballona Aquifer, VOC concentrations were generally low and ranged from non-reportable levels to a maximum of 42 µg/l. Throughout the area, cis-1,2-DCE was the most prevalent VOC and detected at the highest concentrations in the Ballona Aquifer samples. Because the detected VOC concentrations in the Bellflower Aquitard and Ballona Aquifer are relatively low, however, the presence of an existing and ongoing significant source in this area is not likely.

Based on the existing data, the former Remote Test Site may qualify for NFA approval from the RWQCB. The need to implement further activities will be determined by the RWQCB in conjunction with the continued implementation of CAO No. 98-125. If necessary, additional activities would be carried out as required by the RWQCB under CAO No. 98-125, as described in Appendix J-2.

[299] *Camp Dresser & McKee Inc., "Soil and Groundwater Investigation Report, Phase 2 Portion of the Area D Project Area, Playa Vista Site," May 15, 2002.*

Former Salvage Yard: The former Salvage Yard, located southwest of Building 22, was used for storage of chemicals, fuels, and waste from manufacturing, as well as for salvaging used equipment and supplies. Facilities at the former Salvage Yard included three waste solvent sumps, one waste oil sump, chemical drum storage racks, a leakage collection tray and sump, and a surface drain and sump. VOCs, TPH, and low levels of metals were found in soils in much of the area. Chemicals were found to extend from the surface down to the water table beneath the leakage collection tray and sump, with subsequent migration occurring laterally to the north of the leakage collection area. During the 1983 Hargis & Montgomery, Inc. (H&M) investigation, one groundwater well (C-5) was drilled in the former Salvage Yard area.[300] One soil sample was collected and TCE, PCE, and 1,1-DCE concentrations were detected at concentrations greater than 100 mg/kg, which exceed residential HBRGs. Groundwater samples collected from this well had detectable concentrations of phenol (2 µg/L), 1,1-DCA (3.5 µg/L), and PCE (4.4 µg/L), which are below the residential HBRGs and below California's drinking water MCLs (there is no MCL for phenol). The highest concentrations of metals were manganese (0.34 mg/L), copper (0.02 mg/L), mercury (0.0002 mg/L) and zinc (0.01 mg/L). There are no residential HBRGs established for metals in groundwater; however, the detected metals concentrations were below California's drinking water MCLs except for manganese. The manganese concentration exceeded California's secondary drinking water MCL of 0.05 mg/L, which is a drinking water standard that addresses the taste, odor, or appearance of drinking water. Pesticides were analyzed for but not detected. Additional investigation was recommended to define the extent and nature of chemical residues in the soils and groundwater. Additional groundwater investigations were subsequently conducted by Hargis & Associates, from 1984 through 1985.[301, 302] Groundwater samples collected from well C-5 had detectable concentrations of trans-1,2-DCE (7 to 24 µg/L), 1,1-DCA (13 to 24 µg/L), and PCE (1 µg/L); iron and manganese were detected (0.05 mg/L and 0.07 mg/L, respectively) in May 1985. The trans-1,2-DCE, 1,1-DCA and PCE concentrations were below residential HBRGs, but exceeded the California drinking water MCL for 1,1-DCA and, in some cases, exceeded the California MCL for trans-1,2-DCE. Manganese was detected at concentration just slightly higher than the secondary MCL of 0.05 mg/L.

During the 1987 MEE investigation, the soils immediately beneath the leakage collection tray sump, one of the sumps, and the waste oil sump were considered to be hazardous based on the results of a fish bioassay (toxicity) test. With the exception of areas beneath existing buildings, contaminated soils were remediated through excavation and off-site disposal at a

[300] *Hargis & Montgomery, Inc., "Phase I Investigation of Groundwater Quality and Hydrogeologic Conditions, Summa Corporation Facility, Culver City, California," March 27, 1984.*

[301] *Hargis & Associates, Inc., "Phase II Investigation of Groundwater Quality and Hydrogeologic Conditions, Summa Corporation Facility, Culver City, California," January 15, 1985.*

[302] *Hargis & Associates, Inc., "Phase III Investigation of Groundwater Quality and Hydrogeologic Conditions, Summa Corporation Facility, Culver City, California," April 15, 1986.*

permitted facility. Since March 1999, three shallow (i.e., Bellflower Aquitard) groundwater monitoring wells (including C-5), located in the former Salvage Yard, have been monitored for at least eight quarters. Results from the quarterly groundwater monitoring indicate VOCs (primarily cis-1,2-DCE and TCE) in one or more of the wells at concentrations exceeding California drinking water MCLs in the shallow groundwater.

Other records, such as drawings (plans), suggest that other potential sources of contamination (underground fuel tanks, acid/solvent storage, septic tanks, firing ranges, etc.) may have existed at or in the vicinity of the former Salvage Yard. In early 2002, 23 soil and 5 groundwater samples were collected at, and down-gradient of, these former potential source areas. TCE, the only VOC detected, was reported in one of the soil samples at a concentration of 3.7 µg/kg, which is below the residential HBRG level. Low levels of TPH, metals, phenols, dioxins and furans were detected in the soil samples, also at levels below residential HBRGs or, where there are no residential HBRGs, below EPA residential PRGs. Based on the findings of the 2002 investigation, sufficient characterization of soil contamination exists for the former Salvage Yard.[303]

During the 2002 investigation, concentrations of cis-1,2-DCE, TCE, and tert-butyl alcohol were detected in the Bellflower Aquitard groundwater at concentrations of 30, 21, and 51 µg/L, respectively. These compounds exceed California drinking water MCLs (cis-1,2-DCE) or action levels (tert-butyl alcohol), but not the residential HBRGs. Arsenic was detected at 52 µg/L, which is slightly above the California drinking water MCL of 50 µg/L. No other metals were detected above California drinking water MCLs. Though observed levels of VOCs in groundwater were found to be lower than the residential HBRGs, additional groundwater sampling was performed in 2003 to complete the delineation of VOC-impacted groundwater within the Bellflower Aquitard.

In early 2003, groundwater samples from the Bellflower Aquitard were collected at four locations, and Ballona Aquifer samples were also collected at three locations. Each groundwater sample was analyzed for VOCs. In the Bellflower Aquitard sample located immediately down gradient of the former leakage collection tray and sump, VOCs were detected at concentrations up to 280 µg/l. Cis-1,2-DCE and TCE were detected at the highest concentrations of 280 and 200 µg/l, respectively. Although some VOC concentrations (i.e., cis-1,2-DCE, TCE, 1,1-DCE, and 1,1-DCA) in this sample exceed California drinking water MCLs, they are below site-specific residential HBRGs. VOC concentrations were significantly lower in the three Bellflower Aquitard samples collected less than 200 feet down gradient of the boring near the former leakage collection tray and sump. VOCs were not detected above laboratory reporting limits in two of the shallow groundwater samples. In the third sample, VOCs were detected but

[303] *Camp Dresser & McKee Inc., "Soil and Groundwater Investigation Report, Phase 2 Portion of the Area D Project Area, Playa Vista Site," May 15, 2002.*

at concentrations below California drinking water MCLs. These data demonstrate that lateral migration of the VOC contamination within the Bellflower Aquitard is limited.

In the three Ballona Aquifer samples collected in early 2003, the detection of VOCs was primarily limited to cis-1,2-DCE, 1,1-DCA, 1,1-DCE and TCE. Of the detected VOCs, cis-1,2-DCE was the only compound detected at concentrations exceeding the California MCL of 6 µg/l. Cis-1,2-DCE concentrations in the three samples ranged from 8.3 to a maximum of 38 µg/l. The data demonstrate that VOCs did not migrate vertically from the Bellflower Aquitard into the Ballona Aquifer at this location to a significant degree as demonstrated by the reduced VOC concentrations detected in the Ballona Aquifer sample. Furthermore, the levels of VOCs detected in the down gradient Ballona Aquifer samples demonstrate that lateral migration of VOCs in the Ballona Aquifer is limited. Therefore, no additional characterization activities are recommended. If necessary, additional activities would be carried out as required by the RWQCB under CAO No. 98-125, as described in Appendix J-2.

Former Firing Range Area: The former Firing Range Area is located southwest of Building 22 and east of the former Salvage Yard. The area was used for armament test firing operations. An initial firing range with two firing bays was extended from the south side of the former firing range building. In 1966, an additional firing range was built. A firing range shop was used for gun repair and firing range offices. According to historical drawings, a spray booth and a solvent settling tank were located in this building. Other former buildings were used as chemical storage buildings. Explosives were also stored in this area. One 31-foot deep seepage pit and three septic tanks were also located in the area. Buildings in the former Firing Range Area were demolished between 1988 and 1989.

In early 2002, 26 soil samples were collected from the former Firing Range Area.[304] Benzene, ethylbenzene, toluene, xylenes (BTEX), 1,2,4-trimethylbenzene, acetone, TCE and cis- and trans-1,2-DCE were detected in the soil samples. The detections of all aromatic VOCs (BTEX and 1,2,4-trimethylbenzene) were below residential HBRGs for soils.. The detection of chlorinated VOCs (TCE, cis- and trans-1,2-DCE) was limited to soil samples collected near the former seepage pit, at depths below the water table. Cis-1,2-DCE was detected in saturated soil samples collected at depths between 15 and 32 feet below ground surface (bgs) at concentrations ranging from 4.9 to 230 µg/kg, with the maximum concentration detected in the sample collected at 26 feet bgs. TCE (500 µg/kg) and trans-1,2-DCE (18 µg/kg) were only detected in the sample collected at 26 feet bgs. The detections of all chlorinated VOCs were below residential HBRGs for cis-1,2-DCE (2,180 µg/kg), TCE (2,660 µg/kg), and trans-1,2-DCE (4,660 µg/kg). Lead was detected within the footprint of one of the former Firing Range bays at a concentration of 170 mg/kg at 2 feet bgs, which exceeds the residential HBRG of 106 mg/kg. It did not appear

[304] *Camp Dresser & McKee Inc., "Soil and Groundwater Investigation Report, Phase 2 Portion of the Area D Project Area, Playa Vista Site," May 15, 2002.*

that elevated lead concentrations extend vertically to lower depths, as evidenced by the decreased concentration of lead detected in samples between 5 and 32 feet bgs that range from 0.68 to 4.8 mg/kg.

In 2003, 33 soil samples were collected from 8 borings at depths ranging from the surface to 30 feet bgs. The borings were placed in the vicinity of the 2002 boring where the elevated lead and VOC concentrations were previously detected. In total, 7 samples were collected at depths up to 5 feet bgs and analyzed for lead; and 26 soil samples were collected within the saturated zone at depths between 15 and 30 feet bgs and analyzed for VOCs. All lead concentrations were below 20 mg/kg. Therefore, it was concluded that the elevated lead detection in 2002 was an isolated occurrence and that lead contamination did not extend laterally or vertically. Reportable concentrations of VOCs were observed in one or more soil samples collected from each of the borings; however, cis-1,2-DCE (up to 520 µg/kg) , trans-1,2-DCE (up to 250 µg/kg), TCE (up to 500 µg/kg) and vinyl chloride (up to 110 µg/kg) were detected the most frequently and at the highest concentrations. It should be noted that except for vinyl chloride, detected VOC concentrations (specifically, cis-1,2-DCE and TCE) in all soil samples collected in the former Firing Range are below their respective residential HBRGs. The residential HBRG for vinyl chloride (24 µg/kg) was exceeded in two samples; however, the vinyl chloride concentrations are well below the recreational HBRG (203 µg/kg), which is the applicable standard for comparison based on the intended use for this portion of the site.

Based on the 2002 data and supplemental data from the additional characterization performed in 2003, no additional soil characterization activities are recommended because residual soil contamination in the former Firing Range Area has been adequately defined. The need to implement further activities will be determined by the RWQCB in conjunction with the continued implementation of CAO No. 98-125. If necessary, additional activities would be carried out as required by the RWQCB under CAO No. 98-125, as described in Appendix J-2.

During the 2002 investigation, 9 groundwater samples were collected from the former Firing Range Area. In early 2003, groundwater samples from the Bellflower Aquitard and Ballona Aquifer were collected at one additional location to supplement the 2002 data within the former Firing Range Area. Results from groundwater samples collected within the Bellflower Aquitard were all below the residential groundwater HBRGs with the exception of vinyl chloride, which was detected in monitoring well C-116 at a concentration of 83 µg/L in March 2003. Although the vinyl chloride concentrations detected in this well exceed the residential HBRG value of 26.5 µg/L, the concentrations are well below the recreational HBRG, which is an appropriate measure of comparison given the intended use for this area of the site. In the Ballona Aquifer, cis-1,2-DCE was the most prevalent VOC and detected at the highest concentrations. The highest cis-1,2-DCE concentration (930 µg/L) was reported in a groundwater sample collected down-gradient of the former Firing Range Area. Although these concentrations exceed

California drinking water MCLs, the concentrations attenuate relatively quickly in a down-gradient direction. TPH, metals, and other parameters sampled in groundwater were found not to exceed applicable remediation criteria.

Because adequate characterization of groundwater contamination within the former Firing Range is complete, no additional characterization activities are necessary or recommended. If necessary, additional activities would be carried out as required by the RWQCB under CAO No. 98-125, as described in Appendix J-2.

Former Aircraft Service Area: The former Aircraft Service Area was used for aircraft washing, aircraft engine cleaning and testing. One of the former buildings was a nose hangar used for aircraft maintenance and storage. A concrete washstand was located on the north side of the building.

A reinforced concrete clarifier was removed in October 1987.[305] The clarifier was backfilled with gravel after evaluation of confirmatory soil sampling results (TPH, PCBs, metals, and phenols) indicated concentrations below the existing cleanup criteria (i.e., 1,000 times DHS action limits for drinking water).

A Flight and Service Building was used for flight and service offices, shops and flight operations. A machine shop was located in the building in the early 1950s. A 2,000-gallon septic tank was located south of the Flight and Service Building. Other former buildings (including Building 22), a 500-gallon septic tank, and a 1,000-gallon UST were located in the area currently occupied by Building 45. A 20-foot deep seepage pit was also located in the area. Building 22 was used for aircraft repair activities, such as paint and upholstery. In 1954, two buildings were moved (including Building 22) to their current locations to make room for Building 45. Building 45, an aircraft hangar, was built in 1954 and used for aircraft maintenance and repair, a radio shop, a machine shop, helicopter maintenance training, aircraft electronic modification, and warehousing. All remaining buildings (other than Building 45) in the former Aircraft Service Area were demolished between 1988 and 1989.

An area known as the former Engine Cleaning Pit area was located in the former Aircraft Service Area. The area was paved with asphalt in the early 1960s and contained several pits where aircraft engines were degreased using industrial solvents. The pits were abandoned, backfilled and covered with asphalt prior to 1984. During the 1986/1987 MEE investigation, soil samples were collected from 13 borings; and one monitoring well was constructed to assess groundwater quality. In general, VOCs in the soil samples were relatively low and ranged from non-detectable levels to a maximum of 1,800 µg/kg (dichloromethane in SB-66 at 1.5 feet bgs).

[305] *McLaren Environmental Engineering, 1988. "Clarifier Closure Report and Suspected Underground Structure Investigation, Howard Hughes Properties," June 9, 1988.*

Furthermore, the highest detections were limited to the upper 5 feet of soil. Benzene was detected in one sample, collected at a depth of 0.5 feet bgs from boring SB-35, at a concentration of 23 mg/kg. The sample collected at a depth of 4.5 feet bgs in the same boring contained benzene at 110 µg/kg (0.110 mg/kg), which indicates that benzene did not migrate to deeper soils. Furthermore, benzene concentrations at a nearby boring quickly attenuated from 23,000 µg/kg to 110 µg/kg at depths between 0.5 and 4.5 feet bgs. Groundwater collected immediately downgradient of the Engine Cleaning Pit Area did not show detectable concentrations of benzene in either the Bellflower Aquitard or Ballona Aquifer, which also demonstrates that benzene did not migrate vertically to lower depths, and did not impact groundwater. TPH exceeded the 100 mg/kg cleanup criteria in one sample, which was collected at a depth of 0.5 feet bgs in boring SB-86. The area was excavated and confirmation samples indicated that VOCs were not present. The 1987 report stated that soils remediation had been completed in the area.

In early 2002, 26 soil and 6 groundwater samples were collected in the former Aircraft Service Area down-gradient of former potential sources. Low levels of acetone, cis-1,2-DCE, TPH and metals were detected in the soil, however, at concentrations below action levels or requiring remediation. Based on the results of the investigation, no additional characterization activities were recommended for soil. In the Bellflower Aquitard, cis-1,2-DCE and 1,1-DCA were detected in the groundwater samples that exceed California drinking water MCLs, however at levels below residential HBRGs.[306] During the 2002 investigation, one groundwater sample was collected from the Ballona Aquifer, down-gradient of the former Engine Cleaning Pit area. Except for two compounds (cis-1,2-DCE and vinyl chloride), VOC concentrations in the Ballona Aquifer sample were below California drinking water MCLs. Cis-1,2-DCE and vinyl chloride were detected in the Ballona Aquifer sample at concentrations of 11 and 1.6 µg/L.

Additional groundwater sampling was performed in early 2003 to supplement and complete the delineation of VOC-impacted groundwater within the Bellflower Aquitard and Ballona Aquifer. In total, eight groundwater samples (three from the Bellflower Aquitard and five from the Ballona Aquifer) were collected from five locations during the 2003 investigation. In the Bellflower Aquitard, VOCs were not detected at concentrations higher than laboratory reporting limits. In the Ballona Aquifer, cis-1,2-DCE was detected the most frequently and at the highest concentrations. If detected, all other VOCs were low and approximately equal to, or below, California drinking water MCLs. Cis-1,2-DCE was detected in the five Ballona Aquifer samples at concentrations ranging from 12 to 220 µg/L.

Overall, low levels of VOCs were detected in groundwater samples collected from the Bellflower Aquitard, but the data demonstrate that lateral migration is limited. Although VOCs

[306] *Camp Dresser & McKee Inc., "Soil and Groundwater Investigation Report, Phase 2 Portion of the Area D Project Area, Playa Vista Site," May 15, 2002.*

were detected in the Ballona Aquifer at concentrations higher than California drinking water MCLs, the concentrations are naturally attenuating as evidenced by the lower concentrations detected at down-gradient locations. Because adequate characterization of groundwater contamination beneath the former Aircraft Service Area is complete, no additional characterization activities are necessary or recommended. If necessary, additional activities would be carried out as required by the RWQCB under CAO No. 98-125, as described in Appendix J-2.

Former Purged Fuel Storage Area: The former Purged Fuel Storage Area is an asphalt paved site located west of Building 45 that was previously used to temporarily store drums of fuel and oils that had been purged from the aircraft undergoing maintenance or repair. During the 1986 investigation, soil samples were collected in this area. The results indicated that the soils were impacted with VOCs and TPH. 1,1,1,-TCA (51 to 2,600 µg/kg) and toluene (10 to 100 µg/kg) were most frequently detected VOCs. TPH was detected in one sample at a concentration of 330 mg/kg.[307] Soils at the former Purged Fuel Storage Area did not exceed TTLC criteria for hazardous waste and VOCs were not present at concentrations exceeding the MEE recommended soil cleanup levels (the RWQCB-approved cleanup criteria used at the time). The compounds in the soil are also below the residential HBRGs. This area was taken out of service in 1987. Because soil conditions had been adequately characterized during the MEE investigation, no further characterization activities were conducted by CDM during the early 2002 soil and groundwater investigation.

In early 2002, one groundwater sample was collected from the Bellflower Aquitard inside the western portion of Building 45. Although this sample was not collected in the immediate footprint of the former Purged Fuel Storage Area, it is located in a down-gradient direction. Low levels of toluene and methyl tert-butyl ether (0.57 and 2.2 µg/L, respectively) were detected in the groundwater sample, but at concentrations below drinking water MCLs and residential HBRGs. No other VOCs or TPH were detected in the groundwater sample. Based on these data, no additional groundwater sampling was performed during the 2003 investigation.

Based on the data, the former Purged Fuel Storage Area may qualify for NFA approval from the RWQCB. If appropriate, the need for further remedial action will be determined by the RWQCB pursuant to CAO No. 98-125. If necessary, additional remediation would be carried out as required by the RWQCB under CAO No. 98-125, as described in Appendix J-2.

[307] *McLaren Environmental Engineering, "Howard Hughes Properties Annual Update Report for Plant Site Remediation," April 1989.*

2.2.3.2.2 Former Hughes Aircraft Company Plant Activity Area Located Adjacent to the Proposed Project Site

This section addresses contaminated areas within the adjacent Playa Vista First Phase Project site that could pose the potential to impact the Proposed Project site. In general, contaminant concentrations within portions of the adjacent Playa Vista First Phase Project site are greater than those found within the Proposed Project site. Soil and groundwater contamination within the adjacent Playa Vista First Phase Project occurs both to the east and west of the Proposed Project site; however, the most significant sources of contamination have been removed, with the remaining areas of contamination to be addressed through remediation plans that have been approved or are being reviewed by the RWQCB.[308, 309] Because the eastern portion of the adjacent Playa Vista First Phase Project lies both hydraulically down-gradient and cross-gradient of the Proposed Project, soil and groundwater contamination in this area do not present a substantial risk to the Proposed Project and therefore are not described in this section. To the west of the Proposed Project site, within the western portion of the adjacent Playa Vista First Phase Project, are three other study areas where contamination has occurred from past activities associated with the former Plant Site.[310] As described below, those areas include: former Test Site 2; former Test Site 3; and the former Fire Safety Training Area (see Figure 57 on page 684).

Former Test Site 2: Former Test Site 2, encompassing approximately 2.5 acres within the western portion of the adjacent Playa Vista First Phase Project site, was previously used by the former Hughes Aircraft Company for the testing of aircraft equipment. All facilities (including pavement) were demolished in November 1986. The results from numerous field investigations at Test Site 2 since 1986 identify several VOCs as contaminants of concern. Based on these results, the predominant compounds of concern detected at and in the vicinity of former Test Site 2 are cis-1,2-DCE, VC, 1,1-DCE, and benzene.

Additional site characterization was performed by CDM to delineate the extent of VOCs in shallow soil gas and groundwater. From July 2001 to present, extensive sampling of groundwater, soil and soil gas for VOCs within and adjacent to the former Test Site 2 was performed. Results from these investigations have been provided to the RWQCB and were

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[308] *Camp Dresser & McKee Inc., "Soil and Groundwater Remediation Plan, Test Site 2," March 5, 2002.*

[309] *Camp Dresser & McKee Inc., "Soil and Groundwater Remediation Plan, Campus Area," June 7, 2002.*

[310] *The former Bulk Fuel Storage Area, previously located in the southeastern corner of the western portion of the adjacent Playa Vista First Phase Project and overlapping into the Proposed Project area, was remediated in 1986. Though an area of past activities associated with the former Plant Site, this area is not considered further because no significant residual contamination was found during confirmation sampling and a closure report was submitted to the RWQCB by a former owner of the Playa Vista project. (Source: McLaren Environmental Engineering, "Howard Hughes Properties Final Storage Area Closure Report," December 31, 1986.)*

summarized in the Soil and Groundwater Remediation Plan – Test Site 2.[311] The RWQCB issued written approval of the remediation plan in a letter dated June 28, 2002. An addendum to the remediation plan was submitted to the RWQCB on November 4, 2002, proposing various remediation options to address contaminated groundwater within down-gradient portions of the Ballona and Silverado Aquifers.[312] The Addendum was conditionally approved by the RWQCB on March 12, 2003. As required by the RWQCB, in accordance with CAO No. 98-125, appropriate remediation is being, and will continue to be, implemented at Test Site 2.

The excavation of contaminated soils within the former Test Site 2 area was performed during September 2002 and included the removal of over 18,900 tons of non-RCRA hazardous soils, which were disposed of off-site at Kettleman Hills landfill (Kettleman City, California), while remaining excavated soils were reused on-site in accordance with SCAQMD and RWQCB guidance. The primary objective of the excavation was to remove contaminated soils that exceed remediation triggers.

Operation of the groundwater remediation systems will proceed in accordance with the Test Site 2 design documents submitted to the RWQCB in July of 2002 and the Test Site 2 Monitoring and Contingency Plan, which was also submitted to the RWQCB in July 2002, or as modified per the requirements of the RWQCB. The Monitoring and Contingency Plan details sampling and analysis procedures for evaluating the specific shutdown criteria approved by the RWQCB.[313] Additional groundwater monitoring wells have been installed down-gradient of the former Test Site 2 and further remediation will be implemented to address groundwater contamination within the Ballona and Silverado Aquifers in this area. If necessary, in accordance with CAO No. 98-125, the RWQCB may require additional remediation options to be implemented to address remaining contamination, as described in Appendix J-2.

Existing monitoring data suggest that groundwater contamination resulting from the former Test Site 2 area that exceeds MCLs and HBRG concentrations is limited to the adjacent Playa Vista First Phase Project. Furthermore, the concentration and extent of contaminants in groundwater resulting from the former Test Site 2 area will be addressed through planned remediation activities and both are expected to reduce as the remediation proceeds. The excavation of soils during September 2002 has removed the primary source of groundwater contamination, while operation of the perimeter groundwater extraction and *in situ* bioremediation systems will further reduce low levels of residual soil and groundwater contamination. Operation of the perimeter groundwater extraction trench will prevent shallow groundwater contamination from migrating outside of the adjacent Playa Vista First Phase

[311] *Camp Dresser & McKee Inc., "Soil and Groundwater Remediation Plan – Test Site 2," March 5, 2002.*

[312] *Camp Dresser & McKee Inc., "Ballona and Silverado Aquifer Remediation Plan – Addendum No. 2 to the Soil and Groundwater Remediation Plan – Test Site 2," November 4, 2002.*

[313] *Camp Dresser & McKee Inc., "Test Site 2 Remediation Monitoring and Contingency Plan," July 2002.*

Project, while operation of the *in-situ* bioremediation system will destroy shallow groundwater contamination in-place and is expected to prevent further migration of the contamination with an ultimate retreat in the extent of groundwater contamination. The effectiveness of the remediation systems will be evaluated through regular performance monitoring in accordance with the Test Site 2 Monitoring and Contingency Plan. The perimeter groundwater extraction and *in situ* bioremediation systems will operate until termination of the system components are approved by the RWQCB

Former Test Site 3: Former Test Site 3, encompassing approximately 1.75 acres within the western portion of the adjacent Playa Vista First Phase Project, was previously used by the former Hughes Aircraft Company for aircraft, helicopter, and rocket engine testing and for the temporary storage of hazardous material drums placed directly on asphalt pavement. Runoff from the asphalt drum storage area was primarily toward the northeast. Agricultural chemicals were also stored in a shed located just west of the former Test Site 3. All facilities (including the pavement) were demolished in November 1986. At that time, with the exception of TPH and benzene, the concentrations of contaminants were low and limited in extent. Subsequently, localized remediation occurred in 1986, resulting in the excavation and removal of approximately 9 cubic yards of soil.

Field investigations were conducted in 2001 and 2002 and indicate that groundwater, soil, and soil gas contaminant concentrations are below levels requiring remedial action. Additional work by CDM included sampling and analysis for VOCs, total petroleum hydrocarbons, metals, and pesticides. The results indicate that all chemicals of potential concern are below remediation criteria.[314] Subsequent to CDM's investigation, a soil and groundwater investigation for rocket-fuel components and the remediation of one limited location was conducted.[315, 316] Reports describing these investigations and remedial activities were submitted to the RWQCB in January 2002. Based on these investigations, all chemicals of potential concern, including TPH and benzene, are below levels requiring remedial action and are not expected to adversely impact the Proposed Project site. EEC submitted a request for a NFA approval letter for former Test Site 3 to the RWQCB on January 16, 2003.

Former Fire Safety Training Area: The former Fire Safety Training Area (FSTA), encompassing approximately 0.5 acre within the southwestern portion of the adjacent Playa Vista First Phase Project site, was used by the former Hughes Aircraft Company from the early 1960s to mid-1980s to train firefighters to handle chemical and fuel fires. Several times a year a

[314] *Camp Dresser & McKee Inc., "Addendum to Soil and Groundwater Investigation for Phase I Project Area Former Test Sites 2 and 3, Playa Vista," October 3, 2001.*

[315] *EEC, "Soil and Groundwater Sampling Results Report and Excavation Workplan, Former Test Site #3, Playa Vista," January 31, 2002.*

[316] *EEC, "Summary of Excavation Activities – Closure Report, Former Test Site 3, Playa Vista," January 31, 2002.*

mockup of an aircraft was doused with fuels and solvents and ignited in an unlined area surrounded with a foot-high soil berm. Soil contamination was found to be confined to the soil within the bermed area and consisted mainly of TPH and VOCs.[317] Remediation of the area began in March of 1988. Approximately 1,815 cubic yards of soil were removed from within the bermed area, and the excavated area was backfilled with gravel and native soil.

Groundwater monitoring has been conducted periodically at the former FSTA since 1983 and quarterly since 1999. Based on the Second Quarter 2002 sampling event, VC and 1,1-DCE were detected at concentrations greater than residential HBRGs. Additional contaminants detected in groundwater, but at concentrations below HBRGs, include TCE, 1,1-DCA, cis-1,2-DCE, trans-1,2-DCE, and benzene. Low concentrations of total petroleum hydrocarbons and trace levels of dioxins and furans have been detected in groundwater.

From January 2000 through September 2002, four separate field investigations were performed to assess the extent of soil and groundwater contamination. During this period, dozens of soil borings and hundreds of soil and groundwater samples were collected and analyzed. Results from these investigations indicate that VC and 1,1-DCE exceed the residential groundwater HBRGs, while 1,1-DCE is the sole VOC exceeding residential soil HBRGs. Metals concentrations from samples collected in the vicinity of the 1988 excavation exceed the soil HBRG; however, it is uncertain if such materials were removed during the 1988 excavation activities, since metals were still detected in recent samples, but all concentrations were below soil HBRGs.

A remediation plan to address soil and groundwater contamination within the FSTA was submitted to the RWQCB on December 20, 2002. Based on the findings of multiple investigations, contamination resulting from the FSTA is limited to the adjacent Playa Vista First Phase Project site and is unlikely to impact the Proposed Project site. This conclusion is supported by the limited lateral extent of the soil and groundwater contamination from the FSTA, the proposed remediation plans for the FSTA that will address such contamination, and the location of the Proposed Project site, which is approximately 1,500 feet cross-gradient to contamination that exceeds remediation goals in the FSTA. The need for, and nature of, further site characterization and/or remediation will be determined through continued implementation of the RWQCB's CAO No. 98-125. The RWQCB will require implementation of one or more remediation options to address remaining contamination, as described in Appendix J-2.

[317] *McLaren Environmental Engineering, "Site Investigation and Evaluation of Remedial Measures Report, Howard Hughes Property Plant Site, Los Angeles, California," May 1987.*

2.2.3.2.3 Centinela Ditch

In a 1997 site assessment completed by ENSR, nine sediment samples were taken from the open-channel portions of the Centinela Ditch beginning on the eastern side of Lincoln Boulevard and extending 7,400 feet to the east. Of the nine locations sampled, two were located within the Phase II Project Area (samples CD-6 and CD-5). A lead concentration of 210 mg/kg total lead and 10 mg/L soluble lead was detected in the sediment sample collected north of Building 22 (sample CD-5). This lead concentration was most likely due to historic traffic exhaust based on the sample location being adjacent to an intersection with a stop sign. Based on these 1997 data, a supplemental investigation was performed by CDM in November 2001 where six additional sediment samples were collected from the bottom of the ditch in the vicinity of ENSR's sample CD-5. The 2001 study area extended from approximately 70 feet east of sample CD-5 and terminated approximately 210 feet west of sample CD-5, an overall distance of approximately 280 feet. Of the six samples collected by CDM in 2001, all analyte concentrations were below residential HBRGs except PCBs. Aroclor-1254 was detected in sample CDM-19 (located approximately 60 feet west of sample CD-5) at a concentration just slightly higher than the residential HBRG of 90.9 µg/Kg.

Based on the results of the 1997 and 2001 soil investigations conducted within the Centinela Ditch, no additional sediment characterization has been recommended for the area within the Proposed Project site. The two isolated areas where lead or Aroclor-1254 were detected at concentrations exceeding residential remediation criteria will be remediated through excavation activities during the upcoming construction of Bluff Creek Drive.

2.2.3.3 Metals Concentrations in Sediments and Surface Water

In July 2000, an evaluation of metals concentrations in sediments and surface water within the Proposed Project site and vicinity was conducted in consultation with the EPA to determine whether sediments and water at various locations on and around the adjacent Playa Vista First Phase Project and Proposed Project sites could be negatively impacting any endangered species.[318] The evaluation was conducted in accordance with federal protocols and included the metals copper, lead, and zinc. Sediment samples were taken from 10 locations within the study area, including samples from areas to the west, northwest, and north of the adjacent Playa Vista First Phase Project and Proposed Project sites, and water samples were taken from the Jefferson, Lincoln, and Marina Drains, the Centinela Ditch, and the Ballona Wetlands.

[318] *USEPA, Office of Emergency and Remedial Response, "Ecological Soil Screening Level Guidance," July 10, 2000.*

The results of the evaluation found that metals concentrations within sediments in and around the adjacent Playa Vista First Phase Project and Proposed Project sites were both within the average range for the western United States, and within the average range for native soils, and were also similar to those of wetlands in a comparable urban setting. An ecological risk assessment completed as part of the evaluation found that the metals concentrations in sediments in and around the adjacent Playa Vista First Phase Project and Proposed Project sites were well below the soil screening levels (i.e., levels of contaminants in soils that could pose a health risk) for the California least tern and Belding's savannah sparrow – endangered species that occur in the vicinity of the Proposed Project site.

Metals concentrations in surface water sampled in the study area were found to be below EPA's chronic exposure limits (i.e., they do not pose a human health or ecological risk).

2.2.4 Soil Gas

2.2.4.1 Background

Soil gas, as discussed in this subsection, relates to the assessment of naturally occurring gases at Playa Vista. In order to provide a broader and more comprehensive context within which to understand soil gas issues related to the Proposed Project, the following describes the basic characteristics of soil gases that have been addressed at the Proposed Project site and vicinity and presents a history and background of soil gas issues, particularly as relates to the adjacent Playa Vista First Phase Project site.

2.2.4.1.1 Soil Gas Characteristics

Three components of soil gases found in the Proposed Project site and vicinity (i.e., methane, hydrogen sulfide, and BTEX), each of which have unique characteristics, are described below.

Methane: Methane (CH4) is a colorless, odorless, hydrocarbon gas. It is less dense (i.e., lighter) than air. Methane occurs naturally as the principal component of natural gas. Methane usually makes up from 80 percent to 95 percent of natural gas with the balance composed of varying amounts of ethane, propane, butane, and other hydrocarbon compounds. These gases are flammable and non-toxic. Because it has a high calorific value and is not toxic; methane, or natural gas, is used extensively as an illuminant and a fuel. Methane is flammable at concentrations between 5 percent (50,000 parts per million by volume [ppmv]) and 14 percent (140,000 ppmv). There are a number of potential sources of methane in subsurface environments, all of natural origin. Methane is typically classified into one of two types

depending on the mode of origin: thermogenic and biogenic (microbial). Regardless of the mode of origin, production of methane is the result of natural processes.

Thermogenic gas (which may include petrogenic gas – gas derived from mineral hydrocarbons, which is formed at higher temperatures) is formed by the thermal decomposition of buried organic material under anaerobic conditions and is commonly associated with the formation of coal and/or oil. In the region of southern California where the site is located (i.e., Los Angeles), potential sources of thermogenic gas include naturally occurring subsurface oil and gas fields. The chemical composition of thermogenic gas is often highly variable, and is a function of the type of organic material from which it was formed, the pressure and temperature conditions that existed at the time of formation, and any changes that have occurred as a result of migration or mixing of gases from other sources. Thermogenic natural gas deposits are commonly associated with oil, but methane is also formed as part of the coalification process. Biogenic gas (or microbial gas) is formed during the microbial decomposition of organic materials under anaerobic conditions. Potential sources of microbial gas in this region include old marine deposits and vegetation, river-borne organic matter and swamp deposits living in lakes.

Although the mechanism under which methane gas is formed may differ (i.e., thermogenic versus biogenic), the bulk of chemical and physical properties of the resulting methane remain the same. However, the presence of other gases commingled with methane and differences in elemental composition of these gases may be used to conclusively distinguish the mechanism of formation of methane. Due to the significant number of variables involved in the formation of subsurface gas, gases formed via thermogenic and microbial pathways do not have identical chemical compositions. The chemical and isotopic composition of subsurface gas samples can often provide conclusive information as to the origin of the gas.

Distinguishing gases from different sources may sometimes be accomplished by using standard chemical analyses. The primary chemical compounds used to distinguish the origin of gases include determination of the major aliphatic carbon chain compounds in the Cl through C4 range (i.e., compounds containing 1 to 4 carbon atoms). Most thermogenic gases typically contain significant concentrations of ethane (C2), propane (C3), and butane (C4). The presence of significant quantities (i.e., % levels) of ethane, propane, and butane indicates that the gas is not of biogenic origin because bacteria and other microorganisms produce only trace to minimal amounts of these components. However, while the presence of elevated concentrations of ethane, propane, and/or butane can positively identify a thermogenic gas, their absence in a gas does not eliminate the possibility of a thermogenic origin. Although chemical analyses are very valuable in identifying the origin of gas, compositional data alone can sometimes be inconclusive or misleading. Thus, additional information may be needed for unequivocal identification. Stable isotope analysis and the presence of helium provide other useful tools in identifying the origin of gas.

Hydrogen Sulfide: Hydrogen sulfide (H_2S) is a colorless gas that exhibits a "rotten egg" odor. It is heavier than air. Hydrogen sulfide is flammable; in an excess of air it burns to form sulfur dioxide and water, but if not enough oxygen is present, it forms elemental sulfur and water. Hydrogen sulfide is corrosive and is an irritant to the eyes and respiratory tract at low concentrations. At higher concentrations, it causes respiratory paralysis with consequent asphyxiation and, possibly, death. The Cal/OSHA permissible exposure limit (PEL), based on an 8-hour time-weighted average exposure concentration, for hydrogen sulfide is 10 ppmv. The concentration considered immediately dangerous to life and health (IDLH) is 100 ppmv. The California Office of Environmental Health Hazard Assessment (OEHHA) recognizes 8 parts per billion by volume (ppbv) as the inhalation reference exposure level for chronic toxicity (i.e., long-term exposure limit).

Natural sources of hydrogen sulfide include subterranean emissions (e.g., caves, wells, coal pits, springs), volcanoes, and bacterial decomposition of sulfur in soil, groundwater and gastrointestinal tracts. Hydrogen sulfide may be released spontaneously from microbial decomposition of sulfur-containing compounds. Within the adjacent Playa Vista First Phase Project and Proposed Project sites, sources of hydrogen sulfide are likely to include shallow organic material, either naturally occurring (i.e., ancient swamp) or imported to the site years ago.[319]

BTEX: BTEX is an acronym for the aromatic compounds benzene, toluene, ethylbenzene, and xylene. Benzene is a colorless, flammable, toxic liquid with a pleasant aromatic odor. Benzene and other aromatic compounds are used in the manufacture of plastics and synthetic rubber and dyes and drugs. Benzene is also a component of gasoline. Low levels of benzene may be found in petroleum deposits. Toluene is a colorless liquid aromatic hydrocarbon and is found in gasoline. It often is used as a solvent and as a starting material for the synthesis of many compounds, including dyes. Ethylbenzene is a colorless liquid aromatic hydrocarbon that is used chiefly as an intermediate in the manufacture of styrene and as a solvent and diluent for paints and varnishes and is found in gasoline. Xylene is a colorless liquid aromatic hydrocarbon. This compound is typically referred to as xylenes or total xylenes as it commonly occurs as three different forms or isomers. Xylenes are often used in the synthesis of dyes and are found in gasoline. Some typical signs and symptoms associated with excessive exposure to BTEX constituents include eye, nose and throat irritation, headaches, nausea, fatigue, narcosis, and poor appetite. The Cal/OSHA PELs and IDLH limits, as well as the OEHHA reference exposure level, for BTEX constituents are as follows:

[319] *Troyan, Vitaly B., City Engineer, City of Los Angeles Public Works Department, Interdepartmental Correspondence to William T. Fujioka, General Manager, City Administrative Officer, "Public Works Review of ETI Report Titled 'Subsurface Geochemical Assessment of Methane Gas Occurrences' Dated April 17, 2000 – Playa Vista Project – (File 96-092) WO1200434," May 10, 2000*

Chemical	PEL (Permissible Exposure Level)	IDLH (Immediately Dangerous to Life and Health)	OEHHA-REL (Office of Environmental Health Hazard Assessment – Reference Exposure Level)
Benzene	1 ppmv	500 ppmv	20 ppbv
Toluene	50 ppmv	500 ppmv	70 ppbv
Ethylbenzene	100 ppmv	800 ppmv	400 ppbv
Xylenes	100 ppmv	900 ppmv	200 ppbv
ppmv = parts per million by volume *ppbv = parts per billion by volume*			

Of the four constituent compounds in the BTEX group, benzene represents the greatest risk to human health as it is a carcinogen. Exposure to benzene can occur from a variety of sources. BTEX compounds are widely used in the United States (Benzene ranks in the top 20 chemicals for production volume). Natural sources of BTEX include volcanoes and forest fires. It is also a natural part of crude oil, gasoline, and cigarette smoke. Outdoor air contains low levels of benzene from tobacco smoke, automobile service stations, exhaust from motor vehicles, and industrial emissions. Air around gas stations will contain higher levels of BTEX.

2.2.4.1.2 Previous Evaluations of Soil Gas Issues Within the Proposed Project Site and Vicinity

2.2.4.1.2.1 Previous Soil Gas Surveys

Numerous soil gas surveys, and related studies, have been completed within the adjacent Playa Vista First Phase Project and Proposed Project sites, particularly in conjunction with implementation of the adjacent Playa Vista First Phase Project. The following subsection describes the soil gas studies that were completed for the adjacent Playa Vista First Phase Project or for reasons not specifically related to the Proposed Project EIR, whereas Subsection 2.2.4.2, Soil Gas Surveys for the Proposed Project Site, describes the soil gas studies that have been completed specifically for the Proposed Project site.

Soil gas surveys, such as those completed within the Proposed Project site and adjacent Playa Vista First Phase Project, typically involve inserting a probe (i.e., hollow metal rod) into the soil to a depth of approximately 3-5 feet and applying a negative pressure (vacuum) to draw vapors from within the soil. Field meters designed to measure concentrations of specified gases such as carbon monoxide, oxygen, methane, and hydrogen sulfide can be used to provide a preliminary indication of the respective concentration levels, and additional equipment can be used to obtain a sample(s) of the extracted vapor for subsequent transport to, and analysis in, a testing laboratory. Laboratory analysis can provide a more definitive and precise indication of the gas' constituents, relative concentrations, and chemical characteristics as well as other useful information.

Evaluation of the Source, Nature and Extent of Methane, Hydrogen Sulfide and BTEX: In 1997, ENSR completed a screening level soil gas survey as part of property ownership transactions.[320] The ENSR survey detected methane concentrations up to 43,600 parts per million by volume (ppmv) within the western portion of the adjacent Playa Vista First Phase Project site.

Following ENSR's findings, in 1998, CDM conducted two soil gas surveys in order to confirm ENSR's results and to assist in determining the origin, nature and extent of the methane gas.[321] The subject survey found concentrations of methane up to 838,000 ppmv in the western portion of the adjacent Playa Vista First Phase Project site. However, elevated methane concentrations were not detected in the eastern portion of the adjacent Playa Vista First Phase Project site.

Further, CDM found that isotopic and chemical composition data indicated that neither the hydrocarbon distribution pattern no the isotope ratios of the soil gas samples were similar to the sample collected from the SCGC's natural gas line and, thus, the source of the methane was not from leakage of stored natural gas in the Del Rey Hills natural gas storage reservoir. However, the results did indicate that the methane was not of recent biological origin (i.e., created by bacterial decomposition of organic matter) and was most likely of thermogenic origin (i.e., created by heat and pressure over a long period of time).

In 1999, CDM completed two additional soil gas surveys in the northwestern portion of the adjacent Playa Vista First Phase Project, in areas proposed for construction of a visitors' center and the Fountain Park Apartments. The surveys found only one location with elevated levels of methane (970 ppmv). No BTEX was found, and hydrogen sulfide was found at only one location.

In March 1999, five methane monitoring wells were installed by Sepich Associates/Methane Specialists in the northwestern portion of the adjacent Playa Vista First Phase Project between Jefferson Boulevard and the Ballona Channel (i.e., Tract Map 49104-03). Data from the wells identified elevated concentrations of methane in one well in the groundwater zone known as the "50-foot Gravel" aquifer and elevated methane in a shallow sands layer in another well (report included in Appendix J-6).

In May 1999, Exploration Technologies Inc. (ETI) began serving as "Peer Reviewer" for the City regarding methane issues, and related data, at the adjacent Playa Vista First Phase Project site and vicinity. Between October 1999 and April 2000, ETI was responsible for

[320] *ENSR, Data Review and Limited Phase/Subsurface Site Assessment at Playa Vista Property, October 1997.*

[321] *CDM, Methane Management Recommendations, Playa Vista First Phase, October 14, 1998.*

recommending, designing and supervising the completion of additional field sampling, laboratory analysis, and data evaluation regarding soil gas characteristics in the adjacent Playa Vista First Phase Project site. Copies of the resultant reports by ETI are provided in Appendix J-10. Two soil gas surveys were completed consisting of 812 sites placed on a 100-foot staggered grid throughout the western portion of the adjacent Playa Vista First Phase Project and the non-wetland portion of the Freshwater Marsh. In order to assess potential sources of methane near the adjacent Playa Vista First Phase Project, soil gas samples were also taken at 63 locations in the open space parcel northwest of the adjacent Playa Vista First Phase Project site, north of the Freshwater Marsh, between the Ballona Channel and Jefferson Boulevard. In addition, 41 methane monitoring wells, including the five "Sepich wells" noted above, were installed and sampled to evaluate the concentration and characteristics of methane within groundwater at the "50-foot Gravel" aquifer. Based on these data, ETI concluded that there are two main areas of methane gas seepage within the survey area, both of which are thermogenic in nature. ETI found that thermogenic methane occurring within the groundwater screened in the "50-foot Gravel" aquifer had the same chemical and isotopic characteristics as the thermogenic methane occurring within shallow soil gas at the two main areas of high methane concentrations. ETI's evaluation of the available methane data suggests that the source of the thermogenic methane is most likely the sands within the Upper Pliocene Pico Formation at depths of approximately 500 to 3,400 feet below surface.

Based on the nature and configuration of the areas with high concentrations of thermogenic methane, ETI postulated that a previously unknown/undefined subsurface fault extending along the east side of Lincoln Boulevard is an active pathway for vertical natural thermogenic gas migration. A subsequent detailed geotechnical investigation found no evidence of such a fault (see Section IV.A, Earth). Similar to the conclusions of previous methane studies completed for the adjacent Playa Vista First Phase Project and Proposed Project sites, including the CDM studies described above, the ETI evaluation found no evidence that the source of thermogenic gas is from the SCGC natural gas storage reservoir. Additionally, although initially thought to be a notable source of the thermogenic gas found in soil gas samples, the results of the soil gas and groundwater sampling program completed by ETI suggested only minor amounts of gas maybe leaking from the two abandoned dry holes located within the study area (one at the north end of the Freshwater Marsh, and the other located at the southwestern edge of the adjacent Playa Vista First Phase Project site, as shown in Figure 56 on page 673). These two abandoned dry holes have been reabandoned to current DOGGR standards.[322] Also, the ETI study concluded that there is very little lateral migration of gas within the aquifer that extends throughout the "50-foot Gravel" aquifer.

[322] *California Department of Conservation, Division of Oil, Gas, and Geothermal Resources, Report of Well Plugging and Abandonment, January 10, 2002, for Cooperative Development Co., Ltd./"Community" 1 and University City Syndicate, Ltd./1.*

The soil gas survey investigation completed by ETI included sampling and analyses for hydrogen sulfide and BTEX. The vast majority of sampling locations indicated very low, if any, concentrations of hydrogen sulfide (i.e., ranging from non-detect at 1 part per billion by volume [ppbv] to less than 1 ppmv). ETI found that hydrogen sulfide encountered during the soil gas survey is indicative of background levels naturally occurring from recent sedimentary deposits. Such deposits are believed to consist of organic material from dumping and/or from organic-rich fill material that was added to the site over time. [323]

With regard to BTEX, the majority of sampling locations found BTEX to be non-detect based on a lower detection limit of 0.07 ppmv with only about 25 percent of 800+ sampling locations having any detectable concentrations of BTEX. In all cases, the detected concentrations of BTEX constituents are well below the site-specific HBRGs that have been approved by OEHHA and the RWQCB. The HBRGs were developed for the site to allow determination if concentrations of hazardous materials might exceed levels determined under standard risk assessment practice to be safe. ETI concluded that there are generally very low levels of BTEX contained in the soil gas, with essentially no benzene and only modest levels of toluenes and total xylenes within the detected BTEX.[324]

Evaluation of Gas Venting During Well Installation: In conjunction with the installation of the methane monitoring wells described above, notable venting of subsurface gas occurred while drilling six of the wells within the adjacent Playa Vista First Phase Project site. Such venting included the rapid expulsion of mud, water, and gas from the well borehole once the drilling auger was removed. A subsequent evaluation by Dr. Kaplan of Zymax Forensics concluded that under certain conditions, such venting will occur during well installation.[325] The well venting that occurred at, and in the vicinity of, the Proposed Project site was attributed to the fact that the well borehole came in contact with small, isolated areas of methane gas that were below ground surface and, thus, under hydrostatic pressure, approximately equivalent to 20 pounds per square inch (psi). The installation of the borehole caused the gas under 20-psi hydrostatic pressure to suddenly release to atmospheric pressure (0-psi), which carried water and soils to the surface as the drilling equipment was removed from the borehole. The pressure of the gas and the sudden release of this pressure are unrelated to the source, nature or extent of the methane.

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[323] *Exploration Technologies, Inc (ETI), "Subsurface Geochemical Assessment of Methane Gas Occurrences – Playa Vista Development," April 17, 2000.*

[324] *Exploration Technologies, Inc (ETI), "Subsurface Geochemical Assessment of Methane Gas Occurrences – Playa Vista Development," April 17, 2000.*

[325] *Kaplan, Isaac (Ian), R., Ph.D., Senior Consultant, Zymax Forensics, Letter to Playa Capital Company Regarding Gas Venting During Installation of Monitoring Wells and Soil Borings at Playa Vista, July 25, 2000.*

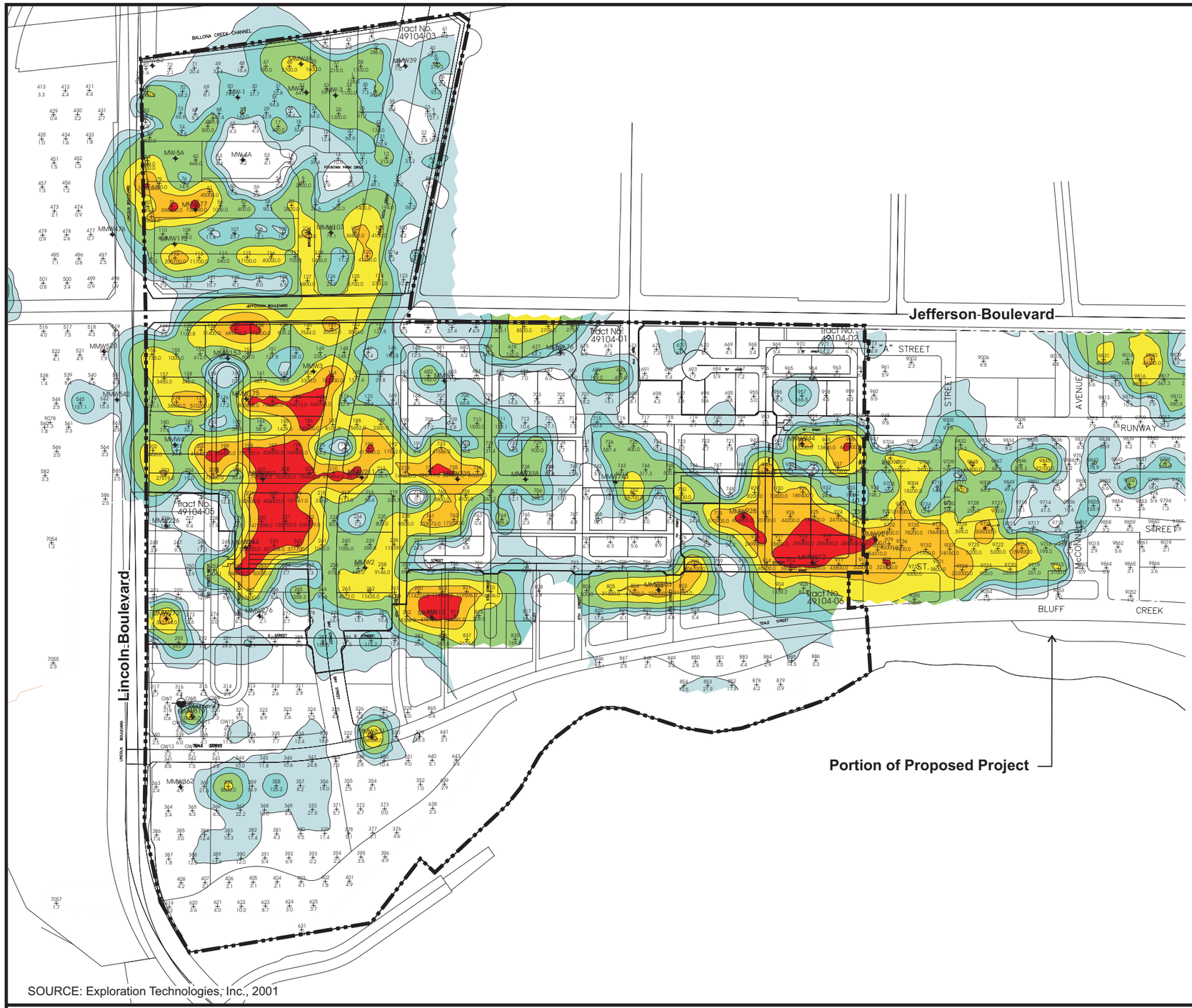
Evaluation of Impacts of Construction on the Methane Gas: Following construction activities in an area of the adjacent Playa Vista First Phase Project known as the Fountain Park Apartments, additional soil gas sampling was conducted to assess the effects, if any, of certain construction activities on soil gas.[326] Based on the data, Dr. Kaplan concluded that there was a very low increase in the concentration of methane and associated gases in the area of the concrete piles. However, Dr. Kaplan further concluded that the increase "should be considered only as a one-time construction artifact. The installation of the concrete piles has not resulted in a long-term increase in methane migration to the location of the Fountain Park Apartments."

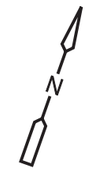
Summary of Findings from the Above Soil Gas Surveys: Based on the results of the soil gas surveys and associated studies described above, the soil gas characteristics related to the adjacent Playa Vista First Phase Project site can be summarized as follows.

Methane: Methane occurs within portions of the adjacent Playa Vista First Phase Project site, principally in the western portion. The vast majority of the adjacent Playa Vista First Phase Project site has methane concentrations that are less than 1.25 percent, which is 25 percent of the LEL of methane. Figure 58 on page 708 indicates the methane concentrations found in the western portion of the adjacent Playa Vista First Phase Project site. The anomalous methane concentrations determined through the ETI study are comprised of thermogenic methane that is believed to be primarily from natural gas sands located within the Pico Formation approximately 500 to 3400 feet below the surface. There is no evidence that the methane detected in soil gas and groundwater at the adjacent Playa Vista First Phase Project site is from the SCGC natural gas storage reservoir and, in fact, laboratory analyses and scientific data review have found that the chemical and isotopic characteristics of the two types of gas are markedly different (i.e., the gas found in soils and groundwater at the adjacent Playa Vista First Phase Project site is different from that found within the SCGC storage reservoir). Construction does not appear to have a long-term impact on methane concentration as indicated by Dr. Kaplan's study. Also, it is not anticipated that the two abandoned dry holes would be a source of soil gas as these wells have been reabandoned in 2001 to current DOGGR standards.

Hydrogen Sulfide: The soil gas surveys described above found hydrogen sulfide to be non-detectable at a lower detection limit of 1 ppbv or to be at very low concentrations. Based on the soil gas survey results summarized above, an evaluation of potential public health impacts associated with the presence of hydrogen sulfide within the adjacent Playa Vista First Phase Project site was conducted by Geomatrix Consultants Inc. in July 2000. Accounting for the fact that ambient air concentrations of the subject gases will be substantially less than the levels found in soil gas samples (i.e., soil gases would be dispersed and substantially diluted once

[326] *Kaplan, Issac (Ian) R., PhD., "Concentrations of Hydrogen Sulfide, BTEX, Aromatic Hydrocarbons and C1-C4 Gaseous Hydrocarbons in Soil at Tract-03, Beneath Fountain Park Apartments Following Installation of Concrete Pilings," January 19,2001.*





200 0 400 ft.

Graphic Scale

Legend

6074 = Sampling Location

1.7 = Methane Concentration (ppmv)

ppmv = parts per million by volume

METHANE CONCENTRATIONS (ppmv)

- > 150,000
- 12,500 - 150,000
- 1,000 - 12,500
- 100 - 1,000
- 30 - 100
- 10 - 30
- < 10

Note: Lower Explosive Limit (LEL) of methane is approximately 50,000 ppmv (5% by volume)

SOURCE: Exploration Technologies, Inc., 2001

CDM

Figure 58
Methane Concentrations in Western Portion of the Adjacent Playa Vista First Phase Project

released into the atmosphere), exposure levels for hydrogen sulfide and BTEX were determined. For hydrogen sulfide, ambient air monitoring was conducted at the locations where the highest concentrations of hydrogen sulfide were found in soil gas. The highest measured concentration in ambient air was 2.68 ppbv. This level does not exceed the OEHHA reference exposure limit of 8 ppbv, which is a level of exposure without adverse health effects with a substantial margin of safety assuming 24-hour, 365-day-per-year exposure. See also a discussion of the Kleinfelder analysis of health risks associated with hydrogen sulfide in Subsection 2.2.4.1.2.2 below.

The soil gas surveys conducted for the adjacent Playa Vista First Phase Project site, as well as those described below in Subsection 2.2.4.2 for the Proposed Project site, provide the most comprehensive and representative data that characterize the overall hydrogen sulfide characteristics of the adjacent Playa Vista First Phase Project and Proposed Project sites. Notwithstanding, boring logs and other subsurface investigation reports completed for portions of the adjacent Playa Vista First Phase Project and Proposed Project sites include mention of sulfurous odors, potentially hydrogen sulfide, and construction safety field monitoring logs indicate occasional hydrogen sulfide concentrations greater than those noted above.

High concentrations of hydrogen sulfide (i.e., >1.0 ppmv) have been, and can continue to be, occasionally encountered at the Proposed Project site and vicinity when pockets of highly organic material in anaerobic conditions become exposed. In some instances, hydrogen sulfide gas was observed during drilling of monitoring wells. As has been the case in previous encounters at the adjacent Playa Vista First Phase Project and Proposed Project sites, the presence of hydrogen sulfide is a temporary condition, which typically dissipate quickly once the exposed area has a chance to air out. Cal/OSHA worker safety requirements anticipate, and specify worker protection measures for, such occurrences.

BTEX: The screening level health risk assessment conducted by Geomatrix Consultants Inc. in July 2000 also addressed BTEX. Exposure levels for BTEX were estimated to account for the possible contribution of a venting system to ambient air concentrations. In the case of the methane venting systems proposed in 2000 for the Fountain Park Apartments (now completed) in the northwest portion of the adjacent Playa Vista First Phase Project site, the maximum annual average concentrations of BTEX predicted by an air dispersion model were 0.0008 ppb for benzene, 0.0007 ppb for toluene, 0.0006 ppb for ethylbenzene, and 0.0006 ppb for xylenes. These are all well below OEHHA reference exposure levels and, for benzene, is less than the one in one million lifetime cancer risk level. See also a discussion of the Kleinfelder analysis of health risks associated with BTEX in Subsection 2.2.4.1.2.2 below.

2.2.4.1.2.2 City of Los Angeles Office of the Chief Legislative Analyst Study

Between June 2000 and May 2001, the City of Los Angeles Office of the Chief Legislative Analyst (CLA) supervised the completion of a study evaluating soil gas and other safety issues related to development at the adjacent Playa Vista First Phase Project so that the City could decide whether to provide Mello-Roos financing for some of the infrastructure related to the adjacent Playa Vista First Phase Project.[327] A copy of the final CLA report is provided in Appendix J-6, and the following summarizes the contents and conclusions of the report.

Overall, the study addressed five main issue areas: source of methane; extent of methane and mitigation measures; subsidence; evaluation of postulated fault; and health risk assessment for BTEX and hydrogen sulfide.

The City engaged the professional services of Kleinfelder to assist in review of available methane data and to perform a health risk assessment for BTEX and hydrogen sulfide emissions. The City requested the assistance of the California Department of Conservation, Division of Mines and Geology (now officially known as the California Geological Survey) and DOGGR in the review of earthquake fault and methane issues, respectively. The City contacted the RWQCB regarding soil and groundwater remediation issues and associated health risks.

The following summarizes the analysis and conclusions for the CLA report.

Source of Methane

Studies by various consultants indicate that gas seepage at the adjacent Playa Vista First Phase Project site appears to be derived from the Pico Sands at depth and does not come from the SCGC Del Rey Hills gas storage field. Kleinfelder reviewed several documents and reports regarding methane samples collected at the adjacent Playa Vista First Phase Project site. Kleinfelder indicates that the origin of the methane detected in soil gas and groundwater at the adjacent Playa Vista First Phase Project site appears to be related primarily to a deep thermogenic source and is not associated with the SCGC Del Rey Hills gas storage field. Kleinfelder further indicated that several methane samples collected appear to indicate there may be secondary shallow source areas comprised of decaying biological material (i.e., methane gas of a biogenic origin).

[327] *City of Los Angeles, Office of the Chief Legislative Analyst, "Final Report for City Investigation of Potential Issues of Concern for Community Facilities District No. 4, Playa Vista Development Project," May 2001, page 14.*

Extent of Methane and Mitigation Measures: Methane was detected at varying concentrations in the soil gas samples collected throughout the adjacent Playa Vista First Phase Project site, with the highest concentrations located in the western portion of the adjacent First Phase Project site. The CLA report concluded that the data set was more than adequate to assess potential methane hazards at the First Phase Project site.

Based on these methane levels, LADBS required the installation of methane systems to prevent, detect, and monitor the presence of methane on the adjacent Playa Vista First Phase Project. The specific elements of the methane system depended on the concentration of methane present, as specified in Table 2-1 of the CLA Report (see Appendix J-6). Three different levels of methane concentrations and associated mitigation levels were identified: (1) Level 1 – less than 100 ppmv; (2) Level II – 100 ppmv to 12,500 ppmv; and (3) Level III – above 12,500 ppmv. All three levels require a basic system below the building, including a grave blanket, with pipes to ventilate methane gas from underneath the building, an impermeable methane membrane underneath the building, and methane detection alarm systems within the building. For Levels II and III, automatic ventilation systems triggered by elevated methane concentration levels beneath the impermeable membrane and continuous monitoring systems would also be required. Additionally, Level III requires a subsurface venting system. The LADBS and ETI concluded that the methane mitigation systems recommended for adjacent Playa Vista First Phase Project would adequately protect public safety.

Subsidence[328]

To determine whether there is evidence of settlement or uplift in the vicinity of the Proposed Project site (including the adjacent Playa Vista First Phase Project site and surrounding areas), the BOE, Survey Division performed a survey of the area in October 2000. The elevation change measured in the area over the 25-year period from 1975 to 2000 ranged from -2.66 inches (subsidence) to +0.81 inches (uplift). The 2.66 maximum level of subsidence was confined to the location at an elevation marker placed on the curb of Manchester Boulevard at the intersection of Hastings Avenue. Another elevation marker displaying greater than 2 inches of settlement (2.17 inches) was located in a Lincoln Boulevard sidewalk near Jefferson Boulevard. No significant or clearly defined trend of increased subsidence within the Playa del Rey oil field or any other specific area was observed. The settlement that was detected was found to be localized and may be associated with curb, sidewalk, and gutter settlement along major streets. As such, the CLA study concluded that standard design measures are adequate to address the minimal level of subsidence and uplift observed in the area.

[328] *The issue of area-wide subsidence is addressed in Section IV.A, Earth; however, concerns related to subsidence, specifically as may occur in conjunction with the development and implementation of potential methane mitigation measures, were raised in the CLA working group public meeting held on July 18, 2000. Accordingly, subsidence is also discussed in the Safety/Risk of Upset section.*

The methane mitigation systems designed and built at the adjacent Playa Vista First Phase Project consist of a gravel blanket and piping approximately 16 vertical inches below the building foundation. Dewatering is required by the Los Angeles Department of Building and Safety in the adjacent Playa Vista First Phase Project when the water table is less than 12 inches from the base of the mitigation system. Dewatering for the methane mitigation system depresses the water table approximately 2 to 3 feet. The Los Angeles Bureau of Engineering stated, "There is no evidence that proposed methane mitigation measures will result in increased potential for subsidence in the area."[329] Furthermore, the Bureau of Engineering evaluated subsidence in an investigation, included in the CLA report, which found no evidence that proposed methane mitigation measures would result in increased potential for subsidence in the area. Based on operation of such methane mitigation systems at the adjacent Playa Vista First Phase Project site, dewatering associated with system operation below individual structures occurs very infrequently, if ever, and potential subsidence impacts are discussed in Section IV.A, Earth, in this EIR.

Evaluation of Postulated Fault (also see Section IV.A, Earth)

The ETI report of April 17, 2000, identified the possibility of a potential subsurface fault. The report referred to this postulated fault as the "Lincoln Boulevard Fault." Subsequent to the ETI April 17, 2000, report, Davis and Namson Consulting Geologists and Earth Consultants International, Inc. (ECI) were engaged by Playa Capital Company to evaluate potential faulting in the vicinity of the Proposed Project site. Neither Davis and Namson, nor ECI found any evidence to support the existence of the postulated Lincoln Boulevard fault across the adjacent Playa Vista First Phase Project and Proposed Project sites.

The City requested the assistance of the California Department of Conservation, Division of Mines and Geology (California Geological Survey) in reviewing the 2-D and 3-D seismic studies undertaken at the Proposed Project site and vicinity.

The BOE and ETI also reviewed the Davis and Namson study, the ECI report, and referenced studies and reports. The Division of Mines and Geology, and various consultants all agree that the geologic and geophysical data do not support the existence of the postulated Lincoln Boulevard fault.

[329] *City of Los Angeles Department of Building and Safety, Inter-Departmental Correspondence to the Chief Legislative Officer, "Interpretation of Survey Data Relating to Potential Subsidence," file 96-092, February 26, 2001.*

Health Risk Assessment of BTEX and Hydrogen Sulfide

Geomatrix Consultants Inc. undertook an "Evaluation of Potential Public Health Impacts Associated with the Presence of Potentially Toxic Compounds in Soil Gas at Playa Vista," for Playa Capital Company in July 25, 2000 (as discussed in Subsection 2.2.4.1.2.1, Previous Soil Gas Surveys). The Geomatrix report indicates that an insignificant risk is associated with BTEX and hydrogen sulfide levels found at the Playa Vista project site. The Geomatrix report also examined worker exposures. The report indicates that "it is possible that the combination of an elevated hydrogen sulfide pocket and the confined space of an excavation could lead to an ambient air concentration in excess of worker health criteria." However, the report concluded that proposed mitigation measures recommended for methane safety would adequately address BTEX and hydrogen sulfide health risks and, therefore, were appropriate.

Relative to long-term exposure, Kleinfelder conducted a health risk assessment (HRA) for BTEX and hydrogen sulfide using procedures established by the EPA, DTSC, and OEHHA. The HRA utilized very conservative assumptions to assure maximum protection of public health.

Based on these studies, the CLA reported that potential health risks associated with BTEX and hydrogen sulfide soil gas emissions at the adjacent Playa Vista First Phase Project site, whether associated with methane or soil and groundwater contamination, were below the benchmarks established by EPA, DTSC, OEHHA, and other regulatory agencies to indicate significant risk, and no further investigation or remediation was warranted. With regard to other soil contaminants, the RWQCB, in coordination with OEHHA, has established a soil and groundwater remediation process that adequately protects human health and the environment, including addressing potential cumulative impacts.

2.2.4.1.2.3 Revised Methane Standards and Guidelines

Since the development of standards established by LADBS for the First Phase Project, LADBS has been reviewing methane system requirements generally. LADBS has worked with a panel of engineers and experts to further refine methane requirements for buildings in the City of Los Angeles that are in areas known for having elevated methane concentrations. LADBS is in the process of evaluating adoption of a revised methane mitigation ordinance ("Building Methane Mitigation Regulations") to update the requirements of Division 71 of the Los Angeles Building Code for site methane testing and mitigation. Further, LADBS has developed guidelines for the mitigation of potential methane impacts to buildings at the Proposed Project site ("Village at Playa Vista Building Methane Mitigation Guidelines") which are set forth in Appendix J-14. The technical requirements in the Village at Playa Vista Building Methane Mitigation Guidelines are the same as those contained within the ordinance proposed for adoption. In addition, the Methane Mitigation Standard will be used in the implementation of the Village at Playa Vista Building Methane Mitigation Guidelines. In the event a new

ordinance that is applicable to the Proposed Project site is adopted, this ordinance will supersede the Village at Playa Vista Building Methane Mitigation Guidelines, provided that the requirements in that new ordinance continue to reduce the potentially significant impact to a less-than-significant level.

2.2.4.2 Soil Gas Surveys for the Proposed Project Site [330]

In addition to the soil gas investigations completed for the adjacent Playa Vista First Phase Project site that are summarized above, several soil gas investigations were completed between December 1998 and January 2001 for the remainder of the former Playa Vista Planning Area (including the Proposed Project site – see Section II, Project Description, regarding Project history). Copies of the reports from the 2000/2001 soil gas investigations are included as Appendices J-7, J-8, and J-9. The following summarizes the findings of those investigations relative to the Proposed Project site.

CDM December 1998 Survey: A soil gas survey to determine the presence/absence of methane was completed in December 1998 by CDM.[331] Using push-probe technology to a sampling depth of approximately 4 to 5 feet below surface, soil gas samples were taken at 27 locations within the former Playa Vista Planning Area, including 4 locations from the Proposed Project site. The survey results found elevated methane levels in the western portion of the Proposed Project site (i.e., approximately 10,000+ ppmv near the southwest corner of the Proposed Project site). Methane concentrations found at that time in the remaining southern portion of the Proposed Project site were considerably lower, generally ranging from approximately 5 to 10 ppmv.

CDM October 2000 through January 2001 Surveys: An additional, more comprehensive, soil gas survey of the Proposed Project site was subsequently completed in October 2000 and supplemented in November 2000 and in January 2001. A soil probe sampling technology was used for the surveys, in accordance with the requirements of the LADBS, in coordination with ETI. The October sampling locations were determined based on a 300-foot sampling interval grid within proposed development areas. Sample depth was approximately 4 feet below surface. Based on these grids, 55 locations were sampled within the Proposed Project site.

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[330] *The studies discussed below include references to areas that are no longer included in the Proposed Project site (i.e., Area A – northwest of Lincoln Boulevard and Ballona Channel, Area B – southwest of Lincoln Boulevard and Ballona Channel, and Area C – northeast of Lincoln Boulevard and Ballona Channel). Information that pertains to the current Proposed Project site is identified as such in the discussion.*

[331] *CDM, "Soil Gas Survey Report," 1998.*

Methane concentrations within soil gas were found to be very low in the majority of the Proposed Project site. Approximately 78 percent of the 55 locations sampled had methane at concentrations less than 100 ppmv. Elevated concentrations of methane (i.e., greater than 12,500 ppmv which is 25 percent of the LEL) were detected at four sampling locations, with the highest concentration being approximately 160,000 ppmv at a location near the southwestern corner of the Proposed Project site.

In accordance with the requirements of LADBS, additional soil gas samples were taken in November 2000 on a 100-foot sampling interval grid around all locations sampled in October 2000 where methane concentrations were found to exceed 1,000 ppmv. Ten (10) such locations occurred within the Proposed Project site, at which 90 additional surrounding locations were sampled. Methane concentrations measured at these 90 additional locations ranged from 1.24 ppmv to 323,600 ppmv. The highest methane concentrations were found in the southwestern corner of the Proposed Project site, consistent with the findings of the October 2000 survey.

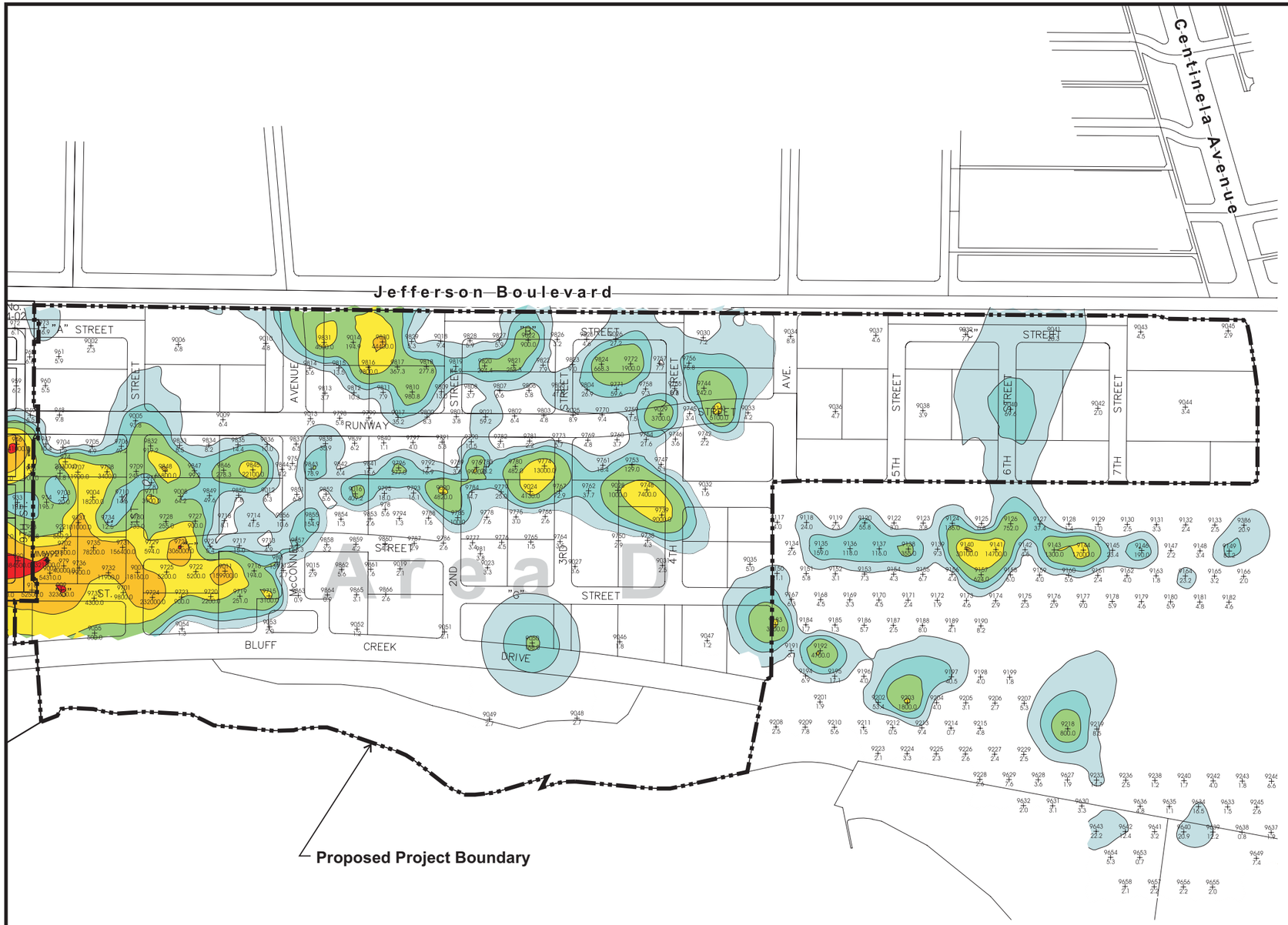
In accordance with the requirements of LADBS, an additional 69 locations were sampled within the Proposed Project site in January 2001. The results of the soil gas survey found 5 sampling locations that exhibited methane in concentrations greater than 1,000 ppmv, with the maximum being 44,400 ppmv. The methane findings in the Proposed Project site were consistent with those from previous surveys. Figure 59 on page 716 depicts the results of the soil gas surveys described above relative to methane concentrations within the Proposed Project site.

In addition to methane, all soil gas samples from the October through January 2001 surveys were analyzed for hydrogen sulfide, and BTEX. The majority (over 60 percent) of the samples taken throughout the Proposed Project site indicated no hydrogen sulfide, based on a detection limit of 0.003 ppmv. The highest concentration of hydrogen sulfide detected was 1.000 ppmv at a location (No. 9724) in the southwest portion of the Proposed Project site.[332] With respect to BTEX, the vast majority (approximately 80 percent) of the samples taken throughout the Proposed Project site found none of the four BTEX constituents, based on a detection limit of 0.07 ppmv.

2.2.5 Aviation Hazards

Aviation hazards include structures that pose height, electronic, or visual interference to aviation. In the past, aircraft used a runway within the Proposed Project site for take-offs and

[332] *Although the supplemental soil gas survey conducted in November 2000 originally reported a hydrogen sulfide concentration of >50 ppmv at Location 9735, it is believed that such a reading was an error. During the December 2000 soil gas survey, additional samples were taken at, and around, Location 9735 and hydrogen sulfide levels were found to be less than 0.03 ppmv at all of the newly sampled locations. Additionally, none of the other nearby (i.e., within 100 feet) locations during the November 2000 survey exhibited high levels of hydrogen sulfide.*



N

200 0 400 ft.

Graphic Scale

Legend

6074 = Sampling Location

1.7 = Methane Concentration (ppmv)

ppmv = parts per million by volume

METHANE CONCENTRATIONS (ppmv)

- > 150,000
- 12,500 - 150,000
- 1,000 - 12,500
- 100 - 1,000
- 30 - 100
- 10 - 30
- < 10

Note: Lower Explosive Limit (LEL) of methane is approximately 50,000 ppmv (5% by volume)

Lot configuration for discussion purposes only. Actual lot lines and development details may vary.

SOURCE: Exploration Technologies, Inc., 2001

CDM

Figure 59
Methane Concentrations Within the Proposed Project

landings. The runway was removed in 1986 and 1987 and all runway flight operations were discontinued at that time. However, MDHC continued helicopter operations on the adjacent Playa Vista First Phase Project site until the expiration of its leasehold in 1994. In 1996, the "Hughes Airport Permit" was re-permitted by the California Department of Transportation to allow for three heliports within the adjacent Playa Vista First Phase Project and Proposed Project sites (only one is located in the Proposed Project site; see Figure 60 on page 718), with very specific approved approach/departure routes to minimize safety risks.[333] Presently none of the three permitted heliports are used on a regular basis.

It is anticipated that two of the three heliports currently permitted within the adjacent Playa Vista First Phase Project and Proposed Project sites could become fully operational by the 2010 baseline.[334] The westernmost heliport, located within the Proposed Project site, is not expected to be operational. Figure 60 on page 718 shows the location and approved flight paths for each heliport. A reasonable range of flight operations is assumed to include from 5 to 200 takeoffs and landings per month, with a peak day not exceeding 30 percent of the monthly operations.[335]

The subject heliports, as discussed above in Subsection 2.1, Regulatory Framework, are permitted by the California Department of Transportation. (Copies of the heliport permits are included as Appendix J-11.) Should additional approvals be required to construct and operate the heliports, such as a conditional use permit from the City of Los Angeles to develop a heliport(s) in conjunction with proposed buildings (i.e., rooftop heliport), the approvals would occur as part of implementation of the adjacent Playa Vista First Phase Project, and not as a part of the Proposed Project.

3.0 IMPACT ANALYSIS

3.1 Methodology

Potential safety/risk of upset issues related to the Proposed Project are generally encompassed within the following four topics:

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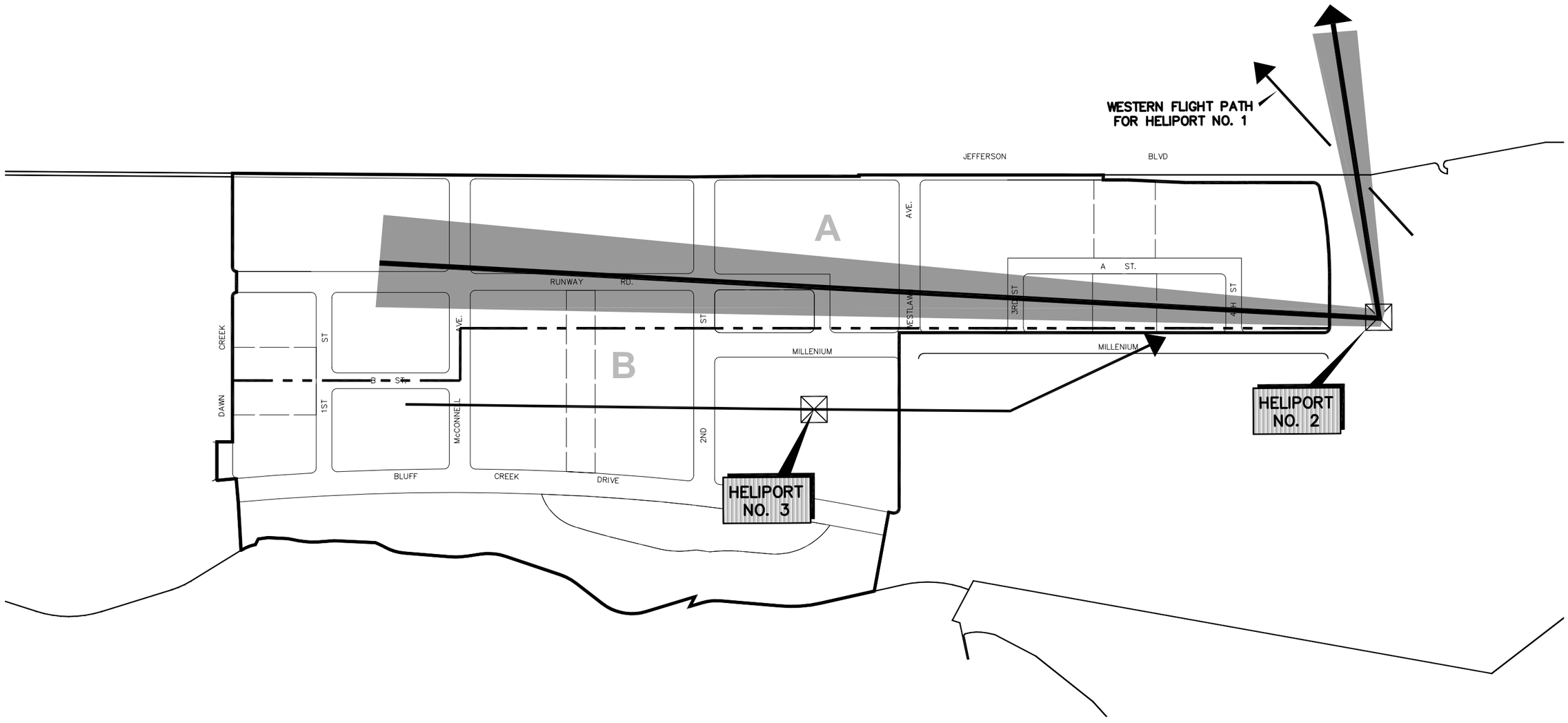
[333] *California Department of Transportation, Helicopter Permit Nos. LA-190(H), LA-191(H), and LA-192(H), June 20, 1996.*

[334] *The third helioport is located within the boundaries of the Proposed Project, and is not envisioned to be operational as part of the Proposed Project.*

[335] *Bennet, Ricarda L., Heliport Consultants, Personal Communication to Los Angeles City Council, December 7, 1995.*



Notes:
1. Lot configuration for discussion purposes only. Actual lot lines and development details may vary.
2. Heliport No. 3 is not planned to be operational therefore no flight path is shown on this figure.

Figure 60
Heliport Locations and Flight Paths

CDM

- Hazardous materials management;
- Soil/ Groundwater Contamination;
- Soil gas (i.e., methane, hydrogen sulfide, and benzene, toluene, ethylbenzene, and xylenes [BTEX]); and
- Aviation hazards.

Other safety/risk of upset topics such as those associated with seismic and geotechnical issues are addressed in Earth (Section IV.A of this EIR). Similarly, safety/risk of upset issues associated with the potential for flooding are also addressed separately, within the Water Resources Technical Report (Appendix F-1 of the EIR).

Analyses of potential impacts regarding hazardous materials and soil gas (i.e., methane, hydrogen sulfide, and BTEX), were based on site testing and site evaluations completed by CDM, LeRoy Crandall and Associates, MEE, ETI, and others.

3.2 Significance Thresholds

The Draft Los Angeles CEQA Thresholds Guide (page H.1-3) states that a determination of significance relative to Risk of Upset shall be made on a case-by-case basis, considering the following factors:

- The regulatory framework;
- The probable frequency and severity of consequences to people or property as a result of a potential accidental release or explosion of a hazardous substance;
- The degree to which project design will reduce the frequency or severity of a potential accidental release or explosion of a hazardous substance;

Additionally, the Draft Los Angeles CEQA Thresholds Guide (page H.2-3) states that a determination of significance relative to Human Health Hazards shall be made on a case-by-case basis, considering the following factors:

- The regulatory framework for the health hazard;
- The probable frequency and severity of consequences to people from exposure to the health hazard;

- The degree to which project design will reduce the frequency of exposure or severity of consequences of exposure to the health hazard.

Based on these factors the Proposed Project would have a significant impact if:

- The Project would expose people or structures to substantial risk resulting from the release of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards.

  In order to address safety issues relative to on- and off-site heliport operations, the following threshold has been developed.

The Proposed Project would have a significant safety impact if:

- The Project would interfere with, or expose people or structures to substantial risk from, heliport flight operations.

3.3 Project Design Features

The Proposed Project includes design features and policies specifically related to safety/risk of upset. The Project Design Features for the Proposed Project include actions, policies, and practices such as the continued implementation of site soil and groundwater remediation activities, and designing and constructing proposed uses in accordance with applicable federal, state, and local regulations related to safety/risk of upset. Also, the Applicant will develop, similar to the one used at the adjacent Playa Vista First Phase Project site, a comprehensive safety program to ensure worker health and safety that includes written construction safety guidelines, an emergency response plan, and a contractor safety orientation program that starts prior to initiating on-site construction activities. The individual contractors are responsible for creating and implementing their owns plans to meet, at a minimum, the construction safety guidelines. The specific means by which such actions, policies, and practices address safety/risk of upset issues pertaining to the Proposed Project are identified in the following discussion of impacts and mitigation measures. In addition to those existing actions and policies, the Applicant proposes to incorporate numerous safety measures into the design, construction, and operation requirements for all development within the Proposed Project site. The following provides a summary overview of those Project Design Features.

Construction Worker Safety

- Prior to the issuance of the first grading permit within the Proposed Project, the Project Applicant shall submit evidence to the City of Los Angeles Department of Building and Safety (LADBS), or Department of Public Works (LADPW), as appropriate, that a Construction Worker Safety Plan is required for all contractors at the Project site. The Construction Worker Safety Plan shall comply with OSHA Safety and Health Standards 29 CFR 1910.120 and shall address, as appropriate, the topics and requirements summarized below.

- Personnel shall wear protective equipment and clothing and other safety equipment, as appropriate, in accordance with the Construction Worker Safety Plan and site-specific safety plans.

Air Monitoring and Action Levels

- Air monitoring for Methane, Hydrogen Sulfide, Volatile Organic Compounds, and Petroleum Hydrocarbons shall be conducted as follows during sub-surface work activities:

  – *Methane*: Monitor continuously for methane in all trenches and excavations during excavation, prior to any entry, and during entry, and at the tops of any boreholes being drilled. Any readings of above 10 percent of the LEL (i.e., 5,000 ppmv) shall require personnel at the subject area to evacuate until adequate ventilation has occurred and readings drop below 10 percent of the LEL.

  – *Hydrogen Sulfide*: Monitor continuously for hydrogen sulfide (H_2S) in personnel breathing zone spaces during all sub-surface work. Monitor for H_2S in trenches and excavations prior to and during entry. If H_2S meter reads 10 parts per million by volume (ppmv) or more, stop work and evacuate personnel from areas with high H_2S readings until readings have dropped below 10 ppmv.

  – *Chlorinated Hydrocarbons:* If, based on sampling, chlorinated hydrocarbons are anticipated to be encountered during subsurface work, monitor for the presence of airborne chemical contaminants in personnel breathing zone spaces during subsurface work. Based on the monitored concentration levels, continued monitoring, use of respirators, or personnel evacuation shall take place as necessary.

  – *Petroleum Hydrocarbons*: If, based on sampling, petroleum-affected soil is anticipated to be encountered during subsurface work, monitoring for airborne chemical contaminants will be required. Based on the monitored concentration

levels, continued monitoring, use of respirators, or personnel evacuation shall take place as necessary.

Training

- Construction contractors shall be contractually required to have an appropriate number of 40-hour Health and Safety-trained personnel for any subsurface excavation activity that may encounter hazardous or non-hazardous materials, methane or hydrogen sulfide. Personnel engaged in sub-surface work at the Proposed Project site shall be properly trained in the potential chemical hazards that may be encountered. If respirators are to be used, training, fit testing, medical evaluations, and all other applicable aspects of the Cal/OSHA health and safety regulations shall be followed.

3.4 Project Impacts

In the Draft Los Angeles CEQA Thresholds Guide, the first two factors under the Risk of Upset and Human Health Hazards sections, presented above in Subsection 3.2, identify components contributing to the significance of a project's impact on health and safety risks to people or property (e.g., structures) at or near the project site, in the context of the applicable regulatory framework and the frequency and severity of consequences resulting from an upset incident or health hazard. The analysis presented below incorporates this guidance. Additionally, as relates to the third factors under Risk of Upset and Human Health Hazards, information regarding project features to be implemented, which reduce or offset safety and health risk impacts, is provided above in Subsection 3.3, Project Design Features. The following analysis evaluates impacts of the Proposed Project. Because the Habitat Creation/Restoration Component would result in negligible safety and human health risks during implementation, the Proposed Project's impacts result from the implementation of the Urban Development Component.

Potential safety/risk of upset impacts associated with development proposed under the Proposed Project include hazardous materials management, soil/groundwater contamination, soil gas, and aviation hazards.

3.4.1 Hazardous Materials Management

Construction: The demolition and removal of Buildings 22, 45, and the various other sheds and storage buildings in the former Salvage Yard Area would include the removal and disposal of asbestos containing materials (ACMs) and lead-based paint. Asbestos and lead based paint abatement during demolition would be performed in accordance with federal, state and local regulations, reducing the risk to levels deemed acceptable by the regulatory agencies

responsible for protecting the health of the public thereby avoiding significant impacts. Asbestos abatement activities would be preceded by, and would be conducted in accordance with, the completion of a work plan prepared pursuant to EPA "Guidance for Controlling Asbestos Containing Materials in Buildings, EPA 500/5-85/024, June 1985" and the Asbestos Hazard Emergency Act of 1987 (AHERA), as applicable. Coordination with the South Coast Air Quality Management District (SCAQMD) would occur as appropriate. Lead-based paint abatement activities would also be preceded by, and would be conducted in accordance with OSHA Lead Standard 29 CFR 1926.62 and Cal/OSHA Title 8, 1532.1. As such, the Proposed Project would not expose people or structures to substantial risk resulting from the release of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards. Construction-related impacts would be less than significant.

Operations: The operation of certain uses allowed within the adjacent Playa Vista First Phase Project and Proposed Projects sites, such as commercial and mixed-use development in the Urban Development Component and eastern portion of the adjacent Playa Vista First Phase Project site, may involve hazardous materials and wastes. Such uses and materials/wastes, and related safety regulations, are described above. Compliance with applicable federal, state, and local requirements would serve to minimize the health and safety risks to people or structures associated with such uses and materials/wastes within the Proposed Project site. Therefore, the Proposed Project would not expose people or structures to substantial risk resulting from the release of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards, and impacts would be less than significant.

3.4.2 Soil/Groundwater Contamination

***Construction*:** As described above in Subsection 2.0, Setting, portions of the Proposed Project site were formerly occupied by industrial uses, particularly related to aircraft manufacturing, testing and repair. Resultant soil and groundwater contamination has been subsequently found in the Urban Development Component of the Proposed Project site. Many of the areas of known soil contamination have been partially or fully remediated to the satisfaction of regulatory agencies and other areas are being evaluated for remediation in conjunction with RWQCB CAO No. 98-125. The need for, and nature of, soil and groundwater remediation activities within the Proposed Project site has been preliminarily determined or proposed, and is being coordinated with, and is subject to the approval of the RWQCB.

The demolition and removal of Buildings 22, 45, and the other various sheds and small storage buildings in the former Salvage Yard Area would expose underlying soils that were previously inaccessible for evaluation. Past investigations do not suggest that a source of contamination (no evidence of down gradient groundwater contamination was found to suggest a source) may be present beneath the subject buildings. However, when the buildings are demolished and the underlying soils are revealed, exposed soils could indicate the need for

additional soil sampling. Any such sampling or associated remediation would be carried out in accordance with the RWQCB under CAO No. 98-125, using remediation options as described in Appendix J-2. Furthermore, as discussed above in Subsection 2.1, Regulatory Framework, OSHA Safety and Health Regulations for Construction (29 CFR Part 1926) outline guidelines for compliance to ensure construction worker safety at, or near, sites with known contamination. Adherence to these guidelines would serve to effectively avoid worker exposure to hazardous materials that may be encountered on-site during construction activities. Therefore, although there is the potential for site grading to encounter contaminated soil, compliance with OSHA guidelines during construction of the Proposed Project would prevent exposure of people to substantial risk resulting from the release of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards. With implementation of these measures, impacts would be less than significant. Depending on the nature and extent of contamination encountered, if any, and the approach selected for remediation (as approved by the RWQCB), grading and construction activities (e.g., remediation by soil excavation) may be specifically designed to be a part of the remediation program, options for which are discussed in Appendix J-2 (see additional discussion below under *Operations*). For additional discussion of air quality regulations and the Proposed Project's potential impacts relative to dust generated by excavation activities, see Section IV.B, Air Quality, in this EIR.

Groundwater extracted in accordance with remedial activities, and construction-related dewatering that could encounter contaminated groundwater within the Proposed Project site would be subject to specific handling and disposal requirements. Construction-related dewatering could encounter contaminated groundwater. The handling and discharge of contaminated groundwater would be subject to the requirements of the RWQCB and may also include discharge to a publicly owned treatment facility. Compliance with the requirements of the OSHA Safety and Health Regulations for Construction (described above) would serve to avoid exposure of workers or the public to hazards in excess of regulatory standards. Therefore, the construction of the Proposed Project would not expose people to substantial risk resulting from the release of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards, and impacts would be less than significant.

In addition to the known presence of contaminated soils and groundwater at the Proposed Project and the potential for additional contaminated soil occurring beneath Buildings 22, 45, and the other various sheds and small storage buildings, it is possible that the property may yet contain unidentified underground storage tanks, disposal areas or chemical contamination. The potential for unexpectedly encountering such materials during site grading is somewhat reduced by the fact that preparing the site for development would mostly involve the placement of fill to raise the ground surface by 1 to 17 feet and only limited excavation into existing ground is expected to be necessary. Such excavation would include grading for the Riparian Corridor (within the Proposed Project's Habitat Creation/Restoration Component), infrastructure improvements, and, possibly, grading for the development of subterranean parking structures

where, in some areas, the provision of two levels of subterranean parking would extend down past the limits of fill and into existing soils.

As described previously, numerous studies have been completed to identify and characterize areas of soil and groundwater contamination. Areas of known contamination have been identified and evaluated within the adjacent Playa Vista First Phase Project and Proposed Project sites; however, it is possible that previously unknown areas of contamination may be encountered during project grading activities. Remediation options have been proposed for contaminated areas within the adjacent Playa Vista First Phase Project site, and it is anticipated that similar options for the contamination within the Proposed Project site will be determined by the RWQCB as necessary. Based on the past uses at the adjacent Playa Vista First Phase Project and Proposed Project, the types of hazardous materials that may yet be discovered include petroleum hydrocarbons, pesticides, metals, or volatile organic compounds (solvents). If not controlled, excavation and grading activities could disturb previously unidentified contaminated soils, underground storage tanks, or buried hazardous materials with the resulting potential to produce air particulate and vapor emissions containing hazardous materials. Potential worker exposure pathways of such contaminants include inhalation and ingestion of contaminated dust particles. Other exposure pathways include direct contact with contaminated soil or groundwater. All excavation, grading and demolition must be conducted in accordance with local, state, and federal regulations, reducing the risk to levels acceptable to regulatory agencies. Similarly, any hazardous materials/wastes uncovered by construction activities are required by existing statutes to be removed or otherwise managed, such that impacts relating to human exposure would be reduced to levels acceptable to federal, state, and local regulatory agencies (see also discussion below regarding establishment of criteria for the cleanup of contaminated groundwater and/or soils). As required by the RWQCB, contaminated areas would be remediated under CAO No. 98-125, using one or more of the remediation options discussed in Appendix J-2. Additionally, as discussed above, all construction activities would be conducted in accordance with all applicable OSHA and SCAQMD (as discussed in Section IV.B, Air Quality) regulations to protect worker health and safety. Therefore, the Proposed Project would not expose people to substantial risk resulting from the release of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards, and impacts would be less than significant.

***Operations*:** As indicated above, the Proposed Project includes areas of known or potential contamination, many of which have been characterized and remediated, with the remainder to be further assessed and subsequently remediated in accordance with the requirements of CAO No. 98-125. The land use types proposed at, or near, the locations of known or potential contamination would be composed of passive open space, commercial, and mixed-use (including office, retail, and residential) land uses.

The need for, and extent of, soil and groundwater cleanup required for proposed development areas are expected to be determined based on the HBRGs or other appropriate criteria as approved by the RWQCB. Based on the nature, level, and extent of contamination within each area and the cleanup level appropriate for the land use proposed at the subject area, various remediation options would be identified, evaluated, and selected for implementation. In some instances, reconfiguring proposed development areas, adding building design measures, or modifying the proposed land use type may be considered in conjunction with selecting the appropriate remedial action. Anticipated and contingent remedial technologies for the Proposed Project that the RWQCB may require under CAO No. 98-125 are discussed in detail in Appendix J-2.

The proposed permanent dewatering system, which includes dewatering for the methane safety system and dewatering of underground parking lots, is a contingent system that would operate only if/as groundwater elevations occur at the level of the dewatering pipes. In case groundwater is present or in future rises to an elevation above the elevation of the groundwater pipes, the water is conveyed to a sump where it is removed by automatic pumps. The dewatering system does not include dewatering by pumping from deep wells or any specific well points.[336] Adverse impacts are not anticipated relative to the rate or change in the direction or movement (migration) of existing contaminates in groundwater from dewatering associated with operation of the permanent dewatering systems (for more details on the methane safety system, see discussion above in Subsection 3.3, Project Design Features). This is because the maximum flow of the dewatering pipes is very low and their radius of influence on the groundwater unit is limited. Therefore, the dewatering pipes are not anticipated to draw water across any substantial distance, and impacts would be less than significant. To date, no effect on plume movement has been observed in relation to the operation of methane mitigation dewatering systems anywhere within the adjacent Playa Vista First Phase Project site, and similar results are anticipated for such systems installed within the Proposed Project. Consequently, methane system-related dewatering would not expose people or structures to substantial risk resulting from the release of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards, and impacts would be less than significant. See Section IV.A, Earth, and Section IV.C.(2), Water Quality, for a discussion of the potential impacts of dewatering on subsidence and the groundwater plume, respectively.

In light of the regulatory framework and RWQCB oversight offered by CAO No. 98-125, combined with applicable soil and groundwater cleanup criteria as approved or adopted by the RWQCB, it is not expected that contamination within developed areas of the Proposed Project would exceed acceptable regulatory standards at the time occupancy occurs. Accordingly, with implementation of appropriate mitigation measures, the Proposed Project would not expose

[336] *Group Delta Consultants, "Evaluation of Subsidence Due to Lowering of Groundwater in Village at Playa Vista, Playa Vista Development, Los Angeles, California," April 15, 2003.*

people or structures to substantial risk resulting from the release of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards, and impacts would be less than significant.

3.4.3 Soil Gas

***Construction*:** As described previously, the soil gas surveys conducted between 1998 and 2001 found some sampling locations with elevated levels of methane within the Proposed Project site. The highest concentrations of methane were generally found to occur in the southwestern portion of the Proposed Project. Only very low, if any, concentrations of hydrogen sulfide and BTEX were detected at the Proposed Project site. As such, grading or construction activities occurring within confined spaces (i.e., trench, bore hole, etc.) on-site could pose a potential for methane build-up, resulting in a possible safety/risk of upset impact. Adherence to the construction safety measures described above in Subsection 3.3, Project Design Features, including compliance with Cal/OSHA safety requirements will serve to avoid significant safety/risk of upset impacts in the event that elevated levels of these soil gases are encountered during grading and construction. The proposed construction safety program and related Cal/OSHA requirements include air monitoring to be conducted during all subsurface work activities. Should potentially dangerous levels of these soil gases be encountered during subsurface work activities, the program and requirements noted above provide for the immediate implementation of appropriate safety measures. Based on such monitoring and safety provisions, grading and construction activities associated with development on-site are not expected to substantially expose workers or nearby residents to elevated levels of methane. Therefore, impacts would be less than significant, since the Proposed Project would not expose people or structures to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards.

***Operations*:** As noted above, the results of the soil gas surveys completed in 1998 through 2001 found elevated levels of methane within shallow soils of the Proposed Project site. Such areas with elevated levels of methane are generally located in the southwest portion of the Proposed Project. Future uses proposed in the subject area generally include Community Serving, Open Space, Residential, and Mixed-Use, as well as new roadways. Additionally, elevated levels of methane, ranging from approximately 12,500 ppmv to 44,400 ppmv, were detected in four other areas within the Proposed Project site, as indicated by the orange areas shown on Figure 59 on page 716. Development in such areas poses the potential to expose project occupants to elevated levels of methane. This is considered to be a potentially significant impact; however, it can be reduced to a level less than significant through implementation of appropriate mitigation measures.

In addition to the potential impacts described above related to new buildings, the installation of subsurface utility improvements such as underground utility vaults and

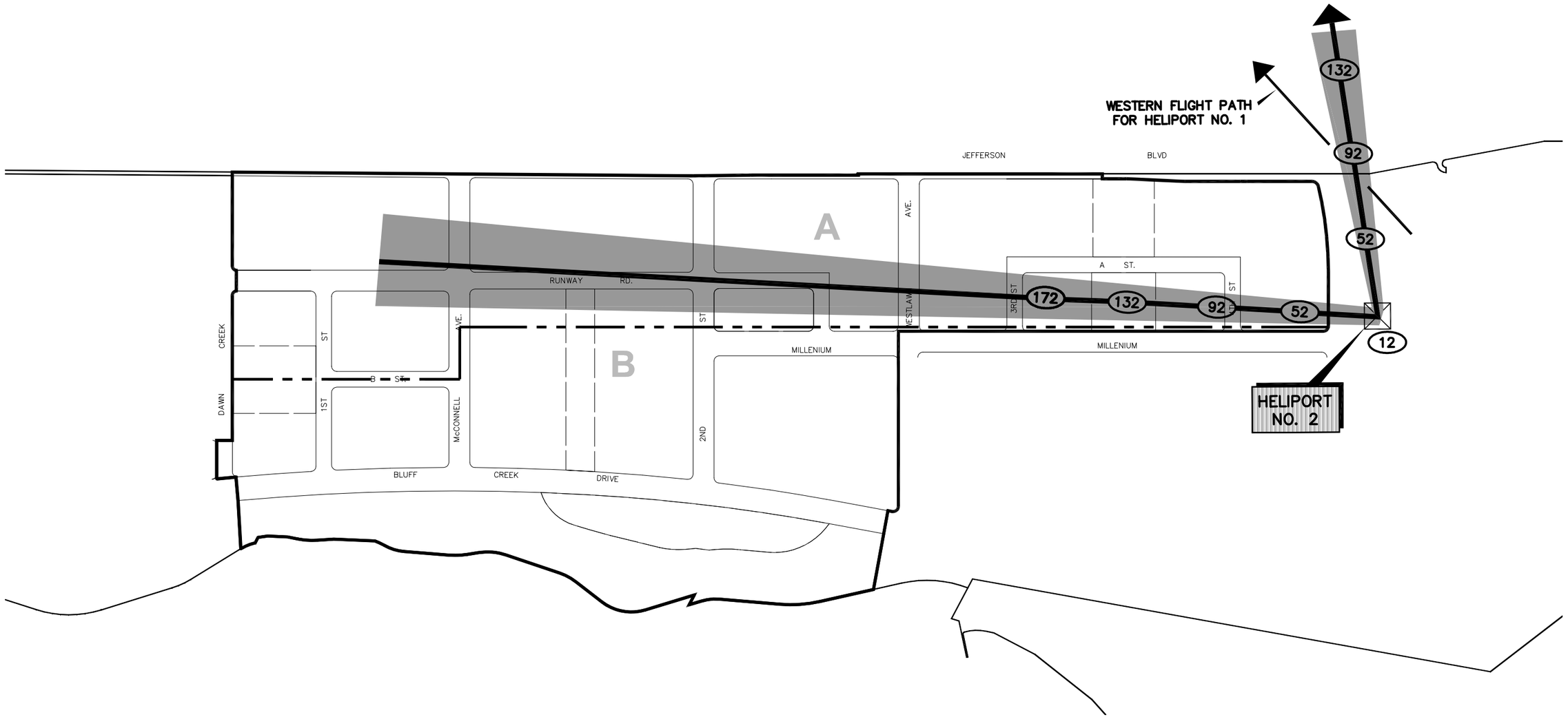
underground utility line corridors that have gravel beds could pose potential safety/risk of upset impacts. Such impacts include the infiltration and build up of methane within underground vaults and the migration of methane through the underlying gravel of utility line corridors. These potential impacts can be reduced to a level less than significant through implementation of appropriate mitigation measures. With respect to hydrogen sulfide and BTEX, only very low, if any, concentrations were found to occur on-site and are not considered to pose a significant safety/risk of upset hazard for long-term operation of uses within the Proposed Project.

As such, with implementation of appropriate mitigation measures, the Proposed Project would not expose people or structures to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards, and impacts would be less than significant.

3.4.4 Aviation Hazards

Construction: The proposed development plan for the Proposed Project would allow for construction of a maximum building height of 112 feet above mean sea level (AMSL) (i.e., within Building Height District "B"). As depicted in Figure 61 on page 729, based on the proposed flight paths for the subject heliports, helicopter take-offs and approaches are not expected to be affected by construction activities, including construction of structures at maximum permissible building heights (i.e., 112 feet AMSL). Consequently, no significant safety/risk of upset impacts related to aviation hazards are expected to occur due to construction of the Proposed Project, as the Proposed Project would not interfere with, or expose people or structures to substantial risk from, heliport flight operations.

Operations: Permits for the operation of heliports are issued by the California Department of Transportation. (Copies of heliport permits are included as Appendix J-11.) The permitted heliport located within the Proposed Project boundaries is not anticipated to remain in operation under the Proposed Project; hence, no impacts from that heliport would occur to or from the Proposed Project. Should either, or both, of the other two heliports be constructed and operated, such activities would occur as part of the adjacent Playa Vista First Phase Project implementation and not as a part of the Proposed Project. Operation of the two heliports located within the adjacent Playa Vista First Phase Project site could, however, pose potential safety/risk of upset considerations relative to development proposed in the Proposed Project site. The impacts discussion presented herein does not attempt to evaluate the nature and adequacy of the heliports' design and operation safety features, based on the fact that the heliports have already been reviewed and approved by the FAA and/or Caltrans, and development and operation of the heliports are not proposed as part of the Proposed Project. Rather, the following impacts analysis focuses on the compatibility of the Proposed Project's development features (i.e., building heights) relative to obstruction standards defined for heliports in FAR Part 77 – Objects



BUILDING HEIGHT DISTRICT

A–UP TO 95' AMSL
B–UP TO 112'

AIR SPACE CLEARANCE HEIGHT

"XX" ELEVATION, IN FEET ABOVE MSL, ALONG FLIGHT PATH AT 8:1 SLOPE EXTENDING FROM PRIMARY LANDING AREA. BUILDING HEIGHTS IN EXCESS OF "XX" VALUE WOULD ENCROACH IN TO HELIPORT AIR SPACE.

PROPOSED PROJECT BOUNDARY

BOUNDARY OF HEIGHT DISTRICTS

200' 100' 0' 200' 400'

Note: Lot configuration for discussion purposes only. Actual lot lines and development details may vary.

CDM

Figure 61
Relationship of Proposed Building Heights to Heliport Flight Paths

Affecting Navigable Airspace. Issues related to the compatibility of proposed development plans with the noise levels from heliport operations are addressed in Section IV.E, Noise, in this EIR.

The approach path for Heliport No. 1 does not cross the Proposed Project site. Figure 61 shows the designated approach path for Heliport No. 2. Figure 61 also provides a comparison of the proposed building height limitations to the surface elevations of navigable airspace along the approach paths (i.e., imaginary surfaces above which objects would affect navigable airspace). As indicated on Figure 61, the proposed building heights near Heliport No. 2 would not conflict with the FAA height criteria, except for the easternmost development lots within the Proposed Project area. The building height district "A" designated for this portion of the Proposed Project would allow buildings of a height up to 95 feet AMSL, whereas the imaginary air surface of the flight path from Heliport No. 2, assuming the heliport is constructed at the existing ground surface elevation of 12 feet AMSL, would range from approximately 44 feet AMSL at the eastern edge of the lot to 75 feet AMSL at the western edge of the lot. The development lot located immediately to the south is proposed with building height District "B" allowing buildings up to 112 feet AMSL. In proceeding westward from a point approximately 400 feet west of the easternmost boundary of the Proposed Project site, there would be no other height district conflict with the air space clearance requirements for Heliport No. 2. As such, the building height districts proposed for the two subject eastern lots are considered to pose a potential for new development to conflict with the imaginary air surface of the flight path from Heliport No. 2; however, no significant impacts are anticipated to occur for the following reasons: (1) should the height of a new building associated with the Proposed Project extend into the subject air space and result in a conflict with operation of the heliport, the heliport is required by existing aviation easements to either modify its flight path to eliminate the conflict or cease operations; (2) elimination or avoidance of such a conflict may be achieved if the heliport is relocated to a new suitable site or if the heliport is operated from the rooftop of a building. There would be no height district conflict at the subject Proposed Project development lot if Heliport No. 2 is constructed at its currently permitted location as a rooftop facility on an adjacent Playa Vista First Phase Project building of a height 70+ feet AMSL (the allowable height for a building at the heliport site is 95 feet AMSL). Based on the requirements and various options to avoid or eliminate potential conflicts between building heights and heliport operations, no significant impacts are expected to occur, since the Proposed Project would not interfere with, or expose people or structures to substantial risk from, heliport flight operations.

3.4.4 Summary of Impacts

Hazardous Materials Management

Construction: The demolition and removal of Buildings 22 and 45, and the various other sheds and storage buildings in the former Salvage Yard Area would include the removal and

disposal of ACMs and/or lead-based paint. Abatement activities would be preceded by the completion of a work plan, and would be conducted in accordance with all applicable federal, state, and local regulations. As such, the construction of the Proposed Project would not expose people or structures to substantial risk resulting from the release of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards, and impacts would be less than significant.

Operations: The operation of certain uses allowed within the Proposed Project site and vicinity may involve hazardous materials and wastes. However, compliance with applicable federal, state, and local requirements would serve to minimize the health and safety risks to people or structures associated with such uses and materials/wastes within the Proposed Project site. Therefore, the Proposed Project would not expose people or structures to substantial risk resulting from the release of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards, and impacts would be less than significant.

Soil/Groundwater Contamination

Construction: The demolition and removal of Buildings 22 and 45, and the other various sheds and small storage buildings in the former Salvage Yard Area would expose underlying soils that were previously inaccessible for evaluation. There is the potential for site grading to encounter contaminated soil; however, compliance with the requirements of the OSHA Safety and Health Regulations for Construction (29 CFR Part 1926) would serve to avoid exposure of workers or the public to hazards in excess of regulatory standards. Consequently, construction of the Proposed Project would not expose people to substantial risk resulting from the release of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards, resulting in a less-than-significant impact.

Construction-related dewatering could encounter contaminated groundwater, particularly along the southern portion of the Proposed Project site. Compliance with the requirements of the OSHA Safety and Health Regulations for Construction (29 CFR Part 1926) would serve to avoid exposure of workers or the public to hazards in excess of regulatory standards. Therefore, the Proposed Project would not expose people to substantial risk resulting from the release of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards, and impacts would be less than significant.

Areas of known contamination have been identified and evaluated, and remediation options will be proposed in accordance with CAO No. 98-125; however, it is possible that previously unknown areas of contamination may be encountered during project grading activities. Any such hazardous materials/wastes uncovered by construction activities are required by existing statutes to be removed or otherwise managed, such that impacts relating to

human exposure would be reduced to levels acceptable to federal, state, and local regulatory agencies. Therefore, the Proposed Project would not expose people or structures to substantial risk resulting from the release of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards, and impacts would be less than significant.

Operations: The potential for safety/risk of upset impacts that may occur in conjunction with implementing various remediation options at the majority, if not all, of the areas of concern would have no significant aboveground impacts and only beneficial subsurface impacts. The release of the treated by-products is regulated by, and is subject to the permitting authority of, the SCAQMD (Rules 1401 [New Source Review of Carcinogenic Air Contaminants] and 1402 [Control of Toxic Air Contaminants from Existing Sources]). The design and operation of the dual-phase extraction system includes safety provisions in accordance with accepted professional practices, and inspection of the system is within the purview of Cal/OSHA. The option of soil excavation, retrieval, and off-site disposal may result in temporary on-site impacts such as dust, equipment noise, and truck travel. Impacts associated with truck travel would extend off-site as well. Potential human health impacts associated with the soil vapors from exposed soils and from dust during excavation and loading would be minimized through compliance with Rule 1166 of the SCAQMD Rules and Regulations (potential impacts associated with dust generation are discussed in Section IV.B, Air Quality). It is anticipated that remediation of contaminated areas within the Proposed Project site can be successfully accomplished using options other than soil excavation and off-site disposal (e.g., in-situ remediation technologies). However, if excavation is the preferred remedial option, it would be carried out in accordance with Rule 1166. As such, remediated areas would pose no health risk to residents and employees on-site during Project operation. Impacts would be less than significant, because the Proposed Project would not expose people or structures to substantial risk resulting from the release of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards.

Soil Gas

Construction: Soil gas surveys conducted in 1999 and 2000 found some sampling locations with elevated methane concentrations, and only very low, if any, concentrations of hydrogen sulfide and BTEX at the Proposed Project site. As such, grading or construction activities occurring within confined spaces on-site could pose a potential for soil gas build-up, resulting in a possible safety/risk of upset impact. Adherence to the construction safety measures, as well as compliance with Cal/OSHA safety requirements would serve to avoid substantial risk in the event that elevated levels of these soil gases are encountered during grading and construction. Based on such monitoring and safety provisions, grading and construction activities associated with development on-site are not expected to substantially expose workers or nearby residents to elevated levels of methane or other soil gases. Therefore, impacts would be less than significant, since the Proposed Project would not expose people or

structures to substantial risk resulting from the release of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards.

Operations: Future uses proposed in the subject area generally include Community Serving, Open Space, Residential, and Mixed-Use, as well as new roadways. Development in such areas poses the potential to expose Project occupants to elevated levels of methane or other soil gases; however, it is anticipated that LADBS would require a methane safety program which would provide appropriate safety measures in the design, construction, and long-term operation of such development. A soil gas report will be required for each development project to address the methane characteristics specific to the development site and identify the appropriate applicable methane safety requirements. As such, implementation of a methane safety program would provide a substantial level of safety for Project occupants throughout the operation of the Proposed Project. As such, with implementation of appropriate mitigation measures, the Proposed Project would not expose people or structures to substantial risk resulting from the release of a hazardous material, or from exposure to a health hazard, and impacts would be less than significant.

In addition to the potential impacts described above related to new buildings, the installation of subsurface utility improvements such as underground utility vaults and underground utility line corridors that have gravel beds could pose potential safety/risk of upset impacts. These potential impacts can be reduced to a level less than significant through measures similar to those described above for buildings and, for utility corridors, through the use of bentonite plugs.

With respect to hydrogen sulfide and BTEX, only very low, if any, concentrations were found to occur on-site and are not considered to pose a significant safety/risk of upset hazard for long-term operation of uses within the Proposed Project.

Aviation Hazards

Based on proposed flight paths for subject heliports and proposed building heights on-site, impacts relative to aviation hazards from operation of the subject heliports would be less than significant, as the Proposed Project would be designed not to interfere with, or expose people or structures to substantial risk from, heliport flight operations.

Mitigation measures are proposed below to require implementation of the Project Design Features which serve to eliminate potential significant impacts discussed above.

3.4.5 Equivalency Program Impacts

The preceding safety/risk of upset analysis addressed impacts associated with construction and operation of the Proposed Project relative to the following issues: (1) hazardous materials management; (2) soil/groundwater contamination; (3) soil gas; and (4) aviation hazards. The proposed Equivalency Program allows for specific limited exchanges in the types of land uses occurring within the Project's Urban Development Component. No changes are proposed under the Equivalency Program to the Project's Habitat Creation/Restoration Component.

The exchange of office uses for retail and/or assisted living units would be accomplished within the same building parameters, and would occur at relatively limited locations within the Project site. Furthermore, under the Equivalency Program, there would be no substantial variation in the Project's street configurations, building pad elevations, or the depth of excavation. Potential changes in land use under the Equivalency Program would therefore have no substantial effect on the proposed construction activities and their associated impacts because only the use is changing. Specifically, the site characterization and associated remediation required for Project development would be the same under the Equivalency Program as well as the potential risk of exposure to safety and health hazards. Very minor variations regarding foundation types (including subsurface soil gas detection/venting systems) or in the preparation of landscaping areas could occur, however such variation would be within the range of construction procedures anticipated to occur with the Proposed Project. In addition, development under the Equivalency Program would not cause or exacerbate any safety/risk of upset impacts that would occur under the Proposed Project.

All Project Design Features (as discussed in Subsection 3.3 above) and/or recommended mitigation measures (discussed in Subsection 4.0, Mitigation Measures, below) to minimize safety/risk of upset impacts under the Proposed Project would be implemented, as appropriate, under the Equivalency Program. Implementation of the Equivalency Program would therefore not expose people or structures to substantial risk resulting from the release of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards, or interfere with, or expose people or structures to substantial risk from, heliport flight operations. Consequently, with implementation of applicable mitigation measures (discussed below), safety/risk of upset impacts attributable to the Equivalency Program, as is the case with the Proposed Project, would be less than significant.

3.4.6 Impacts of Off-Site Improvements

Proposed Project development could result in secondary impacts arising from implementation of the Project's mitigation measures, as well as the direct impacts described

above. Mitigation measures within Section IV.K.(1), Traffic and Circulation, in this EIR, require physical improvements in transportation facilities at numerous locations including roadway widening at seven locations, as described in Subsection 5.8 of that Section. In addition, as discussed in Section IV.N.(1), Water Consumption, in this EIR, the Proposed Project would require the construction of a water regulator station in the vicinity of Jefferson Boulevard and Mesmer Avenue. These off-site improvements are all located in developed urban areas. All of the off-site improvements, with the exception of the water regulator station, would occur within, or adjacent to, existing roadways. The water regulator station includes a small amount of above-ground piping equipment, a common element of the urban environment. Implementation of the Project's mitigation measures does not involve the construction of any buildings.

The proposed off-site improvements would not involve the routine transport, use, or disposal of hazardous materials. Therefore, long-term operation of the improvements would not create a significant hazard to the public or the environment.

A computerized government records search for locations on, or near, the areas proposed for off-site roadway widening improvements was conducted in order to determine known hazardous waste sites. For a detailed description of the listed sites, including status of contamination and/or remediation, refer to the EDR report, included as Appendix J-1. Known contamination sites are in various stages of regulatory review and would be expected to continue through the compliance and enforcement processes of the affected regulatory agencies. None of the listed sites are anticipated to significantly affect, or be affected by, the proposed off-site roadway improvements. It is noted that the regulatory list suggests that two of the sites near the Centinela Avenue improvements have been remediated or determined not to be a health and safety issue by listing the remediation status as "case closed" (i.e., two sites are actually the same site – the Pacific Division Police Station had a leaking underground diesel fuel storage tank, which was remediated in July 1999 to the satisfaction of the Regional Water Quality Control Board).

However, there is the potential to unexpectedly encounter previously unknown contamination during grading. Such an event, if any, would be handled in accordance with applicable federal, state and local hazardous material/waste requirements. Grading activities would be halted, diverted, or otherwise modified to allow the nature and extent of contamination to be assessed, and appropriate management measures would be formulated and applied. Coordination with, and approval by, appropriate state and local agencies would occur. Therefore, no significant impacts are expected to occur. Soil gases, such as methane, BTEX, and hydrogen sulfide, could occur in the local area. As such, there is the potential for risk of upset impacts. Cal/OSHA worker safety requirements provide for air monitoring during subsurface excavation activities including borings, trenching and grading, to check for unsafe levels of methane, hydrogen sulfide, oxygen and carbon monoxide. Should unsafe levels occur,

appropriate safety measures shall be implemented as required. Mitigation measures, as identified below, are included to ensure compliance.

The proposed improvements would entail modifications to signalization, public transit stops, and existing street widths. No operational heliports occur in proximity to any of the proposed improvement areas. Furthermore, the proposed improvements are not anticipated to affect, or be affected by, any heliport operations, even if they were to be located in proximity to the improvements.

In summary, the proposed off-site roadway and intersection improvements are anticipated to result in less-than-significant safety/risk of upset impacts, since construction and operation of the improvements would not expose people or structures to substantial risk resulting from the release of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards, or interfere with, or expose people or structures to substantial risk from, heliport flight operations.

4.0 MITIGATION MEASURES

Mitigation Measures for the Proposed Project and the Equivalency Program

Hazardous Materials Management

- Prior to issuance of demolition permits for Buildings 22, 45, and other sheds and small storage buildings, evidence shall be provided to the City of Los Angeles Planning Department that the demolition contract provides for a qualified asbestos and lead based paint removal contractor/specialist to remove or otherwise abate asbestos and lead based paint prior to or during demolition activities in accordance with federal, state, and local regulations.

- Prior to issuance of demolition permits for Buildings 22, 45, and other sheds and small storage buildings, evidence shall be provided to the City of Los Angeles Planning Department that the demolition contract provides for continuous compliance with all applicable government regulations and conditions related to hazardous materials and wastes management.

Soil/Groundwater Contamination

- Any contaminated soil, groundwater and/or toxic materials removed during remediation activities or discovered during excavation and grading shall be evaluated

and excavated/ disposed of, treated in-situ (in-place), or otherwise managed in accordance with the RWQCB requirements. If contamination is discovered during grading activities, grading within such an area shall be temporarily halted and redirected around the area until the appropriate evaluation and follow-up measures are implemented so as to render the area suitable for grading activities to resume.

- To address the potential that contaminated soils, groundwater, and/or toxic materials may be encountered during excavation and grading, the applicant contractor(s) selected for excavation and grading work shall maintain a valid South Coast Air Quality Management District (SCAQMD) Rule 1166 permit plan (i.e., approval of a Contaminated Soil Mitigation Plan) for areas of known or suspected contamination, and be prepared to control nuisance odors per SCAQMD Rules and Regulations.

- Any contaminated soils stockpiled at the site shall be stored in such a manner that underlying soils are not cross-contaminated. This could be accomplished by the use of heavy-duty plastic sheeting placed under and on top of the stockpiled materials, or other suitable methods. The management, treatment, or disposal of such material shall comply with all federal, state, and local regulations related to hazardous waste.

- All stockpiled contaminated materials shall be protected in order to prevent material from being washed into storm drains. This could be accomplished by the use of sand bags around the material, heavy-duty plastic sheeting placed on top of smaller stockpiles of materials, or other suitable methods.

- Grading and demolition contractors shall be required by construction specifications to secure approval of haul routes to export or otherwise transport off-site excavated materials prior to commencement of such activity.

- Prior to issuance of a grading permit or B-Permit for activities involving construction dewatering, evidence shall be provided to the LADBS or LADPW, as appropriate, that a valid NPDES or Industrial Waste construction dewatering permit is in place. The NPDES or Industrial Waste permit shall include provisions for evaluating the groundwater for potential contamination, and, if necessary, the need for treatment of dewatering discharge.

- Groundwater extracted in accordance with remedial activities and construction dewatering that may be required during project development shall be conducted in accordance with RWQCB and other agency requirements (i.e., LADPW, LADBS, etc.), as appropriate. In the event that contaminated groundwater is encountered during excavation, grading or construction, the activities that potentially lead to the discharge of such groundwater shall be halted until the dewatering discharge options are evaluated and managed pursuant to RWQCB or other agency requirements, as

appropriate. RWQCB or other agency reporting requirements shall be implemented, as appropriate.

- Extraction of contaminated soil vapors shall be conducted in accordance with RWQCB and SCAQMD established handling, treatment, and disposal requirements in conjunction with the implementation of remedial activities requiring such extraction.

Methane Safety System for Long-Term Project Operations

- Prior to issuance of a building permit for individual development projects within the Proposed Project site, the permit applicant shall submit to the LADBS a methane safety plan prepared by a licensed engineer. The methane safety plan shall conform to the Village at Playa Vista Building Methane Mitigation Guidelines and Methane Mitigation Standard in Appendix J-14. The methane safety plan shall report the methane concentration levels that exist at the area of the proposed construction/ improvement and shall specify the appropriate methane safety measures that are incorporated into the design, construction, and operation of the subject improvement. Based on the levels of methane identified at specific sites, a gas detection system; pressure sensors; ventilation, monitoring, and emergency procedures; and other measures, as provided for in the Village at Playa Vista Building Methane Mitigation Guidelines set forth in Appendix J-14 or in any methane mitigation protocol adopted by LADBS, shall be required, as appropriate. Mitigation systems for each building shall be based on a site investigation in combination with the Village at Playa Vista Building Methane Mitigation Guidelines in Appendix J-14. Any variations to the Village at Playa Vista Building Methane Guidelines and Table XX set forth in Appendix J-14 are subject to the joint approval of the LADBS and the LAFD when engineering and other data and analysis demonstrates an equivalent level of building safety. The specific design elements of the methane requirements shall be subject to the review and approval of the LADBS in consultation with the LAFD. In the event the City adopts a subsequent ordinance providing for methane regulations applicable to the Proposed Project site, the requirements set forth in that ordinance shall supersede the Village at Playa Vista Building Methane Mitigation Guidelines set forth in Appendix J-14, provided that the requirements in that new ordinance continue to reduce the potentially significant impact to a less-than-significant level.

- Prior to issuance of a B-Permit for public works projects or subsurface utility improvements with the Proposed Project site, the permit applicant shall submit to the City of Los Angeles Department of Public Works (LADPW), a methane safety plan prepared by a licensed engineer who is acceptable to LADPW. The methane safety plan shall indicate the methane concentration levels that exist at the area of the

proposed construction/improvement and shall specify the appropriate methane safety measures that are incorporated into the design, construction, and operation of the subject facility. The specific contents of the methane safety plan and the nature and extent of safety provisions described therein shall be subject to the discretion, review, and approval of the LADPW in consultation with the LAFD.

Other

- Should any unrecorded oil well be found during excavation and grading, it shall be abandoned in accordance with the California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR) under Title 124, Chapter 4 of the California Administration Code or recorded per DOGGR regulations. Prior to issuance of any building permit within a lot affected by discovery of an unrecorded oil well, the Applicant shall submit a final clearance letter issued by DOGGR regarding the proper abandonment of the well(s).

- Prior to issuance of any building permit on a lot where oil or gas wells are found, an engineering plan that includes proper safety measures and timing of the implementation of those measures shall be submitted to and approved by LADBS.

Additional Mitigation Measures for the Off-Site Improvements

- Construction contracts shall include provisions requiring continuous compliance with all applicable federal, state, and local government regulations and conditions related to hazardous materials and wastes management.

- Any known or discovered soils with contamination above applicable regulatory limits shall be excavated/disposed of, treated in-situ, or otherwise managed in accordance with the requirements of the affected regulatory agencies.

- To address the potential that contaminated soils may be encountered during excavation and grading, the contractor(s) selected for excavation and grading work shall maintain a valid SCAQMD Rule 1166 permit, be prepared to control nuisance odors per SCAQMD Guidelines and Rules, and have an appropriate number of 40-hour, health and safety-trained workers for excavation areas that may contain hazardous waste. The contractor(s) shall also prepare a health and safety plan to monitor the excavation and/or donning of personal protection devices. Soil handling requirement for the contractor(s) shall be included in the construction specifications for development areas.

- In the event that contaminated groundwater is encountered during excavation, grading, or construction, the dewater discharge shall be evaluated and managed pursuant to RWQCB requirements.

- Cal/OSHA worker safety requirements provide for air monitoring during subsurface excavation activities, including borings, trenching, and grading, to check for unsafe levels of methane, hydrogen sulfide, oxygen, and carbon monoxide. Should unsafe levels occur, appropriate safety measures shall be implemented as required.

5.0 UNAVOIDABLE ADVERSE IMPACTS

Significant adverse impacts would be avoided through implementation of existing regulatory requirements and the above mitigation measures. As discussed above, the Proposed Project, inclusive of the Project's Equivalency Program and off-site improvements, would not expose people or structures to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards; and would not interfere with, or expose people or structures to substantial risk from, heliport flight operations. As such, impacts would be less than significant.

6.0 CUMULATIVE IMPACTS

For the most part, the safety/risk of upset impacts of the Proposed Project would be unique to the Proposed Project site, not lending to cumulative effects in conjunction with related projects. The only other development of note in close proximity to the Proposed Project would be the adjacent Playa Vista First Phase Project. No significant cumulative impacts are expected to occur because the safety evaluation and resultant design, engineering, and construction recommendations related to the two development projects already anticipate the potential impacts of the total adjacent Playa Vista First Phase Project and Proposed Project buildout, including the Equivalency Program. With respect to soil gas, the methane management system provided for individual development proposals within the adjacent Playa Vista First Phase Project and Proposed Project sites would be designed to protect buildings and other occupiable structures from methane intrusion even in areas with high concentrations of methane. A key component of such methane management systems is the venting of soil gases. Such venting would occur in several ways including passive or active ventilation systems for buildings and possibly the venting of methane from within groundwater. The venting systems would be designed to handle methane at any concentration and are not expected to affect, or be affected by, adjacent development. Also, the methane management system will vent all other soil gases (e.g., hydrogen sulfide and BTEX). As such, the combined development of the adjacent Playa Vista First Phase Project and Proposed Project is not expected to have a significant cumulative

impact relative to the safety and effectiveness of methane management systems installed in conjunction with either project, or relative to the ability of methane to continue to safely vent into the atmosphere. As such, the adjacent Playa Vista First Phase Project and Proposed Project, inclusive of the Equivalency Program, would not expose people or structures to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards; and neither project would interfere with, or expose people or structures to substantial risk from, heliport flight operations. As such, no significant cumulative safety/risk of upset impacts are anticipated.

As pertains to the Project's off-site improvements, these improvements would require shallow excavations for roadway widenings, intersection improvements, and construction of a water pressure regulator station. Impacts related to safety/risk of upset would not occur during operation of the proposed improvements, but there is limited potential for short-term impacts during construction activities. Specifically, impacts related to hazardous materials and/or soil gas could arise during construction-related excavation and/or subsurface work. However, the same measures that would be employed for construction of the Proposed Project would be implemented, as appropriate, during construction of the off-site improvements. Furthermore, these improvements would occur at scattered locations throughout the Project vicinity, and would not have the potential for cumulative safety/risk of upset effects on local residents and employees. As such, impacts from implementation of the off-site improvements would not be cumulatively considerable.

IV. ENVIRONMENTAL IMPACT ANALYSIS
J. POPULATION, HOUSING AND EMPLOYMENT

1.0 INTRODUCTION

This section addresses the potential population, housing, and employment impacts associated with the Proposed Project in the context of a Local Area (the City of Los Angeles' Westchester-Playa del Rey Community Plan Area), the Southern California Association of Governments (SCAG) subregion within which the Project site is located (City of Los Angeles Subregion),[337] as well as a larger Regional Area.[338] The analysis evaluates the Proposed Project's population, housing, and employment impacts in relation to adopted growth forecasts (i.e., SCAG's Regional Transportation Plan (RTP) projections) and adopted policies and programs (e.g., SCAG's Regional Comprehensive Plan and Guide (RCPG), City's Housing Element, etc.).

This section also addresses the issue of jobs/housing balance. The consistency of the Proposed Project with existing SCAG policies that encourage local governments to achieve a balance between the types of jobs and housing prices is evaluated. The analysis also assesses the impact of the Proposed Project on jobs/housing balance at the subregional level (housing rich vs. housing poor, jobs rich vs. jobs poor). The cumulative impact of the Proposed Project, in conjunction with known related projects, is also evaluated.

The analysis addresses the impacts that would occur for the Project as Proposed, for the Project's Equivalency Program and for the Project's secondary impacts that would occur from the implementation of the Project's off-site mitigation measures.

2.0 ENVIRONMENTAL SETTING

2.1 Regulatory Framework

As the potential growth in population, housing, and employment resulting from implementation of the Project would primarily impact the local and regional areas and are included in the future projections of relevant growth for these areas, federal and state regulations

[337] *The City of Los Angeles Subregion includes the City of Los Angeles and the City of San Fernando plus a small area of unincorporated Los Angeles County.*

[338] *The Regional Area includes SCAG's West Side Cities, South Bay Cities, and City of Los Angeles Subregions.*

are not relevant to this issue. The following discussion, therefore, identifies regional and local regulations.

2.1.1 Regional Level

The Project site is located within the City and County of Los Angeles and within the six-county region that comprises the SCAG region. SCAG is an association of local government agencies formed for the purpose of developing consensus and coordination relating to regional issues that cross jurisdictional boundaries. The Project site, as shown in Figure 62 on page 744, is located within the City of Los Angeles Subregion. Additionally, the West Side Cities and South Bay Cities Subregions are discussed as a means of placing the Proposed Project in a regional context. These subregions are located to the north, east and south of the Project site and will likely have a relationship with future populations on-site (i.e., jobs, housing, shopping, entertainment, etc.).

SCAG prepared the RCPG in conjunction with its constituent members and other regional planning agencies. Adopted in May 1995, the RCPG is intended to serve as a framework to guide decision-making with respect to the growth and changes that can be anticipated by the year 2015 and beyond. The RCPG provides a general view of various regional plans. At the regional level, the goals, objectives and policies in the RCPG are relevant yardsticks for measuring consistency with adopted plans. However, the authority and responsibility for land use and other critical planning decisions rest with individual city and county governments. Accordingly, the RCPG proposes a strategy for local governments to use, voluntarily, to address issues related to future growth and to provide a means for assessing the potential impact of Projects within the context of the region.

The Growth Management Element of the RCPG, adopted June 1994, is a mandated section which presents forecasts establishing the socio-economic parameters for growth and development in the region. These forecasts were used throughout the RCPG as baseline data for such analysis chapters as the Regional Mobility and Air Quality Chapters. A second purpose of the Growth Management Element is to address issues related to growth and land use and to suggest guiding principles for development that support the overall goals of the RCPG. Policies within the Growth Management Element which are relevant to population and housing created by the Project include:

- SCAG shall encourage local jurisdictions' efforts to achieve a balance between the types of jobs they seek to attract and housing prices.
- SCAG shall support provisions and incentives created by local jurisdictions to attract housing growth in job-rich subregions and job growth in housing-rich subregions.

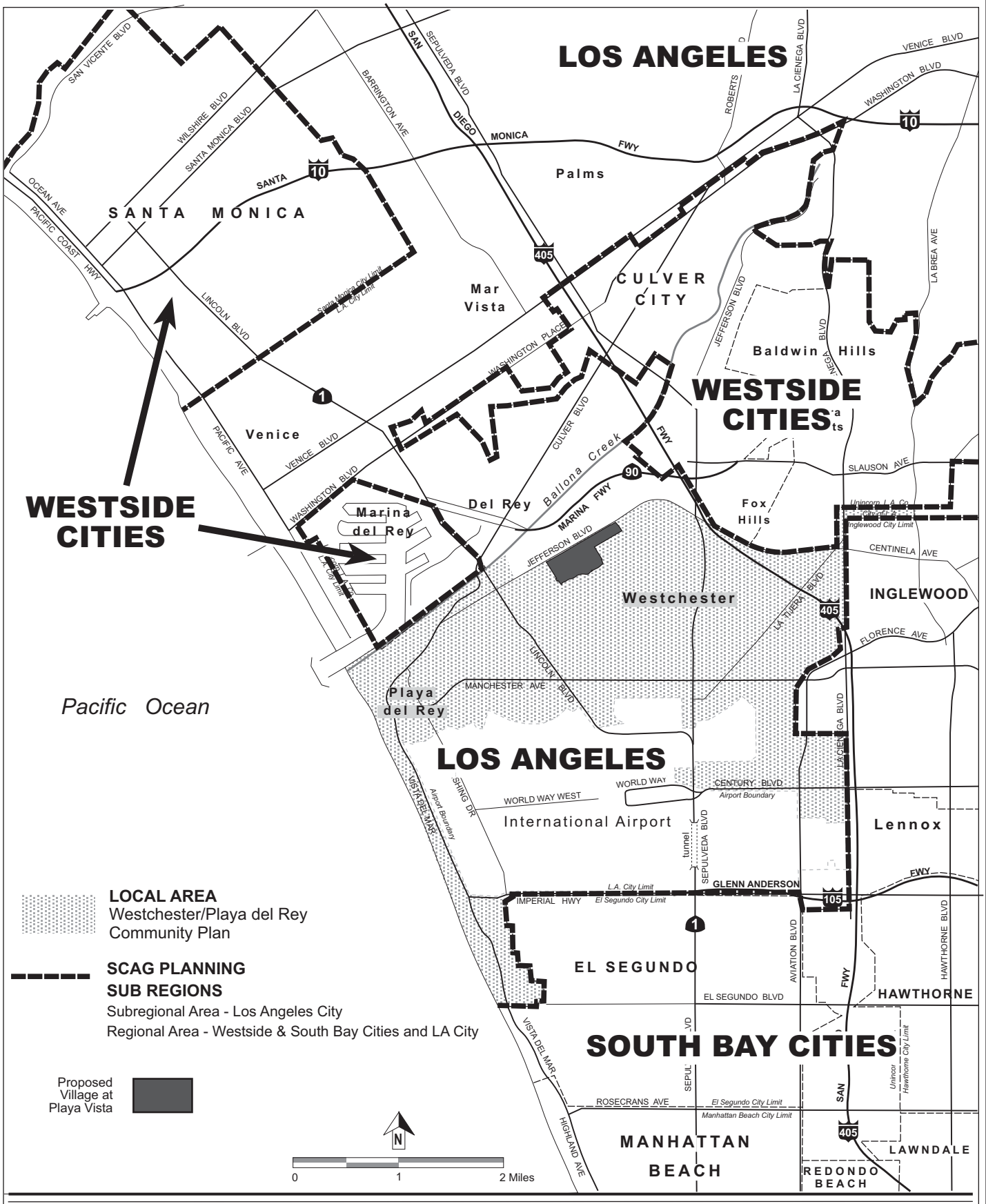


Figure 62
Demographic Analysis Areas

Source: Los Angeles General Plan SCAG 1994 RCPG

- SCAG shall encourage efforts of local jurisdictions in the implementation of programs that increase the supply and quality of housing.

The Housing Chapter of the RCPG, adopted September 1994, is not mandated and does not establish any requirements for local governments. However, SCAG is responsible for assisting cities and counties in fulfilling their statutory obligations to prepare and regularly update the Housing Elements of their General Plans. The Housing Chapter of the RCPG is intended to provide the broad picture of housing issues affecting the region and to assist local governments in meeting this requirement. By providing a regional framework for local housing strategies that are responsive to market area needs and state mandates, the Housing Chapter is a major tool for coordinating local housing development strategies within Southern California. It also includes a set of goals associated with increasing the supply of housing in the region, particularly housing that is affordable to low- and moderate-income households. No formal policies are provided.

Finally, the Economy Chapter of the RCPG, a non-mandated section, assesses the region's economy, the trends that brought it to its current state, and projected changes in the future. The Economy Chapter discusses strengths and weaknesses of the region's economy, where opportunities lie in the future (what types of jobs are anticipated for the SCAG region in the future), and strategies to enhance the region's competitiveness in the national and world economy. No formal policies are included.

The SCAG's Regional Council adopted the 2001 Regional Transportation Plan (RTP) in July 2001. The 2001 RTP contains policies to guide future regional decisions. All of these policies are transportation-related and none of them deal specifically with growth-related issues. SCAG is in the process of developing growth-related policies, but they are only at the draft stage and have not been reviewed or approved by the Regional Council. The growth policies discussed above in the RCPG Growth Management Chapter are still relevant to the Proposed Project.

The RTP contains a set of Baseline Socioeconomic Projections that is used as the basis for SCAG's transportation planning. They include projections of total population, households, and employment at the regional, county, subregional, jurisdictional, census tract, and transportation analysis zone levels. The 2001 RTP uses 2000 as the base year with projections for the years 2005, 2010, 2015, 2020 and 2025.

2.1.2 City Level

The City of Los Angeles' housing and population policies are addressed in the following plans.

2.1.2.1 Citywide General Plan Framework and General Plan Housing Element

The Citywide General Plan Framework, an element of the City of Los Angeles General Plan and General Plan System, was approved in December 1996. Revision of the City of Los Angeles District and Community Plans are underway, with a substantial number of them completed. However, until such time as an individual Community Plan is revised, the existing Plan will continue to guide development within that Plan area. The City of Los Angeles is also proposing that many of the existing elements be combined to form Transportation, Infrastructure Systems, Safety, and Public Facilities and Services Elements.

The Framework sets forth a citywide, comprehensive, long-range growth strategy and defines citywide policies regarding land use, housing, urban form, neighborhood design, open space, economic development, transportation, infrastructure, and public services. The Housing Chapter of the Framework elaborates on the City's adopted Housing Element to ensure the provision of housing for the City's existing and future residents.

The location of housing, relative to jobs, is also an issue in the City of Los Angeles. The distribution and extensive coverage of single-family units throughout the City, coupled with physical separation from commercial services, jobs, recreation, and entertainment, requires use of the automobile and results in a high number of generated trips and distances traveled.[339]

According to the 2002 Housing Element of the Los Angeles General Plan, the City's overall housing goal is to create a city of livable and sustainable neighborhoods with a range of housing types and costs in mutual proximity to jobs, infrastructure and services. Within this context, the City has established specific goals which provide the basis for addressing its housing needs.[340]

The goals of the Housing Element include: (1) the availability of an adequate supply of ownership and rental housing affordable to people of all income levels, races, ages, and suitable for all needs; (2) to preserve, stabilize, and enhance livability/sustainability in all neighborhoods throughout the City, and maintain the quality of life in all residential areas; (3) the availability of equal housing opportunities for all without discrimination; (4) the provision of incentives and the reduction of constraints with regard to the production and preservation of all housing. Policies supporting the goals of the Housing Element and pertinent to the Proposed Project include the following:

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[339] *Citywide General Plan Framework, City of Los Angeles General Plan. Adopted December 11, 1996.*

[340] *Housing Element, City of Los Angeles General Plan. Adopted December 18, 2001.*

- Policy 1.1.8: Encourage and support public and private programs to increase the availability of affordable rental housing for all city residents.

- Policy 1.3.1: Take an active role in broadening the accessibility and availability of special needs and service-enhanced housing for all City residents, including the homeless, elderly, persons with mental, physical, and developmental disabilities, persons with drug and alcohol dependency, large families, female-headed households, and persons living with HIV/AIDS.

- Policy 2.1.2: Facilitate neighborhood safety through improved development standards which provide for common areas, adequate lighting, clear definition of outdoor spaces, attractive fencing, use of landscaping as a natural barrier and to enhance aesthetic appearance, secure storage areas, and good visual connections.

- Policy 2.1.3: Encourage mixed-use development which provides for activity and natural surveillance after commercial business hours.

- Policy 2.1.4: Enhance livability of neighborhoods by upgrading the quality of development and improving the quality of the public realm, including streets, streetscape, and landscaping to provide shade and scale.

- Policy 2.3.1: Encourage and plan for high intensity residential and commercial development in centers, districts and along transit Corridors, as designated in the Community Plans and the Transportation Element of the General Plan, and provide for the spatial distribution of development that promotes an improved quality of life by facilitating a reduction of vehicular trips, vehicle miles traveled in order to mitigate traffic congestion, air pollution, and urban sprawl.

- Policy 2.3.3: Encourage the development of new projects that are accessible to public transportation and services consistent with the community plans. Provide for the development of land use patterns that emphasize pedestrian/bicycle access and use in appropriate locations.

- Policy 2.4.1: Develop and implement urban design standards for all projects including open space requirements, height, bulk, setbacks, articulation of façades, building materials, and massing standards in order to achieve consistency with the character and scale of neighboring structures. Require commercial and mixed-use buildings located adjacent to residential zones be designed and limited in height and scale to provide a transition with these uses, where appropriate.

- Policy 3.1.2: Encourage the inclusion of three, four, and five bedroom units in all residential projects in order to accommodate larger families.

- Policy 3.1.4: Aggressively support equal opportunity practices in the sale or rental of housing without regard to race, ethnicity, religion, disability, sexual orientation, age, gender, and family status, and develop specific programs to maximize these opportunities.

- Policy 3.1.6: Take an active role in broadening the accessibility and availability of housing to all City residents, with particular attention to the special needs of the homeless, very low, and low income households, disability, elderly, large households, families with children, single parent households, and persons living with AIDS.

- Policy 4.1.1: Continue to facilitate the development of multiple-bedroom dwelling units for larger families.

- Policy 4.1.3: Utilize mixed use as an implementation tool to produce more affordable housing.

The Land Use, Urban Form and Neighborhood Design, Open Space and Conservation, and Transportation Chapters also contain policies which pertain to the Project. These objectives and policies are described in Section IV.G, Land Use; Section IV.K, Transportation and Circulation; and Section IV.L.(4), Public Services (Parks and Recreational Facilities), of this EIR.

2.1.2.2 Community Plans

As part of the City of Los Angeles General Plan, the Community Plans are intended to provide an official guide for future development and propose approximate locations and dimensions for land use. One of the 35 Community Plan areas which comprise the City of Los Angeles is applicable to the Project site. Specifically, the Westchester-Playa del Rey Community Plan includes the Proposed Project site.[341] The Westchester-Playa del Rey Community Plan was adopted March 20, 1974, and amended March 27, 1991. The Plan provides standards and criteria for the development of housing and commercial and industrial uses, as well as circulation and service systems. The current Plan was designed to accommodate the anticipated growth in population and employment to the year 2000 and designates the appropriate land use patterns and densities to accommodate such growth. The City is currently in the process of updating this Plan under the Community Plan Updates (CPU) program. One objective of the current Community Plan is "to make provisions for housing of such types, sizes, and densities as is required to satisfy the varying needs and desires of persons of all income

[341] *A Community Plan in the City of Los Angeles is titled "District Plan" when the plan area contains two or more communities.*

levels, maximizing the opportunity for individual choice within the constraints imposed by land availability, land and development costs, and population growth."

2.1.2.3 Specific Plans

The Proposed Project site is located within the boundaries of the Playa Vista Area D Specific Plan. This Specific Plan was developed and received final approval in November 1985, concurrent with annexation of the site containing the Proposed Project into the City of Los Angeles. The intent of the Specific Plan for Area D (Ordinance No. 170,785, amended in 1996) is to provide, together with the regulations set forth in the Zoning Code, regulatory controls and incentives for the systematic execution of the portion of the Westchester-Playa del Rey Community Plan which includes the Project site. Incorporated into the City's Zoning Ordinance, the Specific Plan specifies permitted uses, density, and floor area, as well as design standards, landscaping standards, and parking requirements. The Specific Plan identifies a total (not to exceed) number of dwelling units allowed in the Specific Plan Area. The Specific Plan currently permits a maximum of 3,246 residential units. No affordable housing is required under the Specific Plan.

2.2 Existing Conditions

A comparison of the local and regional context is appropriate in this section to afford an understanding of the relationships between the Local, Subregional, and Regional Areas regarding population, employment, and housing. Table 91 on page 750 summarizes the existing population, employment, and housing for the Local, Subregional and Regional Areas in 2002. This subsection is further divided into discussions of population, employment, and housing. Within each of these discussions, the existing conditions on-site and for the Local, Subregional and Regional Areas are described. The Local Area is estimated to have a 2002 population (based on a straight line interpolation of Census 2000 and SCAG 2005 data) of 54,851 (see Table 91). There is an estimated total of 23,333 housing units in 2002. The total employment in the Local Area in 2002 is estimated to be 62,083.

The Subregional Area consists of the City of Los Angeles Subregion, as defined by SCAG. The Regional Area consists of the City of Los Angeles, West Side Cities, and South Bay subregions, as defined by SCAG. The West Side Cities and South Bay subregions (north, east and south of the Project site) are included as part of the Regional Area, since they will likely have a relationship with future populations on-site (i.e., jobs, housing, shopping, entertainment, etc.).

The total 2002 population in the Subregional Area is estimated to be 3,919,008, the total housing units is estimated to be 1,358,975, and the total number of jobs is estimated to be 1,811,464. The total 2002 population in the Regional Area is estimated to be 5,047,007, the total

Table 91

TOTAL ESTIMATED 2002 POPULATION, HOUSING, AND EMPLOYMENT
(On- and Off-Site)

	Total Population	Total Housing Units [a]	Total Jobs
On-Site:	0	0	0
Off-Site:			
Local Area [b]			
Westchester-Playa del Rey Community Plan Area	54,851	23,333	62,083
Regional Area [c]			
City of Los Angeles Subregion	3,919,008	1,358,975	1,811,464
West Side Cities Subregion	242,250	121,515	239,748
South Bay Cities Subregion	885,749	309,423	443,285
Total Regional Area [d]	**5,047,007**	**1,789,913**	**2,494,497**

[a] *SCAG's growth forecasts reflect the number of households present within an area rather than the number of housing units. The forecast of vacant housing units was calculated by dividing the household forecast by the occupancy rate for each SCAG subregion based on 2000 Census data. This calculation yielded a vacancy rate for the various geographic areas which ranged from 3.7% for the South Bay Cities Subregion to 5.7% for the West Side Cities Subregion. The calculated average vacancy rate for the City of Los Angeles Subregion is 4.6%. The average vacancy rate for the Westchester-Playa del Rey Community Plan Area is calculated to be 3.6% based on data generated by the City of Los Angeles. Refer to Table 98 on page 758 for additional information regarding the calculated vacancy rates for each of the geographic areas shown in this Table.*

[b] *Total population and housing estimates are based on a linear interpolation of 2000 Census and 2005 SCAG RTP projections. Total employment estimates are based on a linear interpolation of SCAG RTP projections for 2000 and 2005.*

[c] *Total population, housing, and employment estimates are based on a linear interpolation of SCAG RTP Projections for 2000 and 2005.*

[d] *The Regional Area consists of the following three SCAG subregions: (1) City of Los Angeles; (2) West Side Cities; and (3) South Bay Cities.*

Source: Census 2000, SCAG RTP Projections, July 2001, and PCR Services Corporation, July 2003.

housing units is estimated to be 1,789,913, and the total number of jobs is estimated to be 2,494,497.

2.2.1 Population

2.2.1.1 On-Site

There are no existing residential uses within the Proposed Project site and, therefore, no permanent population on-site. As the existing buildings on the Proposed Project site are currently not in use, no daytime residential population is currently located on-site.

2.2.1.2 Off-Site

According to SCAG and shown on Table 91 on page 750, the Local Area had a residential population of approximately 54,851 persons in 2002, while the Subregional and Regional Areas had an estimated population of 3.9 million and 5.0 million, respectively. The characteristics of the population currently residing in the Local, Subregional, and Regional Areas are described below, as well as the breakdown of population within the labor force.

Population Characteristics

The following provides a discussion of the characteristics of the off-site population within the Local, Subregional and Regional Areas. This discussion is based on 2000 U.S. Census data. This data set reflects the most recent data available for the population characteristics analyzed herein. They include a breakdown of population by ethnicity, age, and education.

Ethnic Profile. As shown in Table 92 on page 752, the ethnic composition of the Westchester-Playa del Rey Community Plan Area (Local Area) was 57.1% White, and 14.42% African-American, with the remaining population comprised of 15.2% Hispanic and Latino, 9.11% Asian, Hawaiian and Pacific Islander, 0.19% American Indian and Alaskan Native, and 3.97% Other.

The ethnic profile of the Regional Area (in total) was 32.4% White (substantially less than the Local Area), 12.33% African-American, 41.63% Hispanic and Latino, 10.63% Asian, Hawaiian and Pacific Islander, 0.24% American Indian and Alaskan Native, and 2.69% Other. In comparison, there are widely differing ethnic compositions within the three subregional areas. The Los Angeles City Subregion had the largest geographic area with the greatest proportion (46.41%) of Hispanic and Latino residents of any of the local or subregional areas.

The ethnic composition of the Los Angeles City Subregion was 30.03% White, 10.79% African-American, 46.41% Hispanic and Latino, 9.94% Asian, Hawaiian and Pacific Islander, 0.24% American Indian and Alaskan Native, and 2.59% Other. The ethnic composition of the South Bay Cities Subregion was 33.22% White, 19.35% African-American, 29.68% Hispanic and Latino, 14.62% Asian, Hawaiian and Pacific Islander, 0.24% American Indian and Alaskan Native, and 2.89% Other. The ethnic composition of the West Side Cities Subregion was 65.66% White, 10.92% African-American, 7.05% Asian, Hawaiian and Pacific Islander, 0.21% American Indian and Alaskan Native, and 3.53% Other. A total of 12.63% of the residents of the West Side Cities Subregion were Hispanic (representing the smallest proportion of any subregional area and substantially less than the region as a whole).

Table 92

2000 POPULATION ETHNIC PROFILE
LOCAL AND REGIONAL

	Percent of Total Population						
		Not Hispanic/Latino					
	Hispanic/ Latino	White	African American	American Indian and Alaskan Native	Asian/ Hawaiian/ Pacific Islander	Other Minority [a]	Total Minority
Westchester-Playa del Rey Community Plan Area (Local Area)	15.20	57.10	14.42	0.19	9.11	3.97	42.90
City of Los Angeles Subregion	46.41	30.03	10.79	0.24	9.94	2.59	69.97
West Side Cities Subregion	12.63	65.66	10.92	0.21	7.05	3.53	34.34
South Bay Cities Subregion	29.68	33.22	19.35	0.24	14.62	2.89	66.78
Regional Area Total [b]	**41.63**	**32.48**	**12.33**	**0.24**	**10.63**	**2.69**	**67.52**

[a] *The "Other" category includes two or more races and Others.*
[b] *The Regional Area consists of the following three SCAG subregions: (1) City of Los Angeles; (2) West Side Cities; and (3) South Bay Cities.*

Source: PCR Services Corporation based on the 2000 Census, July 2003.

Age Distribution. The average median age of residents in the Local Area was 35.6 years in 2000. A total of 16.2% of the population was 14 years of age and under, 72.2% were 15 to 64 years of age, and 11.6% were 65 years and over. This information is presented in Table 93 on page 753.[342]

The median age for the Regional Area was 27.2. The three individual subregions varied from these totals. The median age (24.3) of the City of Los Angeles Subregion was lower than the overall Regional Area. The median age (40.3 years) of the West Side Cities Subregion was considerably higher than the overall Regional Area. Finally, the South Bay Cities Subregion had a median age of 34.7 (higher than the overall Regional Area).

Education. The Local Area in 2000 had the following educational profile: graduate school – 15.0%; college graduate – 33.7%, some college – 29.5%; high school graduate – 13.8%, and less than high school education – 8.0% (as shown in Table 94 on page 753).

The Regional Area had a lower level of educational attainment in 2000 than the Local Area as shown in Table 94 on page 753. A total of 31.1% of the Regional Area population had a

[342] *The Census provides median age per census tact; therefore, to find a median for an entire geographic area consisting of many census tracts (i.e., Local Area, Regional Area), an average median age was calculated.*

Table 93

2000 AGE DISTRIBUTION
LOCAL AND REGIONAL

	Average Median Age	Percent of Total Population		
		14 & Under	15-64	65 & Over
Westchester-Playa del Rey Community Plan Area (Local Area)	35.6	16.2	72.2	11.6
City of Los Angeles Subregion	24.3	22.9	67.8	9.3
West Side Cities Subregion	40.3	12.9	71.3	15.8
South Bay Cities Subregion	34.7	23.1	66.6	10.3
Regional Area Total [a]	**27.2**	**22.4**	**67.7**	**9.9**

[a] *The Regional Area consists of the following three SCAG subregions: (1) City of Los Angeles; (2) West Side Cities; and (3) South Bay Cities.*

Source: PCR Services Corporation based on the 2000 Census, November 2002.

Table 94

2000 POPULATION – EDUCATIONAL PROFILE
LOCAL AND REGIONAL

	Percent of Total Population [a]				
	Less than High School Graduate	High School Graduate	Some College	College Graduate [b]	Graduate-Level Education
Westchester-Playa del Rey Community Plan Area (Local Area)	8.0	13.8	29.5	33.7	15.0
City of Los Angeles Subregion	33.0	18.1	20.1	20.7	8.2
West Side Cities Subregion	10.0	13.8	21.2	35.4	19.7
South Bay Cities Subregion	22.3	19.9	23.4	24.9	9.5
Regional Area Total [c]	**30.0**	**18.2**	**20.7**	**22.1**	**9.0**

[a] *The total population within each of the geographic areas included in this calculation is made up of persons that have completed their educations.*

[b] *The Census defines a College Graduate as having received an Associate and/or a Bachelor Degree.*

[c] *The Regional Area consists of the following three SCAG subregions: (1) City of Los Angeles; (2) West Side Cities; and (3) South Bay Cities.*

Source: PCR Services Corporation based on the 2000 Census, July 2003.

college degree or above, compared to 48.7% for the Local Area. The West Side Cities Subregion had the highest level of educational achievement in the regional area.

2.2.2 Employment

2.2.2.1 On-Site

Two structures which were formerly used by the McDonnell Douglas Helicopter Company and Hughes Aircraft Company currently exist on the Project site. As these structures are currently not in use, no permanent jobs are associated with these structures and no permanent jobs currently exist on-site. However, these structures are occupied intermittently by entertainment companies for production purposes (i.e., movie production) and thus temporary employment occurs within these remaining facilities on the Project site. In addition, stormwater detention, stockpiling, and several construction trailers which house construction management staff associated with the adjacent Playa Vista First Phase project are located on the Project site.

2.2.2.2 Off-Site

The following profile of job distribution by industry sector for the Local, Subregional and Regional Areas in 2000 is based on 2000 Census data. This represents the most recent data available for this particular employment characteristic. The following sectors were analyzed: Agriculture; Mining; Construction; Manufacturing; Utilities; Wholesale Trade; Retail Trade; Finance, Insurance, and Real Estate (FIRE); Services; and Government. As shown in Table 95 on page 755, the major employment sectors within the Local Area were Services (30.8%); Finance, Insurance and Real Estate – FIRE (17.7%), Manufacturing (16.5%), and Retail Trade (15.4%).

As shown in Table 95 on page 755, the Regional Area had a similar breakdown in job categories as the Local Area as a whole. In total, the jobs located in the Regional Area as a whole included the following: 23.7% in Services, 23.6% in Manufacturing, 18.2% in Retail Trade, 13.0% in FIRE, and 8.7% in Construction (with the remaining proportion in other categories). The employment distribution in the City of Los Angeles Subregion was similar to the Regional Area as a whole. The West Side Cities Subregion had a higher proportion of jobs in Services and FIRE and a much lower percentage of jobs in manufacturing. The South Bay Cities Subregion had a lower percentage of its jobs in Services, and a higher percentage in Manufacturing.

Table 95

2000 EMPLOYMENT PROFILE [a]
LOCAL AND REGIONAL AREAS

	Percent of Total Employment									
	Agriculture	**Mining**	**Con-struction**	**Manu-facturing**	**Utilities**	**Wholesale Trade**	**Retail Trade**	**FIRE [b]**	**Services**	**Govern-ment**
Westchester-Playa del Rey Community Plan Area (Local Area)	0.2	0.3	6.5	16.5	0.8	5.4	15.4	17.7	30.8	6.4
City of Los Angeles Subregion	0.3	0.1	9.3	23.5	0.6	7.2	18.5	12.9	23.5	4.1
West Side Cities Subregion	0.2	0.1	5.7	11.4	0.5	6.3	17.2	17.4	36.1	5.1
South Bay Cities Subregion	0.3	0.2	6.9	27.1	0.9	7.5	17.4	11.7	21.1	6.9
Regional Area Total [c]	**0.3**	**0.1**	**8.7**	**23.6**	**0.6**	**7.2**	**18.2**	**13.0**	**23.7**	**4.6**

[a] *A region's economy is comprised of nine standard industrial categories (i.e., agriculture, mining, construction, manufacturing, transportation and public utilities, retail and wholesale trade, finance/insurance and real estate, services, and government). Its "economic base" is comprised of those industries whose goods and services can be exported for consumption outside the region or consumed within the region by those with funds originating from outside the region (e.g., tourist dollars). These are the industries which bring external dollars into the regional economy, as distinguished from those which recirculate dollars within the economy (e.g., construction, finance, insurance, government). Growth in the industries that make up a region's economic base, as distinguished from growth in all industries, is particularly central to employment and income growth. This is the most current data available.*

[b] *Finance/Insurance and Real Estate.*

[c] *The Regional Area consists of the following three SCAG subregions: (1) City of Los Angeles; (2) West Side Cities; and (3) South Bay Cities.*

Source: PCR Services Corporation based on 2000 Census, July 2003

2.2.3 Housing

2.2.3.1 On-Site

There are no existing residential uses within the Proposed Project site and, therefore, no existing housing units or households are present.

2.2.3.2 Off-Site

The Local Area, as shown in Table 96 on page 757, had a forecasted total of 23,333 total housing units in 2002, while the Regional Area had an estimated 1.79 million units.[343] Furthermore, the Local Area included a forecasted total of 22,533 households in 2002, as shown in Table 97 on page 757 while the Regional Area included an estimated 1.71 million total households. The following discussion provides a breakdown of the housing stock by character (type of unit, ownership/availability, and cost) and a discussion of household profile (size, income, housing cost burden). The analysis is divided by Local, Subregional and Regional Areas.

Housing Characteristics

Types of Housing Units. The 2000 Census, the most current data for this type of housing characteristic, identifies the number of housing units, which are single-family and multi-family.[344] As shown in Table 96 on page 757, the Local Area's housing stock was 55% multi-family and 45% single-family.

The Regional Area's housing stock consisted of 57.4% multi-family units and 42.6% single-family units. The South Bay Cities Subregion was the only subregion where the majority of units were single-family 53.2%, with the remaining 46.8% consisting of multi-family units. The City of Los Angeles Subregion and the West Side Cities Subregion had higher percentages of multi-family units than the Regional Area as a whole.

Ownership/Availability. The 2000 Census identifies the number of housing units which are currently owner-occupied or rented. As shown on Table 98 on page 758, the Local Area had a total of 50.7% owner-occupied units and 49.3% were rented. The vacancy rate within the Local Area was 3.6%.

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[343] *Based on 2001 SCAG RTP projections.*

[344] *Multi-family housing includes all attached housing units with one or more units. Single-family housing includes all detached units, including mobile homes and other units.*

Table 96

HOUSING STOCK – HOUSING TYPES
LOCAL AND REGIONAL AREAS
Percent of 2000 Total Housing Stock

	Single Family [a]	Multi-Family [b]	Total Forecasted 2002 Units [c]
Westchester-Playa del Rey Community Plan Area (Local Area)	44.6	55.4	23,333 [d]
City of Los Angeles Subregion	41.1	58.9	1,358,975 [e]
West Side Cities Subregion	28.8	71.2	121,515 [e]
South Bay Cities Subregion	53.2	46.8	309,423 [e]
Regional Area Total [f]	**42.6**	**57.4**	1,789,913 [e]

[a] *Single-family units consisted of single-family detached, mobile homes, and other units.*
[b] *Multi-family units consisted of single-family attached and multi-family units.*
[c] *Forecast of 2002 conditions.*
[d] *2002 forecast based on a linear interpolation of 2000 Census and 2005 SCAG forecast.*
[e] *2002 forecast based on a linear interpolation of 2000 and 2005 SCAG forecasts.*
[f] *The Regional Area consists of the following three SCAG subregions: (1) City of Los Angeles; (2) West Side Cities; and (3) South Bay Cities.*

Source: PCR Services Corporation based on the 2000 Census and SCAG 2001 RTP projections, November 2002.

Table 97

TOTAL HOUSEHOLDS AND HOUSEHOLD SIZE
LOCAL AND REGIONAL AREAS

			Percent of Total Households with Number of Persons [d]			
	Total Households [a]	Average Size [a]	1	2	3	4+
Westchester-Playa del Rey Community Plan Area (Local Area)	22,533 [b]	2.36 [b]	30.7	35.2	16.2	17.9
City of Los Angeles Subregion	1,296,463 [c]	3.02 [c]	28.1	26.8	15.0	30.1
West Side Cities Subregion	114,589 [c]	2.11 [c]	47.2	31.2	10.8	11.8
South Bay Cities Subregion	297,974 [c]	2.97 [c]	24.6	29.1	16.8	29.5
Regional Area Total [e]	1,709,026 [c]	**2.95 [c]**	**28.9**	**27.5**	**15.0**	**28.6**

[a] *Forecast of 2002 conditions.*
[b] *2002 forecast based on a linear interpolation of 2000 Census and 2005 SCAG forecast.*
[c] *2002 forecast based on a linear interpolation of 2000 and 2005 SCAG forecasts.*
[d] *Based on 2000 Census data.*
[e] *The Regional Area consists of the following three SCAG subregions: (1) City of Los Angeles; (2) West Side Cities; and (3) South Bay Cities.*

Source: PCR Services Corporation based on 2000 Census, and SCAG 2001 RTP projections, July 2003.

Table 98

HOUSING STOCK – OCCUPANCY PROFILE
LOCAL AND REGIONAL

	Percent of Total Housing Stock [a]				
	Housing Tenure		Occupancy Status		Total Forecasted 2002
	Owner	Renter	Occupied	Vacant	Housing Units [b]
On-Site:					0
Off-Site:					
Westchester-Playa del Rey Community Plan Area (Local Area)	50.7	49.3	96.4	3.6	23,333
City of Los Angeles Subregion	39.3	60.7	95.4	4.6	1,358,975
West Side Cities Subregion	38.7	61.3	94.3	5.7	121,515
South Bay Cities Subregion	52.4	47.6	93.7	3.7	309,423
Regional Area Total [c]	**41.6**	**58.4**	**94.5**	**4.5**	**1,789,913**

[a] *Based on 2000 Census data. This is the most current data available.*
[b] *Based on 2001 SCAG RTP projections.*
[c] *The Regional Area consists of the following three SCAG subregions: (1) City of Los Angeles; (2) West Side Cities; and (3) South Bay Cities.*

Source: PCR Services Corporation based on the 2000 Census and SCAG RTP projections, July 2003.

In 2000, the Regional Area had a total of 58.4% rental units and 41.6% owner-occupied units. The Regional Area had a 4.5% vacancy rate in 2000. The Los Angeles City Subregion had 60.7% of the housing units renter-occupied, and 39.3% were owner-occupied. The 2000 vacancy rate for this subregion was 4.6%. The South Bay Cities Subregion had 47.6% of the housing units renter-occupied and 52.4% owner-occupied. This subregion had a vacancy rate of 3.7% in 2000. Within the West Side Cities Subregion, a total of 61.3% of the units were rented and 38.7% were owner-occupied. This subregion had a 5.7% vacancy rate in 2000.

Housing Cost. The Local, Subregional and Regional Areas offer a variety of housing opportunities for all economic levels. A summary of median housing costs is presented in Table 99 on page 759. According to the 2000 Census, the median housing ownership value for the census tracts comprising the Local Area was $369,504 while the median rent was $905 per month.

By comparison, the median ownership value for the Regional Area was $265,710 and the median rent was $718 per month. Median ownership and rents were lowest in the Los Angeles City Subregion, at $215,600 and $672 per month, respectively. The West Side Cities Subregion had the highest median housing value, $539,944 and a median rent of $1,053 per month. Finally, the South Bay Cities Subregion had rental costs of $786 per month, and a median housing value of $333,719.

Table 99

2000 MEDIAN HOUSING COST AND HOUSEHOLD INCOME
LOCAL AND REGIONAL AREAS

	Median Household Cost ($)			
	Owner (price/unit)	**Renter (price/unit)**	**Median Household Annual Income ($)**	**Annual Income Comparison to Regional Area Median ($)**
Westchester-Playa del Rey Community Plan Area (Local Area)	$369,504	$905	$63,709	+19,309
City of Los Angeles Subregion	$215,600	$672	$36,687	-7,713
West Side Cities Subregion	$539,944	$1,053	$61,525	+17,125
South Bay Cities Subregion	$333,719	$786	$56,355	+11,955
Regional Area [a]	**$265,710**	**$718**	**$44,400**	

[a] *The Regional Area consists of the following three SCAG subregional: (1) City of Los Angeles; (2) West Side Cities; and (3) South Bay Cities.*

Source: PCR Services Corporation based on the 2000 Census, July 2003.

Household Characteristics

Average Household Size. As shown on Table 97 on page 757, the average household size for the Local Area in 2002 was 2.36 persons. The Regional Area had an average household size of 2.95 persons per household in 2002. The City of Los Angeles Subregion had an average of 3.02 persons per household, the West Side Cities Subregion had an average of 2.11 persons per household, and the South Bay Cities Subregion had a 2.97 person average. Table 97 also shows the proportion of households in each of these geographic areas with one, two, three, and four or more persons based on 2000 Census data.

Income. The median household income for the Local Area, according to the 2000 Census, was $63,709, as shown in Table 99 above. The Regional Area had a median household income of $44,400. The West Side Cities Subregion had the highest median household income in the Regional Area, but lower than that found in the Local Area. The West Side Cities Subregion's median household income was $61,525, or $17,125 higher than the Regional Area average.

Housing Cost Burden. Housing cost burden refers to the percent of a household's income that is used to pay for housing. The Census Bureau terms "overpayment" as the condition when a household's housing payment/rent exceeds 30.0% of its income. Table 100 on page 760 shows the housing cost burden for the Local, Subregional and Regional Areas in 2000, the most recent data available for this household characteristic. The Local Area had a housing cost burden of 25.1% for both renters and owners (i.e., on average 25.1% of a household's

Table 100

2000 AVERAGE MEDIAN HOUSING COST BURDEN
LOCAL AND REGIONAL AREAS

	Percent of Income Spent on Rent [a]	Percent of Income Spent on Mortgage [a]
Westchester-Playa del Rey Community Plan Area (Local Area)	25.1	25.1
City of Los Angeles Subregion	29.1	27.7
West Side Cities Subregion	25.9	26.6
South Bay Cities Subregion	27.0	26.3
Regional Area [b]	**28.5**	**27.3**

[a] *These percents represent an average median percentage and only include those census tracts that maintained households paying either rent or a mortgage in 2000.*

[b] *The Regional Area consists of the following three SCAG subregions: (1) City of Los Angeles; (2) West Side Cities; and (3) South Bay Cities.*

Source: PCR Services Corporation based on the 2000 Census, July 2003.

income was used for paying the rent or mortgage).[345] The Regional Area had a higher housing cost burden, with an average of 28.5% in 2000 for renters and 27.3% for owners. The Los Angeles City Subregion had the highest cost burden of any of the subregional areas 29.1% for renters and 27.7% for owners. The West Side Cities Subregion had a 25.9% burden for renters and a 26.6% burden for owners. The South Bay Cities Subregion had an average of 27.0% for renters and 26.3% for owners.

2.3 Projections and Trends

The 2001 Regional Transportation Plan (RTP) provides data on projected population, housing, and employment at various geographical levels within the SCAG Region. The 2001 RTP contains policies to guide future regional decisions. The following discussion provides an overview of the projections and trends anticipated for the population, employment, and housing in relation to the Proposed Project. SCAG has incorporated the Project's forecasted population, housing, and employment levels into its RTP Projections to be discussed herein.

2.3.1 Population

According to SCAG's regional forecast, population will increase in all geographic zones, during the eight-year period of 2002 to 2010. In percentage terms, the growth rate within the Local Area increases by approximately 3.2% per year between 2002 and 2005, with this growth

[345] *These percents represent an average median percentage and only include those census tracts that maintained households paying either rent or a mortgage in 2000.*

rate decreasing to approximately 1.3% per year between 2005 and 2010. The population in the City of Los Angeles Subregional Area is forecasted to increase at a rate of 0.9% per year over the 2002 to 2005 time period. Within the Regional Area, the annual growth rate during the 2002 to 2005 period is slightly greater than the growth rate forecasted during the 2005 to 2010 period (0.9% vs. 0.6% per year).

In comparison, Regional Area population is expected to increase at a much lower rate than the Local Area, (16.8% vs. 6.0%) between 2002 and 2010, as also shown in Table 101 on page 762. The projected 2010 population for the Regional Area as a whole is 5,348,462 people. The Los Angeles City Subregion represents the greatest proportion of that growth and is expected to increase by 6.9%, to result in a population total in 2010 of 4,188,643. The West Side Cities Subregion is expected to grow at a 3.2% rate between 2002 and 2010, resulting in a 2010 population of 250,000 while the South Bay Cities Subregion is expected to grow by 2.7% to a total of 909,819 people in 2010.

2.3.2 Employment

During the early 1990s, California, and the Southern California region in particular, suffered through one of the most severe regional economic recessions in the State's history. According to State data, Los Angeles County lost an estimated 371,000 non-agricultural wage and salary jobs and approximately 244,000 civilian jobs between 1990 and 1995 (decreases of approximately 9.0% and 6.0% respectively, from 1990 employment levels). Comparable wage and salary job data are not available for the City of Los Angeles, but the City did lose about 83,000 civilian jobs among its resident population between 1990 and 1995.

The job loss in the City of Los Angeles during this period accounted for about one-third (34.0%) of the job loss in the County. This job loss resulted from several trends affecting the region, including: changes in world markets; the downturn in aerospace and related manufacturing jobs, which were associated with changes in national defense priorities and reductions in orders for civilian aircraft; a significant downturn in construction; an unusual slowdown in spending relative to income, which caused a corresponding decline in retail sales; corporate restructuring in general; an unprecedented string of natural disasters (e.g., earthquakes, fires, and floods) and civil disturbances; and fiscal limitations. Although the national economy came out of the recession in 1993, the California economy, and particularly the Southern California economy, lagged behind the national recovery until the mid-1990s. The Southern California region finally closed the "job growth gap" with the rest of the United States in early 1996. The regional job growth rate has shown a fairly sharp slowdown since the beginning of

Table 101

POPULATION PROJECTIONS
2002-2010

Geographic Zone	Total Population			Population Growth					
	Current 2002	Projected 2005	Projected 2010	2002-2005		2005-2010		2002-2010	
				Growth	Percentage	Growth	Percentage	Growth	Percentage
Westchester-Playa del Rey Community Plan Area (Local Area)	54,851 [b]	60,069	64,055	5,218	+9.5%	3,986	+6.6%	9,204	+16.8%
Los Angeles City Subregion	3,919,008 [c]	4,030,132	4,188,643	111,124	+2.8%	158,511	+3.9%	269,635	+6.9%
West Side Cities Subregion	242,250 [c]	247,727	250,000	5,477	+2.3%	2,273	+0.9%	7,750	+3.2%
South Bay Cities Subregion	885,749 [c]	905,534	909,819	19,785	+2.2%	4,285	+0.5%	24,070	+2.7%
Regional Area Total [a]	5,047,007	5,183,393	5,348,462	136,386	+2.7%	165,069	+3.2%	301,455	+6.0%

[a] *The Regional Area consists of the following three SCAG subregions: (1) City of Los Angeles; (2) West Side Cities; and (3) South Bay Cities.*
[b] *2002 forecast based on a linear interpolation of 2000 Census and 2005 SCAG forecast*
[c] *2002 forecast based on a linear interpolation of 2000 and 2005 SCAG forecasts.*

Source: PCR Services Corporation based on the SCAG RTP Projections July 2001, July 2003.

1997, while the U.S. as a whole experienced steady employment growth ranging between 2.1% and 2.5% throughout 1997.[346]

Structural changes in the region's economy – particularly the composition of its economic base,[347] coupled with forecasted changes in the region's future labor force – led SCAG to conclude the region may continue to experience rates of unemployment that exceed the national average. While the monthly gap between the region's unemployment rate and that recorded at the national level has continued to narrow – averaging 1.75 percentage points during the first 11 months of 1997 versus 2.1% in 1996 – it remains substantial compared to the region's historical (pre-recession) performance.[348] This higher unemployment rate in Southern California represents a fundamental change from the 1980s, when the six-county SCAG region's unemployment rate was typically well below that for the nation. Since Los Angeles County (and by extension, the City) makes up a substantial share of regional employment, these regional trends are likely to be even more pronounced in the City and County of Los Angeles.

Unemployment Trends. In April of 1998 the unemployment rate in Los Angeles County was 6.1% and the rate for Los Angeles City was 7.0%. By the year 2000, the unemployment rate for the City had dropped over 10 percent to 6.10% and the County's unemployment rate was 5.36%. This showed a substantial change and an overall improvement in the Los Angeles job market. Some of those improvements were lost however in 2001 as the City of Los Angeles saw the unemployment rate rise again to 6.46%, while the County's rate rose to 5.68%. In a further reversal of the gains in the job market of 2000, as of March 2002 the unemployment rate in the City leaped to 7.39% and 6.51% in the County. This is nearly a 10% increase in both the City and County. This indicates that there is currently a surplus of workers who are available in the City and County to accept new job opportunities associated with new development projects.[349] The RCPG anticipates that this trend will continue into the future. By 2010, SCAG predicts a 6% to 7% gap between the region's labor force and number of jobs. Further, the RCPG estimates that the region's "unemployment rate in 2010 would still be about one percentage point higher than the national average forecast by the U.S. Bureau of Labor Statistics."

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[346] *Southern California Association of Governments, Regional Economic Trends, January 1998, page 9.*

[347] *A region's economy is comprised of nine standard industrial categories (i.e., agriculture, mining, construction, manufacturing, transportation and public utilities, retail and wholesale trade, finance/insurance and real estate, services, and government). Its "economic base" is comprised of those industries whose goods and services can be exported for consumption outside the region or consumed within the region by those with funds originating from outside the region (e.g., tourist dollars). These are the industries which bring external dollars into the regional economy, as distinguished from those which recirculate dollars within the economy (e.g., construction, finance, insurance, government). Growth in the industries that make up a region's economic base, as distinguished from growth in all industries, is particularly central to employment and income growth.*

[348] *Southern California Association of Governments, Regional Economic Trends, January 1998, page 10.*

Employment Trends. In 2000, according to Census data, which is the most recent data available, jobs in the services, trade (retail and wholesale), and manufacturing sectors together accounted for over 80% of regional employment. Finance, insurance and real estate accounted for the next largest share (7.4%). Between 1990 and 2000, the only sectors of the region's economic base that expanded on a proportional basis were professional services (+37%) and government (+12%). All other employment sectors experienced reductions in their proportionate share of the region's employment base ranging from a 6% reduction in proportional employment in the finance, insurance and real estate sector to a 63% reduction in the agricultural sector.

At the regional level, SCAG forecasts that the services, trade, and government sectors will account for over three-quarters (+78.8%) of all job growth between 1990 and 2010. Among the industries that make up the region's economic base, the leaders in job growth will be professional services (+68.0%), tourism/entertainment (+67.0%), and transportation/wholesale trade (+46.2%).[350] Although the sectoral forecasts are not readily available at the City and County level, the fact that the City and County of Los Angeles dominate the regional economy suggests that the trends described above will also be experienced in these areas of the SCAG region.

Within the Local Area, employment is projected to increase by 16.8% to result in a total of 72,501 jobs by 2010 (as shown in Table 102 on page 765). By comparison, the Regional Area's employment is anticipated to grow at a slower rate than the Local Area. The Regional Area's growth is anticipated to be 6.3% and result in a total employment by 2010 of 2,651,649 jobs. The City of Los Angeles Subregion will have a slightly lower growth rate than anticipated for the Regional Area, totaling 1,924,644 jobs in 2010 (or a 6.2% growth). The West Side Cities Subregion is also expected to experience a reduced growth rate (5.6%) as compared to the Regional Area. The South Bay Cities are projected to have a slightly faster (6.9%) growth rate than either the City of Los Angeles or South Bay Cities Subregion. In 2010, these subregions are projected to have a total employment base of 253,165 and 473,840 jobs in the West Side Cities and South Bay Cities Subregions, respectively.

2.3.3 Housing

Over the eight years from 2002-2010, the rate of housing growth in the Local Area is expected to be 12.7% by 2010, resulting in a total of 26,302 housing units (as shown in

[349] *Unemployment data obtained from the California Employment Development Department.*

[350] *Southern California Association of Governments, Regional Comprehensive Plan and Guide, May 1995, page 2-34, Table II-30, at page II-362.*

Table 102

EMPLOYMENT PROJECTIONS
2002-2010

Geographic Zone	Total Employment			Employment Growth					
	Current 2002	Projected 2005	Projected 2010	2002-2005		2005-2010		2002-2010	
				Growth	Percentage	Growth	Percentage	Growth	Percentage
Westchester-Playa del Rey Community Plan Area (Local Area)	62,083 [b]	65,990	72,501	3,907	+6.3%	6,511	+9.9%	10,418	+16.8%
Los Angeles City Subregion	1,811,464 [c]	1,855,430	1,924,644	43,966	+2.4%	69,214	+3.7%	113,180	+6.2%
West Side Cities Subregion	239,748 [c]	244,973	253,165	5,225	+2.2%	8,192	+3.3%	13,417	+5.6%
South Bay Cities Subregion	443,285 [c]	455,117	473,840	11,832	+2.7%	18,723	+4.1%	30,555	+6.9%
Regional Area Total [a]	2,494,497	2,555,520	2,651,649	61,023	+2.4%	96,129	+3.8%	157,152	+6.3%

[a] *The Regional Area consists of the following three SCAG subregions: (1) City of Los Angeles; (2) West Side Cities; and (3) South Bay Cities.*
[b] *2002 forecast based on a linear interpolation of 2000 Census and 2005 SCAG forecast.*
[c] *2002 forecast based on a linear interpolation of 2000 and 2005 SCAG forecasts.*

Source: PCR Services Corporation based on the SCAG RTP Projections July 2001, July 2003.

Table 103 on page 767).[351] The Regional Area is also projected to increase its housing stock, though at a much slower rate than what is anticipated for the Local Area. By 2010, the Regional Area is expected to have a total of 1,921,756 housing units, a 7.4% increase from 2002. The City of Los Angeles Subregion is anticipated to have the greatest rate of growth of the three subregions (9.0%), resulting in a total of 1,481,735 housing units in 2010. The West Side Cities Subregion is anticipated to grow by 2.2%, resulting in total housing units of 124,204, while the housing supply within the South Bay Cities Subregion is forecasted to increase at approximately the same rate (2.1%) over the 2002 to 2010 period, resulting in a forecasted 2010 housing supply of 315,817 units.

3.0 IMPACT ANALYSIS

3.1 Methodology

The employment generated by the Proposed Project is calculated by taking the total square footage of building space proposed for development and applying the appropriate employment density factor (square feet of building space per employee) for that particular type of land use. These factors are based on a review of the literature of employment density factors and the selection of a set of factors for the average amount of gross building area per employee within broad land use categories. The following employment density factors are utilized in the analysis: office – 250 sq.ft. per employee, retail – 375 sq.ft. per employee and community-serving uses – 500 sq.ft. per employee.

Construction employment has been calculated based on construction man-hours which are based on the volume (cubic feet or acreage) of grading and on square feet of finished development, as described in the Southern California Air Quality Management District CEQA Handbook. Construction employment man-hours are summarized herein. All supporting calculations are presented in the Construction Emissions Appendix (Appendix E) of the Air Quality Technical Appendix.

[351] *SCAG forecasts the number of future households rather than housing units. This is an approximation of future dwelling units based on 2000 vacancy rates for single-family and multi-family units applied to SCAG's households (occupied housing units) forecast.*

Table 103

HOUSING UNIT PROJECTIONS [a]
2002-2010

Geographic Zone	Total Housing Units			Housing Unit Growth					
				2002-2005		2005-2010		2002-2010	
	Current 2002	Projected 2005	Projected 2010	Growth	Percentage	Growth	Percentage	Growth	Percentage
Westchester-Playa del Rey Community Plan Area (Local Area)	23,333 [b]	24,141	26,302	808	+3.5%	2,161	+9.0%	2,969	+12.7%
Los Angeles City Subregion	1,358,975 [c]	1,386,959	1,481,735	27,984	+2.1%	94,776	+6.8%	122,760	+9.0%
West Side Cities Subregion	121,515 [c]	123,119	124,204	1,604	+1.3%	1,085	+0.9%	2,689	+2.2%
South Bay Cities Subregion	309,423 [c]	311,867	315,817	2,444	+0.8%	3,950	+1.3%	6,394	+2.1%
Regional Area Total [c]	1,789,913	1,821,945	1,921,756	32,032	+1.8%	99,811	+5.5%	131,843	+7.4%

[a] *SCAG forecasts the number of future households rather than housing units. This is an approximation of future dwelling units based on 2000 occupancy rates derived from the 2000 U.S. Census. The following occupancy rates were assumed for 2005 and 2010: Westchester-Playa del Rey Community Plan Area – 96.5%, City of Los Angeles Subregion – 95.4%, West Side Cities Subregion – 94.3%, and South Bay Cities Subregion – 96.3%.*

[b] *2002 forecast based on a linear interpolation of 2000 Census and 2005 SCAG forecast.*

[c] *2002 forecast based on a linear interpolation of 2000 and 2005 SCAG forecasts.*

Source: PCR Services Corporation based on the SCAG RTP Projections July 2001, July 2003.

The population generated by the Proposed Project is calculated by multiplying the number of housing units by a forecasted average household size and assuming full occupancy of the housing units. The analysis assumes 2.20 persons per household.[352]

The population, housing, and employment growth generated by the Proposed Project is compared with SCAG-projected growth for the Westchester-Playa del Rey Community Plan area, the City of Los Angeles Subregion and the Regional Area. SCAG growth projections within another geographic area, consisting of the West Side Cities Subregion, the Cities of El Segundo and Manhattan Beach, and the City of Los Angeles District and Community Plan Areas of Westchester-Playa del Rey, Palms-Mar Vista-Del Rey, Venice, Westwood, West Los Angeles, and Brentwood-Pacific Palisades are also evaluated relative to the Proposed Project. This geography, the Related Projects Study Area, corresponds to the Project's traffic study area, whereas the Regional Area is included for analysis as it has a close geographic and socio-economic relationship with the Proposed Project site.

The jobs/housing ratio for the Project is derived by dividing the number of current or projected jobs by the number of current or projected housing units. In this analysis, a 100% occupancy is conservatively assumed, so that the number of households would be equivalent to the number of housing units. A ratio of 1.00 would indicate one job per household. The six-county SCAG region is forecasted to have a jobs/housing ratio in 2010 of 1.36.[353] For a housing-rich over, the ratio would be less than the regional average; for a jobs-rich over, the ratio would be higher than the regional average.

3.2 Significance Thresholds

The Draft Los Angeles CEQA Thresholds Guide (p. B.1-3), states that the determination of the significance of population and housing growth impacts shall be made on a case-by-case basis, considering the following factors:

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[352] *Typically, the average household size for a project is calculated based on the forecasted conditions for the area within which the project is located. However, this approach is not applicable to the Proposed Project given the substantive differences between the housing characteristics of the Project and the area immediately adjacent to the Project site. Lacking the availability of a single data source, the average household size for the Proposed Project is calculated based on an arithmetic average of the 2010 average household sizes for the three City of Los Angeles District/Community Plans in proximity of the Proposed Project site as well as the Marina del Rey area within unincorporated Los Angeles County. The 2010 average household size for each of these four areas are as follows: (1) Westchester-Playa del Rey Community Plan – 2.44 persons per household, (2) Palms-Mar Vista District Plan – 2.28 persons per household, (3) Venice Community Plan – 2.30 persons per household and (4) Marina del Rey – 1.61 persons per household. Averaged together, these four areas yield an average household size of 2.18 persons per household. This average household size estimate, in order to be conservative, has been rounded up to 2.20 persons per household. Thus, the Second Phase Project, with a total of 2,600 residential units, would yield a residential population of 5,720 persons (2,600 units x 2.20 persons per household).*

[353] *The 2010 regional jobs/housing ratio was calculated using SCAG's projections of 2010 jobs and housing units. As SCAG currently forecasts households rather than housing unites, households were converted to housing units by applying the average 2000 housing vacancy rate across the six-county SCAG region.*

- The degree to which the project would cause growth (i.e., new housing or employment generators) or accelerate development in an undeveloped area that exceeds projected/planned levels for the year of project occupancy/buildout, and that would result in an adverse physical change in the environment;

- Whether the project would introduce unplanned infrastructure that was not previously evaluated in the adopted Community Plan or General Plan; and

- The extent to which growth would occur without implementation of the project.

Based on these factors, the Proposed Project would have a significant impact on population and housing growth, if:

- The project would cause growth (i.e., new housing or employment generators) or accelerate development in an undeveloped area that exceeds projected/planned levels for the year of project occupancy/buildout.

- Housing, population, or employment growth is not compatible with local and regional adopted housing policies, including jobs/housing balance.

3.3 Project Design Features

The Proposed Project would be developed as an integrated mixed-use community on a total of 111 acres. The Project would involve the potential development of 2,600 residential units, 175,000 sq.ft. of new or replacement office, light industrial or similar uses, 150,000 sq.ft. of retail space, and 40,000 sq.ft. of community-serving space. The Proposed Project would also include an Equivalency Program to allow a limited exchange of office uses for additional retail uses and/or assisted living uses. The development summary is presented in Table 104 on page 770.

The Proposed Project at buildout, as shown in Table 104 on page 770, would have a residential population of 5,720 persons and provide employment opportunities for a total of 1,180 persons.

3.4 Project Impacts

The Draft Los Angeles CEQA Thresholds Guide identifies three factors to be used for determining the significance of a project's impact on population, housing and employment growth (see Subsection 3.2, above). The first factor has been conservatively incorporated into the analysis by establishing the significance threshold as any exceedance of projected/planned

Table 104

PROPOSED PROJECT
DEVELOPMENT SUMMARY

Population			
Total Housing Units	2,600		
Average Household Size	2.20		
Total Population [a]	5,720		
	Proposed Square Footage	**SF/Emp [b]**	**Total Employment**
Employment			
Retail	150,000	375	400
Office	175,000	250	700
Community Serving	40,000	500	80
Total	**365,000**		**1,180**

[a] *Assumes 100% occupancy.*
[b] *Based on data provided in the Institute of Transportation Engineers, Sixth Edition, 1997.*

Source: PCR Services Corporation, July 2003.

levels regardless of whether the Project would result in an adverse physical change in the environment. The second factor defines a consideration that could contribute to a project causing growth to exceed planned levels through the provision of unanticipated infrastructure. The Proposed Project is not an infrastructure Project, and its infrastructure provisions are intended to serve the Proposed Project. This factor is discussed further in Section V, Growth Inducing Impacts. The third factor is a consideration that relates to the first factor in that it suggests that if growth was projected/planned to occur without the Project, then the Project if it is consistent with the growth projections, would not cause a significant impact. Thus, the third factor has been integrated into the first factor and as such, does not need to be a separate significance threshold unto itself.

3.4.1 Resident Population

The Proposed Project is forecast to result in a projected on-site resident population increase of 5,720 at buildout, as shown in Table 104 above. This population estimate is based on applying a persons per household factor of 2.20, based on Local Area data, to the number of proposed housing units.

The significance of the population increase associated with the Proposed Project was assessed by comparing the expected population increase during the 2002-2010 period with the population growth projected for the Local Area, the SCAG subregion within which the Project is located and the Regional Area during the same period. The Proposed Project would have a

significant impact on population if the population generated by the Proposed Project exceeds SCAG's forecasted growth in the three analysis areas.

The population of the Proposed Project site is projected to increase by 5,720 during the 2002-2010 period. This represents a total of 62.1%, 2.1% and 1.9% of the total population growth projected by SCAG for the Local Area, the City of Los Angeles subregion and the Regional Area during the same time period, respectively. This growth can be accommodated within the projected SCAG growth for these three geographic areas. As a result, the population impacts of the Proposed Project would not cause population growth or accelerate development in an undeveloped area that exceeds projected/planned levels for the year of Project occupancy/buildout. As such, a less-than-significant impact would occur.

The Project's population change in relation to the three analysis areas is presented in Table 105 on page 772.

3.4.2 Employment

The Proposed Project is forecast to result in a total employment increase of 1,180. The methodology for the employment analysis is presented in Subsection 3.1 starting on page 766. New employment would result from the development of the proposed office, retail, and community-serving land uses, as shown in Table 104 on page 770. The office development is projected to result in an increase of 700 jobs which represents 59.3% of the total projected employment increase anticipated to be generated by the Project. Other employment generating activities include: retail – 400 jobs (33.9%); and community-serving activities – 80 jobs (6.8%).

The employment opportunities generated by the Project, as shown in Table 105 on page 772, would represent 1.0% and 0.8% of the SCAG employment forecast for the City of Los Angeles Subregion and the Regional Area, respectively. The Project employment would also represent 11.3% of the SCAG employment growth forecast for the Local Area.

As a result, the employment impacts of the Proposed Project would not cause employment growth or accelerate development in an undeveloped area that exceeds projected/planned levels for the year of Project occupancy/buildout. As such, a less-than-significant impact would occur.

The development of the Proposed Project is expected to generate a total of 1.7 million construction man-hours. Construction man-hours are estimated according to the volume (acreage) of grading and square feet of finished development, as described in the Southern California Air Quality Management District CEQA Handbook. Employment man-hours have been calculated for the Air Quality analysis in this EIR and are contained in the Construction Emissions Appendix (Appendix E) of the Air Quality Technical Report.

Table 105

PROPOSED PROJECT POPULATION HOUSEHOLD AND EMPLOYMENT IMPACTS

	Regional Area [a]	City of Los Angeles Subregion [a]	Local Area [a]
Housing Units 2002-2010			
Proposed Project	2,600	2,600	2,600
SCAG [a]	131,843	122,760	2,969
Percent of Growth	2.0%	2.1%	87.6%
Population 2002-2010			
Proposed Project	5,720	5,720	5,720
SCAG [a]	301,455	269,635	9,204
Percent of Growth	1.9%	2.1%	62.1%
Employment 2002-2010			
Proposed Project	1,180	1,180	1,180
SCAG [a]	157,152	113,180	10,418
Percent of Growth	0.8%	1.0%	11.3%

[a] *Growth forecasted by SCAG to occur between 2002 and 2010.*

Source: SCAG RTP Projections, July 2001. (See Table 110 on page 789, Table 111 on page 794, and Table 112 on page 794 for additional information.), July 2003.

3.4.3 Housing

The significance of the housing unit increase associated with the Proposed Project is assessed by comparing the expected housing unit increase during the 2002-2010 period with the housing unit growth projected for the three analysis areas during the same period. The Proposed Project would have a significant impact on housing if the households generated by the Proposed Project exceeds SCAG's forecasted growth for the Local Area, City of Los Angeles subregion, or the Regional Area.

The number of housing units within the Proposed Project site is projected to increase by 2,600 during the 2002-2010 period. This represents a total of 2.0%, 2.1%, and 88.9% of the total housing unit growth projected by SCAG for the Regional Area, the City of Los Angeles subregion and the Local Area during that period, respectively. As a result, the housing impacts of the Proposed Project would not cause housing growth or accelerate development in an undeveloped area that exceeds projected/planned levels for the year of Project occupancy/ buildout. As such, a less-than-significant impact would occur.

The Project's proposed residential development would be consistent with the policies of the Housing Chapter of the Citywide General Plan Framework by providing lands for residential development. The Housing Chapter states the need for residential development within the City,

caused by the fact that housing production is not keeping pace with the demand (population growth), and describes the need in the City of Los Angeles for vacant properties to be developed in order to accommodate the cumulative amount of population growth which has been forecasted.[354]

The Proposed Project would meet or exceed all of the relevant housing policies contained in the Housing Element of the City General Plan and other relevant plans. The Project would provide housing across a wide range of sizes and rental costs that would also meet American with Disabilities Act (ADA) and equal opportunity practices and requirements. The Project would meet other City Housing Element policies by providing an integrated mixed use development with enhanced public realm streets, streetscapes and landscaping that encourage pedestrian activity and provide a network of bicycle trails that allow accessibility throughout the Project site. The Project by itself, but also in conjunction with the adjacent Playa Vista First Phase Project, would create a residential and commercial center that is transit accessible and designed to facilitate the reduction of vehicle trips and vehicle miles traveled by locating commercial/retail uses in proximity to proposed residential development and employment sites. As the Proposed Project would be compatible with the City's adopted housing policies, a less-than-significant impact would occur.

3.4.4 Growth Management

The Southern California Association of Governments (SCAG) has the primary responsibility for setting regional policy regarding jobs/housing balance. SCAG in conjunction with the South Coast Air Quality Management District (SCAQMD) is responsible for preparing planning documents which are intended to guide development on a regional level within Southern California. SCAG prepared the Regional Comprehensive Plan and Guide (RCPG), adopted in May 1995, which is intended to serve as a framework to guide decision-making with respect to growth and change that can be anticipated by the year 2015 and beyond. The RCPG provides a general view of regional plans. The goals, objectives and policies in the RCPG are yardsticks for measuring consistency with adopted plans. However, the authority and responsibility for land use rests with local governments. The RCPG proposes a strategy for local governments to use, voluntarily, to address issues relative to future growth and to provide a measure for assessing the potential impacts within the context of the region.

SCAG also provides the function of reviewing environmental documentation for compliance with the policies in the RCPG. Accordingly, SCAG reviewed the Notice of Preparation (NOP) for the Proposed Project and submitted a written response to the NOP (dated January 14, 2003). In that response SCAG identified the RCPG policies which it considered

[354] *Citywide General Plan Framework, City of Los Angeles General Plan. Adopted December 11, 1996.*

particularly relevant to the Proposed Project. Those policies are listed in Table 106 on pages 775 through 782, with an identification of the Project features which address those policies. Based on the information contained therein, it is concluded that the Proposed Project would be compatible with SCAG's RCPG policies, and as such, a less-than-significant impact would occur.

3.4.5 Jobs/Housing Balance

The jobs/housing balance issue relates to the availability and location of employment and housing opportunities for residents of the Southern California region. The availability of jobs and housing within proximity to one another provides people an opportunity to live closer to their places of work, and thus benefit from reduced travel time. The community benefits from reduced traffic and congestion, which in turn leads to reduced levels of noise, air pollution and fuel consumption.

The Proposed Project supports jobs/housing balance through the creation of a variety of housing units in combination with the development of employment opportunities. Overall, the Proposed Project would create a total of 2,600 housing units and 1,180 jobs, yielding a jobs/housing ratio of 0.45. The housing units would vary in size and would have a mixture of for-sale and rental units. Employment opportunities, associated with the Proposed Project, would be distributed across a wide variety of office, retail, community-serving uses, and short-term construction. Construction employment has not been calculated into the jobs/housing ratio, since construction employment is short-term in nature and will not affect the ratio at full occupancy of the Proposed Project in 2010.

The Proposed Project would be consistent with the SCAG RCPG policies relating to jobs/housing balance by supporting housing growth in housing-poor, jobs-rich subregions (such as the City of Los Angeles). The ratios of jobs/housing in the Local Area, City of Los Angeles subregion, and Regional Area are projected by SCAG to be 2.76, 1.30 and 1.38 in the year 2010, respectively. As the number of jobs exceeds the number of housing units, these areas would be considered to be jobs-rich. By comparison, the Proposed Project provides a greater proportion of housing, with a relative housing-rich ratio of 0.45 jobs per housing unit. Overall the jobs/housing ratio in the six-county SCAG region is projected to be 1.36 in the year 2010.[355] The Project would have a beneficial and, thus, a less-than-significant impact on the jobs/housing balance by reducing the jobs-rich ratios of the Local Area, City of Los Angeles Subregion and Regional Area.

[355] *The regional jobs/housing balance ratio is calculated based on data provided in SCAG's 2001 Regional Transportation Plan, July 2001.*

Table 106

RCPG AND REGIONAL TRANSPORTATION PLAN POLICIES PERTAINING TO THE PROPOSED PROJECT

Relevant Policy	Analysis of Project Consistency
Growth Management Chapter (GMC)	
3.01 The population, housing, and job forecasts, which are adopted by SCAG's Regional Council and that reflect local plans and policies, shall be used by SCAG in all phases of implementation and review.	The Draft EIR reflects the most current SCAG forecasts included in the 2001 RTP. In addition, the Proposed Project does not cause an exceedance of SCAG's forecasts for the Local Area, City of Los Angeles Subregion or Regional Area.
3.03 The timing, financing, and location of public facilities, utility systems, and transportation systems shall be used by SCAG to implement the region's growth policies.	The Proposed Project is a planned community with a utility plan to meet its needs, and access/transportation features which support alternative/public transportation systems, and which link to regional systems. Infrastructure improvements will be created commensurate with development, and prior to occupancy. The EIR review process is providing a disclosure of Project features with review by SCAG. As noted above, the Project does not cause an exceedance of applicable SCAG's forecasts.
Growth Management Chapter Policies Related to the RCPG Goal to Improve the Regional Standard of Living	
3.05 Encourage patterns of urban development and land use, which reduce costs on infrastructure construction and make better use of existing facilities.	The Proposed Project is an urban in-fill Project, and will connect with existing infrastructure in the area. The development has been anticipated in utility planning in the area, and service capacity is expected to be available through existing facilities and improvements identified in this EIR. The Project is a large scale planned development intended to provide utilities commensurate with development.
3.09 Support local jurisdictions' efforts to minimize the cost of infrastructure and public service delivery, and efforts to seek new sources of funding for development and the provision of services.	The Proposed Project contributes to the attainment of this policy, by minimizing the cost of infrastructure (see the analysis under the previous policy) and by providing the City the means through property tax and related revenue sources to fund additional public service resources.
3.10 Support local jurisdictions' actions to minimize red tape and expedite the permitting process to maintain economic vitality and competitiveness.	This policy is directed towards local jurisdictions and recommends a set of actions that extend beyond that which can be responded to by the Proposed Project.
GMC Policies Related to the RCPG Goal to Improve the Regional Quality of Life	
Encourage local jurisdiction's efforts to achieve a balance between the types of jobs they seek to attract and housing prices.	The Proposed Project provides a total of 2,600 housing units that are varied by size, tenure and cost. In addition, the Project provides 1,180 jobs across a broad range of job types and income categories. As a result, the Project provides opportunities to achieve the objectives of this policy.

Table 106 (Continued)

RCPG AND REGIONAL TRANSPORTATION PLAN POLICIES PERTAINING TO THE PROPOSED PROJECT

Relevant Policy	Analysis of Project Consistency
3.11 Support provisions and incentives created by local jurisdictions to attract housing growth in job-rich subregions and job growth in housing-rich subregions.	The Proposed Project is a housing-rich project which would create a beneficial effect by adding 2,600 housing units to Regional, Subregional and Local Areas which are jobs-rich.
3.12 Encourage existing or proposed local jurisdictions' programs aimed at designing land uses which encourage the use of transit and thus reduce the need for roadway expansion, reduce the number of auto trips and vehicle miles traveled, and create opportunities for residents to walk and bike.	The Proposed Project has been designed to encourage internal transit with increased use of walk and bike ways. (Refer to the Bike Plan Analysis in Section IV.K.(3) of the EIR.) It provides a mix of on-site uses which allows people to perform multiple activities without leaving the area. The Project also includes an internal clean fuel transit system which links with regional transit systems. (Refer to the Air Quality Analysis in Section IV.B of the EIR regarding VMT (vehicle miles traveled) reductions.)
3.13 Encourage local jurisdictions' plans that maximize the use of existing urbanized areas accessible to transit through infill and redevelopment.	The Proposed Project is an infill development within an existing urbanized area that is accessible to multiple existing transit systems that would also interconnect with the proposed internal transit system (see Section IV.K.(1) of the EIR for additional information regarding the Project and transit systems).
3.14 Support local plans to increase density of future development located at strategic points along the regional commuter rail, transit systems, and activity centers.	The Proposed Project site is a mixed-use activity center, accessible to four public transit systems serving Culver City, Santa Monica and the larger Los Angeles metropolitan area. In addition, the Proposed Project includes an Internal Shuttle System serving the Project site and an Expanded Shuttle System which provides enhanced transit service for Project residents, visitors, employees, and the surrounding community, providing connections to key destinations such as Marina del Rey, Howard Hughes Center, the adjacent Playa Vista First Phase Project, and the Fox Hills Mall. Connections to regional transit service shall be provided at Lincoln Boulevard/Jefferson Boulevard and Fox Hills Mall Transit Center. The Proposed Project clusters population so as to support public transit service.
3.15 Support local jurisdictions strategies to establish mixed-use clusters and other transit-oriented developments around transit stations and along transit corridors.	See the previous policy and corresponding analysis.
3.16 Encourage developments in and around activity centers, transportation node corridors, underutilized infrastructure systems and areas needing recycling and redevelopment.	See the previous three policies and corresponding analysis.

Table 106 (Continued)

RCPG AND REGIONAL TRANSPORTATION PLAN POLICIES PERTAINING TO THE PROPOSED PROJECT

Relevant Policy	Analysis of Project Consistency
3.17 Support and encourage settlement patterns which contain a range of urban densities.	The Proposed Project is a mixed use activity center that offers a range of medium density housing opportunities; all different than the single family and apartment densities which are predominant in surrounding areas.
3.18 Encourage planned development in locations least likely to cause environment impact.	The Proposed Project is a planned development, which reflects the Applicant's response to agency planning studies, as well as community involvement and negotiations. The proposed uses are of an urban infill nature.
3.19 SCAG shall support policies and actions that preserve open space areas identified in local, state and federal plans.	The City's local plans designate the Project site for urban development. Notwithstanding, the Proposed Project protects and enhances 11.7 acres of open space within its Habitat Creation/Restoration Component. The Project site is not identified on any state or federal plans.
3.20 Support the protection of vital resources such as wetlands, groundwater recharge areas, woodlands, production lands, and land containing unique and endangered plants and animals.	The Proposed Project includes the establishment of a riparian corridor at the foot of the bluffs, and restoration of the bluff faces. In addition, the Proposed Project would not impact, or have a less-than-significant impact, with regard to wetlands, groundwater recharge areas, woodlands, production lands, and land containing unique and endangered plants and animals.
3.21 Encourage the implementation of measures aimed at the preservation and protection of recorded and unrecorded cultural resources and archaeological sites.	The Project site has been evaluated and mitigation measures recommended through the EIR review process. As a result of the adjacent Playa Vista First Phase Project, there is a programmatic agreement pertaining to archeological resources, per Section 106 of the Natural Historic Preservation Act that is applicable to the Proposed Project. The paleontological study was reviewed by the staff of the Museum of Natural History. The Proposed Project contains no historic structures eligible for listing on the National Register. (Historic structures on the adjacent Playa Vista First Phase Project site have been incorporated into the "Hughes Industrial Historic District.")
3.22 Discourage development, or encourage the use of special design requirements, in areas with steep slopes, high fire, flood, and seismic hazards.	The Proposed Project will be designed to meet standards required for the geologic and soil conditions on the site, based on technical studies and recommendations incorporated into the EIR as well an any conditions of approval imposed by any permit granting authority.
3.23 Encourage mitigation measures that reduce noise in certain locations, measures aimed at preservation of biological and ecological resources, measures that	The EIR for the Proposed Project includes analysis for potential impacts regarding noise, biological and ecological resources and seismic hazards. As part of the

Table 106 (Continued)

RCPG AND REGIONAL TRANSPORTATION PLAN POLICIES PERTAINING TO THE PROPOSED PROJECT

Relevant Policy	Analysis of Project Consistency
would reduce exposure to seismic hazards, minimize earthquake damage, and to develop emergency response and recovery plans.	analysis, mitigation measures have been proposed to minimize potential impacts. Refer to the respective sections of the EIR for additional information.
GMC Policies Related to the RCPG Goal to Provide Social, Political, and Cultural Equity	
3.24 Encourage efforts of local jurisdictions in the implementation of programs that increase the supply and quality of housing and provide affordable housing as evaluated in the Regional Housing Needs Assessment.	The Proposed Project includes provision for 2,600 housing units, varied by size and tenure. The additional housing is being provided in Regional, Subregional and Local Areas which are jobs-rich. The City is implementing specific programs to address the provision of affordable housing per the Regional Housing Needs Assessment.
3.27 Support local jurisdictions and other service providers in their efforts to develop sustainable communities and provide, equally to all members of society, accessible and effective services such as: public education, housing, health care, social service, recreational facilities, law enforcement, and fire protection.	The Proposed Project would provide new revenues for the support of public services. The Project's impact on public services has been evaluated in this EIR and mitigation measures to lessen impacts have been identified. On-site residential development is planned to occur consistent with a Project-specific set of sustainability guidelines (see Section IV.M, Energy, for additional information). In addition, the Proposed Project includes 40,000 square feet of community serving uses, a portion of which could be used for health care and social service facilities. As stated in the analysis of Policy 3.24, the Proposed Project includes 2,600 housing units that are varied by size and tenure and that this housing supply would be available to the general public.
Regional Transportation Plan (Core Regional Transportation Plan Policies)	
4.01 Transportation investments shall be based on SCAG's adopted Regional Performance Indicators: Mobility – Transportation systems should meet the public need for improved access, and for safe, comfortable, convenient, faster and economical movements of people and good. • Average Work Trip Travel Time in Minutes – 25 minutes (auto) • P.M. Peak Freeway Travel Speed – 45 minutes (transit) • P.M. Peak Non-Freeway Travel Speed • Percent of P.M. Peak Travel in Delay (Fwy) • Percent of P.M. Peak Travel in Delay (Non-Fwy) Accessibility – Transportation system should ensure the ease with which opportunities are reached. Transportation and land use measures should be	This policy is directed towards agencies with jurisdiction over the management of transportation systems (e.g., LADOT, Caltrans, MTA, etc.) rather than an individual development project. Notwithstanding, the Project has satisfied its LADOT obligations by reducing all Proposed Project impacts to less-than-significant levels, with one exception, and in the process also addressing the existing transportation system via some of its mitigation measures that create additional capacity at some intersections and roadway segments beyond that needed to address the Project's impacts. Furthermore, the one intersection where Project impacts cannot be mitigated is functioning at LOS D or better during the A.M. and P.M. peak hours with the development of the Project. As LOS D is an acceptable LOS in urbanized areas, the presence of a significant impact at this location does not impede the Project's compatibility with this policy.

Table 106 (Continued)

RCPG AND REGIONAL TRANSPORTATION PLAN POLICIES PERTAINING TO THE PROPOSED PROJECT

Relevant Policy	Analysis of Project Consistency
employed to ensure minimal time and cost. • Work Opportunities within 45 minutes door-to-door travel time (Mode Neutral) • Average transit access time Environment – Transportation system should sustain development and preservation of the existing system of the environment. (All trips) • CO, ROG, NO_X, PM_{10}, $PM_{2.5}$ – Meet the applicable SIP Emission Budget and the Transportation Conformity requirements Reliability – Transportation system should have reasonable and dependable levels of service by mode. (All Trips) • Transit – 63% • Highway – 76% Safety – Transportation system should provide minimal accident, death and injury (All Trips) • Fatalities Per Million Passenger Miles – 0 • Injury Accidents – 0	Mobility issues are addressed via the conclusion that the Project would not result in any significant traffic impacts, except at one location. Moreover, Project mitigation results in improved intersection operations on an overall basis, and specifically at certain locations when compared to pre-Project conditions as Project mitigation reduces intersection V/C ratios by an amount greater than the increase caused by the Project. Furthermore, the one intersection where Project impacts cannot be mitigated is functioning at LOS D or better during the A.M. and P.M. peak hours with the development of the Project. As LOS D is an acceptable LOS in urbanized areas, the presence of a significant impact at this location does not impede the Project's compatibility with this policy. In addition, and as described in the analysis relative to Policies 3.12 through 3.14, the Proposed Project's design supports improved access to alternative transportation modes (e.g., transit, bicycles and pedestrian). The Proposed Project, as analyzed and concluded in Section IV.B, Air Quality, of this Draft EIR, is consistent with the SCAQMD's Air Quality Management Plan and thus does not inhibit the Basin's ability to comply with the requirements of the both the Federal and State Clean Air Acts. In addition, the Proposed Project does not propose any transportation improvements that are subject to SCAG's Transportation Conformity requirements.
Equity/Environmental Justice – The benefits of transportation investments should be equitable, distributed among all ethnic, age and income groups. (All trips) • By Income Groups Share of Net Benefits – Equitable Distribution of Benefits among all Income Quintiles Cost-Effectiveness – Maximize return of transportation investment (All trips). Air Quality, Mobility, Accessibility and Safety • Return on Total Investment – Optimize return on Transportation Investments.	The Proposed Project supports transportation safety as its design does not create any situations wherein traffic hazards are created or exacerbated. Issues pertaining to equity/environmental justice and cost-effectiveness are directed to decision-makers regarding the selection of transportation improvements occurring at a broader scale than those required to respond to the Proposed Project's impacts.
4.02 Transportation investments shall mitigate environmental impacts to an acceptable level.	The Proposed Project's transportation mitigation measures provide a balance of physical roadway and transit improvements that reduce Project impacts to less-than-significant levels, except at one location. Furthermore, the one intersection where Project impacts

Table 106 (Continued)

RCPG AND REGIONAL TRANSPORTATION PLAN POLICIES PERTAINING TO THE PROPOSED PROJECT

Relevant Policy	Analysis of Project Consistency
	cannot be mitigated is functioning at LOS D or better during the A.M. and P.M. peak hours with the development of the Project. As LOS D is an acceptable LOS in urbanized areas, the presence of a significant impact at this location does not impede the Project's compatibility with this policy.
4.04 Transportation Control measures shall be a priority	The Proposed Project, by mitigating its impacts to less-than-significant levels, with one exception, has established transportation control measures as a priority. Furthermore, the one intersection where Project impacts cannot be mitigated is functioning at LOS D or better during the A.M. and P.M. peak hours with the development of the Project. As LOS D is an acceptable LOS in urbanized areas, the presence of a significant impact at this location does not impede the Project's compatibility with this policy.
4.16 Maintaining and operating the existing transportation system will be a priority over expanding capacity	Refer to the corresponding analysis to Policy 3.05 and 4.01.
Air Quality Chapter Core Actions	
5.07 Determine specific programs and associated actions needed (e.g., indirect sources rules, enhanced use of telecommunications, provision of community-based shuttle services, provision of demand management-based programs, or vehicle-miles-traveled/emission fees) so that options to command and control regulations can be assessed.	The Proposed Project, as detailed in Section IV.B., Air Quality, has incorporated into its design a number of features that reduce vehicle trips and vehicle miles traveled, including, but not limited to, the following: (a) developing predominantly residential mixed-use neighborhoods; (b) scaling commercial uses to serve neighborhood and community needs; (c) siting office areas near residences and public transit; (d) providing basic services within office areas; (e) providing for civic facilities on site; (f) establishing jobs/housing linkages; and (g) the promotion of alternative modes of travel such as mass transit through the provision of an on-site transit center and the provision of a community-based shuttle as well as bicycle paths and landscaped pedestrian walkways.
5.11 Through the environmental document review process, ensure that plans at all levels of government (regional, air basin, county, subregional and local) consider air quality, land use, transportation and economic relationships to ensure consistency and minimize conflicts.	The Proposed Project as described in the analysis to the previous policy as well as Policy 4.01, has considered air quality, land use and transportation relationships to ensure consistency, and minimize conflicts, with the SCAQMD's Air Quality Management Plan.
Open Space Chapter Ancillary Goals	

Table 106 (Continued)

RCPG AND REGIONAL TRANSPORTATION PLAN POLICIES PERTAINING TO THE PROPOSED PROJECT

Relevant Policy	Analysis of Project Consistency
Outdoor Recreation	
9.01 Provide adequate land resources to meet the outdoor recreation needs of the present and future residents in the region and to promote tourism in the region.	The Proposed Project includes a system of improved parks and bikeways interspersed throughout the Project site; that meets the needs of the Project and would increase park service ratios in the area (See Section IV.L.(4), Parks and Recreation). In addition, the Proposed Project would meet the City's General Plan short and intermediate goals for the provision of park space. Further, the Applicant proposes to fund, construct, and maintain the amenities and facilities on the parks within the Project site. The Proposed Project does not seek to promote tourism in the immediate site vicinity.
9.02 Increase the accessibility to open space lands for outdoor recreation.	The Proposed Project includes 11.4 acres of parks, 6.7 acres of riparian habitat, 5.0 acres of bluff face/habitat restoration, and 0.4 acres of passive open space.
9.03 Promote self-sustaining regional recreation resources and facilities.	The Proposed Project has been designed to meet the recreational needs of its residents and is not intended to serve regional recreational needs. Future regional recreational opportunities may be available in the Project vicinity within other nearby areas under consideration for state acquisition for preservation as permanent public open space (i.e., the currently undeveloped area located west of Lincoln Boulevard, both north and south of the Ballona Channel in-lieu of urban development).
Public Health and Safety	
9.04 Maintain open space for adequate protection of lives and properties against natural and man-made hazards.	The Proposed Project, as described in the analysis to Policy 9.02, provides 23.5 acres of open space within the Project site. As concluded in Sections IV.A, Earth, and IV.I, Safety/Risk of Upset, the Proposed Project provides adequate protection of lives and properties as all impacts are reduced to less-than-significant levels.
9.05 Minimize potentially hazardous developments in hillsides, canyons, areas susceptible to flooding, earthquakes, wildfire and other known hazards, and areas with limited access for emergency equipment.	Refer to the previous policy and corresponding analysis. In addition, the Project site is not located in an area subject to flooding, wildfires or in an area with limited access for emergency equipment, as the Project site would be developed in accordance with all applicable regulatory controls.
Resource Production	
9.07 Maintain adequate viable resource production land, particularly lands developed to commercial	The Project site is not in agricultural production, so its development would have no impact on this type of

Table 106 (Continued)

RCPG AND REGIONAL TRANSPORTATION PLAN POLICIES PERTAINING TO THE PROPOSED PROJECT

Relevant Policy	Analysis of Project Consistency
agriculture and mining operations.	natural resource. As concluded in Section IV.H, Mineral Resources, Project development would have a less-than-significant impact with regard to the loss of lands for mining or related types of operations.
Resource Protection	
9.08 Develop well-managed viable ecosystems or known habitats of rare, threatened and endangered species, including wetlands.	The Proposed Project, as described in Section IV.D, Biotic Resources, would develop its Habitat Creation/Restoration Component in a manner that would create, rather than destroy, ecosystems or known habitats of rare, threatened and endangered species.
Water Quality Chapter Recommendations and Policy Options	
11.02 Encourage "watershed management" programs and strategies, recognizing the primary role of local governments in such efforts.	This policy while directed towards local jurisdictions, rather than individual development projects, has been integrated into the Proposed Project's design with regard to watershed management as discussed and analyzed in Section IV.C, Water Resources.
11.03 Coordinate watershed management planning at the subregional level by (1) providing consistent regional data, (2) serving as a liaison between affected local, state, and federal watershed management agencies; and (3) ensuring that watershed planning is consistent with other planning objectives (e.g., transportation, air quality, water supply).	Refer to the previous policy and corresponding analysis.
11.05 Support regional efforts to identify and cooperatively plan for wetlands to facilitate both sustaining the amount and quality of wetlands in the region and expediting the process for obtaining wetlands permits.	The Proposed Project's habitat restoration efforts include 6.7 acres of riparian corridor. These 6.7 acres would complete the creation of a 25-acre riparian corridor lying along the foot of the Westchester Bluffs. The riparian corridor includes wetland habitat and native grasslands and feeds into the First Phase Freshwater Marsh, thus establishing a 51-acre Freshwater Wetland System.
11.07 Encourage water reclamation throughout the region where it is cost-effective, feasible, and appropriate to reduce reliance on imported water and wastewater discharges. Current administrative impediments to increased use of wastewater should be addressed.	This policy pertains more to the role of SCAG than to individual development projects. The Proposed Project has incorporated into its utility infrastructure the ability to use reclaimed water as it becomes available. Thus, the Proposed Project's demand on domestic water supplies would be reduced in proportion to the extent that reclaimed water is used at the Project site.

3.5 Equivalency Program Impacts

The analysis of the Proposed Project's impact on population, housing and employment addressed the Project's relationship with the following: (1) adopted growth forecasts; (2) adopted City housing and SCAG policies and programs; and (3) jobs/housing balance.

The Project's proposed Equivalency Program is limited to an exchange of specified land uses. Implementation of the Equivalency Program is not anticipated to have an effect on the analysis of the Project's relationship with adopted City housing policies or SCAG policies and programs, except as noted below, because the Equivalency Program does not fundamentally alter the Project's land use mix and thus, would not have a notable change in the policy analyses presented above. As such, the Equivalency Program, as is the case with the Proposed Project, would have a less-than-significant impact relative to adopted City and SCAG policies. However, implementation of the proposed Equivalency Program would alter the Project's relationship with adopted growth forecasts and its jobs/housing balance as the Equivalency Program changes the Project's on-site population and the number of jobs that would be created at the Project site. As such, additional analysis of these two issues are addressed below under separate subheadings.

Adopted Growth Forecasts

Population and Housing

Project increases in on-site resident population under the All Retail Equivalency Scenario would be equal to those of the Proposed Project, as this Equivalency Scenario proposes the same amount of residential development as the Proposed Project. However, the All Assisted Living and the combined Retail/Assisted Living Equivalency Scenarios would have greater impacts than the Proposed Project on adopted growth forecasts as the on-site resident population under these latter two equivalency scenarios would increase. While the Project's on-site population would increase under the latter two equivalency scenarios, as shown in Table 107 on page 784, the increase in on-site population under all Equivalency Scenarios, as is the case with the Proposed Project, would be within the projected SCAG growth forecast for all of the geographic areas analyzed (see Table 108 on page 786). Therefore, as with the Proposed Project, the Equivalency Program would not cause population growth or accelerate development in an undeveloped area that exceeds projected/planned levels for the year of Project occupancy/buildout. As a result, a less-than-significant impact would occur for all Equivalency Scenarios, as is the case with the Proposed Project.

Table 107

FORECASTED POPULATION AND EMPLOYMENT – PROPOSED PROJECT AND EQUIVALENCY SCENARIOS

Land Use	Average Household Size	Equivalency Scenario: All Retail		Equivalency Scenario: All Assisted Living		Equivalency Scenario: Retail/Assisted Living	
		Amount of Development	Total Population	Amount of Development	Total Population	Amount of Development	Total Population
A. Population							
Residential (d.u.)	2.2	2,600	5,720	2,600	5,720	2,600	5,720
Assisted Living (units/rooms)	1.2 [a]	0	0	200	240	200	240
Total		**2,600**	**5,720**	**2,800**	**5,960**	**2,800**	**5,960**
Proposed Project			**5,720**		**5,720**		**5,720**
Over/(Under) Proposed Project			0		240		240
	sq.ft. per Employee/ Unit	**Amount of Development**	**Total Employment**	**Amount of Development**	**Total Employment**	**Amount of Development**	**Total Employment**
B. Employment							
Office (ksf)	250	50,000	200	150,900	604	50,000	200
Retail (ksf)	375	206,832	552	150,000	400	195,877	522
Community Serving (ksf)	500	40,000	80	40,000	80	40,000	80
Assisted Living (units/rooms)	0.45 [a]	0	0	200	90	200	90
Total			**832**		**1,174**		**892**
Proposed Project			**1,180**		**1,180**		**1,180**
Over/(Under) Proposed Project			**(348)**		**(6)**		**(288)**

[a] *Assisted Living Provider, Wayne Sant, Senior Development Director, Sunrise Development, Inc., Corona, California, July 2003.*

Employment

Project increases in on-site employment under all of the Equivalency Scenarios would be less than those of the Proposed Project, as shown in Table 108 on page 786. The increase in employment under all Equivalency Scenarios, as is the case with the Proposed Project, would be within the projected SCAG growth forecast for all of the geographic areas analyzed. Therefore, as with the Proposed Project, the Equivalency Program would not cause employment growth or accelerate development in an undeveloped area that exceeds projected/planned levels for the year of Project occupancy/buildout. As a result, a less-than-significant impact would occur for all equivalency scenarios, as is the case with the Proposed Project.

Housing

Project increases in housing under the All Retail Equivalency Scenario would be equal to those of the Proposed Project, as this Equivalency Scenario proposes the same number of housing units as the Proposed Project. However, the All Assisted Living and the combined Retail/Assisted Living Equivalency Scenarios would have greater impacts than the Proposed Project on adopted growth forecasts as the number of housing units within these latter two Equivalency Scenarios would increase. While the Project's number of housing units would increase under the latter two Equivalency Scenarios, as shown in Table 108, the increase in the number of housing units under all Equivalency Scenarios, as is the case with the Proposed Project, would be within the projected SCAG growth forecast for all of the geographic areas analyzed. Therefore, as with the Proposed Project, the Equivalency Program would not cause housing growth or accelerate development in an undeveloped area that exceeds projected/planned levels for the year of Project occupancy/buildout. As a result, a less-than-significant impact would occur for all Equivalency Scenarios, as is the case with the Proposed Project.

Jobs/Housing Balance

The jobs/housing balance ratios for all Equivalency Scenarios, as shown in Table 109 on page 787, would be lower than that associated with the Proposed Project. This means that the Equivalency Scenarios provide more housing than the corresponding number of jobs generated by each of the Equivalency Scenarios. As the Project site is located in a very jobs-rich area (i.e., substantially more jobs than housing), the development of Equivalency Scenarios with lower jobs/housing balance ratios only serve to further improve overall jobs/housing ratios beyond the beneficial impacts associated with the development of the Proposed Project. As such, the Equivalency Program, as is the case with the Proposed Project, would have a beneficial, and thus, a less-than-significant impact, with regard to the issue of jobs/housing balance.

Table 108

POPULATION, HOUSING AND EMPLOYMENT IMPACTS – PROPOSED PROJECT AND EQUIVALENCY SCENARIOS

	SCAG-Projected Growth 2002-2010	Proposed Project	Equivalency Scenario: All Retail	Equivalency Scenario: All Assisted Living	Equivalency Scenario: Retail/ Assisted Living
Housing Units					
Proposed Development		2,600	2,600	2,800	2,800
Percent of SCAG Growth					
Regional Area	131,843	1.97%	1.97%	2.12%	2.12%
City of Los Angeles	122,760	2.12%	2.12%	2.28%	2.28%
Local Area	2,969	87.57%	87.57%	94.31%	94.31%
Employment					
Proposed Development		1,180	832	1,174	892
Percent of SCAG Growth					
Regional Area	166,125	0.71%	0.50%	0.71%	0.54%
City of Los Angeles	157,152	0.75%	0.53%	0.75%	0.57%
Local Area	113,180	1.04%	0.74%	1.04%	0.79%
Population					
Proposed Development		5,720	5,720	5,960	5,960
Percent of SCAG Growth					
Regional Area	301,455	1.90%	1.90%	1.98%	1.98%
City of Los Angeles	269,635	2.12%	2.12%	2.21%	2.21%
Local Area	9,204	62.15%	62.15%	65.41%	65.41%

Source: PCR Services Corporation, 2003.

3.6 Impacts of Off-Site Improvements

Proposed Project development could result in secondary impacts arising from implementation of the Project's mitigation measures, as well as the direct impacts described above. Mitigation measures within Section IV.K.(1), Traffic and Circulation, require physical improvements in transportation facilities at numerous locations including roadway widening at seven locations, as described in Subsection 5.8 of that Section. In addition, as discussed in Section IV.N.(1), Water Consumption, the Proposed Project would require the construction of a water regulator station in the vicinity of Jefferson Boulevard and Mesmer Avenue. These infrastructure improvements would reduce the traffic and water utility impacts of the Proposed Project. They would not add new population to the area, nor any new buildings. Therefore, they would have no impacts on population, housing or employment. A relatively small number of construction workers would be required to construct the off-site improvements. These workers would be members of existing work pools who would be scheduled to the individual construction programs, as appropriate.

Table 109

JOBS/HOUSING BALANCE – PROPOSED PROJECT AND EQUIVALENCY SCENARIOS

	Equivalency Scenario: All Retail	Equivalency Scenario: All Assisted Living	Equivalency Scenario: Retail/Assisted Living
Jobs	832	1,174	892
Housing	2,600	2,800	2,800
Jobs/Housing Ratio	**0.32**	**0.42**	**0.32**
Proposed Project	**0.45**	**0.45**	**0.45**
Over/(Under) Proposed Project	**(0.13)**	**(0.03)**	**(0.13)**

Therefore, none of the off-site improvements would result in significant impacts, unto themselves, nor would the off-site improvements, in combination with the Proposed Project, result in a significant impact.

4.0 MITIGATION MEASURES

Population, housing, and employment increases, anticipated under the Proposed Project, do not exceed SCAG 2010 projections for the three analysis areas and Project impacts, thus are concluded to be less than significant. In addition, the Project would be compatible with adopted housing policies, and as such, Project impacts are less than significant. As the Project does not result in any significant impacts, mitigation measures are not required.

5.0 UNAVOIDABLE ADVERSE IMPACTS

No unavoidable adverse impacts on population, housing, and employment would occur with the development of the Proposed Project. Specifically, the Proposed Project would not exceed SCAG's 2010 population, employment and housing forecasts for the Local, Subregional and Regional Areas. SCAG does not specify a percentage of growth that would be considered significant. According to SCAG, if a project's anticipated housing and population growth is less than SCAG's total forecasted population for the subregion, the impacts on population and housing are less than significant.[356] The Proposed Project is also concluded to result in a less-than-significant impact with regard to local and regional housing polices since the Project would be compatible with applicable housing policies. These conclusions are also applicable to the proposed Equivalency Program as well as the proposed off-site improvements.

6.0 CUMULATIVE IMPACTS

6.1 Related Projects and SCAG Projections

The cumulative impact analysis is based on all known and anticipated construction projects and development proposals, including the Proposed Project, within a particular geographic study area, the Related Projects Study Area. Growth in population, housing units, and employment, as a result of the cumulative projects, is compared with the SCAG Regional Transportation (RTP) projections through the year 2010, the expected completion date of the Proposed Project, inclusive of the Equivalency Program and proposed off-site improvements. The known projects that contribute to cumulative effects (related projects), are generally those that require some form of discretionary approval. Table 110 on pages 789 through 793 provides a list of the residential, commercial, industrial, and institutional projects currently requiring discretionary approval within the study area. Table 110 also presents the methodology for determining the residential and employment growth expected for each project. Factors, based on the type of land use, are applied to non-residential uses, according to the total square footage of each project. The total area of non-residential uses are divided by square footage per employee. Office uses typically have one employee per 250 square feet, retail uses have one employee per 375 square feet, institutional uses have one employee per 500 square feet, and so on.

Since residential projects of less than 35 units and commercial projects of less than 40,000 sq.ft. generally do not require discretionary review in the City of Los Angeles, an assumption is made in the cumulative impact analysis that the "background" growth of small residential projects would be approximately 25% of the known residential projects, and the background growth of small commercial projects would be approximately 10% of the known commercial projects. This "background" increase is included in the summation of the population and employment increase on Table 110 and added to the total projected household and population increase in the study area. Related projects are mapped and described in greater detail in Section III.B. of this Draft EIR.

The Related Projects Study Area from which the related projects are drawn includes the SCAG West Side Cities subregion, the Cities of Manhattan Beach and El Segundo, and portions of the City of Los Angeles subregion, including the community plan areas of Palms-Mar Vista-Del Rey, Venice, Westchester- Playa del Rey, West Los Angeles, Westwood, and Brentwood-Pacific Palisades. Related projects located within this geographic area would be sufficiently interconnected to contribute to the cumulative population, housing and employment effects of the Proposed Project. The evaluated cities and communities are listed in Table 111 on page 794. Table 111 sets forth the SCAG RTP population, housing unit and employment projections for the

[356] *Viviane Doche-Boulos, Southern California Association of Governments, April 26, 1999.*

Table 110

RELATED PROJECTS AND PROPOSED PROJECT
CUMULATIVE POPULATION, HOUSING AND EMPLOYMENT GROWTH

Map Number	Project Name	Land Use	Size	Factor	Employees	Residents [a]
1	Regatta	Condominium	812 units	2.36[b]		1,916
2	4755 S. Alla Road	Multi-Media Office	48,000 SF	250[c]	192	
3	8000 Manchester Avenue	Apartment	246 units	2.36		581
4	6060 Center Drive	Office	280,000 SF	250	1,120	
5	Decron Project	Apartment	547 units	2.36		1,291
		Retail	29,000 SF	375[c]	77	
6	Howard Hughes Center	Office	1,467,081 SF	250	5,868	
		incl. Retail	100,000 SF	375	267	
		Incl. Health Club	64,368 SF	500[c]	129	
		Hotel	600 rooms	0.9[d]	540	
7	Bartlet's Harley Davidson	Dealer/Retail/Restaurant/ Office	51,470 SF	250	206	
8	Wilshire Bl Temple School	Office	32,000 SF	250	128	
		School	69,150 SF	1,000[e]	69	
		Synagogue	25,150 SF	500[c]	50	
		Gym	5,500 SF	500[c]	11	
		Dining	4,250 SF	375	11	
9	Westway (10100 Jefferson Bl)	Flex Office/Light Industrial	123,293 SF	250[c]	493	
		(2 Buildings)	119,657 SF	250	479	
10	Pershing/Manchester	Apartment	49 units	2.36		116
11	Tierra Sol y Mar	Commercial Office	11,000 SF	250	44	
		Specialty Retail	11,000 SF	375	29	
12	1443 6th Street	Residential	48 units	2.04[f]		98
		Specialty Retail	1,000 SF	375	3	
13	Bob Champion (II)	Retail	70,115 SF	375	187	
14	Virginia Avenue Park	Park Expansion	4 acres		4[e]	
15	100% Affordable Senior Apartments	Senior Units	66 units	2.36		156
16	St. Johns Medical Center & Master Plan	Phase 1 – Medical Facility	475,000 SF	500[c]	950	
		Phase 2 – Medical Facility	799,000 SF	500	1,598	
17	Crossroads School Expansion	School (~20 classrooms)	400 stu	13[e]	31	
18	9760 Pico Boulevard	School	60,000 SF	1,000	60	
19	20th Century Fox Expansion	Movie Studio	771,000 SF	500[c]	1,542	
20	Santa Monica YMCA	Recreation	16,000 SF	500	32	
21	Westside Media Project Phase I	Office	165,000 SF	250	660	
		Studio/Office/Multi-Media Uses	74,913 SF	250	300	
	Westside Media Project Phase II	Office/Retail/Restaurant	165,000 SF	250	660	
22	Library Expansion (627 Santa Monica Bl)	Library	66,000 SF	500[c]	132	
23	Rand Corporation	Office	309,000 SF	250	1,236	
		(Office – Removal)	(295,000) SF	250	(1,180)	
24	Catellus – West Bluff	Single Family Homes	120 homes	2.36		283
25	LMU Expansion	Non-Residential	115,000 SF	500	230	
		Residential/Dormitory	420,000 SF	0.0022[g]		924
26	Airport Park[e]	Park	4 acres		4[h]	
		Dog Park	1 acre		2[h]	
		Playing Fields	1 acre		2[h]	
		(Parking Lot – Removal; approx. 105,000 sq.ft.)	(310) spaces		(6)[h]	
27	High Bay Lab	Office	55,772 SF	250	223	
28	7300 La Tijera Boulevard	Gas Station (~10,000 sq.ft.)	10 pumps		3[h]	
		Fast Food	1,659 SF	120[c]	14	

Table 110 (Continued)

RELATED PROJECTS AND PROPOSED PROJECT
CUMULATIVE POPULATION, HOUSING AND EMPLOYMENT GROWTH

Map Number	Project Name	Land Use	Size	Factor	Employees	Residents [a]
29	2260 E. El Segundo Boulevard	Office	38,000 SF	250	152	
		(Industrial – Removal)	(114,000) SF	400	(285)	
30	11855 La Cienega Boulevard	Office	170,000 SF	250	680	
31	Culver City Retail / Theater	Theater	78,000 SF	5,000	16	
32	L.A. Air Force Base – Area A	Retail	640,000 SF	375	1,707	
		Hotel	320 rooms	0.9	288	
		(Office – Removal)	(835,000) SF	250	(3,340)	
33	L.A. Air Force Base – Area B	Office	713,500 SF	250	2,854	
		Warehouse	63,000 SF	1,518[i]	42	
		Base Exchange	93,750 SF	375	250	
		(Office – Removal)	(552,666) SF	250	(2,211)	
		(Day Care Center – Removal)	(16,681) SF	90	(185)	
		(Gas Station – Removal; approx. 6,000 sq.ft.)	(6 pumps)		(2)[h]	
34	LAX Master Plan	Airport & Related Uses	78.8 MAP		(4,058)[j]	
35	Continental City – Phase 1 (2005)	Office/High Technology	3,000,000 SF	250	12,000	
		Commercial/Retail	100,000 SF	375	267	
36	LAX Northside	Office	1,305,000 SF	250	5,220	
		Airport Related Industrial	1,036,000 SF	400	2,590	
		Office Industrial Park	1,595,000 SF	400	3,988	
		Hotel	1,050 rooms	0.9	945	
		Restaurant	55,000 SF	375	147	
		Specialty Retail	65,000 SF	375	173	
37	Marina del Rey Development					
	37a.	Hotel (Timeshare)	288 rooms	0.9	259	
		Residential	531 units	1.61[k]		855
		Park	2+ acres		2[h]	
	37b.	Hotel	226 rooms	0.9	203	
		Retail	3,000 SF	375	8	
		Restaurant	19,000 SF	375	51	
	37c.	Dry Boat Storage	306 spaces	0.1[h]	31	
		Parking Structure	645 spaces		6[h]	
	37d.	Hotel	144 rooms	0.9	130	
		Restaurant	20,900 SF	375	56	
		Retail	11,700 SF	375	31	
	37e.	Hotel	175 rooms	0.9	158	
	37f.	Hotel	200 rooms	0.9	180	
	37g.	Hotel	160 rooms	0.9	144	
	37h.	Public Parking	235 spaces		6[h]	
	37i.	Hotel	276 rooms	0.9	248	
	37j.	Hotel	133 rooms	0.9	120	
	37k.	Residential	780 units	1.61		1,256
	37l.	Personal Storage	34,488 SF		3[h]	
	37m.	Residential	179 units	1.61		288
	37n.	Office/ Retail/ Restaurant	55,870 SF	250	223	
	37o.	Retail	295,000 SF	375	787	
	37p.	Residential	479 units	1.61		771
	37q.	Residential	614 units	1.61		989
	37r.	Residential	99 units	1.61		159
	37s.	Residential	120 units	1.61		193

Table 110 (Continued)

RELATED PROJECTS AND PROPOSED PROJECT
CUMULATIVE POPULATION, HOUSING AND EMPLOYMENT GROWTH

Map Number	Project Name	Land Use	Size	Factor	Employees	Residents [a]
38	L.A. Air Force Base – Hawthorne	Residential	208 units	2.44[l]		508
		(Office – Removal)	(30,000) SF	250	(120)	
39	Civic Center/Metlox Development	Commercial	63,850 SF	375	170	
		Restaurant	6,400 SF	375	17	
		Office	15,000 SF	250	60	
		Retail	16,450 SF	375	44	
		Hotel	35 rooms	0.9	32	
40	Playa Vista Phase I[m]	Residential	3,246 units			7,171
		Office	2,077,050 SF		6,220	
		Retail	35,000 SF		93	
		Community Serving	120,000 SF		240	
		Stages	332,500 SF		665	
		Production & Stage Support	797,400 SF		1,450	
41	330 S. Sepulveda Boulevard	Office	56,000 SF	250	224	
42	In-N-Out Parking	Parking Structure (approx. 589,875 SF)	1,815 spaces		6 [h]	
43	5299 Sepulveda Boulevard	Retail	14,728 SF	375	39	
44	5250 Sepulveda Boulevard	Single-Family Housing	57 units	2.64[n]		150
		Private School	38,500 SF	1,000	39	
45	Culver City Senior Center	Senior Center	27,270 SF	500	55	
46	1000 W. Manchester Boulevard	New Car Sales	801,500 SF	1000[c]	802	
47	830 N. La Brea Boulevard	Elementary School	30,112 SF	1,000	30	
48	Faithful Church Center	Church	55,000 SF	500	110	
49	Rosecrans Avenue/I-405 NB Ramps	Auto Dealership	150,000 SF	1,000	150	
50	Airport Marina Ford	New Car Sales	73,000 SF	1,000	73	
51	Hayden Av Project	Light Industrial	102,000 SF	400	255	
		(Warehouse – Removal)	(70,000) SF	1,518	(46)	
		Office	68,000 SF	250	272	
52	El Segundo/Hawthorne	Office/Retail	850,000 SF	250	3,400	
53	Samitaur	Office	69,300 SF**	250	277	
		Light Industrial	161,600 SF**	400	404	
54	Mica Site	Light Industrial	15,000 SF	400	38	
		Office	15,000 SF	250	60	
		Restaurant	1,000 SF	375	3	
55	Pratt Coffee Architects	Office	38,285 SF	250	153	
56	Grand Avenue Courtyard	Office	93,569 SF	250	374	
57	Sony Pictures Studios	Office	1,102,500 SF	250	4,410	
58	Fox Hills Mall Expansion	Shopping Center	254,461 GLSF	375	679	
59	1733 Ocean Avenue	Retail	8,000 SF	375	21	
		Restaurant	3,720 SF	375	10	
		Office	58,330 SF	250	233	
60	1746 Ocean Avenue	Hotel	175 rooms	0.9	158	
		Restaurant	5,000 SF	375	13	
61	888 N. Sepulveda Bl	Office	120,610 SF	250	482	
62	Mayfair Theater Site	Commercial	45,000 SF	375	120	
63	898 N. Sepulveda Bl	Office – 50% Occupied	87,000 SF	250	348	
64	2300 E. Imperial Hwy	Office	100,000 SF	250	400	
		(Office – Removal)	(157,225) SF	250	(629)	
65	Knowlton Av Senior Housing	Senior Housing	187 units	2.36		441
66	Lantana Project	Office, Studio	64,105 SF**	250	256	
		Office, Studio	152,000 SF**	250	608	

Table 110 (Continued)

RELATED PROJECTS AND PROPOSED PROJECT
CUMULATIVE POPULATION, HOUSING AND EMPLOYMENT GROWTH

Map Number	Project Name	Land Use	Size	Factor	Employees	Residents [a]
67	120 Wilshire Boulevard	Retail	39,529 SF	375	105	
68	Sea Castle Apartments	Residential	135,173 SF	0.002[o]		270
69	Santa Monica/UCLA Hospital	Hospital	65,140 SF	500	130	
70	Convalescent Hospital	Hospital	148 Beds	4[c]	37	
71	1249-1255 20th Street	Hotel	75 rooms	0.9	68	
72	Assisted Living Facility	Residential	81 rooms	1[h]		81
73	Santa Monica Public Safety Facility	Commercial	118,700 SF	375	317	
74	McDonald's Mixed Use	Office	64,485 SF	250	258	
75	Transportation Facility Master Plan	Commercial	40,000 SF	375	107	
		Office	8,000 SF	250	32	
76	CDC	Office	290,096 SF	250	1,160	
77	Xerox Phase IV	Office	255,242 SF	250	1,021	
		Hotel	350 rooms	0.9	315	
78	Pioneer Boulangerie	Residential	133 units	2.04		271
		Retail	19,000 SF	375	51	
79	Mattel	Research & Dev. Bldg.	300,000 SF	400	750	
80	El Segundo Corporate Campus	Office	1,740,000 SF	250	6,960	
		Retail	75,000 SF	375	200	
		Day Care	7,000 SF	90	78	
		Medical Office	7,000 SF	250	28	
		Health Club	19,000 SF	500	38	
		Restaurant	75,000 SF	375	200	
		Hotel	100 rooms	0.9	90	
		Light Industrial	25,000 SF	400	63	
		Research & Development	140,000 SF	400	350	
81	155-555 N. Nash	Office	125,000 SF	250	500	
82	Corporate Pointe – I	Office	650,000 GSF	250	2,600	
83	Corporate Pointe – II	Office	250,000 GSF	250	1,000	
84	SWC of Douglas and Mariposa	Office	99,450 SF	250	398	
		Light Industrial	110,000 SF	400	275	
		Restaurant	1,000 SF	375	3	
85	Shopping Center (3737 Crenshaw Bl)	Retail	63,674 SF	375	170	
86	Shopping Center (8985 Venice Bl)	Shopping Center	132,802 SF	375	354	
87	National Hayden Partners LLC	Office	37,900 SF**	250	152	
		Light Industrial	88,500 SF**	400	221	
88	Mixed-Use (1430 Lincoln Bl)	Apartment	280 units	2.04		571
		Retail	197,000 SF	375	525	
89	Mixed-Use Project (3480 S. La Brea Av.)	Office	20,000 SF	250	80	
		Shopping Center	79,750 SF	375	213	
90	Santa Barbara Plaza	Mixed-Use	500,000 SF	375	1,333	
91	Sawtelle Apartments	Apartment	206 units	2.36		486
92	8787 Venice Boulevard	Office	45,712 SF	250	183	
93	Western Office Building	Office	74,653 SF	250	299	
94	3450 S. La Brea Avenue	Warehouse	190,000 SF	1,518	125	

Table 110 (Continued)

RELATED PROJECTS AND PROPOSED PROJECT
CUMULATIVE POPULATION, HOUSING AND EMPLOYMENT GROWTH

Map Number	Project Name	Land Use	Size		Factor	Employees	Residents [a]
95	Pershing/Talbert	Apartment	305	units	2.36		720
96	Santa Monica Studios	Studio	379,000	SF	375	1,011	
Subtotal Related Projects:						**84,776**	**20,546**
	Background Growth Factor [p]	25% of Total Dwelling Units (0.25 of 9,312 = 2,328)	10% of Total Employment (0.10 of 84,776 = 8,478)		1.92 [q]	8,478	4,470
	Proposed Project	Residential	2,600	units	2.20		5,720
		Offices	175,000	sq.ft.	250	700	
		Retail	150,000	sq.ft.	375	400	
		Community Serving	40,000	sq.ft.	500	80	
Cumulative Total						**94,434**	**30,736**

* *Source of factors is described at the first occurrence of each new factor in this column.*
** *Net development after demolition of existing uses.*
[a] *Assumes a 100% occupancy rate.*
[b] *Average number of residents per household based on SCAG 2010 projections within the Community Plan boundaries of Palms-Mar Vista-Del Rey and Westchester-Playa del Rey. Factors are shown in terms of the number of residents per unit.*
[c] *Except as noted elsewhere, employee factors for general commercial/ office, industrial, and community serving uses are based on survey data presented in the Institute of Transportation Engineers, Trip Generation Manual, 6th Edition. The factors represent the number of square feet that would generate one employee (e.g., a factor of 375 for retail means one employee per 375 sq.ft. of retail space).*
[d] *The employment factor for hotel uses is based on data in the Institute of Transportation Engineers, Trip Generation Manual, 6th Edition. The factors represent the number of employees per hotel room.*
[e] *The employment factor for schools is based on data in the Institute of Transportation Engineers, Trip Generation Manual, 6th Edition. The factors were based on data collected for estimating the trip generation per employee, student, and square footage on a weekday. The factors also represent the approximate number of square feet or students that would generate one employee (i.e., one employee per 1,000 sq.ft. or one employee per 13 students).*
[f] *Average number of residents per household based on SCAG 2010 projections within the City of Santa Monica.*
[g] *Assuming 900 sq.ft./room and 2 persons per room, the number of student residents generated would be 0.0022 students per square foot.*
[h] *Based on an estimate of expected project activities.*
[i] *Factor derived from the Employment Density Study prepared by SCAG in October 2001, Table II-A. The factor represents the number of square feet of warehouse space per employee.*
[j] *The number of employees was based on the estimate presented in the January 2001 LAX Master Plan Draft EIS/EIR. This estimate showed a reduction in employment at LAX due to anticipated productivity improvements.*
[k] *Average number of residents per household based on SCAG 2010 projections within the Marina del Rey area.*
[l] *Average number of residents per household based on SCAG 2010 projections within the City of El Segundo.*
[m] *Number of residents and employees reflects data presented in the Playa Vista Phase I FEIR May 1993, and Playa Vista Entertainment, Media and Technology District MND/EIR Addendum, August 1995.*
[n] *Average number of residents per household based on SCAG 2010 projections within the City of Culver City.*
[o] *Assuming 1,000 sq.ft./unit and 2.04 persons per unit (expected household size in Santa Monica per SCAG 2010 projection), there would be 0.002 person per square foot.*
[p] *The percentage of additional background residential and commercial growth is an assumption based on general observations of development trends over time.*
[q] *Weighted average of household size based on all of the residential related projects in Table 110.*

Source: PCR Services Corporation November 2002.

Table 111

SCAG PROJECTIONS FOR RELATED PROJECTS STUDY AREA

	Population			Housing Units			Employment		
Area	**2002**	**2010**	**2002-2010 Increase**	**2002**	**2010**	**2002-2010 Increase**	**2002**	**2010**	**2002-2010 Increase**
West Side Cities Subregion	242,250	250,000	7,750	121,515	124,204	2,689	239,748	253,165	13,417
City of Los Angeles									
Palms-Mar Vista-Del Rey District Plan Area	109,882	114,673	4,791	49,659	51,684	2,025	25,881	28,836	2,955
Venice Community Plan Area	43,211	54,774	11,563	21,805	25,471	3,666	12,175	13,572	1,397
Westchester-Playa del Rey Community Plan Area	54,851	64,055	9,204	23,333	26,302	2,696	62,083	72,501	10,418
Westwood Community Plan Area	48,873	50,053	1,180	23,766	20,764	-3,002	59,883	61,416	1,533
West L.A. Community Plan Area	75,866	86,327	10,461	42,515	40,109	-2,406	95,220	100,587	5,367
Brentwood-Pacific Palisades District Plan Area	58,859	69,490	10,631	27,466	29,898	2,432	21,741	23,638	1,897
City of Los Angeles District/Community Plan Area Total	391,542	439,372	47,830	188,544	194,228	5,684	276,983	300,550	23,567
City of El Segundo	17,027	17,474	447	7,131	7,150	19	59,241	65,551	6,310
City of Manhattan Beach	35,135	35,407	272	15,025	15,074	49	13,848	14,290	442
Related Projects Study Area Total	685,954	742,253	56,299	332,215	340,656	8,441	589,820	633,556	43,736

Source: PCR Services Corporation based SCAG RTP Projections, July 2001 and 2000 Census, November 2002.

Related Projects Study Area for 2010, and the anticipated growth (change) expected in each geographic area between 2002 and 2010. The RTP projections establish the basis for determining the significance of the cumulative population, housing and employment growth by indicating whether the Project , inclusive of the Equivalency Program and proposed off-site improvements, combined with the related projects, could be accommodated within or exceeds the regional growth forecast.

6.2 Cumulative Impact Analysis

Table 111 on page 794 compares the SCAG RTP forecasted population, household, and employment growth within the study area with the actual growth projected for the Proposed Project and the related projects (see Table 110 on pages 789 through 793). The cumulative impacts of the Proposed Project and related projects, are presented in Table 112 on page 796.

As shown in Table 112, the cumulative increase in housing units as a result of the Project, related projects, and background growth (25% of known residential projects, and 10% of known commercial projects) is expected to be 14,240 in the year 2010. Compared with the SCAG-projected increase of 8,441 housing units in the Related Projects Study Area, the cumulative projects represent approximately 168.7% of the SCAG-projected housing unit growth. Under the Proposed Project's Equivalency Program, the cumulative number of housing units would increase to up to 14,440 in the year 2010. This represents approximately 171.1% of the SCAG-projected housing unit growth.

The cumulative population increase of the Project, related projects and background growth (25% of known residential projects and 10% of known commercial projects), would be 30,736. Compared with the SCAG-projected population increase of 56,299 in the study area, the cumulative projects represent 54.6% of the SCAG-projected growth in the Related Projects Study Area. Under the Proposed Project's Equivalency Program, there would be a cumulative population increase of up to 30,976 in the year 2010. This represents approximately 55.0% of the SCAG-projected population growth.

The cumulative increase in employment represented by the Project, related projects and background growth is expected to be 94,434 permanent jobs in the year 2010. Compared with the SCAG-projected growth in employment of 43,736 jobs in the study area, the cumulative projects represent more than a doubling of the SCAG-projected employment forecast. Construction jobs have not been included in the Proposed Project jobs forecast for 2010 because construction employment is both transient and short-term in nature. With the exception of the jobs-rich LAX Master Plan (related project #34), related projects would be generally consistent with the commercial and residential development designated in the local Community and District Plans, and with the housing goals of the City of Los Angeles General Plan and SCAG's RCPG.

Table 112

CUMULATIVE POPULATION, HOUSING AND EMPLOYMENT IMPACTS
PROPOSED AND RELATED PROJECTS

	Proposed Project	Related Projects, Including Background Growth	Proposed Project and Related Projects	SCAG RTP Projected Growth in Related Projects Study Area [a]	Proposed Project as % of SCAG-Projected Growth	Proposed Project and Related Projects as % of SCAG-Projected Growth
Population	5,720 [b]	25,016	30,736	56,299	10.2%	54.6%
Housing Units	2,600 [c]	11,640	14,240	8,441	30.8%	168.7%
Employment	1,180 [d]	93,254	94,434	43,736	2.7%	215.9%

[a] *Study area is based on the Traffic Cumulative Impact Study Area and consists of the West Side Cities subregion, the Cities of El Segundo and Manhattan Beach, City of Los Angeles community and district plan areas, including Venice, Palms-Mar Vista-Del Rey, Westchester-Playa del Rey, West Los Angeles, Westwood, Brentwood-Pacific Palisades and Marina del Rey and is based on the Traffic Cumulative Impact Study Area.*

[b] *Under the Equivalency Program, the site population could increase by up to 240 residents to a total of up to 5,960 residents. The cumulative population would increase to 30,976.*

[c] *Under the Equivalency Program, the on-site housing units could increase by up to 200 units to a total of up to 2,800 housing units. The cumulative housing increase would be 14,440 units.*

[d] *The increase in on-site employment under the Equivalency Program is less than that of the Proposed Project. As such, Equivalency Program impacts would be less than those of the Proposed Project.*

Source: PCR Services Corporation, November 2002.

Notwithstanding, related project growth would have an adverse impact on the jobs/housing balance ratio as the cumulative projects would have a more jobs-rich ratio than is forecasted for the area by SCAG. This impact is concluded to be significant since the total number of cumulative jobs is much greater than SCAG's forecasted employment growth.

The anticipated cumulative housing and employment growth, inclusive of the Equivalency Program and proposed off-site improvements, would exceed the SCAG RTP housing and employment forecasts for 2010 in the Related Projects Study Area. Thus, the Project's cumulative impacts, inclusive of the Equivalency Program and proposed off-site improvements on housing and employment are significant. As the anticipated cumulative population growth, inclusive of the Equivalency Program and proposed off-site improvements would not exceed SCAG's forecast, cumulative population impacts are less than significant.

IV. ENVIRONMENTAL IMPACT ANALYSIS
K. TRANSPORTATION
(1) TRAFFIC AND CIRCULATION

1.0 INTRODUCTION

This section addresses the Proposed Project's potential impacts on the transportation system in the vicinity of the Proposed Project site. The Traffic and Circulation analysis evaluates the following transportation impact issues.

- Intersections: an analysis of the potential changes in operating conditions at 218 intersections located within an approximate 100-square mile traffic study area;
- Freeways: an analysis of potential changes in operating conditions at 22 freeway monitoring locations that are part of the County's Congestion Management Program;
- Neighborhood Street Impacts: an analysis of the potential for traffic from the Proposed Project to use local residential streets in lieu of major streets;
- Project Access: an analysis of potential impacts associated with access to and from the Proposed Project site by automobiles, bike riders and pedestrians;
- Transit System: an analysis of potential impacts on the capacity of bus lines serving the Proposed Project site; and
- Construction: an analysis of the potential impacts on traffic flows and safety resulting from the Proposed Project's construction activities.

The analysis addresses the impacts that would occur for the Project as Proposed, for the Project's Equivalency Program and for the Project's secondary impacts that would occur from the implementation of the Project's off-site mitigation measures.

The analysis presented below is a summary of information presented in the Traffic Study prepared for this EIR. The Traffic Study, *The Village at Playa Vista Transportation Plan*, was prepared by Kaku Associates, Inc. and Raju Associates, Inc. It is included as Appendix K of the EIR.

2.0 SETTING

2.1 Regulatory Framework

A number of regional and local improvement plans affect transportation in the Proposed Project Area. These include the Citywide General Plan Framework Transportation Improvement and Mitigation Program (TIMP) prepared by the City of Los Angeles; the West Los Angeles Transportation Improvement and Mitigation Program (WLA TIMP), Ordinance No. 171,492, prepared by the City of Los Angeles; the Coastal Transportation Corridor Specific Plan (CTCSP), Ordinance No. 168,999, prepared by the City of Los Angeles; the Los Angeles County Congestion Management Program (CMP) and the Long Range Plan prepared by the Los Angeles County Metropolitan Transportation Authority (MTA); the Regional Transportation Plan (RTP) prepared by the Southern California Association of Governments (SCAG); and the Statewide Transportation Improvement Program (STIP) prepared by the California Department of Transportation (Caltrans).

2.1.1 State Level

The Statewide Transportation Improvement Program (STIP) is a programming document prepared by Caltrans where program funds are allocated to individual projects and adopted/approved by the California Transportation Commission (CTC). The STIP is a seven-year capital improvement program of projects, on and off the State Highway system, funded with revenues from the State Highway Account, Passenger Rail Bond Fund and other sources. The purpose is to increase/enhance the capacity, operations and safety of the transportation system. Projects in the STIP may include projects on State highways, local roads, intercity rail, or local rail systems. The current STIP was adopted by the CTC in April 2002.

2.1.2 Regional Level

Prepared by the Southern California Association of Governments (SCAG), the Regional Transportation Plan (RTP) is a planning document which serves as the Transportation Plan required under state and federal law. The RTP forecasts long-term transportation demands, and identifies policies, actions and funding sources to accommodate these demands. The RTP contemplates the construction of new transportation facilities, transportation system management (TSM) strategies, transportation demand management (TDM) strategies and land-use strategies. The Regional Transportation Improvement Plan (RTIP, 1996-2003), also prepared by SCAG based on the RTP, lists all regional funded/programmed improvements within the next seven years. A Draft RTIP (RTIP 2002) has also been prepared by SCAG based on the most recent RTP. This Draft RTIP provides updates to the list of regional funded/programmed improvements in the next improvement cycle.

2.1.3 County Level

The Los Angeles County Congestion Management Program is a state-mandated program which serves as the monitoring and analytical basis for transportation funding decisions made through the RTIP and STIP. The MTA's Long Range Plan is a strategic document which serves as a framework for meeting the current and projected mobility needs of Los Angeles County. The Long Range Plan recommends within Los Angeles County highway, HOV, bus, rail and travel demand management improvements, and identifies funding sources and implementation schedules over a 20-year period.

2.1.4 Local Level

The Citywide General Plan Framework is a plan for creating a more livable and economically strong City of Los Angeles for the 21st Century. The TIMP, an element of the General Plan Framework, provides recommendations and strategies to guide future transportation-related decisions in Los Angeles consistent with the Los Angeles County CMP, the RTP, and STIP. The General Plan Framework envisions an integrated, multi-modal transportation system that provides accessibility and mobility for everyone in Los Angeles.

The City of Los Angeles Coastal Transportation Corridor Specific Plan (CTCSP) is a regulatory and planning document adopted by the City Council covering development parcels within central/western portions of the City of Los Angeles; i.e., within the Westchester-Playa del Rey, Palms-Mar Vista-Del Rey and Venice Community Plan areas, and the Los Angeles International Airport Interim Plan area. The CTCSP provides regulatory controls, incentives and funding mechanisms for the systematic execution of the General Plan within the specific plan area. It provides for an infrastructure implementation process, specific transportation improvements, wherever possible, and public transportation needs within the plan area by establishing the Coastal Transportation Corridor Trust Fund and the Coastal Transportation Corridor Impact Fee Assessment process.

In addition to the plans stated above, the City of Los Angeles Community Plans offer guidelines for the provision of infrastructure within the Proposed Project Area. The relevant City of Los Angeles Community Plans include the West Adams-Baldwin Hills-Leimert, Westwood and West Los Angeles, Palms-Mar Vista-Del Rey, Westchester-Playa del Rey and Venice Community Plans. The Proposed Project lies within the Westchester-Playa del Rey Community Plan Area. Additionally, within the Proposed Project's study area, the City of Culver City General Plan Circulation Element offers guidelines for provision and improvement of infrastructure within its jurisdiction.

2.2 Existing Conditions

2.2.1 Regional Context And Surrounding Off-Site Conditions

The existing circulation system within the study area is influenced by several natural and man-made features. The Pacific Ocean is immediately west of the study area, providing a natural source for various recreational and beachfront activities along the communities of Ocean Park, Venice, Marina del Rey, Playa del Rey, El Segundo, and Manhattan Beach. Office and retail commercial districts exist in the study area, along with educational institutions such as Loyola Marymount University, West Los Angeles College and Santa Monica College. In addition, major transportation facilities such as the Los Angeles International Airport (LAX), Santa Monica Airport, and the Metro Rail Green Line transit system are located within the study area.

Figure 63 on page 802 illustrates the location of the Proposed Project site in relation to the study area, and the regional highway and surface street system.

2.2.2 Existing Street System

The existing street system analyzed within the study area consists of the regional roadway system, including freeways and principal/major arterials, and the local street system, including major arterials, secondary arterials, collectors and selected local streets. Figure 64 on page 803 illustrates the roadways in the circulation network.

2.2.2.1 Regional Access System

Primary regional access to the Proposed Project is provided by the Marina Freeway (State Route 90) and San Diego Freeway (I-405). The SR-90, which runs in a generally east-west direction, north of the Project site, connects with the San Diego Freeway (I-405) which runs north-south along a diagonal east of the Project site. The San Diego Freeway (I-405) connects with the Santa Monica Freeway (I-10) which runs in an east-west direction in the northern portions of the study area approximately four miles north of the Project site, and with the Glenn M. Anderson Freeway (I-105) which also runs east-west, about three miles south of the Project site.

The principal/major arterials in the study area providing regional and sub-regional access to the Project site include Lincoln Boulevard, Centinela Avenue, Sepulveda Boulevard, Overland Avenue, Aviation Boulevard, La Cienega Boulevard, La Brea Avenue, Crenshaw Boulevard, Pico Boulevard, Venice Boulevard, Washington Boulevard/Place, Culver Boulevard, Jefferson Boulevard, Stocker Street, Slauson Avenue, Manchester Avenue, Century Boulevard, Imperial

PCR

Figure 63
Traffic Analyses Study Area

Source: PCR Services Corporation, 2002

PCR

Figure 64
Road Circulation System

Source: Los Angeles City Public Library, 1996

Highway, El Segundo Boulevard, Rosecrans Avenue, Manhattan Beach Boulevard and Artesia Boulevard. The principal/major arterials in the direct Project vicinity are described below:

Marina Freeway (SR-90) – Approximately three miles long, SR-90 extends from the Fox Hills area to its terminus at Lincoln Boulevard (State Route 1). The freeway provides four to eight travel lanes with interchanges at Centinela Avenue and the I-405. This east-west roadway becomes a divided highway between Lincoln Boulevard and Culver Boulevard, providing two lanes in each direction in that section. The posted speed limits on this facility range between 45 and 55 miles per hour (mph).

San Diego Freeway (I-405) – This north-south regional facility provides ten travel lanes north of the SR-90 to the I-10, and provides a total of eight lanes south of it. Originating in Orange County, the freeway extends north to its terminus at the Golden State (I-5) Freeway. The posted speed limit on the I-405 is 65 mph. Within the study area, the I-405 connects with the Santa Monica Freeway to the north and the I-105 to the south and provides numerous interchanges with major secondary arterials.

Lincoln Boulevard (SR 1) – This north-south major arterial passing to the west of the Project site provides four to six travel lanes within the study area. Lincoln Boulevard connects the Santa Monica Central Business District (CBD) to Los Angeles International Airport, where it merges with Sepulveda Boulevard. South of its junction with Sepulveda Boulevard, SR 1 offers eight travel lanes to El Segundo Boulevard. Parking is provided along Lincoln Boulevard on either side within the City of Santa Monica and sporadically within the City of Los Angeles adjacent to strip commercial development. SR 1 has full interchange connectors with the I-10 and a partial interchange with Culver Boulevard offering a connection from eastbound Culver Boulevard to northbound Lincoln Boulevard. The posted speed limits on Lincoln Boulevard range between 35 and 45 mph.

Sepulveda Boulevard – Sepulveda Boulevard is a major north-south arterial just east of the Project site providing regional access from both the South Bay Cities to the south and various northern communities within the San Fernando Valley to the north. Sepulveda Boulevard runs approximately 31 miles north-south passing through various cities and offering six to eight travel lanes. Sepulveda Boulevard has several hook-ramp connections to/from northbound I-405 in the vicinity of the study area. The posted speed limits on Sepulveda Boulevard range between 30 and 45 mph within the study area.

Centinela Avenue – A north-south major arterial north of the Project site, this roadway curves around the adjacent First Phase Playa Vista Project site and changes to an east-west direction, and continues on to its terminus east of the Project site. Centinela Avenue offers mostly four travel lanes except in the immediate vicinity of the Project site where six travel lanes

are available. North of National Boulevard, this roadway becomes Bundy Drive. Bundy Drive provides connections to the I-10 Freeway to and from the east. Centinela Avenue provides connections to the SR-90 which in turn offers regional circulation possibilities. Centinela Avenue provides key site access to the eastern end of the adjacent Playa Vista First Phase Project. The posted speed limit on Centinela Avenue is 35 mph.

Overland Avenue – This north-south major arterial offers four travel lanes from Pico Boulevard on the north to south of Jefferson Boulevard. Overland Avenue passes through the Cities of Los Angeles and Culver City offering direct interchange access to the I-10 within the study area. The posted speed limits on Overland Avenue range between 30 and 40 mph.

La Cienega Boulevard – This is a four to six lane major arterial traversing in the north-south direction east of the Project site. La Cienega Boulevard travels through the Cities of Los Angeles, Culver City and Inglewood, and the County of Los Angeles within the study area. It has full interchanges with the I-10, Slauson Avenue and the I-405. The posted speed limits on La Cienega Boulevard range between 35 and 55 mph within the study area.

Aviation Boulevard – This north-south major arterial connects Pacific Coast Highway (PCH) in Hermosa Beach through the cities of El Segundo and Los Angeles to Manchester Avenue in the City of Los Angeles, east of the Project site. This roadway offers four travel lanes in the vicinity of the study area. The posted speed limit on Aviation Boulevard is 40 mph.

Venice Boulevard – Venice Boulevard is a six- to seven-lane east-west major arterial located north of the Project site between the western boundary of the City of Los Angeles and the Los Angeles CBD. This roadway has full access to the I-10 as well as the I-405. The posted speed limits on Venice Boulevard range between 35 and 45 mph within the study area.

Washington Boulevard – This is a four lane major arterial connecting the western boundary of the City of Los Angeles with the Los Angeles CBD and points east. Washington Boulevard traverses the Cities of Los Angeles and Culver City within the study area. Interchange access is available from Washington Boulevard to/from the east to the I-10. The posted speed limits on Washington Boulevard range between 30 and 40 mph within the study area.

Culver Boulevard – This east-west major arterial traverses from Playa del Rey in the west to the eastern boundary of the City of Culver City. Culver Boulevard offers two to four travel lanes in the vicinity of the study area. It has partial interchanges at Lincoln Boulevard and the I-405 to and from the north. The posted speed limits on Culver Boulevard range between 35 and 45 mph.

Jefferson Boulevard – This east-west major arterial offers four to six travel lanes within the study area connecting the Project site with the City of Culver City, the University of Southern California and points east. It has full interchange access to the I-405 immediately adjacent to the site. Jefferson Boulevard traverses the cities of Los Angeles and Culver City within the study area. The posted speed limits on Jefferson Boulevard range between 35 and 50 mph within the study area.

Slauson Avenue – Slauson Avenue is a major east-west arterial east of the Project site. It travels mostly through the City of Culver City and the County of Los Angeles within the study area. This roadway offers six to eight travel lanes within the study area and provides major access to the Fox Hills Regional Mall in the City of Culver City. The posted speed limits on Slauson Avenue range between 35 and 45 mph within the study area.

Manchester Avenue – This is a major east-west arterial south of the Project site offering four travel lanes within the study area. This roadway offers full access to the I-405. It traverses the cities of Los Angeles and Inglewood within the study area. The posted speed limit on Manchester Avenue is 35 mph within the study area.

Century Boulevard – This major east-west arterial offers eight travel lanes from LAX to La Cienega Boulevard, east of which it offers six travel lanes. Full interchange access is available between Century Boulevard and the I-405. Within the study area, Century Boulevard traverses through the Cities of Los Angeles and Inglewood. The posted speed limits on Century Boulevard range between 35 and 45 mph within the study area.

Imperial Highway – This east-west major arterial connects Vista del Mar south of LAX, the I-405, the I-105 and points east, south of the Project site. This roadway offers four to six travel lanes within the study area. Imperial Highway traverses through the cities of Los Angeles, El Segundo and Hawthorne in the vicinity of the study area. The posted speed limits on Imperial Highway range between 40 and 50 mph within the study area.

2.2.2.2 Local/Sub-Regional Access System

Local and sub-regional access and circulation opportunities within the Project study area are provided by major arterials, secondary arterials, collector streets and selected local streets. Primary roadways which provide regional and sub-regional access to the Project site are described in the preceding section. The secondary arterials, collectors, and selected local streets within the project study area offer sub-regional and local access and circulation possibilities. These facilities generally provide two to four travel lanes (one to two lanes in each direction) and generally allow parking on either side of the street. Typically, the speed limits range between 25 and 35 mph. Some of the facilities within the study area, not identified above, are listed below.

North-South Facilities

- Sawtelle Boulevard
- Admiralty Way
- Inglewood Boulevard
- Pacific Avenue/Nielson Way
- Ocean Avenue
- Main Street (City of Santa Monica extending into the City of Los Angeles)
- Beethoven Street
- Glencoe Avenue
- Walgrove Avenue
- Pershing Drive
- Airport Boulevard
- Douglas Street
- Main Street (City of El Segundo)

East-West Facilities

- Rose Avenue
- Mindanao Way
- Maxella Avenue
- Westchester Parkway/Arbor Vitae Street
- Braddock Drive
- National Boulevard
- Palms Boulevard

- Ocean Park Boulevard
- Colorado Boulevard
- Broadway
- Fiji Way

2.2.3 Existing Traffic Volumes And Levels of Service

The following sections present the existing intersection peak hour traffic volumes, and the level of service at each of the analyzed intersections.

2.2.3.1 Existing Traffic Volumes

A total of 218 intersections (including a number of freeway and off-ramps) within nine jurisdictions[357] are analyzed as part of the Project's traffic analysis.[358] Of these, 209 intersections are currently in service and part of the existing baseline conditions. Eight additional intersections are new improvements that would be in operation under the 2010 baseline conditions. One additional analysis intersection would be implemented under the Proposed Project. The locations of these intersections are illustrated in Figure 65 on page 809. Of the 218 study locations, 109 are in the City of Los Angeles, 40 are in Culver City, 6 are in Inglewood, 23 are in Santa Monica, 25 are in Los Angeles County, and 15 are in the South Bay Cities.

Manual A.M. and P.M. peak hour turning movement counts were conducted at 97 locations in the year 2001 and at 53 locations in the year 2002. At the City of Santa Monica locations, data was obtained from the Citywide Traffix model prepared by the City of Santa Monica. The remaining intersections were compiled from counts conducted in earlier years. All of these counts were updated to base year 2003 existing conditions in the following manner:

- The year 2001 and 2002 traffic counts were compared to year 1998 traffic counts to obtain growth factors for A.M. and P.M. peak hours. These growth factors were 1.63 percent and 0.91 percent during the A.M. and P.M. peak hours, respectively.

[357] *The nine jurisdictions include the City of Los Angeles, Los Angeles County, Culver City, Inglewood, Santa Monica, and the four South Bay Cities (El Segundo, Manhattan Beach, Hawthorne, and Hermosa Beach).*

[358] *Intersection numbering for the 218 intersections extends to 220. Numbers 213 and 214 are not assigned to any analyzed intersections.*

Figure 65
Analyzed Intersections

Source: Kaku Associates, July 2003

- The yearly growth rates were applied to all intersection counts to obtain updated 2003 A.M. and P.M. peak hour turning volumes at all analyzed intersection locations.

The existing 2003 updated peak hour traffic volumes and lane configurations for the analysis intersections are presented as an Appendix to the Traffic Report which is Appendix K of the EIR.

2.2.3.2 Level of Service Methodology

Level of Service (LOS) is a qualitative measure used to describe the condition of traffic flow, ranging from excellent conditions at LOS A to overloaded conditions at LOS F. LOS D is typically recognized as an acceptable service level in urban areas.[359] The definition for each level of service for signalized intersections is based on the volume-to capacity (V/C) ratio. The definitions are included in Table 113 on page 811. Intersections which are not signalized are rated by the average time delay incurred by the stopped vehicles when passing through the intersection, as measured in seconds as shown in Table 114 on page 811.

2.2.3.3 Existing Intersection Operations

Existing operation levels for the 209[360] existing intersections included in the 2003 base analysis for the A.M. and P.M. peak hours are shown in Table 115 on pages 812 through 816, which summarizes the Volume-to-Capacity (V/C) ratios and corresponding LOS at each signalized location (201 locations). Operating conditions as measured by time delay is shown for non-signalized intersections (eight locations). In accordance with LADOT procedures, a 7 percent increase in intersection capacity was included at signalized intersections within the City of Los Angeles and City of Culver City currently operating under the Automatic Traffic Surveillance and Control (ATSAC) System. An additional 3 percent capacity increase was included at intersections operating under the Adaptive Traffic Control System (ATCS). The existing traffic capacity calculations reflect the increased capacity provided by the signal system enhancements. This increased capacity provided by the signal system enhancements is carried through the Project's traffic analysis. Figure 66 on page 817 and Figure 67 on page 818 graphically illustrate the existing weekday morning and afternoon peak hour level of service (LOS) at the analyzed intersections, respectively.

Based on the data included in Table 115 on pages 812 through 816, the following observations can be made. 167 of the 209 intersections in the A.M. peak hour (80 percent) and 160 in the P.M. peak hour (77 percent) are currently operating at LOS D or better. At these

[359] *Transportation Research Board, Highway Capacity Manual 2000, pp. 2-3.*

[360] *Of the 209 intersections, 201 are signalized and 8 are controlled by stop-signs. The remaining nine of the 218 intersections included in this analysis were not in operation in 2003.*

Table 113

SIGNALIZED INTERSECTION LEVEL OF SERVICE DEFINITIONS

Level of Service	Volume/Capacity Ratio	Definition
A	0.000 - 0.600	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	0.601 - 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel some-what restricted within groups of vehicles.
C	0.701 - 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801 - 0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901 - 1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	>1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

Source: Transportation Research Board, Transportation Research Circular No. 212, Interim on Highway Capacity, 1980.

Table 114

UNSIGNALIZED INTERSECTION LEVEL OF SERVICE DEFINITIONS

Level of Service	Average Vehicle Delay (seconds)
A	0 to 5
B	6 to 10
C	11 to 20
D	21 to 30
E	31 to 45
F	>45

Source: Transportation Research Board, Highway Capacity Manual, Special Report 209, 1994.

Table 115

INTERSECTION OPERATING CONDITIONS – 2003 BASE

CMP*	No.	Intersection		A.M. V/C	A.M. LOS	P.M. V/C	P.M. LOS
		City of Los Angeles					
	192	111th St	@ La Cienega Bl	0.241	A	0.357	A
	220	12th St	@ Bluff Creek Dr	N/A	—	N/A	—
	64	77th St/76th St	@ Sepulveda Bl	0.976	E	0.687	B
	91	80th St/79th St	@ Sepulveda Bl	0.699	B	0.793	C
	45	83rd St	@ Lincoln Bl	1.163	F	0.724	C
	92	83rd St	@ Sepulveda Bl	0.591	A	0.627	B
	44	88th St/La Tijera Bl	@ Sepulveda Bl	0.721	C	0.719	C
	68	96th St	@ Airport Bl	0.386	A	0.391	A
	171	Abbott Kinney Bl	@ Venice Bl	0.687	B	0.652	B
	2	Airport Bl	@ Century Bl	0.526	A	0.613	B
	3	Airport Bl	@ La Tijera Bl	0.670	B	0.489	A
	172	Airport Bl	@ Manchester Av	0.675	B	0.707	C
	1	Airport Bl	@ Westchester Pkwy/Arbor Vitae St	0.515	A	0.523	A
	69	Alla Rd	@ Jefferson Bl	0.284	A	0.239	A
	4	Arbor Vitae St	@ Aviation Bl	0.515	A	0.689	B
	6	Aviation Bl	@ Century Bl	0.838	D	0.751	C
	7	Aviation Bl	@ Imperial Hwy	0.718	C	0.717	C
	216	B St	@ Playa Vista Dr	N/A	—	N/A	—
	70	Beethoven St	@ Jefferson Bl	0.206	A	0.285	A
	152	Braddock Dr	@ Sawtelle Bl	0.602	B	0.700	B
	71	Brooks Av/Abbot Kinney Bl	@ Main St	0.459	A	0.539	A
	173	Bundy Dr	@ I-10 EB On-Ramp	1.034	F	0.964	E
	72	Bundy Dr	@ Ocean Park Bl	0.919	E	1.308	F
	11	Centinela Av	@ Culver Bl	0.637	B	0.767	C
	12	Centinela Av	@ Jefferson Bl	0.669	B	0.495	A
*	13	Centinela Av	@ La Cienega Bl	1.103	F	1.102	F
	14	Centinela Av	@ La Tijera Bl	0.974	E	0.726	C
	73	Centinela Av	@ Marina Fwy EB Ramps	0.534	A	0.708	C
	74	Centinela Av	@ Marina Fwy WB Ramps	0.647	B	0.753	C
	75	Centinela Av	@ Mesmer Av	57.2[a]	F	32.4[a]	D
	123	Centinela Av	@ Short Av	0.589	A	0.578	A
	76	Centinela Av	@ Bluff Creek Dr	N/A	—	N/A	—
*	209	Centinela Av	@ Venice Bl	1.128	F	1.167	F
	17	Century Bl	@ Sepulveda Bl	0.617	B	0.763	C
	180	Crenshaw Bl	@ Florence Av	0.697	B	0.824	D
	178	Crenshaw Bl	@ Slauson Av	0.942	E	1.287	F
	174	Crenshaw Bl	@ Stocker St	0.684	B	0.739	C
	77	Culver Bl	@ Inglewood Bl	0.641	B	0.785	C
	18	Culver Bl	@ Jefferson Bl	0.741	C	0.675	B
	19	Culver Bl	@ Marina Exwy EB Ramps	0.696	B	0.888	D
	20	Culver Bl	@ Marina Exwy WB Ramps	0.900	D	0.941	E
	78	Culver Bl	@ Nicholson St	0.660	B	0.814	D
	215	Culver Bl	@ Playa Vista Dr	N/A	—	N/A	—
	161	Culver Bl	@ Venice Bl	0.828	D	0.915	E
	22	Culver Bl	@ Vista Del Mar	0.628	B	0.642	B
	142	Culver Bl (Southeast)	@ Lincoln Bl Ramp	N/A	—	N/A	—
	67	Fairfax Av	@ La Cienega Bl	1.056	F	0.861	D
	179	Fairfax Av	@ Washington Bl	0.868	D	0.687	B
	79	Falmouth Av	@ Manchester Av	0.216	A	0.255	A

Table 115 (Continued)

INTERSECTION OPERATING CONDITIONS – 2003 BASE

CMP*	No.	Intersection		A.M. V/C	A.M. LOS	P.M. V/C	P.M. LOS
	80	Glencoe Av	@ Maxella Av	0.322	A	0.567	A
	177	Grand Av	@ Vista Del Mar	0.697	B	0.508	A
	26	Howard Hughes Pkwy	@ Sepulveda Bl	0.796	C	0.774	C
	186	I-10 EB Off Ramp	@ La Brea Av	0.565	A	0.634	B
	191	I-10 EB Off Ramp	@ La Cienega Bl	28.3 [a]	D	34.8 [a]	D
	210	I-10 EB On-Ramp	@ Washington Bl	0.497	A	0.623	B
	187	I-10 WB Off Ramp	@ La Brea Av	0.633	B	0.637	B
	211	I-10 WB Off Ramp/Apple St	@ Washington Bl	0.498	A	0.558	A
	63	I-105 WB Off Ramp	@ Sepulveda Bl	1.228	F	0.931	E
	30	I-405 NB Ramps	@ Jefferson Bl	0.718	C	0.788	C
	40	I-405 NB Ramps	@ La Tijera Bl	0.829	D	0.828	D
	31	I-405 SB Ramps	@ Jefferson Bl	0.568	A	0.560	A
	41	I-405 SB Ramps	@ La Tijera Bl	0.710	C	0.803	D
	201	I-405 SB Ramps N/O Century Bl	@ La Cienega Bl	0.609	B	0.561	A
	194	I-405 SB Ramps N/O Imperial Hwy	@ La Cienega Bl	0.361	A	0.255	A
	193	I-405 SB Ramps S/O Century Bl	@ La Cienega Bl	0.434	A	0.503	A
	185	Imperial Hwy	@ La Cienega Bl	0.337	A	0.463	A
	27	Imperial Hwy	@ Pershing Dr	0.666	B	0.453	A
	28	Imperial Hwy	@ Sepulveda Bl	0.903	E	1.066	F
	184	Imperial Hwy	@ Vista Del Mar	0.539	A	0.462	A
	82	Inglewood Bl/Centinela Av	@ Jefferson Bl	0.613	B	0.610	B
*	32	Jefferson Bl	@ La Cienega Bl	1.196	F	1.143	F
	33	Jefferson Bl	@ Lincoln Bl	0.765	C	0.800	C
	83	Jefferson Bl	@ McConnell Av	52.8 [a]	F	273.4 [a]	F
	84	Jefferson Bl	@ Mesmer Av	0.311	A	0.263	A
	163	Jefferson Bl	@ National Bl	0.435	A	0.613	B
	217	Jefferson Bl	@ Playa Vista Dr	N/A	—	N/A	—
	164	Jefferson Bl	@ Rodeo Rd	0.757	C	0.807	D
	85	Jefferson Bl	@ Westlawn Av	0.315	A	0.379	A
	36	La Cienega Bl	@ La Tijera Bl	0.811	D	0.761	C
	37	La Cienega Bl	@ Rodeo Rd	0.979	E	1.189	F
*	198	La Cienega Bl	@ Venice Bl	1.059	F	0.990	E
	42	La Tijera Bl	@ Lincoln Bl	0.413	A	0.484	A
	43	La Tijera Bl	@ Manchester Av	0.614	B	0.598	A
	81	Lincoln Bl	@ LMU Drive	0.688	B	0.917	E
	86	Lincoln Bl	@ Loyola Bl	0.417	A	0.538	A
*	46	Lincoln Bl	@ Manchester Av	0.833	D	0.816	D
*	47	Lincoln Bl	@ Marina Exwy	0.851	D	0.931	E
	48	Lincoln Bl	@ Maxella Av	0.685	B	0.750	C
	50	Lincoln Bl	@ Rose Av	0.841	D	0.829	D
*	51	Lincoln Bl	@ Sepulveda Bl	0.523	A	0.645	B
	52	Lincoln Bl	@ Bluff Creek Dr (Hughes Way)	N/A	—	N/A	—
*	53	Lincoln Bl	@ Venice Bl	1.080	F	1.016	F
	54	Lincoln Bl	@ Washington Bl	0.816	D	0.964	E
	55	Main St	@ Rose Av	0.467	A	0.784	C
	56	Manchester Av	@ Pershing Dr	0.515	A	0.430	A
*	57	Manchester Av	@ Sepulveda Bl	0.866	D	1.016	F
	87	Marina Exwy EB Ramps	@ Mindanao Wy	0.666	B	0.830	D
	88	Marina Exwy WB Ramps	@ Mindanao Wy	0.420	A	0.616	B

Table 115 (Continued)

INTERSECTION OPERATING CONDITIONS – 2003 BASE

CMP*	No.	Intersection		A.M. V/C	A.M. LOS	P.M. V/C	P.M. LOS
	219	McConnell Av	@ Bluff Creek Dr	N/A	—	N/A	—
	160	Motor Av	@ Venice Bl	0.849	D	0.925	E
	94	Ocean Av/Via Marina	@ Washington Bl	0.680	B	0.875	D
	212	Overland Av	@ Palms Bl	0.803	D	0.857	D
*	157	Overland Av	@ Venice Bl	0.886	D	1.002	F
	89	Pacific Av	@ Washington Bl	0.590	A	0.647	B
	90	Palawan Way	@ Washington Bl	18.0[a]	C	19.6[a]	C
	59	Pershing Dr	@ Westchester Pkwy	0.287	A	0.251	A
	218	Playa Vista Dr	@ Bluff Creek Dr	N/A	—	N/A	—
	200	Sepulveda Bl	@ Westchester Pkwy	0.695	B	0.792	C
	93	Venice Bl	@ Walgrove Av	0.711	C	0.859	D
		County of Los Angeles					
	112	Admiralty Way	@ Bali Way	0.515	A	0.813	D
	113	Admiralty Way	@ Fiji Way	0.319	A	0.501	A
	114	Admiralty Way	@ Mindanao Way	0.765	C	0.921	E
	115	Admiralty Way	@ Palawan Way	0.543	A	0.804	D
	116	Admiralty Way	@ Via Marina	0.582	A	0.859	D
	140	Alvern St	@ Centinela Av	0.738	C	0.610	B
	10	Bali Way	@ Lincoln Bl	0.467	A	0.664	B
	141	Centinela Av	@ Sherbourne Dr	0.746	C	0.591	A
	202	Century Bl	@ I-405 NB Off Ramp	0.765	C	0.565	A
	144	Corning Av	@ Slauson Av	0.843	D	0.629	B
	147	Fairfax Av	@ Slauson Av	0.847	D	0.793	C
	24	Fiji Way	@ Lincoln Bl	0.539	A	0.795	C
	203	Hawthorne Bl	@ I-105 EB Off Ramp	0.496	A	0.579	A
	204	Hawthorne Bl	@ Lennox Bl	0.563	A	0.818	D
	205	Inglewood Av	@ Lennox Bl	0.697	B	0.814	D
	145	Kings Rd	@ Slauson Av	0.552	A	0.486	A
	189	La Brea Av	@ Slauson Av	0.972	E	0.961	E
	190	La Brea Av/Overhill Dr	@ Stocker St	0.936	E	1.067	F
	195	La Cienega Bl	@ Lennox Bl	0.334	A	0.311	A
*	197	La Cienega Bl	@ Stocker St	1.227	F	1.066	F
	38	La Cienega Bl Ramps N	@ Slauson Av	0.738	C	0.583	A
	39	La Cienega Bl Ramps S	@ Slauson Av	0.892	D	0.742	C
	146	La Tijera Bl	@ Slauson Av	0.512	A	0.586	A
	49	Lincoln Bl	@ Mindanao Way	0.825	D	0.927	E
	143	Shenandoah Av	@ Slauson Av	0.686	B	0.618	B
		City of Culver City					
	159	Braddock Dr	@ Overland Av	0.551	A	0.616	B
	153	Braddock Dr	@ Sepulveda Bl	0.572	A	0.611	B
	96	Bristol Pkwy	@ Centinela Av	0.760	C	0.538	A
	95	Bristol Pkwy	@ Slauson Av	24.7[a]	C	19.5[a]	C
	97	Buckingham Pkwy	@ Slauson Av	0.662	B	0.811	D
	98	Centinela Av	@ Green Valley Cir	0.807	D	0.574	A
	15	Centinela Av	@ Sepulveda Bl	0.852	D	0.750	C
	16	Centinela Av	@ Washington Bl	0.757	C	0.887	D
	99	Centinela Av	@ Washington Pl	0.894	D	0.963	E
	21	Culver Bl	@ Main St/Washington Bl	0.934	E	0.745	C

Table 115 (Continued)

INTERSECTION OPERATING CONDITIONS – 2003 BASE

CMP*	No.	Intersection		A.M. V/C	A.M. LOS	P.M. V/C	P.M. LOS
	100	Culver Bl	@ Overland Av	0.719	C	0.748	C
	102	Culver Bl	@ Sawtelle Bl	0.735	C	0.745	C
	101	Culver Bl	@ Sepulveda Bl	0.954	E	0.923	E
	165	Duquesne Av	@ Jefferson Bl	0.838	D	0.888	D
	103	Glencoe Av	@ Washington Bl	0.581	A	0.782	C
	166	Green Valley Cir	@ Sepulveda Bl	0.616	B	0.679	B
	104	Hannum Av	@ Playa St	0.701	C	0.707	C
	105	Hannum Av	@ Slauson Av	0.540	A	0.480	A
	156	I-405 NB Ramps S/O Venice Bl	@ Sepulveda Bl	0.744	C	0.729	C
	151	I-405 SB Off Ramp N/O Culver Bl	@ Sawtelle Bl	0.229	A	0.251	A
	29	Inglewood Bl	@ Washington Bl	0.603	B	0.896	D
	34	Jefferson Bl	@ Overland Av	0.776	C	0.881	D
	35	Jefferson Bl	@ Sepulveda Bl (N)	0.715	C	0.815	D
	106	Jefferson Bl	@ Slauson Av	0.431	A	0.539	A
	199	La Cienega Bl	@ Washington Bl	0.941	E	0.770	C
	107	Marina Fwy	@ Slauson Av	0.677	B	0.663	B
	148	Matteson Av/I-405 SB Ramps	@ Sawtelle Bl	0.939	E	0.612	B
	162	Motor Av	@ Washington Bl	0.744	C	0.778	C
	158	Overland Av	@ Washington Bl	0.940	E	0.863	D
	60	Playa St/Jefferson Bl	@ Sepulveda Bl	0.862	D	0.958	E
	108	Redwood Av	@ Washington Bl	0.401	A	0.427	A
	170	Sawtelle Bl	@ Sepulveda Bl	0.715	C	0.815	D
	62	Sawtelle Bl	@ Venice Bl	0.858	D	0.851	D
	150	Sawtelle Bl	@ Washington Bl	0.484	A	0.577	A
	149	Sawtelle Bl	@ Washington Pl	0.511	A	0.525	A
	65	Sepulveda Bl	@ Slauson Av	0.679	B	0.729	C
	66	Sepulveda Bl	@ Venice Bl	0.907	E	0.764	C
	155	Sepulveda Bl	@ Washington Bl	0.741	C	0.769	C
	154	Sepulveda Bl	@ Washington Pl	0.838	D	0.635	B
	167	Walgrove Av	@ Washington Bl	23.2[a]	C	16.7[a]	C
		City of Santa Monica					
	133	23rd St	@ Ocean Park Bl	0.974	E	1.272	F
	132	23rd St	@ Pico Bl	0.677	B	0.975	E
*	136	26th St	@ Wilshire Bl	0.719	C	0.910	E
	137	4th St	@ Colorado Av	0.637	B	0.844	D
	129	4th St	@ Ocean Park Bl N	16.9[b]	C	18.5[b]	C
	130	4th St	@ Ocean Park Bl S	13.6[b]	B	13.1[b]	B
	128	4th St	@ Pico Bl	0.943	E	0.912	E
	127	4th St	@ Wilshire Bl	0.577	A	0.602	B
	138	Cloverfield Bl	@ I-10 EB On Ramp	0.882	D	0.926	E
	139	Cloverfield Bl	@ I-10 WB Off Ramp	0.948	E	0.869	D
	135	Cloverfield Bl	@ Ocean Park Bl	0.607	B	0.709	C
	134	Cloverfield Bl	@ Pico Bl	0.823	D	0.891	D
	168	I-10 EB On Ramp	@ Lincoln Bl	1.184	F	0.928	E
	169	I-10 WB Off Ramp	@ Lincoln Bl	0.881	D	0.966	E
	109	Lincoln Bl	@ Ocean Park Bl	1.130	F	1.133	F
*	124	Lincoln Bl	@ Pico Bl	0.988	E	1.065	F
	131	Lincoln Bl	@ Wilshire Bl	0.729	C	0.883	D
	110	Main St	@ Ocean Park Bl	0.921	E	0.838	D

Table 115 (Continued)

INTERSECTION OPERATING CONDITIONS – 2003 BASE

CMP*	No.	Intersection		A.M. V/C	A.M. LOS	P.M. V/C	P.M. LOS
	117	Main St	@ Pico Bl	0.680	B	0.912	E
	111	Neilson Way	@ Ocean Park Bl	0.695	B	0.737	C
	126	Ocean Av	@ Palisades Beach Rd Ramps	0.481	A	0.934	E
	125	Ocean Av	@ Wilshire Bl	0.618	B	0.624	B
	118	Ocean Av/Neilson Way	@ Pico Bl	0.632	B	0.841	D
		City Of Inglewood					
	5	Arbor Vitae St	@ La Cienega Bl	0.538	A	0.633	B
	206	Centinela Av	@ Florence Av	0.545	A	0.780	C
	175	Centinela Av	@ La Brea Av	1.167	F	1.134	F
	8	Florence Av/Aviation Bl	@ Manchester Bl	0.937	E	0.873	D
*	188	La Brea Av	@ Manchester Bl	1.068	F	0.989	E
	196	La Cienega Bl	@ Manchester Bl	0.598	A	0.928	E
		South Bay Cities					
*	208	Artesia Bl	@ Sepulveda Bl/PCH	0.863	D	1.209	F
	9	Aviation Bl	@ Rosecrans Av	1.041	F	1.339	F
	176	Douglas St	@ Imperial Hwy	0.545	A	0.432	A
*	23	El Segundo Bl	@ Sepulveda Bl	0.941	E	1.100	F
	120	Grand Av	@ Sepulveda Bl	1.004	F	1.164	F
	207	Highland Av	@ Manhattan Beach Bl	0.564	A	0.552	A
	181	I-405 NB Ramps	@ Imperial Hwy	0.323	A	0.464	A
	183	I-105 WB Off Ramp/Nash St	@ Imperial Hwy	0.614	B	0.329	A
	182	Imperial Hwy	@ Main St	0.757	C	0.672	B
	122	Manhattan Beach Bl	@ Sepulveda Bl	1.167	F	1.251	F
	119	Maple Av	@ Sepulveda Bl	0.686	B	0.771	C
	121	Marine Av	@ Sepulveda Bl	1.063	F	1.133	F
	58	Mariposa Av	@ Sepulveda Bl	0.870	D	0.872	D
*	61	Rosecrans Av	@ Sepulveda Bl	0.868	D	1.093	F
	25	Rosecrans Av	@ Vista Del Mar/Highland Av	1.193	F	0.887	D
TOTAL NUMBER OF INTERSECTIONS AT LOS E or F				**42**		**49**	

N/A = Not Applicable. Future proposed intersections included for analysis that are not fully operational as of January 2003.

* *Denotes Congestion Management Program (CMP) Arterial Monitoring Station used for CMP Analysis, as described in Subsection 2.2.4.*

[a] *Intersection controlled by stop signs on minor approach(es) to non-signalized throughways. Indicates average vehicle delay in seconds (not V/C ratio) for the intersection.*

[b] *Intersection controlled by stop signs on all approaches. Indicates average vehicle delay in seconds (not V/C ratio) for the intersection.*

[c] *South Bay Cities Include El Segundo, Manhattan Beach, Hawthorne and Hermosa Beach.*

Source: Kaku Associates, Inc. and Raju Associates, Inc., July 2003.

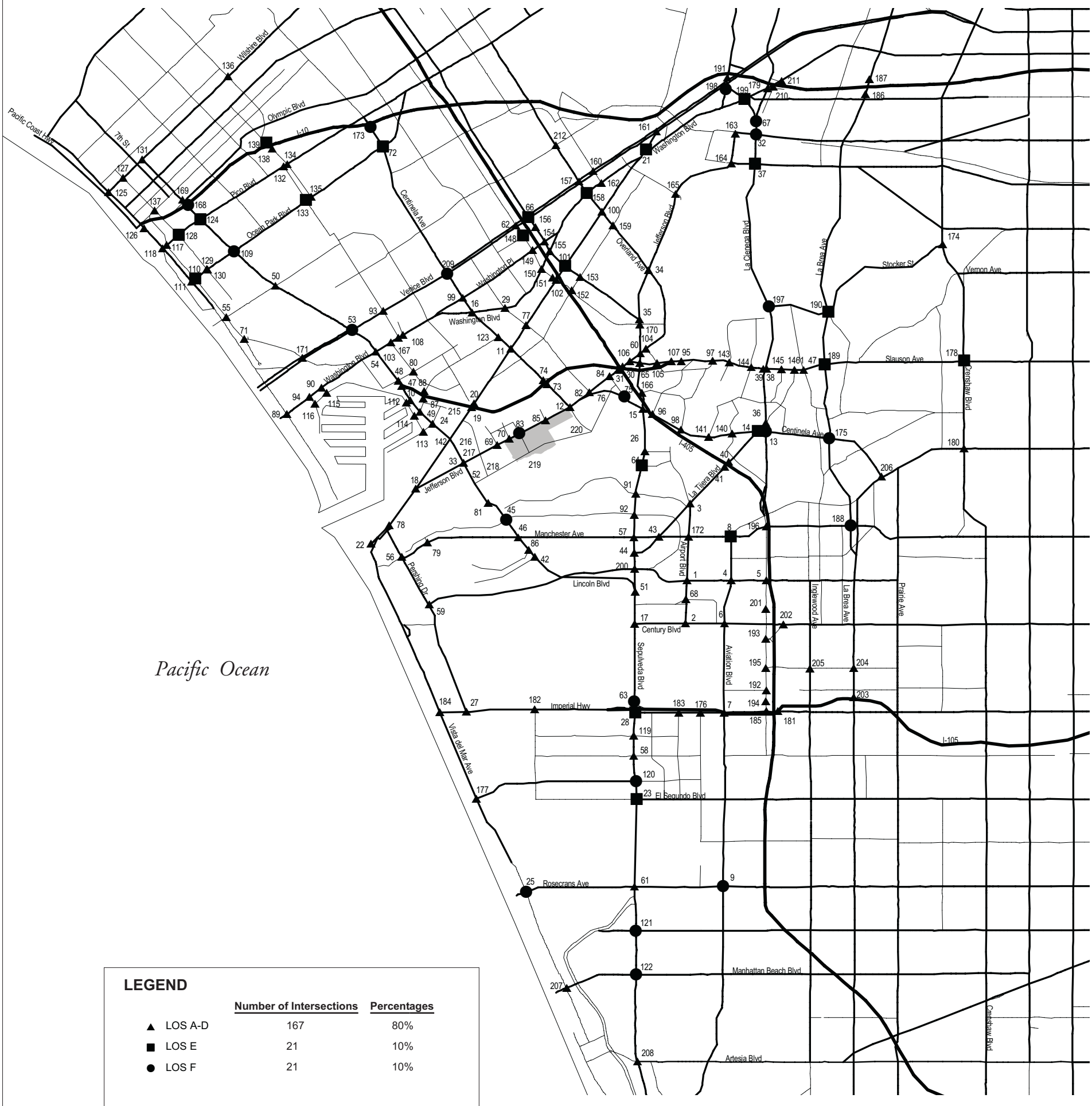

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Figure 66
Intersection Levels of Service
Existing AM Peak Hour

Source: Kaku Associates, July 2003

Figure 67
Intersection Levels of Service
Existing PM Peak Hour

Source: Kaku Associates, July 2003

locations, motorists experience little to tolerable amounts of delay. Twenty-one of the intersections in the A.M. peak hour (10 percent) and 25 in the P.M. peak hour (12 percent) are operating at LOS E. At these locations, motorists experience measurable delay and traffic flow is restricted. Twenty-one of the intersections in the A.M. peak hour (10 percent) and 24 in the P.M. peak hour (11 percent) are operating currently at LOS F. The intersection capacity calculation worksheets for existing A.M. and P.M. peak hours are provided in the Traffic Report, Appendix K of the EIR.

2.2.4 Congestion Management Program Analysis

The Los Angeles County Congestion Management Program (CMP) is a state-mandated program which serves as the monitoring and analytical basis for transportation funding decisions within Los Angeles County made through the RTIP and STIP processes. The CMP requires that a Traffic Impact Analysis (TIA) be performed for all CMP arterial monitoring intersections where the project will add 50 or more trips during either the A.M. or P.M. weekday peak hours and all mainline freeway monitoring locations where the project will add 150 or more trips (in either direction) during the A.M. or P.M. weekday peak hours.

As per the TIA guidelines in the 2002 Congestion Management Program (CMP) for Los Angeles County, the existing operating conditions at all CMP arterial and freeway monitoring stations that may be potentially impacted by the Proposed Project are discussed in this section. This analysis has been performed in accordance with procedures outlined in Appendix D of the 2002 Congestion Management Program for Los Angeles County, County of Los Angeles Metropolitan Transportation Authority (MTA), June 2002.

2.2.4.1 CMP Arterial Monitoring Locations Analysis

There are 17 intersections classified as CMP arterial monitoring stations within the Project study area. These intersections are noted with an asterisk (*) in Table 115, and consist of the following:

- La Cienega Boulevard/Centinela Avenue
- Sepulveda Boulevard/El Segundo Boulevard
- La Cienega Boulevard/Jefferson Boulevard
- Lincoln Boulevard/Manchester Avenue
- Lincoln Boulevard/Marina Expressway
- Sepulveda Boulevard/Lincoln Boulevard
- Lincoln Boulevard/Venice Boulevard

- Sepulveda Boulevard/Manchester Avenue
- Sepulveda Boulevard/Rosecrans Avenue
- Lincoln Boulevard/Pico Boulevard
- 26th Street/Wilshire Boulevard
- Overland Avenue/Venice Boulevard
- La Brea Avenue/Manchester Boulevard
- La Cienega Boulevard/Stocker Street
- La Cienega Boulevard/Venice Boulevard
- Pacific Coast Highway/Artesia Boulevard
- Centinela Avenue/Venice Boulevard

The existing operating conditions at each of the above locations are shown in Table 115 on pages 812 through 816. As indicated in Table 115, eight of these intersections are currently operating at acceptable Level of Service (LOS D or better) during the morning peak hour and two operate at LOS D or better during the afternoon peak hour. Two intersections in the A.M. peak hour and four intersections in the P.M. peak hour are operating at LOS E. The following intersections are currently operating at LOS F during the morning and/or afternoon peak hours:

- La Cienega Boulevard/Centinela Avenue (LOS F – A.M./P.M.)
- Sepulveda Boulevard/El Segundo Boulevard (LOS F – P.M.)
- La Cienega Boulevard/Jefferson Boulevard (LOS F – A.M./P.M.)
- La Brea Avenue/Manchester Boulevard (LOS F – A.M.)
- Sepulveda Boulevard/Rosecrans Avenue (LOS F – P.M.)
- La Cienega Boulevard/Stocker Street (LOS F – A.M./P.M.)
- La Cienega Boulevard/Venice Boulevard (LOS F – A.M.)
- Pacific Coast Highway/Artesia Boulevard (LOS F – P.M.)
- Centinela Avenue/Venice Boulevard (LOS F – A.M./P.M.)
- Lincoln Boulevard/Venice Boulevard (LOS F – A.M./P.M.)
- Sepulveda Boulevard/Manchester Avenue (LOS F – P.M.)
- Overland Avenue/Venice Boulevard (LOS F – P.M.)

- Lincoln Boulevard/Pico Boulevard (LOS F – P.M.)

2.2.4.2 CMP Freeway Segment Analysis

Existing freeway operating conditions within the study area were analyzed per the 2002 CMP guidelines. This assessment included the San Diego Freeway (I-405), the Marina Freeway (SR-90), the Santa Monica Freeway (I-10), and the Glenn M. Anderson Freeway (I-105). The freeway analysis locations and existing level of service are shown in Table 116 on page 822.

Traffic volumes for the CMP freeway facilities were obtained from Caltrans traffic volume documents. Operating conditions on the freeways are also expressed in terms of Level of Service. Level of Service for freeways is based on the measured flow past a point as related to the estimated capacity of that section of roadway computed using approximately 2,000 vehicles per hour (vph) capacity per lane and the number of lanes in each segment.

Demand-to-Capacity (D/C) ratios were calculated for each freeway segment identified above, using a capacity value of 2,000 vehicles per hour per freeway mainline lane (in accordance with CMP guidelines). The D/C ratio is used to analyze freeway segments which could be impacted by project-related traffic and is analogous to volume-to-capacity (V/C) ratio which is a measure of the actual traffic volume at a given intersection compared to the theoretical capacity of that intersection to accommodate traffic. Table 116 summarizes the existing D/C ratios and Level of Service (LOS) during the peak hours at the analyzed locations. CMP freeway conditions are rated on a scale ranging from LOS A (highest quality of service) to LOS F(3) (forced traffic flow). LOS A through E operate at a demand/capacity ratio of 1.00 or less, while LOS F(0) through F(3) operate at a demand/capacity ratio of greater than 1, a level indicating that demand is greater than capacity, and that forced traffic flow conditions prevail. LOS F(0) is described as a condition containing traffic that may be greatly reduced in speeds and consequently flow, with high densities. LOS F(1), F(2) and F(3) represent three levels of flow described as follows: "Severe congested conditions prevail for more than one hour. Speed and flow may drop to zero with high densities."[361] The D/C ratios corresponding to the various levels of service are also indicated in Table 116.

As indicated, baseline operating conditions on freeway segments are at or near capacity (LOS E or F) at some segments of the I-405, I-10 and I-105 analyzed locations. During the P.M. peak hour four of the 22 analysis locations are operating at level of service (LOS) E. The operating conditions are at level of service F(0) at six locations in the A.M. peak hour and seven locations in the P.M. peak hour. The operating conditions along I-10 westbound, east of La Brea, are at level of service F(1) in the A.M. peak hour and at F(2) in the P.M. peak hour. At one

[361] *Adapted from Los Angeles County Metropolitan Transportation Authority, 2002 Congestion Management Program for Los Angeles County, June 2002.*

Table 116

FREEWAY OPERATING CONDITIONS –2003 BASE

Freeway Route	Location	Direction	A.M. Peak Hour Demand [a]	A.M. Capacity	A.M. D/C [b]	A.M. LOS [c]	P.M. Peak Hour Demand [a]	P.M. Capacity	P.M. D/C [b]	P.M. LOS [c]
I-405	s/o I-110 Fwy.	NB	10,569	10,000	1.06	F(0)	8,619	10,000	0.86	D
		SB	8,788	10,000	0.88	D	10,233	10,000	1.02	F(0)
I-405	at Compton Bl.	NB	9,318	9,000	1.04	F(0)	9,118	9,000	1.01	F(0)
		SB	7,823	9,000	0.87	D	9,284	9,000	1.03	F(0)
I-405	n/o La Tijera Bl.	NB	10,367	10,000	1.04	F(0)	10,885	10,000	1.09	F(0)
		SB	8,496	10,000	0.85	D	10,242	10,000	1.02	F(0)
I-405	n/o Venice Bl.	NB	10,756	10,000	1.08	F(0)	10,210	10,000	1.02	F(0)
		SB	8,814	10,000	0.88	D	9,608	10,000	0.96	E
I-405	s/o Mulholland Dr.	NB	7,992	10,000	0.80	D	8,696	10,000	0.87	D
		SB	12,575	9,000	1.40	F(2)	12,008	9,000	1.33	F(1)
SR-90	w/o I-405 Fwy.	EB	3,355	8,000	0.42	B	3,022	8,000	0.38	B
		WB	2,268	8,000	0.28	A	2,828	8,000	0.35	B
I-10	Lincoln Bl.	EB	5,256	6,000	0.88	D	4,407	6,000	0.73	C
		WB	4,746	6,000	0.79	D	4,967	6,000	0.83	D
I-10	e/o Overland Av.	EB	9,267	8,000	1.16	F(0)	9,194	8,000	1.15	F(0)
		WB	8,218	10,000	0.82	D	7,194	10,000	0.72	C
I-10	e/o La Brea Av.	EB	8,405	10,000	0.84	D	9,989	10,000	1.00	E
		WB	10,294	8,000	1.29	F(1)	11,040	8,000	1.38	F(2)
I-105	e/o Sepulveda Bl.	EB	2,841	6,000	0.47	B	3,205	6,000	0.53	B
		WB	3,847	6,000	0.64	C	2,432	6,000	0.41	B
I-105	e/o Crenshaw Bl.	EB	7,631	9,000	0.85	D	8,679	9,000	0.96	E
		WB	9,277	9,000	1.03	F(0)	8,648	9,000	0.96	E

D/C Ratio	LOS
> 0.00 - 0.35	A
> 0.35 - 0.54	B
> 0.54 - 0.77	C
> 0.77 - 0.93	D
> 0.93 - 1.00	E
> 1.00 - 1.25	F(0)
> 1.25 - 1.35	F(1)
> 1.35 - 1.45	F(2)
> 1.45	F(3)

[a] *Traffic volumes obtained from Caltrans and were adjusted using growth rate factors from "Los Angeles County 2002 Congestion Management Program" to obtain 2003 "existing" conditions.*

[b] *Demand-to-Capacity ratio (D/C) calculated based on a capacity of 2,000 vehicles per lane per hour applied to through lanes. The D/C ratio, used to analyze freeway segments, is analogous to volume to capacity (V/C ratio) at intersections.*

[c] *Freeway mainline Level of Service is based on the following D/C scale:*

Source: Kaku Associates, Inc. and Raju Associates, Inc., July 2003.

additional location, the I-405 southbound, south of Mulholland Drive, the LOS is F(2) during the A.M. peak hour and LOS F(1) in the P.M. peak hour.

2.2.5 Public Transit Service

Both bus and Metro Rail transit service are available as part of the public transit system serving the vicinity of the Proposed Project site. Bus transit agencies in the region providing service in the vicinity of the Project site include the Los Angeles County Metropolitan Transportation Authority (MTA), Santa Monica Municipal Bus Lines, Culver CityBus, and the Los Angeles Department of Transportation (LADOT) "Commuter Express" bus system. The MTA bus system provides six bus lines in the form of both express and local bus service within this area. The Culver CityBus system provides six lines while the Santa Monica Municipal Bus Lines provides three lines. The City of Los Angeles Department of Transportation Commuter Express system provides three express bus lines within this study area.

Bus transit service within the Project vicinity provided by the various public transit bus operators is available along the following travel corridors.

- Lincoln Boulevard/Admiralty Way
- Centinela Avenue/Inglewood Boulevard
- Sepulveda Boulevard/I-405
- Washington Boulevard/Culver Boulevard/Braddock Drive
- Marina Freeway/Jefferson Boulevard
- Slauson Avenue/Centinela Avenue
- Manchester Avenue

Figure 68 on page 824 illustrates all the bus transit service in the Proposed Project vicinity. Table 117 on page 825 summarizes the various bus transit lines operating in the Project vicinity for each of the service providers in the region, the type of service (peak vs. off-peak, express vs. local) and frequency of service. Recent ridership data is presented in Table 118 on page 826.

While the overall transit system within the Project's 100-square mile study area operates satisfactorily, a number of deficiencies within the system currently exist. Primarily, these are along the north-south travel corridors, including Lincoln Boulevard, Sepulveda Boulevard, and Centinela Boulevard-Inglewood Boulevard. All of these corridors currently experience overcrowding and congestion during both the A.M. and P.M. peak hours.

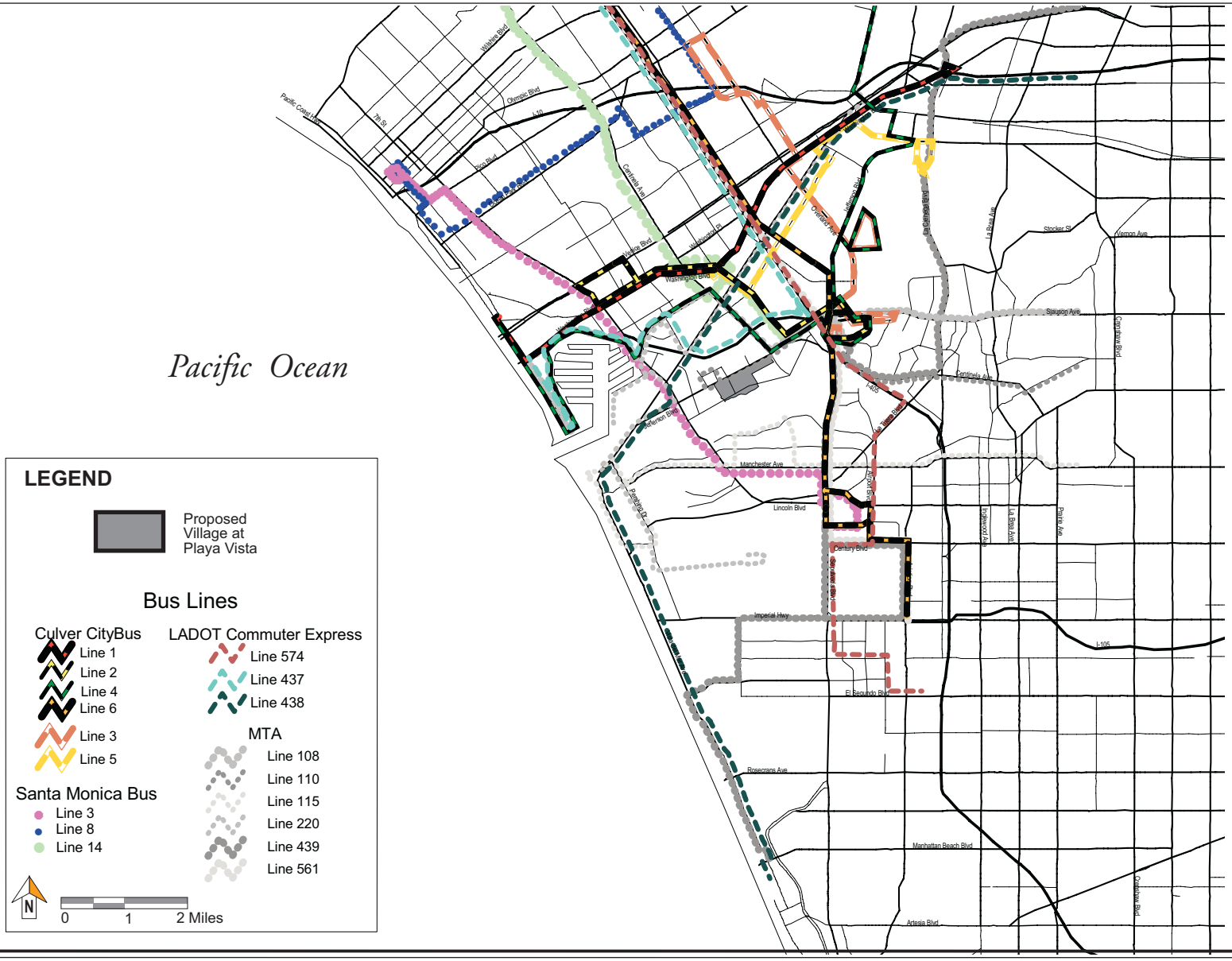

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Figure 68
Existing Bus Transit Service

Source: Kaku Associates, July 2003

Table 117

LIST OF TRANSIT LINES SERVING THE PLAYA VISTA SITE VICINITY

Serial Number	Provider [a]	Line Number	Service Area	Service Type	Hours of Operation	Frequency [b]
1	CC	1	Windward and Main (Venice) to WLA Transit Center [c]	Local	5:37 A.M.-11:34 P.M.	15 Min
2	CC	2	Washington and Inglewood to Corporate Pointe	Local	5:47 A.M.-6:20 P.M.	Hourly
3	CC	3	Westwood Pico to Fox Hills Mall	Local	5:20 A.M.-11:32 P.M.	20 Min
4	CC	4	Fox Hills Mall to West LA Transit Center [c]	Local	6:02 A.M.-6:20 P.M.	Hourly
5	CC	5	Rodeo and La Cienega to Washington and Inglewood	Local	6:29 A.M.-6:09 P.M.	Hourly
6	CC	6	UCLA to LAX Transit Center [d]	Local	5:20 A.M.-12:39 A.M.	12/20 Min
7	CX	437	Venice to Downtown (Local Area)	Express	5:52 A.M.-7:22 P.M.	30 Min (peak only)
8	CX	438	Hermosa Beach to Downtown (Local Area)	Express	5:59 A.M.-7:07 P.M.	30 Min (peak only)
9	CX	574	El Segundo to Sylmar Metrolink Station	Express	5:21 A.M.-7:35 P.M.	30 Min (peak only)
10	MTA	108	Paramount and Slauson to Washington and Pacific	Local	4:24 A.M.-11:13 P.M.	10/20 Min
11	MTA	110	Alla and Jefferson to Garfield and Florence	Local	4:50 A.M.-11:02 P.M.	10/30 Min
12	MTA	115	Pioneer and Rosecrans to Playa Del Rey	Local	4:42 A.M.-12:16 A.M.	7/15 Min
13	MTA	220	LAX City Bus Center to West Hollywood	Local	5:25 A.M.-8:37 P.M.	30 Min
14	MTA	439	Redondo Beach to Downtown (Local Area)	Express	5:14 A.M.-12:22 A.M.	30 Min
15	MTA	561	Lakeview Terrace to Metro Green Line Station	Express	3:47 A.M.-1:51 A.M.	10/30 Min
16	SM	3	UCLA Transit Center to Aviation/Imperial Hwy	Local	5:22 A.M.-12:40 A.M.	10 Min
17	SM	8	Broadway and 4th St. to UCLA	Local	5:59 A.M.-12:07 A.M.	15 Min
18	SM	14	Sunset and Barrington to Culver and Washington	Local	6:00 A.M.-8:52 P.M.	15/30 Min

[a] *MTA – Los Angeles Metropolitan Transportation Authority; CC – Culver CityBus; CX – Commuter Express (City of Los Angeles Department of Transportation); SM – Santa Monica Municipal Bus Line*

[b] *7/22 MIN – Peak/off-peak transit service frequency*

[c] *West L.A. Transit Center is located at the intersection of Washington Boulevard and Fairfax Avenue.*

[d] *LAX Transit Center is located east of Sepulveda Boulevard near the intersection of Vicksburg Avenue and 96th Street.*

Source: Kaku Associates, Inc. and Raju Associates, Inc., July 2003.

Table 118

WEEKDAY TRANSIT SERVICE PATRONAGE LEVELS

		Passenger Boardings [a]			
Agency	**Route**	**6:00-9:00 A.M.**	**% of Passenger Boardings**	**3:00-7:00 P.M.**	**% of Passenger Boardings**
MTA	108	112 / 3,918	2.9	322 / 4,443	7.2
	110	54 / 2,173	2.5	220 / 2,629	8.4
	115	169 / 4,590	3.7	651 / 4,718	13.8
	220	58 / 250	23.2	89 / 336	26.5
	439	72 / 588	12.2	98 / 718	13.6
	561	38 / 3,569	1.1	22 / 4,206	0.5
LADOT	437	64 / 64	100.0	2 / 55	3.6
	438	51 / 181	28.2	4 / 190	2.1
	574	2 / 139	1.4	18 / 122	14.8
Culver City	2	149 / 149	100.0	258 / 258	100.0
	3	174 / 878	19.8	162 / 1,076	15.1
	4	26 / 96	27.1	19 / 79	24.1
	5	78 / 164	47.6	40 / 137	29.2
	6	831 / 2,019	41.2	788 / 2,226	35.4
Santa Monica	3	450 / 1,958	23.0	613 / 2,555	24.0
	14	625 / 1,051	59.5	257 / 1,119	23.0
Metro Green Line	Mariposa Station [b]	31 / 5,038	0.6	391 / 6,458	6.1
	Aviation Station [c]	199 / 5,038	3.9	649 / 6,458	10.0

[a] *## / ### = Passenger Boardings in Proposed Project Vicinity/Passenger Boardings in the Entire Route. Boardings are sum of both route directions.*

[b] *Mariposa Station is located at the intersection of Mariposa Avenue and Nash Street in El Segundo.*

[c] *Aviation Station is located at the intersection of Aviation Boulevard and I-105/Imperial Highway adjacent to the I-105 Freeway.*

Source: MTA, Culver CityBus, Santa Monica Municipal Bus, LADOT.

The Lincoln Boulevard corridor is currently served by Santa Monica Big Blue Bus Line 3. Line 3 currently has boardings of approximately 1,960 riders in the A.M. commute hours and 2,555 riders in the P.M. peak period, indicating that several segments along this route are currently experiencing overcrowding. The Playa Vista First Phase Project is enhancing this route by the provision of four additional buses (plus one spare bus) to improve operating frequencies along this corridor.

The Sepulveda Boulevard travel corridor is currently being served primarily by Culver City Bus Line 6, which is frequently overcrowded under existing conditions. In the northbound direction, most buses are full between 5:45 A.M. and 9:15 A.M. During this time period, 11 of the 20 bus trips have passenger demand exceeding 125 percent of the seating capacity of the bus. Another 4 of the 20 bus trips operate with completely full buses, leaving only 5 of the 20 morning buses with any available seats. Northbound buses fill again during the 3:30 P.M. to

5:30 P.M. time period. Southbound buses show a similar pattern, with some southbound buses full during the morning peak and 11 of the 25 bus trips exceeding 125 percent of seating capacity in the 2 P.M. to 6:30 P.M. time period. Only 6 of the 25 southbound trips in the 4.5-hour afternoon peak period have any seating capacity available.

The Inglewood Boulevard-Centinela Avenue travel corridor is currently being served by Culver City Bus Line 2, which provides service at hourly frequencies only. Peak-hour demand for the Line 2 bus is heavy, but mid-day demand is light. The westbound bus fills to crush load levels (i.e., almost twice as many passengers as there are seats on the bus) for the 7 A.M. run. The 8 A.M. run again almost fills up, as does the 3 P.M. run. In the eastbound direction, the 7:30 A.M. run, as well as two afternoon runs, fill up beyond capacity.

In addition to these deficiencies, the existing connections from the Proposed Project site and the adjacent Playa Vista First Phase Project to the regional transit system are minimal and include only one existing line (MTA Line 110) with a western terminus of Alla Road and Jefferson Boulevard. There are no connections from areas west of the Proposed Project site to either the Fox Hills Transit Center or the West L.A. Transit Center.

In addition to the bus lines which currently serve the Proposed Project vicinity, the Metro Rail Green Line is currently in operation southeast of the Project site. It runs east-west, providing service between El Segundo and Norwalk, connecting with the Blue Line which operates between Long Beach and Downtown Los Angeles. The closest Green Line stations are located approximately 4.5 miles from the project site, south of LAX, near the intersections of Aviation Boulevard/Imperial Highway and Nash Street/Mariposa Avenue.

Recent patronage information was obtained from the above-mentioned transit agencies on an as-available basis. This existing ridership data for all the transit lines serving the project area and its vicinity during the morning (6:00 to 9:00 A.M.) and afternoon (3:00 to 7:00 P.M.) peak periods is summarized in Table 118 on page 826.

Based upon the data provided in Table 118, MTA Line 115, offering service between Norwalk and Playa del Rey, is currently experiencing the highest patronage. During the afternoon peak period, this line carries approximately 4,700 riders, with approximately 650 boardings occurring in the Project vicinity.

Table 118 also summarizes the ridership data of the two nearest Metro Rail Green Line stations during the morning and afternoon peak periods. As shown, approximately 30 and 390 passenger boardings were observed at the Mariposa station during the morning and afternoon peak periods, respectively. At the Aviation station, approximately 200 and

650 passenger boardings were observed during the morning and afternoon peak periods, respectively.

3.0 IMPACT ANALYSIS

3.1 Methodology

The methodology and base assumptions used in this analysis were established by the City of Los Angeles Department of Transportation (LADOT). The assumptions and methods used in this analysis have been chosen to create an analytically conservative set of conditions. The primary assumptions used to create this scenario are briefly described below and are discussed in detail in Appendix K, Traffic Study.

- *Study Area.* The approximately 100-square mile study area was established by reviewing the travel patterns and the potential traffic impacts of Proposed Project traffic. Within the study area, 218 intersections have been selected for detailed study.[362] Of these, 209[363] intersections are currently in service and part of the existing baseline conditions. Eight additional intersections are new improvements that would be in operation under the 2010 baseline conditions. One additional analysis intersection would be implemented under the Proposed Project. The 218 study locations were selected in the following three steps:

  1. The 105 intersections from the Playa Vista First Phase Project EIR were included.

  2. Adjacent and nearby cities and jurisdictions were given the opportunity to add additional intersections to the study list. These included the Cities of Santa Monica, Culver City, Inglewood, El Segundo, Manhattan Beach, Hawthorne, Hermosa Beach, and the County of Los Angeles.

  3. Additional intersections were added after the results of the modeled traffic assignments were investigated so that all locations where Project traffic might have a significant impact were included.

- *Future Travel Forecasts.* The year 2010 was selected as the horizon year for the traffic impact analysis, consistent with the time frame for the full buildout of the Project development. In order to project future traffic conditions to the year 2010, a

[362] *Intersection numbering for the 218 intersections extends to 220. Numbers 213, and 214 are not assigned to any analyzed intersections.*

[363] *This includes 201 signalized intersections, plus 8 intersections controlled by stop signs.*

travel demand forecasting model was used. The traffic forecast model used in the Project transportation analysis used the City of Los Angeles General Plan Framework model as its base. Greater detail was added to the General Plan Framework model to increase the number of traffic analysis zones in the vicinity of the Project. In addition, the level of detail of the street system within the study area was increased to be able to better track the flow of Project traffic through the street system. Data from the SCAG regional model was used to update the socioeconomic input data assumptions and consequently the travel forecasts. Travel Demand Management (TDM) assumptions utilized in this model relied on the continuation of existing trends as the basis for future forecasts. This model projected both local and regional traffic to the year 2010.

The use of a travel forecast model in this analysis had several advantages. First, the study area was large and the model could be used to track Proposed Project traffic assignments over that large area as well as the movement of background traffic within the study area. Secondly, since the model is based on future land use assumptions for the year 2010, the model includes considerations of related projects (as listed and illustrated in Section III.B, Figure 11 on page 194) and ambient traffic growth. The known related projects were checked against the year 2010 land use projections to verify the assumptions in the model.

- *Playa Vista First Phase Project*. The adjacent Playa Vista First Phase development was addressed as a related project in this analysis. The land uses assumed in the First Phase EIR were assumed to be in place by the 2010 study year. In addition, the roadway improvements and transportation mitigation measures associated with the adjacent Playa Vista First Phase development were assumed to be implemented as required by the First Phase Project Conditions of Approval, by the year 2010. In addition to the analysis presented here, the Traffic Study also includes an analysis of the Proposed Project's impacts that would occur if one of First Phase Project improvements, the extension of Playa Vista Drive to Culver Boulevard, was not implemented in a timely manner.

  The Playa Vista First Phase Project mitigation measures included several long-term improvements that provided greater mitigation than what was required to mitigate the First Phase Project's traffic impacts. This condition occurred for two reasons. First, several significant roadway and intersection improvements (e.g., Jefferson Boulevard, Centinela Avenue widening) were implemented in anticipation of subsequent development of the overall Playa Vista Master Plan project. These improvements were implemented during the First Phase mitigation program in order to minimize or avoid disruption of traffic with additional construction activities (in other words, to avoid disrupting the same intersection or roadway twice). Secondly, the capacity added to the system by the First Phase Project's mitigation program was, in many

cases, greater than the traffic generated by the First Phase Project at specific locations. For example, if an additional lane of traffic provided by the First Phase mitigation program could accommodate an additional 800 vehicles per hour, but the First Phase project only added 400 vehicles per hour, there would be a residual 400 vehicles per hour capacity constructed under the First Phase project available to accommodate traffic generated by the Proposed Project.

This First Phase "excess capacity" credit was computed using the Playa Vista First Phase Project impacts and its mitigation effectiveness. Although a number of intersection locations improved by the Playa Vista First Phase Project have excess capacity credit, this credit was not utilized in the traffic analysis and subsequent identification of significant impacts of the Proposed Project.

- *Project Trip Generation.* The morning and afternoon peak hour trip generation for the Proposed Project land uses were calculated using the information contained in the Institute of Transportation Engineers (ITE) Trip Generation Manual, Sixth Edition.

- *Analysis Periods*. The analysis addressed traffic counts during the weekday, non-summer morning and afternoon commute peak hour time periods. Within the study area, the morning and afternoon commute time periods are 7:00 to 8:00 A.M. and 5:00 to 6:00 P.M.

- *Intersection Capacity Analyses*. The intersection capacity analysis has been performed using a method that assesses the cumulative operating conditions at each study intersection. The critical movement analysis (CMA) methodology is the LADOT approved analysis methodology. It is required for consistency with prior analyses for both the Coastal Transportation Corridor Specific Plan and the Congestion Management Plan (CMP) and is used in this study.[364] CMA methodology software, CalcaDB, developed by LADOT was used to analyze the signalized intersections in this study. The Highway Capacity Manual methodology for unsignalized intersections was also used in the analysis.

  The intersection analysis is based on an assessment of Level of Service (LOS) rated on a scale ranging from A (best service) to F (worst service). LOS D is typically recognized as an acceptable service level in an urban area. The definition of LOS D for a signalized intersection is "Fair – delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing

[364] *In addition to the analysis presented below, an analysis of the intersections located within the City of Santa Monica, using Traffix software that is based on the "Operational Analysis" method from the Highway Capacity Manual, preferred by the City of Santa Monica, is presented in the Traffic Report, Appendix K.*

queues, preventing excessive backups." LOS D service levels for an unsignalized intersection (with two-way stop-control) is based on an average vehicle delay of 25 to 35 seconds at the intersection per the Highway Capacity Manual.

- *Congestion Management Program (CMP) Analysis.* In addition to the above intersection analysis which included 17 CMP intersections, 11 freeway segments were analyzed under the Los Angeles County Congestion Management Program, a state-mandated program which serves as the monitoring and analytical basis for state-related transportation funding decisions. In accordance with CMP guidelines, Demand-to-Capacity (D/C) ratios were calculated for each freeway segment identified above, using a capacity value of 2,000 vehicles per hour per freeway mainline lane. The D/C ratio was used to analyze freeway segments, which could be impacted by project-related traffic. CMP freeway conditions are rated on a scale ranging from LOS A (highest quality of service) to LOS F(3) (forced traffic flow). LOS A through E operate at a demand/capacity ratio of 1.00 or less, while LOS F(0) through F(3) operate at a demand/capacity ratio of greater than 1, a level indicating that demand is greater than capacity, and that forced traffic flow conditions prevail.[365]

- *Los Angeles International Airport Expansion.* This analysis was prepared during the same time period that the Los Angeles International Airport (LAX) was preparing its Master Plan. Travel forecasts for LAX have been addressed in this analysis. This analysis indicates a demand of approximately 78.8 Million Annual Passengers (MAP) in 2010 at LAX. Also assumed were the full development of the Continental City Development and the LAX Northside Development Projects. Under the proposed LAX Master Plan, these two large development projects would either be eliminated or substantially reduced in scale. The various roadway improvements that would be included as mitigation measures for the LAX Expansion were assumed to be not complete in this analysis because their funding has not been assured.

  An alternative scenario for future LAX expansion was also evaluated as part of this traffic analysis, and included in the Traffic Report, Appendix K. That analysis addressed the Proposed Project's impacts, and the effectiveness of the Proposed Project's recommended mitigation measures if LAX were to implement LAX Master Plan, Alternative D, thus creating a different set of 2010 baseline conditions than those described in this section of the EIR. Land Use Alternative D of the LAX Master Plan removes the public parking lots from the central terminal area and proposes remote parking and remote check-in facilities east of the central terminal at Manchester Square area near the I-405. Passengers would check-in at remote ground

[365] *Adapted from Los Angeles County Metropolitan Transportation Authority, 2002 Congestion Management Program for Los Angeles County, June 2002.*

transportation centers and be transported to the terminals via a people mover system. The same 78.8 Million Annual Passengers (MAP) is assumed as the demand at LAX. The analysis presented below results in more conservative conclusions regarding Proposed Project impacts than the Alternative D analysis presented in the Traffic Report.

3.2 Significance Thresholds

3.2.1 Thresholds Regarding Impacts on Intersections[366]

The City of Los Angeles Draft CEQA Thresholds Guide (1998, p.F.1-3) states:

A proposed project would normally have a significant impact on intersection capacity if the project traffic causes an increase in the V/C ratio on the intersection operating condition after the addition of project traffic of one of the following:

V/C ratio increase = 0.040 if final LOS* is C
V/C ratio increase = 0.020 if final LOS* is D
V/C ratio increase = 0.010 if final LOS* is E or F

*Final LOS is defined as projected future conditions including project, ambient, and related growth but without project traffic mitigation.

Note that if stricter criteria are required in an applicable local TSP (Transportation Specific Plan) or ICO (Interim Control Ordinance), those criteria will apply.

If an unsignalized intersection is projected to operate at LOS C, D, E or F, reanalyze the intersection using the signalized intersection methodology to determine the significance of impacts using the sliding scale criteria described above.

Based on these guidelines, the Proposed Project would have a significant intersection impact, if:

[366] *Per the City of Los Angels Draft CEQA Thresholds Guide, the application of these intersection thresholds supercedes the need to apply the street segment thresholds included in Section F.2 of the Draft CEQA Thresholds Guide. As described in Section F.2, (p.F.2-1), "Street segment capacity impacts are generally evaluated in program-level analyses (such as specific plans or long-range development projects) for which details regarding specific land use types, sizes, project access points, etc., are not known. If such details are known, see F.1. intersection capacity for applicability."*

- The Proposed Project causes an increase in an intersection's V/C ratio for future baseline operating conditions in the following manner:

  V/C ratio increase = 0.040 if final LOS is C
  V/C ratio increase = 0.020 if final LOS is D
  V/C ratio increase = 0.010 if final LOS is E or F

3.2.2 Thresholds Regarding Freeway Capacity (CMP Facilities)

The City of Los Angeles Draft CEQA Thresholds Guide (1998, p.F.3-2) states:

A project would normally have a significant freeway capacity impact if project traffic causes an increase in the D/C ratio on a freeway segment or freeway on- or off-ramp of 2 percent or more Demand to Capacity (D/C increase = 0.02), which causes or worsens LOS F conditions (D/C > 1.00).

Based on this guideline, the Proposed Project would have a significant impact on Freeway Capacity (CMP Facilities), if:

- The Proposed Project would cause an increase in the D/C ratio on a freeway segment of 2 percent or more (D/C increase = 0.02), which causes or worsens LOS F conditions (D/C > 1.00).

3.2.3 Thresholds Regarding Neighborhood Street Impacts:

The City of Los Angeles Draft CEQA Thresholds Guide (1998, p.F.4-2) states:

A proposed project would normally have a significant neighborhood intrusion impact if project traffic increases the average daily traffic (ADT) volume on a local residential street in an amount equal to or greater than the following:

ADT increase = 20 trips if final ADT* < 1,000
ADT increase = 12% if final ADT* = 1,000 and < 2,000
ADT increase = 10% if final ADT* = 2,000 and < 3,000
ADT increase = 8% if final ADT* = 3,000

*Final ADT is defined as total projected future daily volume including project, ambient, and related project growth.

The significance of neighborhood intrusion impacts related to vehicle delay shall be determined on a case-by-case basis.

Based on these guidelines, the Proposed Project would have a significant impact if:

- The Proposed Project would add 120 or more trips per day to a low-volume (i.e., less than 1,000 ADT) local residential street within a local neighborhood.
- The Proposed Project would add more than 12 percent, 10 percent, or 8 percent to local neighborhood streets with final ADT levels of 1000 to 1,999 trips, 2000 to 2,999 trips, or 3,000 or more trips, respectively.

3.2.4 Thresholds Regarding Project Access

Operational Impacts

With regard to operational impacts, the City of Los Angeles Draft CEQA Thresholds Guide (1998, p.F.5-3) states:

A project would normally have a significant project access impact if the intersection(s) nearest the primary site access is/are projected to operate at LOS E or F during the A.M. or P.M. peak hour, under cumulative plus project conditions.

Based on this guideline, the Proposed Project would have a significant access impact if:

- Any of the intersections providing access into the Proposed Project site would be operating at LOS E or F during the A.M. or P.M. peak hour, under cumulative plus project conditions.

Safety Impacts

With regard to bicycle, pedestrian and vehicular safety, the City of Los Angeles Draft CEQA Thresholds Guide states (1998, p.F.5-3) that the determination of significance shall be on a case-by-case basis, considering the following factors:

- The amount of pedestrian activity at project access points.
- Design features/physical configurations that affect the visibility of pedestrians and bicyclists to drivers entering and exiting the site, and the visibility of cars to pedestrians and bicyclists.

- The type of bicycle facility the project driveway(s) crosses and the level of utilization.

- The physical conditions of the site and surrounding area, such as curves, slopes, walls, landscaping or other barriers, that could result in vehicle/pedestrian, vehicle/bicycle or vehicle/vehicle impacts.

Based on these factors, the Proposed Project would have a significant impact if:

- The design features/physical configurations of the Proposed Project would affect the visibility of pedestrians and bicyclists to drivers entering and exiting the site, and the visibility of cars to pedestrians and bicyclists so as to create a hazardous condition.

3.2.5 Thresholds Regarding Transit System Capacity

The City of Los Angeles Draft CEQA Thresholds Guide (1998, p.F.6-2) states:

The determination of significance shall be made on a case-by-case basis, considering the projected number of additional transit passengers expected with implementation of the proposed project and available transit capacity.

Based on this guideline, the Proposed Project would have a significant impact on transit system capacity, if:

- The seating capacity of the transit system serving the Project study area would be exceeded.

3.2.6 Thresholds Regarding Construction Impacts

The City of Los Angeles Draft CEQA Thresholds Guide (1998, p.F.8-2) states that the determination of significance on in-street construction impacts shall be made on a case-by-case basis, considering the following factors:

Temporary Traffic Impacts:

- The length of time of temporary street closures or closures of two or more traffic lanes;

- The classification of the street (major arterial, state highway) affected;

- The existing traffic levels and level of service (LOS) on the affected street segments and intersections;
- Whether the affected street directly leads to a freeway on- or off-ramp or other state highway;
- Potential safety issues involved with street or land closures; and
- The presence of emergency services (fire, hospital, etc.) located nearby that regularly use the affected street.

Temporary Loss of Access:

- The length of time of any loss of vehicular or pedestrian access to a parcel fronting the construction area;
- The availability of alternative vehicular or pedestrian access within 0.25 mile of the lost access; and
- The type of land uses affected, and related safety, convenience, and/or economic issues.

Temporary Loss of Bus Stops or Rerouting of Bus Lines:

- The length of time that an existing bus stop would be unavailable or that existing service would be interrupted;
- The availability of a nearby location (within 0.25 mile) to which the bus stop or route can be temporarily relocated;
- The existence of other bus stops or routes with similar routes/destinations within a 0.25-mile radius of the affected stops or routes; and
- Whether the interruption would occur on a weekday, weekend or holiday, and whether the existing bus route typically provides service that/those day(s).

Temporary Loss of On-Street Parking:

- The current utilization of existing on-street parking;

- The availability of alternative parking locations or public transit options (e.g., bus, train) within 0.25 mile of the project site; and

- The length of time that existing parking spaces would be unavailable.

Based on these factors, during construction the Proposed Project would have significant in-street construction impacts, if:

- The Proposed Project would cause a substantial temporary inconvenience to auto travelers, bus riders, pedestrians or parkers, due to an increase in congestion, relocation of bus stops, rerouting of bus lines, restrictions of vehicular and pedestrian access and circulation and restrictions on parking during the times of construction.

- The Proposed Project would cause hazardous conditions for auto travelers, pedestrians, or bus riders.

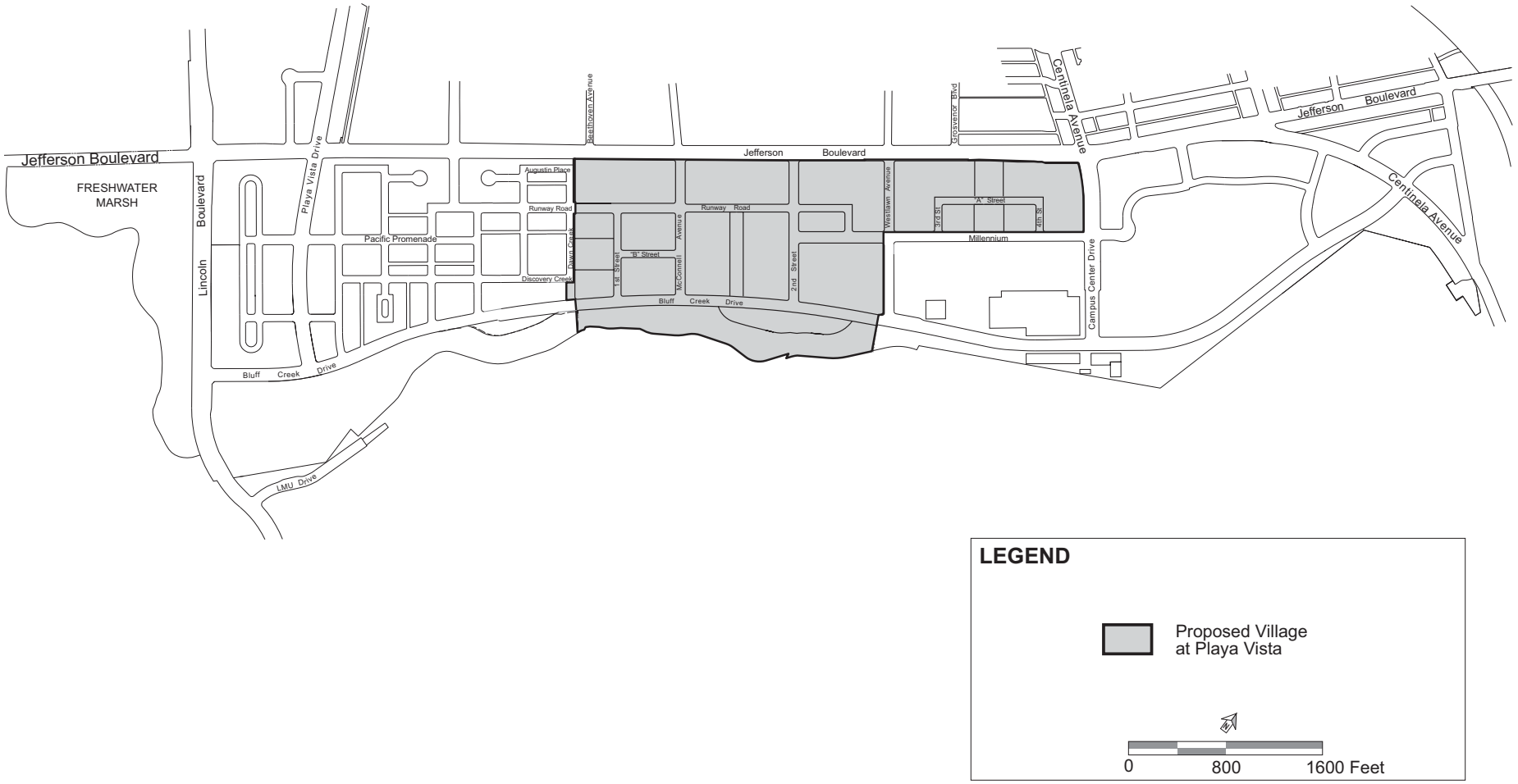
3.3 Project Design Features

The Proposed Project's population and related traffic impacts, as well as the roadway system to serve the Project site would be located within the Project's Urban Development Component. The Habitat Creation/Restoration Component of the Proposed Project would include no new population or roadways. Therefore, the following discussion of the Project Design Features and the Impact Analysis addresses activities within the Urban Development Component.

3.3.1 Internal Streets

The proposed roadway system within the Proposed Project boundaries is graphically displayed in Figure 69 on page 838.

The Proposed Project would augment the grid pattern of streets begun during the construction of the adjacent Playa Vista First Phase Project. Access to the Project site would be obtained from access points along Jefferson Boulevard, Centinela Avenue-Campus Center Drive and Bluff Creek Drive. Specific access points would occur at Westlawn Avenue, 2nd Street and McConnell Avenue from both Jefferson Boulevard and Bluff Creek Drive, all of which would be signalized, when warranted. Several right-turn in and out driveways would also offer access to the Proposed Project.



PCR

Figure 69
Proposed Roadway System

Source: Psomas and Associates & PCR Services Corporation, July 2003

3.3.2 Streets of Regional Significance

In addition to the local street network, the Proposed Project includes, within its boundaries, the following regional road improvements (which are described more fully in the Traffic Study, Appendix K:

- Bluff Creek Drive would be completed between the adjacent Playa Vista First Phase residential area to the west of the Proposed Project and the office and commercial uses (including entertainment, media and technology) to the east. With completion, Bluff Creek Drive would extend from Lincoln Boulevard easterly to Centinela Avenue, generally, as a four-lane divided roadway consistent with secondary highway standards.

- Jefferson Boulevard would be widened on its south side between Beethoven Street and a location just west of Centinela Avenue. This widening would link with similar widening included in the adjacent Playa Vista First Phase Project to the west and east of this location, providing for continuous four easterly lanes and three westerly lanes along Jefferson Boulevard, between Playa Vista Drive and Centinela Avenue north of the adjacent Playa Vista First Phase Project and the Proposed Project.

3.3.3 Internal Shuttle System

The Proposed Project proposes a comprehensive transit program to contribute to both the reduction of vehicular trips within the Proposed Project site and surrounding area, and the system-wide improvement of transit travel corridors. The following transit components are included as Project Design Features under the "2010 With Project Scenario" in the analysis below.

- An internal shuttle available to residents, workers and visitors within the Proposed Project and the adjacent Playa Vista First Phase Project.
  - The shuttle would be fare-free at all times for residents and workers within the Proposed Project and adjacent First Phase Project.
  - The shuttle would be fare-free during peak hours (8:00 to 9:00 A.M. and 5:00 to 6:00 P.M.) for visitors not residing or working within the Proposed Project or adjacent First Phase Project.

- Provision of real-time information to all Proposed Project residents and workers, as well as those associated with the adjacent Playa Vista First Phase Project, on the operation and location of the internal shuttle.

3.3.4 Non-Motorized Improvements

As delineated above in Section II.D, Project Characteristics, proposed Project development would include a mix of residential, commercial, office, community-serving, and recreational uses. This use-mix and design have been developed to allow Proposed Project residents to perform multiple activities within the Project site, thus reducing impacts on off-site roadways, and performing these activities without reliance on automobiles. Further, the Proposed Project has incorporated design features to encourage alternative modes of travel:

- Class II bicycle facilities would be provided to supplement the Playa Vista First Phase Project bicycle network provisions. These bicycle facilities would connect all of the residential uses within the site with the Village Center retail uses. Additionally, connections would be provided between the adjacent Playa Vista First Phase office and studio uses and the Proposed Project residential and retail uses. The bicycle facilities are being designed to meet all City design standards.

- Convenient and extensive pedestrian facilities and amenities would also be provided. In addition to a well-defined sidewalk network along all residential local, collector and arterial streets within the Proposed Project site, pedestrian paths would be provided at appropriate locations to connect with crosswalks at intersections and other key destinations within the site. A pedestrian path would also be provided along the south side of Bluff Creek Drive within the Proposed Project and the adjacent First Phase Project from Lincoln Boulevard on the west to Centinela Avenue on the east. The pedestrian facilities are being designed to meet all City design standards.

3.4 Project Impacts – Prior to Mitigation

3.4.1 Introduction

The analysis of the Proposed Project's traffic impacts is presented in the following nine subsections that address the following topics, respectively:

- Future Conditions Without the Project – This analysis presents 2010 baseline conditions focusing on changes to the roadway system and operating conditions that would be in place due to growth between 2003 and 2010. The 2010 baseline year is used as the horizon for buildout and is the year against which the Proposed Project impacts are measured.

- Project Trip Generation – This analysis determines the total number of trips that would be generated by each of the Project uses. Information is provided regarding trip ends (i.e., vehicles entering and leaving a particular use) and vehicular trips (i.e.,

trips a traveler adds to the road network, sometimes involving visits to more than one use location). Information is also provided regarding the origin of trips occurring within the Project site, as well as the trips destined to the Project site. This information is input to the next step in the analysis.

- Project Trip Distribution and Traffic Assignment – These analyses distribute and assign the Project's traffic to the road network. These analyses also indicate the number of new vehicles that would be traveling over/through various links and intersections. This information is input to the next step in the analysis.

- Intersection Impacts – This analysis determines the changes in operations that would occur at each of the intersections analyzed due to the Proposed Project. These changes determine the significance of Project impacts. Separate analyses are performed at all the study intersections using the LADOT-CMA Methodology, including 17 CMP intersections to identify significant impacts.[367]

- Freeway Capacity – This analysis, per County CMP guidelines, determines the operational changes that would occur along analyzed freeway links, and whether Project impacts would be significant.

- Neighborhood Street Impacts – This analysis evaluates the potential impacts on local residential streets that might be used in lieu of major streets.

- Project Access – This analysis evaluates impacts associated with access to and from the Proposed Project site by automobiles, bike riders and pedestrians.

- Transit Capacity – This analysis identifies the additional number of bus riders that would be generated by the Project and the number and frequency of buses that would be required to accommodate the increased ridership. This transit analysis fulfills the CMP transit analysis requirements.

- Construction-Related Impacts – This analysis addresses the potential short-term impacts on local streets that would arise from construction of the Proposed Project. It addresses impacts associated with truck traffic, travel to and from the site by construction workers, and reductions in existing street capacity due to temporary lane closures.

[367] *In addition to the analysis presented below, an analysis of the intersections located within the City of Santa Monica, that is based on the "Operational Analysis" method from the Highway Capacity Manual, preferred by the City of Santa Monica, is presented in the Traffic Report, Appendix K.*

3.4.2 Future Conditions Without the Proposed Project (2010 Baseline)

The traffic analysis of the Proposed Project measures its potential impacts in relation to expected baseline conditions in the year 2010. The various roadway improvements programmed to be completed by the year 2010 within the Cities of Los Angeles, Culver City, and Santa Monica and the South Bay Cities were included in the 2010 baseline conditions. In accordance with LADOT requirements for the preparation of traffic studies, the programmed improvements have firm funding and other commitments to be built by the year 2010. In addition to the roadway segment improvements (including First Phase mitigation measures) programmed in the study area detailed below, specific intersection improvements are also programmed within this area. These intersection improvements are listed and schematically represented in the Traffic Report, Appendix K of the EIR, and its related Appendices.

The roadway improvements in the 2010 baseline conditions are illustrated on Figure 70 on page 843 and include the following:[368]

1. Improvement of Aviation Boulevard to three lanes in each direction from Manhattan Beach Boulevard to Arbor Vitae.

2. Provision of a two-lane connection (extension of Olympic Boulevard) between 4th St. on-ramp to I-10 eastbound and Ocean Avenue in the Santa Monica Civic Center Specific Plan Area.

3. Conversion of Braddock Drive to a local street (i.e., de-emphasize Braddock Drive by installing traffic circles, allowing on-street parking, or other measures) from Sawtelle Boulevard to east of Overland Avenue in the City of Culver City).

4. Provision of connections to facilitate northbound Lincoln Boulevard to eastbound Culver Boulevard and west and eastbound Culver Boulevard to northbound Lincoln Boulevard traffic movements.

5. Widening of Lincoln Boulevard to four lanes northbound and three lanes southbound between La Tijera Boulevard and Loyola Marymount University (LMU) Drive (formerly Hughes Terrace).

6. Widening of Lincoln Boulevard to four lanes in each direction between LMU Drive and Jefferson Boulevard.

[368] *Information regarding jurisdictional locations is provided in Table 3-2 of Appendix K.*

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Figure 70
Committed 2010 Baseline Roadway Improvements

Source: Kaku Associates, July 2003

7. Provision of three lanes in either direction along Lincoln Boulevard between Jefferson Boulevard and Fiji Way.

8. Widening of Jefferson Boulevard to four lanes eastbound from Lincoln Boulevard to Beethoven Street. Widening of Jefferson Boulevard to four lanes westbound between Lincoln Boulevard and Playa Vista Drive.

9. Widening of Jefferson Boulevard to three lanes in each direction from west of Centinela Avenue to Mesmer Avenue.

10. Widening of Culver Boulevard to five lanes from Lincoln Boulevard to SR-90.

11. Provision of Playa Vista Drive roadway from Bluff Creek Drive to Culver Boulevard. Provide two lanes in each direction and a divided median or central turn lane between Bluff Creek Drive and Culver Boulevard.

12. Provision of a four-lane bridge of mainline SR-90 (two lanes in each direction) over Culver Boulevard. Improvement of SR-90 to two lanes in each direction from Mindanao Way to the Culver Boulevard ramps.

13. Provision of signalized on-off ramps at Culver Boulevard from/to SR-90.

14. Widening of Centinela Avenue from Jefferson Boulevard to north of Juniette Street to three lanes in each direction. Provision of Centinela Avenue-Campus Center Drive roadway (four-lane divided street) between Jefferson Boulevard and Bluff Creek Drive.

15. Provision of a four-lane Bluff Creek Drive connection between Westlawn Avenue and Campus Center Drive and a six-lane section between Campus Center Drive and Centinela Avenue within both tracts 49104 and 52092.

16. Provision of a six-lane Bluff Creek Drive connection between Lincoln Boulevard and Playa Vista Drive and a four-lane section between Playa Vista Drive and Dawn Creek.

17. Provision of high occupancy vehicle (HOV) lanes (one lane in each direction) along I-405 between SR-90 and I-10. This extends the HOV system to the I-10. HOV lanes are currently being provided between I-105 and SR-90.

18. Provision of a new on-off ramp at Arbor Vitae and I-405 to/from the south.

19. Widening of Arbor Vitae to two lanes in each direction between La Brea Avenue and Oak Street.

20. Provision of two lanes plus parking in both directions, plus a central left turn lane on Centinela Avenue from Washington Boulevard to Short Avenue.

21. Provision of a new I-405 NB off-ramp at Culver Boulevard. Also, improve existing I-405 NB on-ramp at Culver Boulevard. Provision of direct access to I-405 ramps to and from the main (south) Culver Boulevard roadway.

22. Closure of I-405 NB on-off ramps at Braddock Drive. Improve I-405 SB on-ramp at Braddock Drive. Provision of a southbound auxiliary roadway to connect from Sawtelle Boulevard to the I-405 SB on-ramp at Braddock Drive.

23. Widening of Culver Boulevard to six lanes between Sawtelle Boulevard and Sepulveda Boulevard. This includes improvements to the intersections of Sawtelle Boulevard/Culver Boulevard and Sepulveda Boulevard/Culver Boulevard.

The adjacent Playa Vista First Phase Project committed to add bus service to the Lincoln Boulevard Corridor as part of a Transit Enhancement Program. This bus service is being added through an agreement with the Santa Monica Municipal Bus Line (SMMBL). The frequency of service along this SMMBL route would improve as a result of implementation of this improvement. Additionally, automated traffic surveillance and control at numerous intersections along this corridor would also be provided to work in conjunction with the Lincoln Boulevard Transit Enhancement Program.

It is also anticipated that additional lines will be added to the Metro Rapid Expansion Program. This Program offers faster travel choices for bus riders with "rail-like" operating characteristics on the bus lines. Thirteen key attributes distinguish this system from other bus systems. They include simple route layout, frequent service, headway-based schedules, less frequent stops, bus signal priority, improved bus features including level and multiple door boarding and lighting, higher capacity, unique bus and station design with "next trip" displays and information kiosks, off-vehicle fare payment, feeder network, exclusive bus lanes where feasible and coordinated land use planning. Three rapid bus lines are planned within the Proposed Project's traffic study area: Sepulveda (south) between Westwood and the Aviation Green Line Station, Manchester from Lincoln Boulevard to the east through the study area, and Lincoln Boulevard between Santa Monica Downtown and Airport Lot C. These lines are programmed and funded for implementation by 2008.

The MTA is also planning a new light rail service to the west side of Los Angeles along the Exposition corridor. This new rail service would travel in an east-west direction in the northern most portions of the study area. However, since this service is still in the planning stages, no automobile trip discounts were taken as part of this transportation analysis to account for this potential light rail service.

The forecasted 2010 roadway conditions, prior to implementation of the Proposed Project, is presented in Table 119 on page 847 along with the conditions that would occur in 2003, and in 2010 with the Proposed Project (see column 2). In summary, of the 217 intersections analyzed in the 2010 baseline Without Project scenario, the number of intersections that would be operating at unacceptable levels of service, LOS E or F is 84 intersections during the A.M. peak hour, and 104 intersections during the P.M. peak hour.[369] These conditions may be contrasted with the number of such intersections during the 2003 base period (as reported in Table 115 on page 812): 42 intersections at LOS E or F during the A.M. peak hour and 49 intersections during the P.M. peak hour out of a total of 209 intersections in operation**.**

In accordance with LADOT requirements for the preparation of traffic studies, the programmed improvements detailed above have firm funding and other commitments to be built by the year 2010. In addition to the roadway segment improvements programmed in the study area detailed above, specific intersection improvements are also programmed within this area. These intersection improvements are listed and schematically represented in the Traffic Report, Appendix K of the EIR, and its related Appendices.

Some of the road improvements discussed above may need to obtain additional permits prior to construction; additionally, some of the road improvements have obtained the necessary permits, but are currently subject to legal challenge. To the extent certain improvements assumed in the 2010 baseline are not yet implemented prior to construction of the Proposed Project, there may be temporary significant impacts remaining until completion of those improvements. However, these impacts would be temporary in nature and would be eliminated when the improvements assumed in the 2010 baseline conditions are completed. There is also a possibility that some improvements will not be built. For example, Caltrans' SR-90 Marina Freeway bridge over Culver Boulevard has received Coastal Commission approval but has been challenged in court. If the Coastal Commission approval is successfully challenged, the Marina Freeway project may not be built prior to the 2010 baseline, and possibly not at all. In the event some of these improvements which are assumed in the 2010 baseline conditions are not ultimately constructed, additional significant impacts may occur. The number of possible scenarios is limitless; this analysis presents the most likely scenario based on currently available information.

[369] *The number of intersections included in different traffic scenarios; e.g., 2003 base, 2010 base, etc., varies as a function of assumptions regarding which intersections would be in operation under the specified scenario. In this case, one of the 218 analyzed intersections (McConnell Avenue and Bluff Creek Drive) would not occur under 2010 base conditions.*

Table 119

INTERSECTION OPERATING CONDITIONS – PRIOR TO MITIGATION

Intersection	Inter-section #	Peak Hour	2003 Base V/C	2003 Base LOS	2010 Base w/out Project* V/C	2010 Base w/out Project* LOS	2010 w/Project* V/C	2010 w/Project* LOS	V/C Change	Significant Impact
City of Los Angeles										
111th St @ La Cienega Bl	192	A.M.	0.241	A	0.273	A	0.273	A	0.000	N
		P.M.	0.357	A	0.531	A	0.532	A	0.001	N
12th St @ Bluff Creek Dr	220	A.M.	N/A	–	0.327	A	0.393	A	0.066	N
		P.M.	N/A	–	0.415	A	0.525	A	0.110	N
77th St/76th St @ Sepulveda Bl	64	A.M.	0.976	E	1.048	F	1.056	F	0.008	N
		P.M.	0.687	B	1.000	E	1.034	F	0.034	Y
80th St/79th St @ Sepulveda Bl	91	A.M.	0.699	B	0.761	C	0.767	C	0.006	N
		P.M.	0.793	C	1.005	F	1.022	F	0.017	Y
83rd St @ Lincoln Bl	45	A.M.	1.163	F	1.339	F	1.366	F	0.027	Y
		P.M.	0.724	C	1.021	F	1.083	F	0.062	Y
83rd St @ Sepulveda Bl	92	A.M.	0.591	A	0.738	C	0.742	C	0.004	N
		P.M.	0.627	B	0.859	D	0.873	D	0.014	N
88th St/La Tijera Bl @ Sepulveda Bl	44	A.M.	0.721	C	0.843	D	0.847	D	0.004	N
		P.M.	0.719	C	0.913	E	0.932	E	0.019	Y
96th St @ Airport Bl	68	A.M.	0.386	A	0.419	A	0.427	A	0.008	N
		P.M.	0.391	A	0.672	B	0.688	B	0.016	N
Abbott Kinney Bl @ Venice Bl	171	A.M.	0.687	B	0.707	C	0.710	C	0.003	N
		P.M.	0.652	B	0.764	C	0.771	C	0.007	N
Airport Bl @ Century Bl	2	A.M.	0.526	A	0.626	B	0.631	B	0.005	N
		P.M.	0.613	B	0.652	B	0.659	B	0.007	N
Airport Bl @ La Tijera Bl	3	A.M.	0.670	B	0.742	C	0.743	C	0.001	N
		P.M.	0.489	A	0.715	C	0.715	C	0.000	N
Airport Bl @ Manchester Av	172	A.M.	0.675	B	0.752	C	0.757	C	0.005	N
		P.M.	0.707	C	0.870	D	0.878	D	0.008	N
Airport Bl @ Westchester Pkwy/ Arbor Vitae St	1	A.M.	0.515	A	0.707	C	0.707	C	0.000	N
		P.M.	0.523	A	0.819	D	0.825	D	0.006	N
Alla Rd @ Jefferson Bl	69	A.M.	0.284	A	0.550	A	0.584	A	0.034	N
		P.M.	0.239	A	0.468	A	0.512	A	0.044	N
Arbor Vitae St @ Aviation Bl	4	A.M.	0.515	A	0.667	B	0.670	B	0.003	N
		P.M.	0.689	B	0.802	D	0.807	D	0.005	N
Aviation Bl @ Century Bl	6	A.M.	0.838	D	0.886	D	0.888	D	0.002	N
		P.M.	0.751	C	0.972	E	0.981	E	0.009	N
Aviation Bl @ Imperial Hwy	7	A.M.	0.718	C	0.865	D	0.865	D	0.000	N
		P.M.	0.717	C	0.908	E	0.908	E	0.000	N
B St @ Playa Vista Dr	216	A.M.	N/A	–	0.382	A	0.388	A	0.006	N
		P.M.	N/A	–	0.337	A	0.344	A	0.007	N
Beethoven St @ Jefferson Bl	70	A.M.	0.206	A	0.370	A	0.402	A	0.032	N
		P.M.	0.285	A	0.367	A	0.402	A	0.035	N

Table 119 (Continued)

INTERSECTION OPERATING CONDITIONS – PRIOR TO MITIGATION

Intersection	Inter-section #	Peak Hour	2003 Base V/C	2003 Base LOS	2010 Base w/out Project* V/C	2010 Base w/out Project* LOS	2010 w/Project* V/C	2010 w/Project* LOS	V/C Change	Significant Impact
Braddock Dr @ Sawtelle Bl	152	A.M.	0.602	B	0.699	B	0.703	C	0.004	N
		P.M.	0.700	B	0.753	C	0.758	C	0.005	N
Brooks Av/ Abbot Kinney Bl @ Main St	71	A.M.	0.459	A	0.610	B	0.611	B	0.001	N
		P.M.	0.539	A	0.858	D	0.860	D	0.002	N
Bundy Dr @ I-10 EB On-Ramp	173	A.M.	1.034	F	1.297	F	1.297	F	0.000	N
		P.M.	0.964	E	1.169	F	1.169	F	0.000	N
Bundy Dr @ Ocean Park Bl	72	A.M.	0.919	E	1.086	F	1.098	F	0.012	Y
		P.M.	1.308	F	1.332	F	1.348	F	0.016	Y
Centinela Av @ Culver Bl	11	A.M.	0.637	B	0.892	D	0.905	E	0.013	Y
		P.M.	0.767	C	0.850	D	0.869	D	0.019	N
Centinela Av @ Jefferson Bl	12	A.M.	0.669	B	0.656	B	0.746	C	0.090	Y
		P.M.	0.495	A	0.747	C	0.855	D	0.108	Y
Centinela Av @ La Cienega Bl	13	A.M.	1.103	F	1.201	F	1.211	F	0.010	Y
		P.M.	1.102	F	1.253	F	1.262	F	0.009	N
Centinela Av @ La Tijera Bl	14	A.M.	0.974	E	1.048	F	1.089	F	0.041	Y
		P.M.	0.726	C	0.872	D	0.902	E	0.030	Y
Centinela Av @ Marina Fwy EB Ramps	73	A.M.	0.534	A	0.398	A	0.462	A	0.064	N
		P.M.	0.708	C	0.566	A	0.615	B	0.049	N
Centinela Av @ Marina Fwy WB Ramps	74	A.M.	0.647	B	0.478	A	0.497	A	0.019	N
		P.M.	0.753	C	0.449	A	0.470	A	0.021	N
Centinela Av @ Mesmer Av	75	A.M.	57.2 [a]	F	0.438	A	0.457	A	0.019	N
		P.M.	32.4 [a]	D	0.406	A	0.447	A	0.041	N
Centinela Av @ Short Av	123	A.M.	0.589	A	0.643	B	0.655	B	0.012	N
		P.M.	0.578	A	0.634	B	0.653	B	0.019	N
Centinela Av @ Bluff Creek Dr	76	A.M.	N/A	–	0.474	A	0.512	A	0.038	N
		P.M.	N/A	–	0.591	A	0.726	C	0.135	Y
Centinela Av @ Venice Bl	209	A.M.	1.128	F	1.228	F	1.248	F	0.020	Y
		P.M.	1.167	F	1.332	F	1.350	F	0.018	Y
Century Bl @ Sepulveda Bl	17	A.M.	0.617	B	0.691	B	0.698	B	0.007	N
		P.M.	0.763	C	0.887	D	0.895	D	0.008	N
Crenshaw Bl @ Florence Av	180	A.M.	0.697	B	0.815	D	0.817	D	0.002	N
		P.M.	0.824	D	0.873	D	0.875	D	0.002	N
Crenshaw Bl @ Slauson Av	178	A.M.	0.942	E	1.057	F	1.059	F	0.002	N
		P.M.	1.287	F	1.289	F	1.292	F	0.003	N
Crenshaw Bl @ Stocker St	174	A.M.	0.684	B	0.793	C	0.799	C	0.006	N
		P.M.	0.739	C	0.794	C	0.799	C	0.005	N
Culver Bl @ Inglewood Bl	77	A.M.	0.641	B	0.798	C	0.846	D	0.048	Y
		P.M.	0.785	C	0.979	E	1.053	F	0.074	Y

Table 119 (Continued)

INTERSECTION OPERATING CONDITIONS – PRIOR TO MITIGATION

Intersection	Inter-section #	Peak Hour	2003 Base V/C	2003 Base LOS	2010 Base w/out Project* V/C	2010 Base w/out Project* LOS	2010 w/Project* V/C	2010 w/Project* LOS	V/C Change	Significant Impact
Culver Bl @ Jefferson Bl	18	A.M.	0.741	C	0.817	D	0.835	D	0.018	N
		P.M.	0.675	B	0.807	D	0.829	D	0.022	Y
Culver Bl @ Marina Exwy EB Ramps	19	A.M.	0.696	B	0.785	C	0.790	C	0.005	N
		P.M.	0.888	D	0.621	B	0.623	B	0.002	N
Culver Bl @ Marina Exwy WB Ramps	20	A.M.	0.900	D	1.082	F	1.084	F	0.002	N
		P.M.	0.941	E	1.033	F	1.042	F	0.009	N
Culver Bl @ Nicholson St	78	A.M.	0.660	B	0.917	E	0.933	E	0.016	Y
		P.M.	0.814	D	0.739	C	0.765	C	0.026	N
Culver Bl @ Playa Vista Dr	215	A.M.	N/A	–	0.678	B	0.678	B	0.000	N
		P.M.	N/A	–	0.474	A	0.478	A	0.004	N
Culver Bl @ Venice Bl	161	A.M.	0.828	D	1.035	F	1.039	F	0.004	N
		P.M.	0.915	E	0.994	E	0.997	E	0.003	N
Culver Bl @ Vista Del Mar	22	A.M.	0.628	B	0.883	D	0.896	D	0.013	N
		P.M.	0.642	B	0.599	A	0.618	B	0.019	N
Culver Bl (Southeast) @ Lincoln Bl Ramp	142	A.M.	N/A	–	0.521	A	0.521	A	0.000	N
		P.M.	N/A	–	0.228	A	0.228	A	0.000	N
Fairfax Av @ La Cienega Bl	67	A.M.	1.056	F	1.113	F	1.121	F	0.008	N
		P.M.	0.861	D	0.929	E	0.938	E	0.009	N
Fairfax Av @ Washington Bl	179	A.M.	0.868	D	1.225	F	1.233	F	0.008	N
		P.M.	0.687	B	0.693	B	0.700	B	0.007	N
Falmouth Av @ Manchester Av	79	A.M.	0.216	A	0.455	A	0.463	A	0.008	N
		P.M.	0.255	A	0.594	A	0.597	A	0.003	N
Glencoe Av @ Maxella Av	80	A.M.	0.322	A	0.323	A	0.323	A	0.000	N
		P.M.	0.567	A	0.571	A	0.572	A	0.001	N
Grand Av @ Vista Del Mar	177	A.M.	0.697	B	0.803	D	0.809	D	0.006	N
		P.M.	0.508	A	0.540	A	0.548	A	0.008	N
Howard Hughes Pkwy @ Sepulveda Bl	26	A.M.	0.796	C	0.962	E	0.984	E	0.022	Y
		P.M.	0.774	C	0.953	E	1.003	F	0.050	Y
I-10 EB Off-Ramp @ La Brea Av	186	A.M.	0.565	A	0.585	A	0.586	A	0.001	N
		P.M.	0.634	B	0.689	B	0.691	B	0.002	N
I-10 EB Off-Ramp @ La Cienega Bl	191	A.M.	28.3 [a]	D	0.814	D	0.815	D	0.001	N
		P.M.	34.8 [a]	D	0.785	C	0.786	C	0.001	N
I-10 EB On-Ramp @ Washington Bl	210	A.M.	0.497	A	0.551	A	0.563	A	0.012	N
		P.M.	0.623	B	0.661	B	0.667	B	0.006	N
I-10 WB Off-Ramp @ La Brea Av	187	A.M.	0.633	B	0.639	B	0.639	B	0.000	N
		P.M.	0.637	B	0.639	B	0.639	B	0.000	N
I-10 WB Off-Ramp/Apple St @ Washington Bl	211	A.M.	0.498	A	0.531	A	0.536	A	0.005	N
		P.M.	0.558	A	0.577	A	0.583	A	0.006	N

Table 119 (Continued)

INTERSECTION OPERATING CONDITIONS – PRIOR TO MITIGATION

Intersection	Inter-section #	Peak Hour	2003 Base V/C	2003 Base LOS	2010 Base w/out Project* V/C	2010 Base w/out Project* LOS	2010 w/Project* V/C	2010 w/Project* LOS	V/C Change	Significant Impact
I-105 WB @ Sepulveda Bl	63	A.M.	1.228	F	1.237	F	1.246	F	0.009	N
Off-Ramp		P.M.	0.931	E	1.237	F	1.256	F	0.019	Y
I-405 NB Ramps @ Jefferson Bl	30	A.M.	0.718	C	0.835	D	0.855	D	0.020	Y
		P.M.	0.788	C	1.313	F	1.323	F	0.010	Y
I-405 NB Ramps @ La Tijera Bl	40	A.M.	0.829	D	0.693	B	0.693	B	0.000	N
		P.M.	0.828	D	0.763	C	0.763	C	0.000	N
I-405 SB Ramps @ Jefferson Bl	31	A.M.	0.568	A	0.678	B	0.733	C	0.055	Y
		P.M.	0.560	A	0.761	C	0.815	D	0.054	Y
I-405 SB Ramps @ La Tijera Bl	41	A.M.	0.710	C	0.668	B	0.668	B	0.000	N
		P.M.	0.803	D	0.703	C	0.703	C	0.000	N
I-405 SB Ramps @ La Cienega Bl	201	A.M.	0.609	B	0.633	B	0.634	B	0.001	N
N/O Century Bl		P.M.	0.561	A	0.620	B	0.623	B	0.003	N
I-405 SB Ramps @ La Cienega Bl	194	A.M.	0.361	A	0.453	A	0.454	A	0.001	N
N/O Imperial Hwy		P.M.	0.255	A	0.306	A	0.307	A	0.001	N
I-405 SB Ramps @ La Cienega Bl	193	A.M.	0.434	A	0.541	A	0.543	A	0.002	N
S/O Century Bl		P.M.	0.503	A	0.506	A	0.508	A	0.002	N
Imperial Hwy @ La Cienega Bl	185	A.M.	0.337	A	0.645	B	0.645	B	0.000	N
		P.M.	0.463	A	0.464	A	0.464	A	0.000	N
Imperial Hwy @ Pershing Dr	27	A.M.	0.666	B	0.955	E	0.957	E	0.002	N
		P.M.	0.453	A	0.521	A	0.525	A	0.004	N
Imperial Hwy @ Sepulveda Bl	28	A.M.	0.903	E	0.969	E	0.974	E	0.005	N
		P.M.	1.066	F	1.230	F	1.255	F	0.025	Y
Imperial Hwy @ Vista Del Mar	184	A.M.	0.539	A	1.092	F	1.100	F	0.008	N
		P.M.	0.462	A	0.483	A	0.490	A	0.007	N
Inglewood Bl/ @ Jefferson Bl	82	A.M.	0.613	B	0.833	D	0.862	D	0.029	Y
Centinela Av		P.M.	0.610	B	0.789	C	0.828	D	0.039	Y
Jefferson Bl @ La Cienega Bl	32	A.M.	1.196	F	1.308	F	1.316	F	0.008	N
		P.M.	1.143	F	1.178	F	1.185	F	0.007	N
Jefferson Bl @ Lincoln Bl	33	A.M.	0.765	C	0.991	E	1.024	F	0.033	Y
		P.M.	0.800	C	1.051	F	1.110	F	0.059	Y
Jefferson Bl @ McConnell Av	83	A.M.	52.8 [a]	F	95.4 [a]	F	0.451	A	N/A	N
		P.M.	273.4 [a]	F	696.2 [a]	F	0.385	A	N/A	N
Jefferson Bl @ Mesmer Av	84	A.M.	0.311	A	0.416	A	0.442	A	0.026	N
		P.M.	0.263	A	0.464	A	0.517	A	0.053	N
Jefferson Bl @ National Bl	163	A.M.	0.435	A	0.466	A	0.469	A	0.003	N
		P.M.	0.613	B	0.635	B	0.646	B	0.011	N
Jefferson Bl @ Playa Vista Dr	217	A.M.	N/A	–	0.661	B	0.687	B	0.026	N
		P.M.	N/A	–	0.715	C	0.744	C	0.029	N

Table 119 (Continued)

INTERSECTION OPERATING CONDITIONS – PRIOR TO MITIGATION

Intersection	Inter-section #	Peak Hour	2003 Base V/C	2003 Base LOS	2010 Base w/out Project* V/C	2010 Base w/out Project* LOS	2010 w/Project* V/C	2010 w/Project* LOS	V/C Change	Significant Impact
Jefferson Bl @ Rodeo Rd	164	A.M.	0.757	C	0.806	D	0.818	D	0.012	N
		P.M.	0.807	D	0.878	D	0.886	D	0.008	N
Jefferson Bl @ Westlawn Av	85	A.M.	0.315	A	0.447	A	0.499	A	0.052	N
		P.M.	0.379	A	0.473	A	0.572	A	0.099	N
La Cienega Bl @ La Tijera Bl	36	A.M.	0.811	D	0.898	D	0.904	E	0.006	N
		P.M.	0.761	C	0.789	C	0.799	C	0.010	N
La Cienega Bl @ Rodeo Rd	37	A.M.	0.979	E	1.161	F	1.170	F	0.009	N
		P.M.	1.189	F	1.253	F	1.262	F	0.009	N
La Cienega Bl @ Venice Bl	198	A.M.	1.059	F	1.176	F	1.178	F	0.002	N
		P.M.	0.990	E	1.064	F	1.065	F	0.001	N
La Tijera Bl @ Lincoln Bl	42	A.M.	0.413	A	0.799	C	0.818	D	0.019	N
		P.M.	0.484	A	0.868	D	0.894	D	0.026	Y
La Tijera Bl @ Manchester Av	43	A.M.	0.614	B	0.747	C	0.752	C	0.005	N
		P.M.	0.598	A	0.769	C	0.777	C	0.008	N
Lincoln Bl @ LMU Drive	81	A.M.	0.688	B	0.585	A	0.605	B	0.020	N
		P.M.	0.917	E	0.780	C	0.824	D	0.044	Y
Lincoln Bl @ Loyola Bl	86	A.M.	0.417	A	0.723	C	0.744	C	0.021	N
		P.M.	0.538	A	0.699	B	0.728	C	0.029	N
Lincoln Bl @ Manchester Av	46	A.M.	0.833	D	1.264	F	1.291	F	0.027	Y
		P.M.	0.816	D	1.203	F	1.237	F	0.034	Y
Lincoln Bl @ Marina Exwy	47	A.M.	0.851	D	1.039	F	1.056	F	0.017	Y
		P.M.	0.931	E	1.096	F	1.113	F	0.017	Y
Lincoln Bl @ Maxella Av	48	A.M.	0.685	B	0.897	D	0.909	E	0.012	Y
		P.M.	0.750	C	0.952	E	0.963	E	0.011	Y
Lincoln Bl @ Rose Av	50	A.M.	0.841	D	0.929	E	0.938	E	0.009	N
		P.M.	0.829	D	0.894	D	0.902	E	0.008	N
Lincoln Bl @ Sepulveda Bl	51	A.M.	0.523	A	0.595	A	0.603	B	0.008	N
		P.M.	0.645	B	0.819	D	0.836	D	0.017	N
Lincoln Bl @ Bluff Creek Dr (Hughes Way)	52	A.M.	N/A	–	0.710	C	0.737	C	0.027	N
		P.M.	N/A	–	0.868	D	0.908	E	0.040	Y
Lincoln Bl @ Venice Bl	53	A.M.	1.080	F	1.087	F	1.100	F	0.013	Y
		P.M.	1.016	F	1.060	F	1.071	F	0.011	Y
Lincoln Bl @ Washington Bl	54	A.M.	0.816	D	1.153	F	1.163	F	0.010	Y
		P.M.	0.964	E	1.241	F	1.254	F	0.013	Y
Main St @ Rose Av	55	A.M.	0.467	A	0.510	A	0.511	A	0.001	N
		P.M.	0.784	C	0.900	D	0.903	E	0.003	N
Manchester Av @ Pershing Dr	56	A.M.	0.515	A	0.443	A	0.445	A	0.002	N
		P.M.	0.430	A	0.411	A	0.419	A	0.008	N
Manchester Av @ Sepulveda Bl	57	A.M.	0.866	D	1.001	F	1.008	F	0.007	N
		P.M.	1.016	F	1.178	F	1.235	F	0.057	Y

Table 119 (Continued)

INTERSECTION OPERATING CONDITIONS – PRIOR TO MITIGATION

Intersection	Inter-section #	Peak Hour	2003 Base V/C	2003 Base LOS	2010 Base w/out Project* V/C	2010 Base w/out Project* LOS	2010 w/Project* V/C	2010 w/Project* LOS	2010 w/Project* V/C Change	2010 w/Project* Significant Impact
Marina Exwy @ Mindanao Wy	87	A.M.	0.666	B	0.804	D	0.804	D	0.000	N
EB Ramps		P.M.	0.830	D	0.889	D	0.893	D	0.004	N
Marina Exwy @ Mindanao Wy	88	A.M.	0.420	A	0.560	A	0.562	A	0.002	N
WB Ramps		P.M.	0.616	B	0.635	B	0.635	B	0.000	N
McConnell Av @ Bluff Creek Dr	219	A.M.	N/A	–	N/A	–	0.310	A	N/A	N
		P.M.	N/A	–	N/A	–	0.455	A	N/A	N
Motor Av @ Venice Bl	160	A.M.	0.849	D	0.991	E	0.993	E	0.002	N
		P.M.	0.925	E	1.019	F	1.028	F	0.009	N
Ocean Av/ @ Washington Bl	94	A.M.	0.680	B	1.233	F	1.236	F	0.003	N
Via Marina		P.M.	0.875	D	1.311	F	1.314	F	0.003	N
Overland Av @ Palms Bl	212	A.M.	0.803	D	0.913	E	0.915	E	0.002	N
		P.M.	0.857	D	1.106	F	1.111	F	0.005	N
Overland Av @ Venice Bl	157	A.M.	0.886	D	1.124	F	1.126	F	0.002	N
		P.M.	1.002	F	1.145	F	1.151	F	0.006	N
Pacific Av @ Washington Bl	89	A.M.	0.590	A	0.673	B	0.674	B	0.001	N
		P.M.	0.647	B	0.697	B	0.699	B	0.002	N
Palawan Way @ Washington Bl	90	A.M.	18.0 [a]	C	1.009	F	1.009	F	0.000	N
		P.M.	19.6 [a]	C	0.948	E	0.948	E	0.000	N
Pershing Dr @ Westchester Pkwy	59	A.M.	0.287	A	0.432	A	0.434	A	0.002	N
		P.M.	0.251	A	0.388	A	0.392	A	0.004	N
Playa Vista Dr @ Bluff Creek Dr	218	A.M.	N/A	–	0.439	A	0.473	A	0.034	N
		P.M.	N/A	–	0.549	A	0.599	A	0.050	N
Sepulveda Bl @ Westchester Pkwy	200	A.M.	0.695	B	1.056	F	1.062	F	0.006	N
		P.M.	0.792	C	1.200	F	1.239	F	0.039	Y
Venice Bl @ Walgrove Av	93	A.M.	0.711	C	0.864	D	0.866	D	0.002	N
		P.M.	0.859	D	1.079	F	1.082	F	0.003	N
County of Los Angeles										
Admiralty Way @ Bali Way	112	A.M.	0.515	A	0.771	C	0.775	C	0.004	N
		P.M.	0.813	D	1.069	F	1.078	F	0.009	N
Admiralty Way @ Fiji Way	113	A.M.	0.319	A	0.473	A	0.477	A	0.004	N
		P.M.	0.501	A	0.647	B	0.659	B	0.012	N
Admiralty Way @ Mindanao Way	114	A.M.	0.765	C	0.903	E	0.906	E	0.003	N
		P.M.	0.921	E	1.132	F	1.145	F	0.013	Y
Admiralty Way @ Palawan Way	115	A.M.	0.543	A	0.865	D	0.871	D	0.006	N
		P.M.	0.804	D	1.132	F	1.145	F	0.013	Y
Admiralty Way @ Via Marina	116	A.M.	0.582	A	0.912	E	0.918	E	0.006	N
		P.M.	0.859	D	1.119	F	1.127	F	0.008	N
Alvern St @ Centinela Av	140	A.M.	0.738	C	0.741	C	0.762	C	0.021	N
		P.M.	0.610	B	0.752	C	0.781	C	0.029	N

Table 119 (Continued)

INTERSECTION OPERATING CONDITIONS – PRIOR TO MITIGATION

Intersection	Inter-section #	Peak Hour	2003 Base V/C	2003 Base LOS	2010 Base w/out Project* V/C	2010 Base w/out Project* LOS	2010 w/Project* V/C	2010 w/Project* LOS	V/C Change	Significant Impact
Bali Way @ Lincoln Bl	10	A.M.	0.467	A	0.833	D	0.844	D	0.011	N
		P.M.	0.664	B	1.018	F	1.034	F	0.016	Y
Centinela Av @ Sherbourne Dr	141	A.M.	0.746	C	0.785	C	0.807	D	0.022	Y
		P.M.	0.591	A	0.700	B	0.724	C	0.024	N
Century Bl @ I-405 NB Off Ramp	202	A.M.	0.765	C	1.114	F	1.115	F	0.001	N
		P.M.	0.565	A	0.600	A	0.601	B	0.001	N
Corning Av @ Slauson Av	144	A.M.	0.843	D	0.859	D	0.864	D	0.005	N
		P.M.	0.629	B	0.691	B	0.696	B	0.005	N
Fairfax Av @ Slauson Av	147	A.M.	0.847	D	1.091	F	1.092	F	0.001	N
		P.M.	0.793	C	1.008	F	1.015	F	0.007	N
Fiji Way @ Lincoln Bl	24	A.M.	0.539	A	0.779	C	0.792	C	0.013	N
		P.M.	0.795	C	0.903	E	0.927	E	0.024	Y
Hawthorne Bl @ I-105 EB Off Ramp	203	A.M.	0.496	A	0.519	A	0.519	A	0.000	N
		P.M.	0.579	A	0.600	A	0.600	A	0.000	N
Hawthorne Bl @ Lennox Bl	204	A.M.	0.563	A	0.662	B	0.662	B	0.000	N
		P.M.	0.818	D	0.840	D	0.841	D	0.001	N
Inglewood Av @ Lennox Bl	205	A.M.	0.697	B	0.825	D	0.827	D	0.002	N
		P.M.	0.814	D	0.920	E	0.921	E	0.001	N
Kings Rd @ Slauson Av	145	A.M.	0.552	A	0.558	A	0.559	A	0.001	N
		P.M.	0.486	A	0.575	A	0.586	A	0.011	N
La Brea Av @ Slauson Av	189	A.M.	0.972	E	1.132	F	1.139	F	0.007	N
		P.M.	0.961	E	1.081	F	1.090	F	0.009	N
La Brea Av/ Overhill Dr @ Stocker St	190	A.M.	0.936	E	0.953	E	0.956	E	0.003	N
		P.M.	1.067	F	1.168	F	1.174	F	0.006	N
La Cienega Bl @ Lennox Bl	195	A.M.	0.334	A	0.402	A	0.405	A	0.003	N
		P.M.	0.311	A	0.516	A	0.519	A	0.003	N
La Cienega Bl @ Stocker St	197	A.M.	1.227	F	1.335	F	1.341	F	0.006	N
		P.M.	1.066	F	1.218	F	1.225	F	0.007	N
La Cienega Bl Ramps N @ Slauson Av	38	A.M.	0.738	C	0.926	E	0.926	E	0.000	N
		P.M.	0.583	A	0.625	B	0.629	B	0.004	N
La Cienega Bl Ramps S @ Slauson Av	39	A.M.	0.892	D	0.795	C	0.804	D	0.009	N
		P.M.	0.742	C	0.758	C	0.773	C	0.015	N
La Tijera Bl @ Slauson Av	146	A.M.	0.512	A	0.616	B	0.617	B	0.001	N
		P.M.	0.586	A	0.734	C	0.743	C	0.009	N
Lincoln Bl @ Mindanao Way	49	A.M.	0.825	D	0.996	E	1.013	F	0.017	Y
		P.M.	0.927	E	1.152	F	1.171	F	0.019	Y
Shenandoah Av @ Slauson Av	143	A.M.	0.686	B	0.753	C	0.759	C	0.006	N
		P.M.	0.618	B	0.641	B	0.648	B	0.007	N

Table 119 (Continued)

INTERSECTION OPERATING CONDITIONS – PRIOR TO MITIGATION

Intersection	Inter-section #	Peak Hour	2003 Base V/C	2003 Base LOS	2010 Base w/out Project* V/C	2010 Base w/out Project* LOS	2010 w/Project* V/C	2010 w/Project* LOS	2010 w/Project* V/C Change	2010 w/Project* Significant Impact
City of Culver City										
Braddock Dr @ Overland Av	159	A.M.	0.551	A	0.881	D	0.897	D	0.016	N
		P.M.	0.616	B	0.965	E	0.974	E	0.009	N
Braddock Dr @ Sepulveda Bl	153	A.M.	0.572	A	0.847	D	0.849	D	0.002	N
		P.M.	0.611	B	0.968	E	0.974	E	0.006	N
Bristol Pkwy @ Centinela Av	96	A.M.	0.760	C	0.603	B	0.625	B	0.022	N
		P.M.	0.538	A	0.571	A	0.620	B	0.049	N
Bristol Pkwy @ Slauson Av	95	A.M.	24.7 [a]	C	0.725	C	0.730	C	0.005	N
		P.M.	19.5 [a]	C	0.675	B	0.684	B	0.009	N
Buckingham Pkwy @ Slauson Av	97	A.M.	0.662	B	0.792	C	0.796	C	0.004	N
		P.M.	0.811	D	0.792	C	0.801	D	0.009	N
Centinela Av @ Green Valley Cir	98	A.M.	0.807	D	0.895	D	0.916	E	0.021	Y
		P.M.	0.574	A	0.670	B	0.699	B	0.029	N
Centinela Av @ Sepulveda Bl	15	A.M.	0.852	D	1.230	F	1.261	F	0.031	Y
		P.M.	0.750	C	1.185	F	1.262	F	0.077	Y
Centinela Av @ Washington Bl	16	A.M.	0.757	C	0.882	D	0.901	E	0.019	Y
		P.M.	0.887	D	0.973	E	0.991	E	0.018	Y
Centinela Av @ Washington Pl	99	A.M.	0.894	D	0.918	E	0.929	E	0.011	Y
		P.M.	0.963	E	0.941	E	0.955	E	0.014	Y
Culver Bl @ Main St/ Washington Bl	21	A.M.	0.934	E	1.084	F	1.091	F	0.007	N
		P.M.	0.745	C	0.881	D	0.885	D	0.004	N
Culver Bl @ Overland Av	100	A.M.	0.719	C	0.971	E	0.990	E	0.019	Y
		P.M.	0.748	C	0.945	E	0.966	E	0.021	Y
Culver Bl @ Sawtelle Bl	102	A.M.	0.735	C	0.889	D	0.897	D	0.008	N
		P.M.	0.745	C	1.027	F	1.046	F	0.019	Y
Culver Bl @ Sepulveda Bl	101	A.M.	0.954	E	0.993	E	1.003	F	0.010	Y
		P.M.	0.923	E	0.926	E	0.937	E	0.011	Y
Duquesne Av @ Jefferson Bl	165	A.M.	0.838	D	0.964	E	0.971	E	0.007	N
		P.M.	0.888	D	0.976	E	0.987	E	0.011	Y
Glencoe Av @ Washington Bl	103	A.M.	0.581	A	0.678	B	0.679	B	0.001	N
		P.M.	0.782	C	0.968	E	0.969	E	0.001	N
Green Valley Cir @ Sepulveda Bl	166	A.M.	0.616	B	0.679	B	0.679	B	0.000	N
		P.M.	0.679	B	0.740	C	0.741	C	0.001	N
Hannum Av @ Playa St	104	A.M.	0.701	C	0.869	D	0.897	D	0.028	Y
		P.M.	0.707	C	0.788	C	0.799	C	0.011	N
Hannum Av @ Slauson Av	105	A.M.	0.540	A	0.551	A	0.551	A	0.000	N
		P.M.	0.480	A	0.536	A	0.541	A	0.005	N
I-405 NB Ramps @ Sepulveda Bl S/O Venice Bl	156	A.M.	0.744	C	1.002	F	1.007	F	0.005	N
		P.M.	0.729	C	0.977	E	0.985	E	0.008	N
I-405 SB Off- @ Sawtelle Bl	151	A.M.	0.229	A	0.495	A	0.499	A	0.004	N

Table 119 (Continued)

INTERSECTION OPERATING CONDITIONS – PRIOR TO MITIGATION

Intersection	Inter-section #	Peak Hour	2003 Base V/C	2003 Base LOS	2010 Base w/out Project* V/C	2010 Base w/out Project* LOS	2010 w/Project* V/C	2010 w/Project* LOS	V/C Change	Significant Impact
Ramp N/O Culver Bl		P.M.	0.251	A	0.494	A	0.499	A	0.005	N
Inglewood Bl @ Washington Bl	29	A.M.	0.603	B	0.808	D	0.818	D	0.010	N
		P.M.	0.896	D	0.993	E	1.014	F	0.021	Y
Jefferson Bl @ Overland Av	34	A.M.	0.776	C	1.006	F	1.035	F	0.029	Y
		P.M.	0.881	D	0.874	D	0.897	D	0.023	Y
Jefferson Bl @ Sepulveda Bl (N)	35	A.M.	0.715	C	1.079	F	1.086	F	0.007	N
		P.M.	0.815	D	0.986	E	0.996	E	0.010	Y
Jefferson Bl @ Slauson Av	106	A.M.	0.431	A	0.577	A	0.591	A	0.014	N
		P.M.	0.539	A	0.654	B	0.691	B	0.037	N
La Cienega Bl @ Washington Bl	199	A.M.	0.941	E	1.032	F	1.034	F	0.002	N
		P.M.	0.770	C	0.816	D	0.817	D	0.001	N
Marina Fwy @ Slauson Av	107	A.M.	0.677	B	0.672	B	0.692	B	0.020	N
		P.M.	0.663	B	0.747	C	0.760	C	0.013	N
Matteson Av/ I-405 SB Ramps @ Sawtelle Bl	148	A.M.	0.939	E	1.126	F	1.129	F	0.003	N
		P.M.	0.612	B	1.081	F	1.087	F	0.006	N
Motor Av @ Washington Bl	162	A.M.	0.744	C	1.004	F	1.006	F	0.002	N
		P.M.	0.778	C	0.922	E	0.931	E	0.009	N
Overland Av @ Washington Bl	158	A.M.	0.940	E	1.011	F	1.020	F	0.009	N
		P.M.	0.863	D	1.213	F	1.221	F	0.008	N
Playa St/ Jefferson Bl @ Sepulveda Bl	60	A.M.	0.862	D	0.865	D	0.898	D	0.033	Y
		P.M.	0.958	E	0.925	E	0.953	E	0.028	Y
Redwood Av @ Washington Bl	108	A.M.	0.401	A	0.657	B	0.657	B	0.000	N
		P.M.	0.427	A	0.713	C	0.714	C	0.001	N
Sawtelle Bl @ Sepulveda Bl	170	A.M.	0.715	C	1.079	F	1.086	F	0.007	N
		P.M.	0.815	D	0.986	E	0.996	E	0.010	Y
Sawtelle Bl @ Venice Bl	62	A.M.	0.858	D	1.161	F	1.164	F	0.003	N
		P.M.	0.851	D	1.238	F	1.242	F	0.004	N
Sawtelle Bl @ Washington Bl	150	A.M.	0.484	A	0.771	C	0.775	C	0.004	N
		P.M.	0.577	A	0.981	E	0.987	E	0.006	N
Sawtelle Bl @ Washington Pl	149	A.M.	0.511	A	0.906	E	0.907	E	0.001	N
		P.M.	0.525	A	1.072	F	1.075	F	0.003	N
Sepulveda Bl @ Slauson Av	65	A.M.	0.679	B	1.068	F	1.073	F	0.005	N
		P.M.	0.729	C	1.029	F	1.042	F	0.013	Y
Sepulveda Bl @ Venice Bl	66	A.M.	0.907	E	1.152	F	1.155	F	0.003	N
		P.M.	0.764	C	1.124	F	1.127	F	0.003	N
Sepulveda Bl @ Washington Bl	155	A.M.	0.741	C	0.891	D	0.898	D	0.007	N
		P.M.	0.769	C	1.026	F	1.035	F	0.009	N
Sepulveda Bl @ Washington Pl	154	A.M.	0.838	D	1.027	F	1.029	F	0.002	N
		P.M.	0.635	B	1.107	F	1.113	F	0.006	N

Table 119 (Continued)

INTERSECTION OPERATING CONDITIONS – PRIOR TO MITIGATION

Intersection	Inter-section #	Peak Hour	2003 Base V/C	2003 Base LOS	2010 Base w/out Project* V/C	2010 Base w/out Project* LOS	2010 w/Project* V/C	2010 w/Project* LOS	V/C Change	Significant Impact
Walgrove Av @ Washington Bl	167	A.M.	23.2 [a]	C	0.791	C	0.791	C	0.000	N
		P.M.	16.7 [a]	C	0.955	E	0.957	E	0.002	N
City of Santa Monica										
23rd St @ Ocean Park Bl	133	A.M.	0.974	E	1.095	F	1.097	F	0.002	N
		P.M.	1.272	F	1.308	F	1.311	F	0.003	N
23rd St @ Pico Bl	132	A.M.	0.677	B	0.730	C	0.732	C	0.002	N
		P.M.	0.975	E	0.988	E	0.990	E	0.002	N
26th St @ Wilshire Bl	136	A.M.	0.719	C	0.952	E	0.953	E	0.001	N
		P.M.	0.910	E	0.970	E	0.970	E	0.000	N
4th St @ Colorado Av	137	A.M.	0.637	B	0.692	B	0.692	B	0.000	N
		P.M.	0.844	D	0.902	E	0.903	E	0.001	N
4th St @ Ocean Park Bl N	129	A.M.	16.9 [a]	C	0.471	A	0.473	A	0.002	N
		P.M.	18.5 [a]	C	0.551	A	0.552	A	0.001	N
4th St @ Ocean Park Bl S	130	A.M.	13.6 [a]	B	0.454	A	0.455	A	0.001	N
		P.M.	13.1 [a]	B	0.493	A	0.495	A	0.002	N
4th St @ Pico Bl	128	A.M.	0.943	E	1.031	F	1.035	F	0.004	N
		P.M.	0.912	E	1.021	F	1.023	F	0.002	N
4th St @ Wilshire Bl	127	A.M.	0.577	A	0.659	B	0.660	B	0.001	N
		P.M.	0.602	B	0.726	C	0.726	C	0.000	N
Cloverfield Bl @ I-10 EB On Ramp	138	A.M.	0.882	D	0.888	D	0.888	D	0.000	N
		P.M.	0.926	E	1.116	F	1.116	F	0.000	N
Cloverfield Bl @ I-10 WB Off Ramp	139	A.M.	0.948	E	0.951	E	0.953	E	0.002	N
		P.M.	0.869	D	0.919	E	0.920	E	0.001	N
Cloverfield Bl @ Ocean Park Bl	135	A.M.	0.607	B	0.727	C	0.729	C	0.002	N
		P.M.	0.709	C	0.819	D	0.823	D	0.004	N
Cloverfield Bl @ Pico Bl	134	A.M.	0.823	D	0.931	E	0.933	E	0.002	N
		P.M.	0.891	D	0.916	E	0.917	E	0.001	N
I-10 EB On-Ramp @ Lincoln Bl	168	A.M.	1.184	F	1.208	F	1.212	F	0.004	N
		P.M.	0.928	E	1.039	F	1.041	F	0.002	N
I-10 WB Off-Ramp @ Lincoln Bl	169	A.M.	0.881	D	0.971	E	0.971	E	0.000	N
		P.M.	0.966	E	1.138	F	1.141	F	0.003	N
Lincoln Bl @ Ocean Park Bl	109	A.M.	1.130	F	1.248	F	1.252	F	0.004	N
		P.M.	1.133	F	1.369	F	1.372	F	0.003	N
Lincoln Bl @ Pico Bl	124	A.M.	0.988	E	1.240	F	1.243	F	0.003	N
		P.M.	1.065	F	1.228	F	1.232	F	0.004	N
Lincoln Bl @ Wilshire Bl	131	A.M.	0.729	C	0.897	D	0.899	D	0.002	N
		P.M.	0.883	D	0.910	E	0.912	E	0.002	N
Main St @ Ocean Park Bl	110	A.M.	0.921	E	0.958	E	0.958	E	0.000	N
		P.M.	0.838	D	1.022	F	1.023	F	0.001	N

Table 119 (Continued)

INTERSECTION OPERATING CONDITIONS – PRIOR TO MITIGATION

Intersection	Inter-section #	Peak Hour	2003 Base V/C	2003 Base LOS	2010 Base w/out Project* V/C	2010 Base w/out Project* LOS	2010 w/Project* V/C	2010 w/Project* LOS	V/C Change	Significant Impact
Main St @ Pico Bl	117	A.M.	0.680	B	0.775	C	0.775	C	0.000	N
		P.M.	0.912	E	0.945	E	0.945	E	0.000	N
Neilson Way @ Ocean Park Bl	111	A.M.	0.695	B	0.726	C	0.727	C	0.001	N
		P.M.	0.737	C	0.775	C	0.776	C	0.001	N
Ocean Av @ Palisades Beach Rd Ramps	126	A.M.	0.481	A	0.621	B	0.622	B	0.001	N
		P.M.	0.934	E	0.958	E	0.959	E	0.001	N
Ocean Av @ Wilshire Bl	125	A.M.	0.618	B	0.717	C	0.717	C	0.000	N
		P.M.	0.624	B	0.684	B	0.684	B	0.000	N
Ocean Av/ Neilson Way @ Pico Bl	118	A.M.	0.632	B	0.729	C	0.730	C	0.001	N
		P.M.	0.841	D	0.888	D	0.889	D	0.001	N
City of Inglewood										
Arbor Vitae St @ La Cienega Bl	5	A.M.	0.538	A	0.678	B	0.679	B	0.001	N
		P.M.	0.633	B	0.731	C	0.734	C	0.003	N
Centinela Av @ Florence Av	206	A.M.	0.545	A	0.613	B	0.622	B	0.009	N
		P.M.	0.780	C	0.825	D	0.832	D	0.007	N
Centinela Av @ La Brea Av	175	A.M.	1.167	F	1.395	F	1.412	F	0.017	Y
		P.M.	1.134	F	1.192	F	1.201	F	0.009	N
Florence Av/ Aviation Bl @ Manchester Bl	8	A.M.	0.937	E	1.143	F	1.147	F	0.004	N
		P.M.	0.873	D	0.887	D	0.921	E	0.034	Y
La Brea Av @ Manchester Bl	188	A.M.	1.068	F	1.070	F	1.071	F	0.001	N
		P.M.	0.989	E	1.123	F	1.124	F	0.001	N
La Cienega Bl @ Manchester Bl	196	A.M.	0.598	A	0.899	D	0.902	E	0.003	N
		P.M.	0.928	E	0.940	E	0.942	E	0.002	N
South Bay Cities [b]										
Artesia Bl @ Sepulveda Bl/PCH	208	A.M.	0.863	D	0.869	D	0.873	D	0.004	N
		P.M.	1.209	F	1.220	F	1.222	F	0.002	N
Aviation Bl @ Rosecrans Av	9	A.M.	1.041	F	1.001	F	1.003	F	0.002	N
		P.M.	1.339	F	1.064	F	1.064	F	0.000	N
Douglas St @ Imperial Hwy	176	A.M.	0.545	A	0.770	C	0.771	C	0.001	N
		P.M.	0.432	A	0.590	A	0.593	A	0.003	N
El Segundo Bl @ Sepulveda Bl	23	A.M.	0.941	E	1.074	F	1.076	F	0.002	N
		P.M.	1.100	F	1.297	F	1.303	F	0.006	N
Grand Av @ Sepulveda Bl	120	A.M.	1.004	F	1.026	F	1.034	F	0.008	N
		P.M.	1.164	F	1.305	F	1.310	F	0.005	N
Highland Av @ Manhattan Beach Bl	207	A.M.	0.564	A	0.787	C	0.790	C	0.003	N
		P.M.	0.552	A	0.620	B	0.621	B	0.001	N
I-405 NB Ramps @ Imperial Hwy	181	A.M.	0.323	A	0.415	A	0.416	A	0.001	N
		P.M.	0.464	A	0.497	A	0.498	A	0.001	N
I-105 WB Off-Ramp/Nash St @ Imperial Hwy	183	A.M.	0.614	B	0.796	C	0.799	C	0.003	N
		P.M.	0.329	A	0.425	A	0.427	A	0.002	N

Table 119 (Continued)

INTERSECTION OPERATING CONDITIONS – PRIOR TO MITIGATION

Intersection	Inter-section #	Peak Hour	2003 Base V/C	2003 Base LOS	2010 Base w/out Project* V/C	2010 Base w/out Project* LOS	2010 w/Project* V/C	2010 w/Project* LOS	V/C Change	Significant Impact
Imperial Hwy @ Main St	182	A.M.	0.757	C	1.007	F	1.011	F	0.004	N
		P.M.	0.672	B	0.904	E	0.906	E	0.002	N
Manhattan Beach Bl @ Sepulveda Bl	122	A.M.	1.167	F	1.189	F	1.193	F	0.004	N
		P.M.	1.251	F	1.335	F	1.337	F	0.002	N
Maple Av @ Sepulveda Bl	119	A.M.	0.686	B	0.827	D	0.831	D	0.004	N
		P.M.	0.771	C	1.075	F	1.078	F	0.003	N
Marine Av @ Sepulveda Bl	121	A.M.	1.063	F	1.103	F	1.105	F	0.002	N
		P.M.	1.133	F	1.330	F	1.332	F	0.002	N
Mariposa Av @ Sepulveda Bl	58	A.M.	0.870	D	0.898	D	0.901	E	0.003	N
		P.M.	0.872	D	1.074	F	1.077	F	0.003	N
Rosecrans Av @ Sepulveda Bl	61	A.M.	0.868	D	1.020	F	1.023	F	0.003	N
		P.M.	1.093	F	1.397	F	1.400	F	0.003	N
Rosecrans Av @ Vista del Mar/ Highland Av	25	A.M.	1.193	F	1.278	F	1.281	F	0.003	N
		P.M.	0.887	D	0.893	D	0.897	D	0.004	N
TOTAL NUMBER OF INTERSECTIONS AT LOS E OR F		**A.M.**		**42**		**84**		**90**		
		P.M.		**49**		**104**		**108**		
NUMBER OF INTERSECTIONS WITH SIGNIFICANT IMPACTS		**A.M.**								**31**
		P.M.								**47**

S/O = south of *SB = southbound*
N/O = north of *NB = northbound*
E/O = east of *EB = eastbound*
W/O = west of *WB = westbound*
N/A = Not Applicable. Intersection does not currently exist or intersection will not exist in the future.

* *All known related projects were checked against the year 2010 land use projections to verify the assumptions in the model. (These related projects are listed and illustrated in Section III.B, above. Only those 2010 forecasted street improvements that have secured funding were assumed to be in place.*

[a] *Denotes intersections controlled by Stop Signs on minor approaches. Indicates average vehicle delay in seconds (not V/C Ratio) for the intersections.*

[b] *South Bay Cities Include El Segundo, Manhattan Beach, Hawthorne, and Hermosa Beach.*

Source: Kaku Associates, Inc., and Raju Associates, Inc., July 2003.

In addition, the Caltrans SR-1 improvements within the Coastal Zone included both the Lincoln South and Lincoln North improvement projects. The Lincoln South project was approved by the Coastal Commission and is planned for construction; these improvements are included in the 2010 baseline conditions summarized above. The Lincoln North project has not been approved by the Coastal Commission; instead, the Commission requested Caltrans study additional alternatives for this project. The Lincoln North improvement was not a component of the adjacent Playa Vista First Phase project's traffic mitigation program, and is not assumed in

the 2010 baseline improvements for this traffic study. Therefore, the Lincoln North project has no bearing on traffic impacts associated with the proposed Village at Playa Vista project.

The California Department of Transportation (Caltrans) has a number of operational and physical improvements under study within the Project study area. Caltrans is investigating alternate configurations for the I-405/Jefferson interchange in order to improve operations at the interchange. Further, additional auxiliary lanes along the I-405 freeway within the study area are under study. Neither of these improvements are currently approved or funded, and, therefore, they are not included as part of the assumed roadway system. If they are ultimately approved by Caltrans they would be subject to further separate environmental review. Although detailed information concerning what improvements Caltrans might adopt is not known, preliminary transportation modeling conducted as part of the analysis of these alternates showed that the freeway improvements would improve the congested north-south corridors in the study area. The implementation of these freeway-related improvements would improve the Level of Service at study intersections and increase the effectiveness of the Project mitigation program.

3.4.3 Trip Generation

Table 120 on page 860 provides a listing of the proposed land uses for the Proposed Project, and identifies the trip generation (i.e., trip ends) associated with each proposed use. As indicated, on a typical weekday, the Project is estimated to generate 1,626 A.M. peak hour trip ends, 2,302 P.M. peak hour trip ends and 24,220 daily trip ends. Of the 1,626 trip ends during the A.M. peak hour, the Project is estimated to generate 577 in-bound trip ends (to the site) and 1,049 out-bound trip ends (from the site). During the P.M. peak hour, the Project is estimated to generate 1,275 in-bound trip ends and 1,027 out-bound trip ends.

In order to convert the trip ends to vehicular trips on the external street system, the trips are broken down into three basic trip categories: (1) Internal, consisting of trips within the Project Site; (2) Internal-External (I-E), which are typically longer trips that originate within the Project site and have their destination outside the Project site; and (3) External-Internal (E-I), also typically longer trips that originate outside the Project site and have their destination within the Project site.

Figure 71 on page 861 shows a graphical summary of the Project's trip table separated into the three trip categories explained above. As indicated, the approximately 1,626 A.M. peak trips identified in Table 120, include 124 trips which are internal within the site, 531 which are external to internal, and 971 which are internal to external. Peak trips in the P.M. include approximately 120 trips which are internal to the site, 1,202 which are external to internal, and 980 internal to external. The 124 A.M. internal trip ends and the 120 P.M. internal trip ends represent 62 and 60 internal trips, respectively. Since these trips are internal in nature, they have

Table 120

TRIP GENERATION ESTIMATES

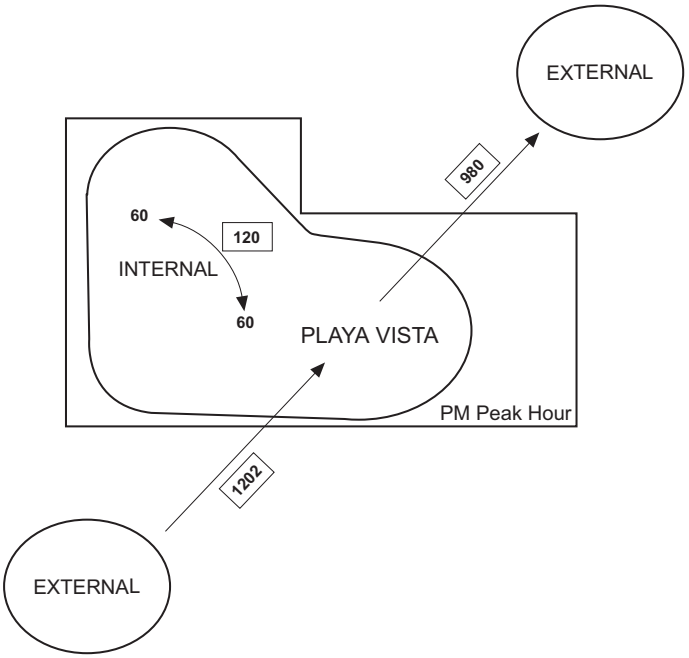
Land Use	Size	Daily [a]	A.M. Peak Hour			P.M. Peak Hour		
			In	Out	Total	In	Out	Total
Office	175,000 sf	2,271	287	39	326	52	253	305
Dwelling Units	2,600 units	15,236	194	950	1,144	941	463	1,404
Retail (Neighborhood)	150,000 sf	6,193	87	56	143	276	299	575
Community Serving Uses [b]	40,000 sf	520	9	4	13	6	12	18
TOTAL		**24,220**	**577**	**1,049**	**1,626**	**1,275**	**1,027**	**2,302**

* *For a breakdown of the total A.M. and P.M. trips according to those which are internal to the Project, and those which represent travelers coming to, or leaving the site, refer to Figure 71 on page 861.*

[a] *Factors based on ITE "Trip Generation," 6th Edition, 1997, SANDAG "San Diego Traffic Generators," 1998.*

[b] *Breakdown of Community Serving Uses and their respective trip generation estimates are provided in Appendix K, Traffic Study.*

Source: Kaku Associates, Inc. and Raju Associates, Inc., July 2003.



TRIP TYPE	AM PEAK HOUR AUTO TRIPS		
	TRIP ENDS	ON PLAYA VISTA STREETS	ON EXTERNAL STREETS
INTERNAL	124	62	0
EXTERNAL			
EXTERNAL TO INTERNAL (INBOUND)	531	531	531
INTERNAL TO EXTERNAL (OUTBOUND)	971	971	971
TOTAL	**1,626**	**1,564**	**1,502**

TRIP TYPE	PM PEAK HOUR AUTO TRIPS		
	TRIP ENDS	ON PLAYA VISTA STREETS	ON EXTERNAL STREETS
INTERNAL	120	60	0
EXTERNAL			
EXTERNAL TO INTERNAL (INBOUND)	1,202	1,202	1,202
INTERNAL TO EXTERNAL (OUTBOUND)	980	980	980
TOTAL	**2,302**	**2,242**	**2,182**

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Figure 71
Playa Vista Trip Making Categories

Source: Kaku Associates, July 2003

very little impact on the external street system although some of these trips may utilize regional roadways such as Jefferson Boulevard, Bluff Creek Drive, and Centinela Avenue-Campus Center Drive within and along the Project boundaries. These internal trips were also part of the traffic assignment where they were assigned to the above roadways to satisfy the trips, wherever required.

The remaining 1,502 A.M. trip ends (531 E-I trip ends and 971 I-E trip ends) and 2,182 P.M. trip ends (1,202 E-I trip ends and 980 I-E trip ends) match the number of vehicular trips because only one trip end is within Playa Vista. These trips would affect the external street system.

3.4.4 Trip Distribution/Traffic Assignment

The trip distribution for the Project trips was performed within the Transportation Model Framework using a "Gravity Model" formulation that allocates trips between two land-use types based on the size and impedance or travel times for those trips. The gravity model looks at the trips produced by a specific land use zone and distributes those trips proportionately to all the zones that could attract that particular type of trip. The trips are distributed in proportion to the size of the attracting zones and inversely proportional to the distance or travel time between the zones. The internal and external components of the Project trips were obtained using the calibrated gravity model for the region. The Project trip distribution was verified against the trip lengths for areas with similar amounts of land use and through coordination with LADOT.

The traffic assignment process next assigns the Proposed Project's traffic in addition to the other traffic, as described in the previous section, to the road network. The analysis also tracks the additional trips to and from the specified on-site traffic zones, (reflecting Project traffic) on each link of the road network, based on the likely travel patterns simulated by the model. These total traffic volumes are then utilized to obtain turning movements at intersections.

Traffic assignments were performed for the year 2010 traffic conditions during the A.M. and P.M. peak hours, keeping track of the Project trips in the assignment process. The "Project-only" traffic volume flows are shown in the Traffic Study, Appendix K to the EIR. The overall generalized 2010 with Project traffic volume flows are also identified in the Traffic Study. The intersection turning movement volumes at each of the analyzed intersections during the A.M. and P.M. peak hours are also set forth in the Traffic Study.

The analysis of the "Project-only" traffic indicates that trips from the Proposed Project would utilize travel corridors within the study area as listed below:

- Lincoln Boulevard and Admiralty Way Corridors to/from points north and south – 18%
- SR-90, Culver Boulevard, Slauson Avenue and Jefferson Boulevard Corridors – 35%
- Culver Boulevard and Vista Del Mar Corridors to/from points south and west – 5%
- Sepulveda Boulevard Corridor to points south – 14%
- I-405 travel corridor to points north and south – 12%
- Centinela Avenue corridors to the north and south/east – 16%

As discussed in the Traffic Study, the analysis further indicates that approximately 5 to 7 percent of the Proposed Project trips remain internal to the Project site; however, some of these trips will utilize internal and adjacent regional roadways like Jefferson Boulevard, Bluff Creek Drive, and Centinela Avenue-Campus Center Drive to access/egress various neighborhoods and areas within the Proposed Project site. Approximately 45 to 50 percent of the Project trips have their final destinations within three to four miles of the Proposed Project site. A total of 65 to 70 percent of the trips are completed within five miles. While the study area covers 100 square miles, the majority of the Proposed Project traffic effects occur close to the Project site, and the effects drop off quickly farther away from the Project.

3.4.5 Project Impacts on Intersections – Prior to Mitigation[370]

The threshold used in the intersection analysis incorporates all elements of the Draft Los Angeles CEQA Thresholds Guide's recommended thresholds. Furthermore, the Project's significance threshold is consistent with the current thresholds recommended by LADOT. As the LADOT methodologies and threshold criteria are more stringent than those used in other jurisdictions, all other affected jurisdictions, except for Santa Monica, have agreed to the application of the same for the Traffic Study. An additional analysis of intersections in Santa Monica using that City's preferred methodology is included in the Traffic Study, Appendix K, of the EIR. The Proposed Project is not subject to any Transportation Specific Plan or Interim Control Ordinance containing stricter thresholds. Thus, the Guide's recommended threshold for addressing impacts on signalized and unsignalized intersections has been applied in the analysis methodology.

3.4.5.1 Overall Study Intersections

The analysis of intersection impacts is based on a methodology in which four traffic condition scenarios are analyzed: 2003 Baseline Conditions, 2010 Baseline Conditions,

[370] *Mitigation measures to reduce Project impacts are discussed under Section 4.0, below.*

2010 Baseline Conditions with the Project added, and 2010 Baseline Conditions with the Project and proposed mitigation measures. The analyses that includes the effects of proposed mitigation measures is presented in Section 5.1 on page 905. The traffic conditions under the first three scenarios are presented in Table 119 on page 846 through 858. Traffic conditions with the Proposed Project, and the related incremental impacts over the 2010 Baseline conditions without the Proposed Project, are shown in the third column of Table 119. These "With Project – Before Mitigation" conditions are also displayed graphically in Figure 72 on page 865 and Figure 73 on page 866, for A.M. and P.M. peak hours, respectively. These figures also indicate the intersections that would be operating at LOS levels A-D, E and F during the A.M. and P.M. peak hours, respectively.

Figure 74 on page 867 graphically illustrates the significantly impacted locations. As indicated in the table and figures, during the A.M. peak hour, the Proposed Project prior to mitigation would result in a significant impact to a total of 8 intersections operating at LOS C or LOS D, 8 intersections operating at LOS E and 15 intersections operating at LOS F. During the P.M. peak hour, the Proposed Project would, prior to mitigation, result in a significant impact to 8 intersections operating at LOS C or LOS D, 14 intersections operating at LOS E, and 25 intersections operating at LOS F. The Proposed Project would not result in a significant impact to the remaining study intersections (187 intersections in the A.M. peak hour and 171 intersections in the P.M. peak hour would not have a significant impact). This evaluation of Project traffic impacts could be moderated by traffic mitigation measures associated with other related projects for which mitigation measures have been identified but not yet funded ,as well as mitigation measures or other projects that have not yet been established and therefore not taken into account.

Traffic operations under the conditions described in Table 119 indicate that many of the study intersections would be congested during the peak hours. If not mitigated, these conditions could extend the peak hours and increase average delays during the peak hours.

The impacts identified in this analysis are based on the total buildout of the Proposed Project. However, the Proposed Project would be built over several years with new site population, and related traffic impacts occurring incrementally over time. Therefore, the mitigation measures for the Proposed Project have been placed into a sequence of improvements that would occur roughly commensurate with the increase in Project impact. This sequence is described in a Traffic Subphasing Plan that has been incorporated into the mitigation measures, in Subsection 5.0, below.

The Traffic Subphasing Plan has been designed, and included in the mitigation program to ensure that mitigation measures are implemented commensurate with anticipated development to the extent feasible. There could be situations where anticipated impacts do not occur during the short-term, and unanticipated impacts do occur, prior to the implementation of a specific

LEGEND

	Number of Intersections	Percentage	Significantly Impacted Intersections	Percentage significant
▲ LOS A-D	128	59%	8	3.5%
■ LOS E	27	12%	8	3.5%
● LOS F	63	29%	15	7%
TOTAL	218	100%	31	14%

Proposed Village at Playa Vista

0 1 2 Miles

N

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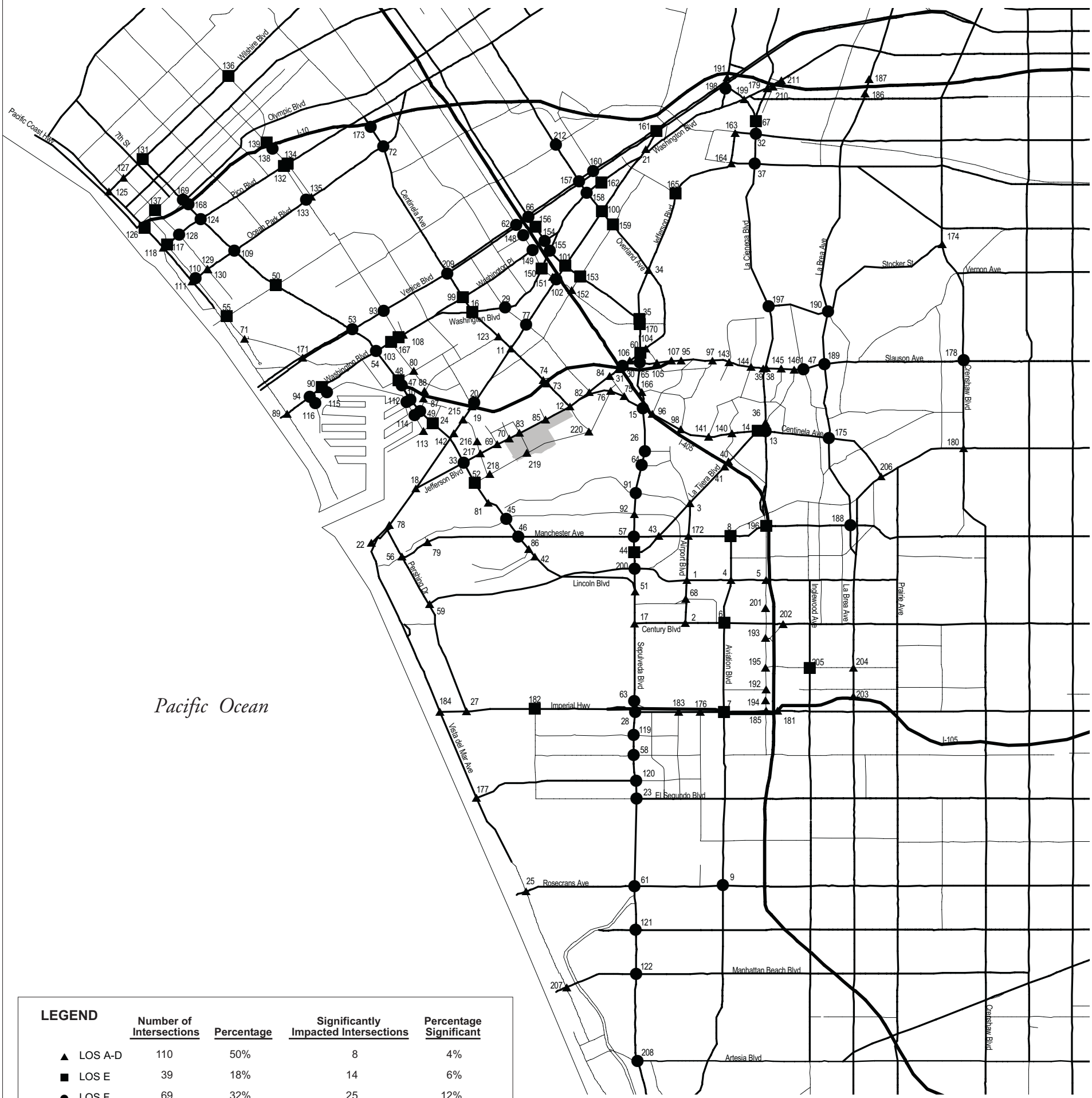
Figure 72
Intersection Levels of Service
Future 2010 with Project
AM Peak Hour
(Before Mitigation)

Source: Kaku Associates, July 2003



LEGEND

	Number of Intersections	Percentage	Significantly Impacted Intersections	Percentage Significant
▲ LOS A-D	110	50%	8	4%
■ LOS E	39	18%	14	6%
● LOS F	69	32%	25	12%
TOTAL	218	100%	47	22%

Proposed Village at Playa Vista

N

0 1 2 Miles

PCR

Figure 73
Intersection Levels of Service
Future 2010 with Project
PM Peak Hour
(Before Mitigation)

Source: Kaku Associates, July 2003

Figure 74
Summary of Significantly Impacted Intersections Future 2010 with Project (Before Mitigation)

Source: Kaku Associates, July 2003

mitigation measure. Therefore, there remains a potential for short-term significant impacts to occur during the subphasing of mitigation that would be resolved at later stages of implementation.

3.4.5.2 County CMP Intersections – Prior to Mitigation

As described above, 17 CMP intersections were analyzed under the Los Angeles County Management Program, a state-mandated program which serves as the monitoring and analytical basis for state-related transportation funding decisions. The 17 CMP intersections are included in the analysis of the 218 intersections in the traffic study area (see Table 119 on page 847) and are summarized in Table 121 on page 869. Table 121 summarizes the results of the capacity analysis at each of the County CMP intersections for the "2003 Base," "2010 Base," and "2010 with Project" conditions. As shown in Table 121, prior to mitigation, the Proposed Project would significantly impact one intersection in the A.M. peak hour, one intersection in the P.M. peak hour, and four intersections in both the A.M. and P.M. peak hours.

3.4.6 Project Impacts on Freeways – Prior to Mitigation

The recommended threshold for freeway capacity that is established in the Draft Los Angeles CEQA Thresholds Guide (see Subsection 3.2.2, above) has been applied directly to the following analysis of freeway segments. The threshold in the Guide also addresses impacts on freeway ramps, as well as freeway segments. In this EIR, the analysis of freeway ramps has been incorporated into the intersection analysis, and has used the intersection thresholds for measuring impacts on freeway ramps. The significance thresholds for intersections are more stringent than this recommended threshold. This standard is consistent with the applicable standard established in the Los Angeles County Congestion Management Program (CMP) and is thus appropriate for the evaluation of CMP facilities.

The "2010 with Project" freeway operating conditions (prior to mitigation) for the A.M. and P.M. peak hours are shown on Table 122 and Table 123 on pages 870 and 871, respectively. The future background traffic growth combined with the Project traffic would bring certain segments of the I-405, I-10 and I-105 to LOS E or LOS F conditions during the A.M. and P.M. peak hours; however, some of these freeway segments are currently operating at LOS E and LOS F during the peak hours. The SR-90 is projected to continue operating at acceptable levels of service (LOS B and LOS C) during the A.M. and P.M. peak hours, even with the addition of Project traffic. Motorists using the SR-90 would not experience much change in average travel speed even as compared to current conditions.

Table 121

INTERSECTION OPERATION CONDITIONS – CONGESTION MANAGEMENT PROGRAM ARTERIAL MONITORING LOCATIONS

Intersection	Inter-section #	Peak Hour	2003 Base V/C	2003 Base LOS	2010 Base without Project V/C	2010 Base without Project LOS	2010 with Project V/C	2010 with Project LOS	V/C Increase	Significant Impact
Centinela Av @ La Cienega Bl	13	A.M.	1.103	F	1.201	F	1.211	F	0.010	Y
		P.M.	1.102	F	1.253	F	1.262	F	0.009	N
El Segundo Bl @ Sepulveda Bl	23	A.M.	0.941	E	1.074	F	1.076	F	0.002	N
		P.M.	1.100	F	1.297	F	1.303	F	0.006	N
Jefferson Bl @ La Cienega Bl	32	A.M.	1.196	F	1.308	F	1.316	F	0.008	N
		P.M.	1.143	F	1.178	F	1.185	F	0.007	N
Lincoln Bl @ Manchester Av	46	A.M.	0.833	D	1.264	F	1.291	F	0.027	Y
		P.M.	0.816	D	1.203	F	1.237	F	0.034	Y
Lincoln Bl @ Marina Exwy	47	A.M.	0.851	D	1.039	F	1.056	F	0.017	Y
		P.M.	0.931	E	1.096	F	1.113	F	0.017	Y
Lincoln Bl @ Sepulveda Bl	51	A.M.	0.523	A	0.595	A	0.603	B	0.008	N
		P.M.	0.645	B	0.819	D	0.836	D	0.017	N
Lincoln Bl @ Venice Bl	53	A.M.	1.080	F	1.087	F	1.100	F	0.013	Y
		P.M.	1.016	F	1.060	F	1.071	F	0.011	Y
Manchester Av @ Sepulveda Bl	57	A.M.	0.866	D	1.001	F	1.008	F	0.007	N
		P.M.	1.016	F	1.178	F	1.235	F	0.057	Y
Rosecrans Av @ Sepulveda Bl	61	A.M.	0.868	D	1.020	F	1.023	F	0.003	N
		P.M.	1.093	F	1.397	F	1.400	F	0.003	N
Lincoln Bl @ Pico Bl	124	A.M.	0.988	E	1.240	F	1.243	F	0.003	N
		P.M.	1.065	F	1.228	F	1.232	F	0.004	N
26th St @ Wilshire Bl	136	A.M.	0.719	C	0.952	E	0.953	E	0.001	N
		P.M.	0.910	E	0.970	E	0.970	E	0.000	N
Overland Av @ Venice Bl	157	A.M.	0.886	D	1.124	F	1.126	F	0.002	N
		P.M.	1.002	F	1.145	F	1.151	F	0.006	N
La Brea Av @ Manchester Bl	188	A.M.	1.068	F	1.070	F	1.071	F	0.001	N
		P.M.	0.989	E	1.123	F	1.124	F	0.001	N
La Cienega Bl @ Stocker St	197	A.M.	1.227	F	1.335	F	1.341	F	0.006	N
		P.M.	1.066	F	1.218	F	1.225	F	0.007	N
La Cienega Bl @ Venice Bl	198	A.M.	1.059	F	1.176	F	1.178	F	0.002	N
		P.M.	0.990	E	1.064	F	1.065	F	0.001	N
Artesia Bl @ Sepulveda Bl/PCH	208	A.M.	0.863	D	0.869	D	0.873	D	0.004	N
		P.M.	1.209	F	1.220	F	1.222	F	0.002	N
Centinela Av @ Venice Bl	209	A.M.	1.128	F	1.228	F	1.248	F	0.020	Y
		P.M.	1.167	F	1.332	F	1.350	F	0.018	Y

Source: Kaku Associates, Inc., and Raju Associates, Inc., July 2003.

Table 122

FREEWAY OPERATING CONDITIONS A.M. PEAK HOUR PRIOR TO MITIGATION

			2003 Base			2010 Base without Project			2010 with Project				
		Direction	Demand [a]	D/C [b]	LOS [c]	Demand [a]	D/C [b]	LOS [c]	Demand [a]	D/C [b]	LOS [c]	Change in D/C	Significant Project Impacts
I-405	South of I-110 Fwy [c]	NB	10,569	1.06	F(0)	10,753	0.98	E	10,763	0.98	E	0.001	No
		SB	8,788	0.88	D	9,505	0.86	D	9,520	0.87	D	0.001	No
I-405	at Compton Blvd.	NB	9,318	1.04	F(0)	10,494	1.17	F(0)	10,523	1.17	F(0)	0.003	No
		SB	7,823	0.87	D	8,533	0.95	E	8,574	0.95	E	0.005	No
I-405	North of La Tijera Blvd. [c]	NB	10,367	1.04	F(0)	10,522	0.96	E	10,570	0.96	E	0.004	No
		SB	8,496	0.85	D	10,342	0.94	E	10,427	0.95	E	0.008	No
I-405	North of Venice Blvd. [c]	NB	10,756	1.08	F(0)	10,782	0.98	E	10,831	0.98	E	0.004	No
		SB	8,814	0.88	D	10,564	0.96	E	10,600	0.96	E	0.003	No
I-405	South of Mulholland Dr.	NB	7,992	0.80	D	9,755	0.89	D	9,767	0.89	D	0.001	No
		SB	12,575	1.40	F(2)	13,187	1.47	F(3)	13,217	1.47	F(3)	0.003	No
SR-90	West of I-405 Fwy	EB	3,355	0.42	B	3,504	0.44	B	3,620	0.45	B	0.015	No
		WB	2,268	0.28	A	2,889	0.36	B	2,912	0.36	B	0.003	No
I-10	Lincoln Blvd.	EB	5,256	0.88	D	5,559	0.93	D	5,561	0.93	D	0.000	No
		WB	4,746	0.79	D	5,973	1.00	E	5,975	1.00	E	0.000	No
I-10	East of Overland Av.	EB	9,267	1.16	F(0)	10,229	1.28	F(1)	10,230	1.28	F(1)	0.000	No
		WB	8,218	0.82	D	8,758	0.88	D	8,758	0.88	D	0.000	No
I-10	East of La Brea Av.	EB	8,405	0.84	D	10,845	1.08	F(0)	10,877	1.09	F(0)	0.003	No
		WB	10,294	1.29	F(1)	12,372	1.55	F(3)	12,390	1.55	F(3)	0.002	No
I-105	East of Sepulveda Blvd.	EB	2,841	0.47	B	2,980	0.50	B	2,985	0.50	B	0.001	No
		WB	3,847	0.64	C	5,638	0.94	E	5,662	0.94	E	0.004	No
I-105	East of Crenshaw Blvd.	EB	7,631	0.85	D	7,695	0.86	D	7,721	0.86	D	0.003	No
		WB	9,277	1.03	F(0)	10,478	1.16	F(0)	10,506	1.17	F(0)	0.003	No

[a] *Demand-to-Capacity ratio (D/C) calculated based on a capacity of 2,000 vehicles per lane per hour applied to through lanes. The D/C ratio is used to analyze freeway segments, which could be impacted by project-related traffic; whereas volume-to-capacity (V/C) ratio is a measure of the actual traffic volume at a given intersection compared to the theoretical capacity of that intersection to accommodate traffic.*

[b] *Freeway mainline Level of Service (LOS) is based on the following D/C scale:*

D/C Ratio	LOS
> 0.00 to 0.35	A
> 0.35 to 0.54	B
> 0.54 to 0.77	C
> 0.77 to 0.93	D
> 0.93 to 1.00	E
> 1.00 to 1.25	F(0)
> 1.25 to 1.35	F(1)
> 1.35 to 1.45	F(2)
> 1.45	F(3)

[c] *A capacity of 1,000 vehicles per lane per hour in each direction is added to the future conditions on the I-405 to represent the programmed and State-funded HOV improvement.*

Source: Kaku Associates, Inc., and Raju Associates, Inc., July 2003.

Table 123

FREEWAY OPERATING CONDITIONS P.M. PEAK HOUR PRIOR TO MITIGATION

			2003 Base			2010 Base without Project			2010 with Project				
		Direction	Demand [a]	D/C [b]	LOS [c]	Demand [a]	D/C [b]	LOS [c]	Demand [a]	D/C [b]	LOS [c]	Change in D/C	Significant Project Impacts
I-405	South of I-110 Fwy [c]	NB	8,619	0.86	D	8,950	0.81	D	8,960	0.81	D	0.001	No
		SB	10,233	1.02	F(0)	10,861	0.99	E	10,875	0.99	E	0.001	No
I-405	at Compton Blvd.	NB	9,118	1.01	F(0)	9,456	1.05	F(0)	9,483	1.05	F(0)	0.003	No
		SB	9,284	1.03	F(0)	11,177	1.24	F(0)	11,215	1.25	F(0)	0.004	No
I-405	North of La Tijera Blvd. [c]	NB	10,885	1.09	F(0)	11,818	1.07	F(0)	11,826	1.08	F(0)	0.001	No
		SB	10,242	1.02	F(0)	11,105	1.01	F(0)	11,202	1.02	F(0)	0.009	No
I-405	North of Venice Blvd. [c]	NB	10,210	1.02	F(0)	12,239	1.11	F(0)	12,290	1.12	F(0)	0.005	No
		SB	9,608	0.96	E	9,927	0.90	D	9,965	0.91	D	0.003	No
I-405	South of Mulholland Dr.	NB	8,696	0.87	D	13,860	1.26	F(1)	13,893	1.26	F(1)	0.003	No
		SB	12,008	1.33	F(1)	12,132	1.35	F(2)	12,157	1.35	F(2)	0.003	No
SR-90	West of I-405 Fwy	EB	3,022	0.38	B	4,092	0.51	B	4,149	0.52	B	0.007	No
		WB	2,828	0.35	B	3,147	0.39	B	3,188	0.40	B	0.005	No
I-10	Lincoln Blvd.	EB	4,407	0.73	C	6,127	1.02	F(0)	6,127	1.02	F(0)	0.000	No
		WB	4,967	0.83	D	5,708	0.95	E	5,709	0.95	E	0.000	No
I-10	East of Overland Av.	EB	9,194	1.15	F(0)	9,594	1.20	F(0)	9,595	1.20	F(0)	0.000	No
		WB	7,194	0.72	C	9,093	0.91	D	9,093	0.91	D	0.000	No
I-10	East of La Brea Av.	EB	9,989	1.00	E	12,064	1.21	F(0)	12,082	1.21	F(0)	0.002	No
		WB	11,040	1.38	F(2)	11,676	1.46	F(3)	11,696	1.46	F(3)	0.002	No
I-105	East of Sepulveda Blvd.	EB	3,205	0.53	B	4,319	0.72	C	4,323	0.72	C	0.001	No
		WB	2,432	0.41	B	4,220	0.70	C	4,232	0.71	C	0.002	No
I-105	East of Crenshaw Blvd.	EB	8,679	0.96	E	8,716	0.97	E	8,743	0.97	E	0.003	No
		WB	8,648	0.96	E	8,705	0.97	E	8,731	0.97	E	0.003	No

[a] *Demand-to-Capacity ratio (D/C) calculated based on a capacity of 2,000 vehicles per lane per hour applied to through lanes. The D/C ratio is used to analyze freeway segments, which could be impacted by project-related traffic; whereas volume-to-capacity (V/C) ratio is a measure of the actual traffic volume at a given intersection compared to the theoretical capacity of that intersection to accommodate traffic.*

[b] *Freeway mainline Level of Service (LOS) is based on the following D/C scale:*

D/C Ratio	LOS
> 0.00 to 0.35	A
> 0.35 to 0.54	B
> 0.54 to 0.77	C
> 0.77 to 0.93	D
> 0.93 to 1.00	E
> 1.00 to 1.25	F(0)
> 1.25 to 1.35	F(1)
> 1.35 to 1.45	F(2)
> 1.45	F(3)

[c] *A capacity of 1,000 vehicles per lane per hour in each direction is added to the future conditions on the I-405 to represent the programmed and State-funded HOV improvement.*

Source: Kaku Associates, Inc., and Raju Associates, Inc., July 2003.

Under the future "With Project" conditions before mitigation, approximately 35 percent of all freeway miles located within the traffic study area would operate at LOS D or better during the A.M. peak hour. Approximately 11 percent and 54 percent would operate at LOS E and LOS F, respectively. During the P.M. peak hour, approximately 24 percent of all freeway miles within the traffic study area would operate at LOS D or better and 12 percent and 64 percent would operate at LOS E and LOS F, respectively.

As previously described under Subsection 3.2 above, Significance Thresholds, the Proposed Project would result in a significant impact to a CMP facility if it increases traffic demand on a CMP facility by 2 percent of capacity thereby causing or worsening LOS F (V/C>1.0). A project would not result in a significant impact to a CMP facility if the analyzed facility is operating at LOS E or better after the addition of project traffic.

As identified in Table 122 and Table 123, using the CMP significant impact criteria, the Proposed Project would not result in any significant impact to CMP facilities in the A.M. or P.M. peak hour. The Proposed Project adds a maximum of approximately 85 trips or less in any direction along the analyzed freeway segments of the I-405 during the A.M. peak hour. This translates to a maximum increase in demand to capacity (D/C) ratio of 0.008 or 0.8 percent of the overall freeway capacity. Using the Los Angeles County Congestion Management Program criteria for significant impact (0.02 increase in D/C at Level of Service F), this estimated increase would not result in any significant impact. Similarly, the Proposed Project's maximum increase in D/C ratio of 0.015 along the SR 90 freeway segment west of the I-405, would also not result in any significant impact. During the P.M. peak hour, the Proposed Project results in a maximum increase in traffic along the I-405 of 97 trips or less which would increase the D/C ratio by 0.009 or 0.9 percent. Again, this increase would not result in any significant impact per CMP significance criteria. Along the SR 90 freeway, the Proposed Project would increase the D/C ratio by a maximum of 0.007 or 0.7 percent of its capacity, which would also not result in any significant impact in the P.M. peak hour.

3.4.7 Impacts on Neighborhood Streets Prior to Mitigation

The Draft Los Angeles CEQA Thresholds Guide states that significance thresholds for neighborhood streets be based on a case-by-case basis, but also offers recommended thresholds based on the addition of project traffic on the future traffic conditions of neighborhood streets (see Subsection 3.2.3, above). The number of trips required to trigger a potential impact starts at 120 project trips and increases as a function of the traffic volumes on a local residential street. The recommended trigger levels per existing traffic conditions have been incorporated into the significance thresholds. However, for the purposes of identifying potential impact areas, this analysis has used the most conservative level of 120 daily Project trips as the screening criteria for identifying neighborhoods with potentially significant impacts. The actual determination of significant impact would be calculated based on the condition of the individual street in question.

Impacts on local neighborhoods occur when congestion on arterial corridors is sufficient to cause motorists traveling along the corridor to divert to a parallel route through a residential neighborhood. Unless congestion is severe, travel along arterial streets is generally faster than through neighborhoods, since arterials streets typically provide greater capacities, higher travel speeds, less driveway access, fewer stop signs, etc.

In order to evaluate the potential impact from such diverted traffic, this analysis identified the three contributors to diversion of traffic that would be required for significant neighborhood intrusion impacts to occur:

- First, the analysis identified the corridors where the Proposed Project's additional traffic to the corridor could be such that the volume shifting to an alternative route could exceed the minimum significance threshold of 120 or more daily trips. The majority of vehicles on an arterial corridor tend to remain on that corridor even under congested conditions, with only a small portion of motorists inclined to seek alternative routes. Therefore, corridors were examined to which the Proposed Project may add 1,200 or more daily trips, assuming that at most 10 percent of these trips may shift to alternative routes.

- Second, the analysis identified baseline conditions along the corridors that were projected to have over-capacity conditions (LOS F) at key intersections; and

- Third, the analysis identified the availability of local neighborhood street(s) providing a parallel or alternate route of travel.

If one or more of these factors is absent, significant neighborhood traffic impacts would not be anticipated. The arterial corridors identified and the locations of the LOS F intersections along these corridors are illustrated in Figure 75 on page 874. As indicated, the corridors to which 1,200 or more daily trips are projected to be added by the Proposed Project include:

- Centinela Avenue between Culver Boulevard and Jefferson Boulevard and between Jefferson Boulevard and La Tijera Boulevard

- Inglewood Boulevard between Culver Boulevard and Jefferson Boulevard

- Jefferson Boulevard between Lincoln Boulevard and Overland Avenue

- Lincoln Boulevard between Maxella Avenue and Jefferson Boulevard and between Bluff Creek Drive and Sepulveda Boulevard

- Sepulveda Boulevard between Centinela Avenue and Imperial Highway

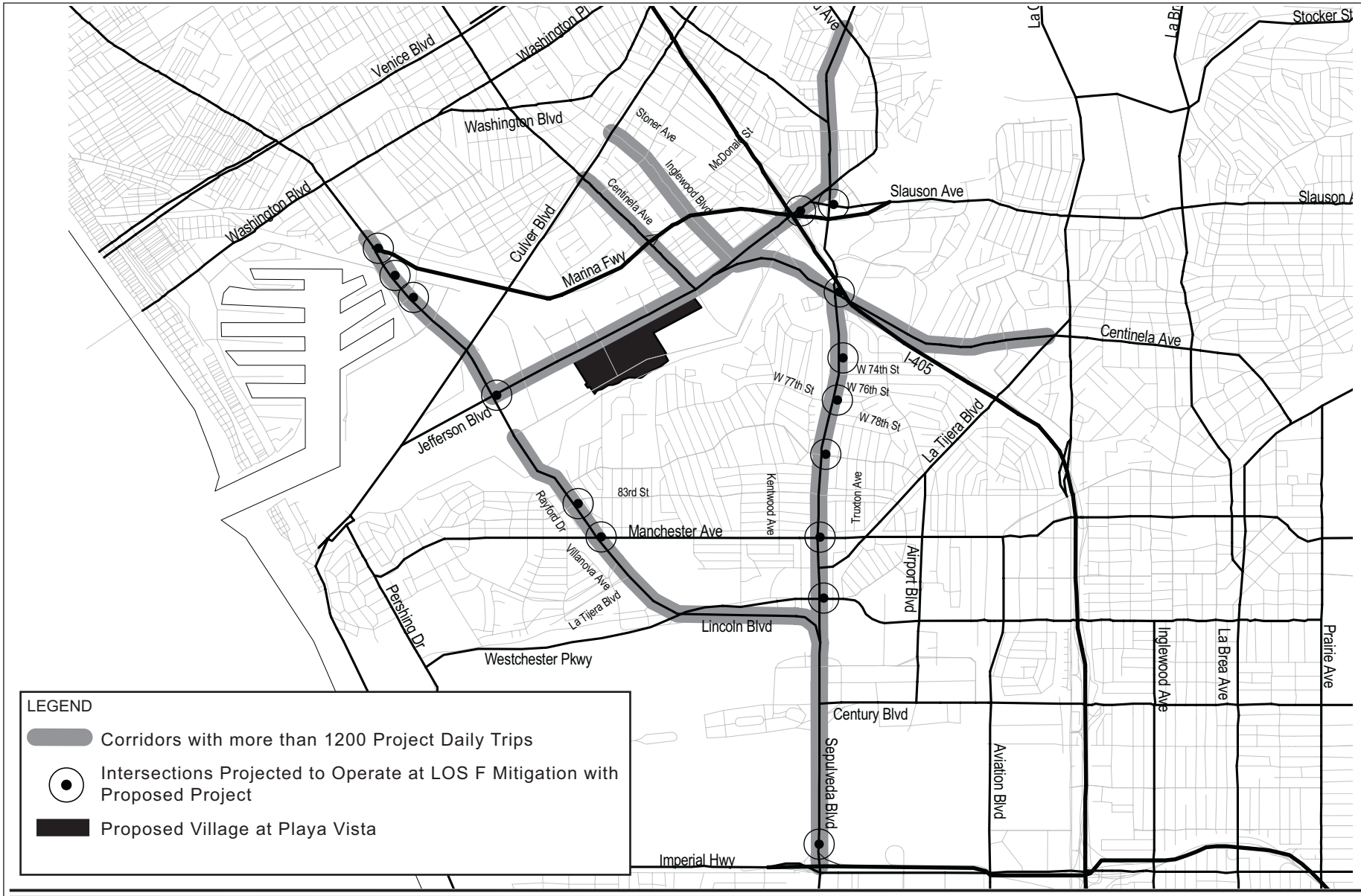


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Figure 75
Neighborhood Impact Corridors

Source: Kaku Associates, July 2003

The presence of congested cumulative conditions and the availability of local street(s) providing a parallel route of travel in the vicinity of congested portions of the corridors was then investigated for each of the corridors. The following discusses the results of this investigation for each corridor:

- Centinela Avenue, Culver Boulevard to Jefferson Boulevard – No intersections are projected to operate at LOS F along the Centinela Avenue corridor from Culver Boulevard to Jefferson Boulevard. Due to this condition plus the presence of physical barriers to local north/south travel created by the Marina Freeway and Ballona Creek (and the resultant lack of parallel routes via local residential streets), no significant neighborhood intrusion impacts would be anticipated in this area.

- Centinela Avenue, Jefferson Boulevard to La Tijera Boulevard – The sole intersection along the Centinela Avenue corridor from Jefferson Boulevard to La Tijera Boulevard that is projected to operate at LOS F is the intersection of Centinela Avenue at Sepulveda Boulevard. Due to the physical barriers created by the San Diego Freeway and the Westchester Bluffs, there are no parallel routes via local residential streets available as a bypass to Centinela Avenue around the Sepulveda Boulevard intersection. Therefore, no significant neighborhood intrusion impacts would be anticipated in this area.

- Inglewood Boulevard, Culver Boulevard to Jefferson Boulevard – No intersections are projected to operate at LOS F along the Inglewood Boulevard corridor from Culver Boulevard to Jefferson Boulevard. No significant neighborhood intrusion impacts would therefore be anticipated in this area.

- Jefferson Boulevard, Lincoln Boulevard to Overland Avenue – The intersections of Jefferson Boulevard/Lincoln Boulevard and Jefferson Boulevard/San Diego Freeway northbound ramp are projected to operate at LOS F. No local streets are available in the vicinity of the Jefferson Boulevard/Lincoln Boulevard intersection that could be used as an alternative route. Due to the physical barrier created by the San Diego Freeway, there are no close parallel routes via local residential streets available as a bypass to Jefferson Boulevard around the San Diego Freeway interchange. However, routes such as Inglewood Avenue to McDonald Street to Sawtelle Boulevard could potentially be used.

- Lincoln Boulevard, Maxella Avenue to Jefferson Boulevard – A number of intersections in this corridor are projected to operate at LOS F, including Lincoln Boulevard at Mindanao Way, at Bali Way, and at the Marina Expressway. Since access from Fiji Way to La Villa Marina has been blocked, there are no nearby parallel routes via local residential streets available to be used as an alternative route

to this portion of Lincoln Boulevard. Therefore, no significant neighborhood intrusion impacts would be anticipated in this area.

- Lincoln Boulevard, Bluff Creek Drive to Sepulveda Boulevard – A number of intersections in this corridor are projected to operate at LOS F, including Lincoln Boulevard at 83rd Street and at Manchester Avenue. A potential alternative route that would avoid the Lincoln Boulevard/Manchester Avenue intersection (but not the Lincoln Boulevard/83rd Street intersection) could be 83rd Street to Rayford Drive to Villanova Avenue to Loyola Boulevard to La Tijera Boulevard.

- Sepulveda Boulevard, Centinela Avenue to Imperial Highway – A number of intersections in this corridor are projected to operate at LOS F, including Sepulveda Boulevard at Centinela Avenue, at Howard Hughes Parkway, at 76th Street/ 77th Street, at 79th Street/80th Street, at Manchester Avenue, and at Westchester Parkway. There are no continuous parallel local street routes in the Centinela Avenue/Howard Hughes Parkway portion of the corridor. Similarly, further south in the vicinity of LAX, there are no parallel local street routes that could be impacted. Through the Westchester portion of the corridor, however, potential alternative routes could include 74th or 76th Streets to Airport Boulevard, 77th Street to Kentwood Avenue, or 78th Street to Truxton Avenue.

On the bases of the above investigation, four neighborhoods were identified that may be subject to potentially significant neighborhood intrusion impacts. They include the areas bounded by the following:

- Inglewood Boulevard, Ballona Creek, Sawtelle Boulevard, Bray Street/Port Road
- Kentwood Avenue, 77th Street, Sepulveda Boulevard, Manchester Avenue
- Sepulveda Boulevard, 74th Street, La Tijera Boulevard, Manchester Avenue
- Rayford Drive, 83rd Street, Lincoln Boulevard, La Tijera Boulevard

Mitigation of neighborhood traffic intrusion impacts requires development and implementation of a neighborhood traffic management plan which would identify measures to make local routes less attractive to through traffic, such as turn restrictions, chokers or narrowing of street widths, diverters or semi-diverters, cul-de-sacs or street closures, speed humps, and stop signs. Because implementation of neighborhood traffic controls on one street can cause intruding traffic to shift to other streets, an effective neighborhood traffic management plan can only be implemented on an area-wide basis with all affected parties involved in development of the plan, including neighborhood residents, Council representatives, planners, and traffic

engineers. The City of Los Angeles Department of Transportation has a neighborhood traffic management process in place to address these issues in consultation with all affected parties.

Accordingly, a mitigation measure is recommended in Section 4.0, Mitigation, Measures, below, which provides mechanisms for the development of neighborhood traffic management plan(s) in the potentially impacted neighborhoods identified above.

3.4.8 Impacts on Project Access

The Draft Los Angeles CEQA Thresholds Guide identifies a recommended significance threshold regarding traffic congestion at the intersections nearest the primary site access, and four factors to be used for determining the significance of a project's impacts on the safety of site accessibility (See Subsection 3.2.4, above). With regard to congestion, the first threshold has been applied directly as a significance threshold for the Proposed Project. With regard to the four safety of site accessibility factors, the second factor has been incorporated into a second access threshold. The remaining three safety factors describe design considerations that can affect safety conditions, and the amount of population exposure to hazards that would occur, if unsafe designs were implemented. The design and population exposure conditions were considered in the analysis and application of the safety threshold.

3.4.8.1 Impacts on Operational Accessibility

The roadways providing access to the Proposed Project site are illustrated on Figure 69 on page 838. The Proposed Project obtains access along Jefferson Boulevard, Centinela Avenue and Bluff Creek Drive. With implementation of the Proposed Project and its Project Design Features/mitigation measures, there will be seven intersections that provide access to the Proposed Project site. The expected 2010 operating conditions at these intersections is presented in Table 124 on page 878. The intersections are as follows:

- Jefferson Boulevard / Centinela Avenue
- Jefferson Boulevard / Alla Road
- Bluff Creek Drive / Playa Vista Drive
- Bluff Creek Drive / Campus Center Drive
- Jefferson Boulevard / McConnell Avenue
- Jefferson Boulevard / Westlawn Avenue
- Bluff Creek Drive / McConnell Avenue

Table 124

ACCESS INTERSECTIONS – FUTURE SERVICE LEVELS

	Year 2010 with Proposed Project and Project Design Features/Mitigations		
Intersection Name	**A.M. Peak Hour Level of Service**	**P.M. Peak Hour Level of Service**	**Project Access Impact (Y or N)**
Jefferson Boulevard/Centinela Avenue	C	D	N
Jefferson Boulevard/Alla Road	A	A	N
Bluff Creek Drive/Campus Center Drive (12th Street)	A	A	N
Bluff Creek Drive/Playa Vista Drive	A	A	N
Jefferson Boulevard/Westlawn Avenue	A	A	N
Jefferson Boulevard/McConnell Avenue	A	A	N
Bluff Creek Drive/McConnell Avenue	A	A	N

Source: Kaku Associates, Inc. and Raju Associates, Inc., July 2003.

As indicated in Table 124, 2010 operating conditions with the Proposed Project would be at LOS A during both the A.M. and P.M. peak hours at all of the intersections except one. This is considered excellent service. Conditions at Jefferson Boulevard and Centinela Avenue would be at LOS C during the A.M. peak hour, and LOS D during the P.M. peak hour, good and fair levels of services, respectively. Since none of the intersections providing access into the Proposed Project site would be operating at LOS E or F during the A.M. or P.M. peak hours, Project impacts with regard to operational accessibility would be less than significant.

3.4.8.2 Impacts on Access-Safety

The Proposed Project is a planned community that is implementing new interior roadways, and linkages to the regional system, with mitigation measures addressing roadway improvements along the Project's access corridors. As such all roadways would be required to meet all current roadway standards and protocols for safety.

The Proposed Project's internal streets including Runway Road, Millennium Drive, McConnell Avenue and Westlawn Avenue are all planned to include Class II (on-street) Bicycle Lanes designed to meet all applicable safety standards. Additionally, pedestrian amenities including shelters at bus stops, sidewalks, painted crosswalks (mostly at intersections), parkways and direct-connections to the Village Center area of the Project from adjacent uses are being proposed as part of the design features for the Proposed Project. All of the Proposed Project access and circulation roadways and intersections would be designed such that no sight-distance (horizontal and/or vertical) hazards would be created and that no project design features would create any other safety hazards for pedestrians, bicyclists and vehicles. Further, appropriate roadway geometrics relative to lane-widths, lane transitions, turn pockets and driveway spacing

and distances from key intersections and adequate traffic control would be provided in accordance with all applicable safety standards. Therefore, no obstructions to the visibility of pedestrians and bicyclists toward drivers, nor visibility of drivers toward pedestrians and bicyclists that would cause hazardous conditions would occur. The Proposed Project would not cause any significant impacts regarding the safety of project accessibility.

3.4.9 Project Impacts on Public Transit

Currently, there are six MTA bus lines, six Culver City lines, three Santa Monica bus lines, and three LADOT lines that operate within the Project Study Area. These bus lines are shown on Figure 68 on page 824.

The number of bus riders that would be generated by the Project was analyzed as a function of the total number of trips associated with the Project. The total number of Project trips, the factors used in the analysis, and the conclusions regarding the number of transit trips are presented in Table 125 on page 880.

As shown, the Proposed Project would be expected to generate 1,187 daily transit trips, 80 A.M. peak-hour trips and 113 P.M. peak-hour trips.

The additional transit ridership generated by the Proposed Project may contribute to overcrowding on individual lines serving the study area which already experience operational and service deficiencies; in particular, Culver City Line 6 and Line 2. In addition, the transit demand associated with the Proposed Project may exceed the capacity of the existing connections from the Proposed Project site to the regional transit system.

As discussed in Subsection 2.2.5, above, Culver City Line 6 patronage data currently indicates frequent overcrowding in many segments of the route during peak periods. During the A.M. peak period, 11 of the 20 bus trips in the northbound direction have passenger demand exceeding 125 percent of the seating capacity of the bus; another 4 of the 20 bus trips operate with completely full buses. Northbound buses fill again during the 3:30 P.M. to 5:30 P.M. time period. Southbound buses show a similar pattern with some southbound buses full during the morning peak and 11 of the 25 bus trips exceeding 125 percent of seating capacity in the 2 P.M. to 6:30 P.M. time period.

The Culver City Line 2 is a local area circulator that provides bus service to Mar Vista and Culver City during the peak periods. Peak-hour demand for the Line 2 bus is heavy; the westbound bus fills to crush load levels (i.e., almost twice as many passengers as there are seats on the bus) for the 7 A.M. run. The 8 A.M. run again almost fills up, as does the 3 P.M. run. In the eastbound direction, the 7:30 A.M. run, as well as two afternoon runs, fill up beyond capacity.

Table 125

CONGESTION MANAGEMENT PROGRAM – TRANSIT TRIP ESTIMATES

	Daily [a]	A.M. Peak Hour	P.M. Peak Hour
# of Vehicle Trips	23,700	1,613	2,284
Person Trip Factor	1.4	1.4	1.4
# of Person Trips	33,180	2,258	3,198
Transit Percentage	3.5%	3.5%	3.5%
Transit Trips	1,161	79	112
Community Serving			
# of Vehicle Trips	520	13	18
Person Trip Factor	1.4	1.4	1.4
# of Person Trips	728	18	25
Transit Percentage	3.5%	3.5%	3.5%
Transit Trips	25	1	1
Total Transit Trips	**1,187**	**80**	**113**

(# of) Vehicle Trips = A vehicle trip is a one-way movement of a vehicle between two-points
Person Trip Factor = A factor used to convert vehicles trips to person trips. This accounts for vehicle ridership or occupancies.
(# of) Person Trips = A person trip is a one-way movement of a person between two-points
Transit Percentage = Proportion of person trips made using transit mode.
Transit Trip = A one-way movement between two-points using transit mode.

2002 Congestion Management Program, Los Angeles County Metropolitan Transit Authority, June 2002.

Source: Kaku Associates, Inc., and Raju Associates, Inc., July 2003.

Because the seating capacity of these individual transit lines may be exceeded due to the additional transit ridership generated by the Proposed Project, impacts to these specific lines are considered potentially significant. Mitigation measures are proposed in Subsection 5.5, below, to address these operational and service deficiencies and ensure excess seating capacity on a line-by-line basis.

Although impacts on these individual lines may be considered potentially significant, the bus transit system within the study area as a whole will continue to have excess capacity and operate satisfactorily. Table 126 on page 881 shows the existing seating capacity and the future seating capacity with the Proposed Project added to the existing demand on a system-wide basis. As indicated, the excess seating capacity would be 806 seats in the A.M. peak hour and 773 seats in the P.M. peak hour. Since there would be remaining seating capacity on the transit system serving the Proposed Project site during the A.M. and P.M. peak hours, on a system-wide basis, impacts would not be significant.

Table 126

PUBLIC TRANSIT IMPACTS – PRIOR TO MITIGATION

		A.M. Peak Hour	P.M. Peak Hour
Existing Capacity			
Number of Peak Hour Buses [a]	57		
Average Load Factor	0.63		
Seated Capacity/Bus	42		
Surplus Capacity (seats)	886	886	886
Project Transit Trips [b]		80	113
Surplus/(deficit) (seats)		**806**	**773**

[a] *Buses shown here are those bus lines described in Table 117 on page 825.*
[b] *The trip generation for public transit is calculated in Table 125.*

Source: Kaku Associates, Inc., and Raju Associates, Inc., July 2003.

3.4.10 Construction-Related Impacts

The Draft Los Angeles CEQA Thresholds Guide identifies four types of in-street construction impacts and 16 factors to be used for determining the significance of a project's impacts on these four types of in-street construction (see Subsection 3.2.6, above). Each of the four types of construction impacts refers to a particular population that could be inconvenienced by construction activities. The four types of impacts and related populations are: (1) Temporary Traffic Impacts, potential impacts on vehicular travelers on roadways; (2) Temporary Loss of Access, potential impacts on visitors entering and leaving sites; (3) Temporary Loss of Bus Stops or Rerouting of Bus Lines, potential impacts on bus travelers; and (4) Temporary Loss of On-Street Parking, potential impacts on parkers. The factors identify the components that determine whether an impact might occur, or the extent to which it might occur. Each of the factors presents a consideration that would contribute to either a potential inconvenience in the performance of one's daily activities (i.e., an impact on traffic operations) and/or a concern to public safety. The factors have been considered in determining the extent to which an inconvenience or threat to safety would occur. The two significance thresholds address potential inconvenience and safety, respectively. Traffic impacts from construction activities would be expected to occur as a result of the following three types of activities:

- Increases in truck traffic associated with removal or import of fill materials and delivery of construction materials;
- Increases in automobile traffic associated with construction workers traveling to and from the site; and

- Reductions in existing street capacity from temporary lane closures necessary for the construction of roadway improvements, utility relocation and drainage facilities.

The impact of construction truck traffic would be a lessening of the capacities of access streets and haul routes because of the slower movements and larger turning radii of trucks. Estimates of average daily truck travel range from 114 trips per day during the average month to 376 trips per day during the peak month.[371] On an average hourly basis, assuming a uniform distribution of trips over the workday, these daily trip totals would translate to 11 trips per hour in the average month and 36 trips per hour in the peak month. This level of truck travel would be equivalent to between 33 and 108 passenger cars per hour, including each peak hour.

Outside of peak hours, this level of added traffic would not adversely affect street operations because of the reduced levels of traffic volumes present during these times. The typical hours of construction and deliveries would not overlap with the P.M. peak hour and would preclude most, if not all, effects of traffic in the evening peak hour on adjacent streets. In the morning peak hour, there would be partial overlap of operations, but the truck traffic is not anticipated to adversely reduce the operating efficiency on adjacent streets during the periods of overlap.

Construction worker traffic would depend on not only the level of effort during various construction phases, but also on the mode and time of travel used by the workers. The hours of construction typically require workers to be on-site prior to the A.M. commute peak and allow them to leave prior to the evening peak. Many workers carpool to the job site and others stage off-site at contractors' yards and are transported to the job site in groups. There would be about 325 worker trips per day during the average month of construction, which would rise to about 578 trips per day during the peak month.

Impacts from construction traffic would primarily affect the following roadways in and around the Proposed Project site:

- Dawn Creek Drive, Runway Road, Bluff Creek Drive, Discovery Creek, Playa Vista Drive, Pacific Promenade, Seabluff Drive, Celedon Road, Alla Road, Millennium Drive, Westlawn Avenue, Centinela Avenue, Campus Center Drive and Jefferson Boulevard.

Potential impacts associated with physical construction of the Proposed Project; e.g., lane closures, would be limited to those locations immediately adjacent to the Proposed Project site. The most notable impact would occur with the road widening along the south side of Jefferson

[371] *Derivation of the construction trip estimates is provided in the Air Quality Technical Appendix, Appendix E.*

Boulevard, adjacent to the Proposed Project site. Widening of the roadway from its current three eastbound lanes to four eastbound lanes would require a temporary reduction in service to two eastbound lanes, and could cause delays for eastbound travelers. Otherwise, the physical effects of construction would be limited. Roadway linkages with Playa Vista First Phase roadways (Bluff Creek Drive, Dawn Creek, Westlawn Avenue, Runway Road and Millennium Road) would be limited to individual intersections that lie along the edges of the First Phase Project and serve very few trips, and no off-site/regional traffic. Development facing Runway Road and Campus Center Drive could require very short-term impacts at localized, individual building locations, for curb cuts, curb landscaping, etc. Substantial lane closures would not be required along these locations. Restrictions to on-street parking for the short-term or duration of construction along Runway Road may be required. However, the curb cuts and access roadways and driveways occur prior to the completion of the development they would be serving. There would be no parking utilization within the construction zones and there would be no impact on parking.

Overall, the impact on the transportation system from construction activities would be temporary in nature and would cause an intermittent reduction in street and intersection operating capacity near the Project site. Impacts on traffic conditions associated with construction of projects are typically considered temporary, short-term adverse impacts, but not significant. LADOT has not established a significance threshold for such impacts. Nonetheless, two significance thresholds have been identified in Subsection 3.2.6, above. As to the first significance threshold, regarding substantial inconvenience to auto travelers, bus riders or parkers, it is concluded that the lane closures along Jefferson Boulevard would cause traffic delays that might be considered substantial by the affected parties. Otherwise, delays from the additional construction traffic, and/or construction activities at other locations would not be expected to be substantial. Construction traffic impacts on roadway operations are considered to be potentially short-term significant impacts, prior to mitigation. Accordingly, mitigation measures are recommended below to reduce such impacts to levels that would be less than significant.

As to the second significance threshold, regarding hazardous conditions, Project construction is not expected to create hazards for roadway travelers, so long as commonly practiced safety procedures for construction are followed. Such procedures have been incorporated into the mitigation measures for construction impacts.

3.4.11 Equivalency Program Impacts

The exchange of office uses for retail and/or assisted living units would be accomplished within the same building parameters, and would occur at relatively limited locations within the Project site. Furthermore, under the Equivalency Program, there would be no change in the Project's street configurations, or related site entry points. The exchange of office uses to retail

and/or assisted living units would not vary the maximum amount of vehicle trips generated by the Proposed Project. This is because the amount of retail or assisted living uses that could be built in-lieu of office space has been calibrated to not exceed the same trip generation. The trip generation under each of the Equivalency Scenarios is presented in Table 127 on page 885 and Table 128 on page 885, for the A.M. and P.M. peak hours, respectively. (Refer to the Traffic Study, Appendix K, for further discussion.) As indicated, trip generation during the P.M. peak hour is equivalent for the Proposed Project under all of the Equivalency Scenarios. During the A.M. peak hour, the Equivalency Scenarios generate less traffic than the Proposed Project. As impacts on intersections, freeways, neighborhood streets and public transit directly result from the amount of vehicle trips generated, and the trip generation under all of the Equivalency Scenarios does not exceed that of the Proposed Project, impacts associated with implementation of the Equivalency Program would not exceed those of the Proposed Project. Since the site's entry points under the Equivalency Program would be the same as with the Proposed Project, and the service levels at the entry intersections would be the same, impacts regarding Project access would be the same. Likewise, with the similar construction requirements for the development of the roadways and building pads, construction impacts would also not exceed those of the Proposed Project.

All Project Design Features (as discussed in Subsection 3.3 above) and/or recommended mitigation measures (discussed in Subsection 4.0, Mitigation Measures, below) to minimize traffic impacts under the Proposed Project would be implemented, under the Equivalency Program. Consequently, with implementation of applicable mitigation measures (discussed below), traffic impacts attributable to the Equivalency Program, would not exceed those occurring with the Proposed Project.

3.4.12 Impacts of Off-Site Improvements

The mitigation measures in the following section require certain improvements to roadways and related infrastructure facilities to reduce the traffic impacts of the Proposed Project, as described in the preceding sections. These improvements require roadway widening at seven locations, as well as other minor roadway enhancements that include re-striping of roadways and improvement of signalization and bus stop facilities. (Refer to Subsection 5.8, below, for further discussion.) Construction and operation of these improvements would result in impacts on the environment. Such impacts are considered indirect, or secondary impacts of the Proposed Project. The secondary impacts of the Proposed Project are described within each environmental topic in Section IV of the EIR. The impacts on Traffic and Circulation for operations and construction of the off-site improvements are as follows.

Table 127

TRIP GENERATION, P.M. PEAK HOUR – PROPOSED PROJECT AND EQUIVALENCY SCENARIOS

		Equivalency Scenario: Retail		Equivalency Scenario: Assisted Living		Equivalency Scenario: Retail/Assisted Living	
	P.M. Peak Hour Trips	Amount of Development	Trips	Amount of Development	Trips	Amount of Development	Trips
Office (ksf)	1.74	50	88	150.90	264	50	88
Retail (ksf)	3.83	206.832	792	150	575	195.877	750
Assisted Living (units/rooms)	0.2	0	0	200	40	200	40
Community Serving (ksf)	0.45	40	18	40	18	40	18
Residential	0.54	2,600	1,404	2,600	1,404	2,600	1,404
Total			**2,302**		**2,301**		**2,300**
Proposed Project			**2,302**		**2,302**		**2,302**
Over/(Under) Proposed Project			**(1)**		**(2)**		**(3)**

Table 128

TRIP GENERATION, A.M. PEAK HOUR – PROPOSED PROJECT AND EQUIVALENCY SCENARIOS

		Equivalency Scenario: Retail		Equivalency Scenario: Assisted Living		Equivalency Scenario: Retail/Assisted Living	
	A.M. Peak Hour Trips	Amount of Development	Trips	Amount of Development	Trips	Amount of Development	Trips
Office (ksf)	1.86	50	93	150.90	281	50	93
Retail (ksf)	0.95	206.832	196	150	143	195.877	186
Assisted Living (units/rooms)	0.2	0	0	200	40	200	40
Community Serving (ksf)	0.33	40	13	40	13	40	13
Residential	0.44	2,600	1,144	2,600	1,144	2,600	1,144
Total			**1,446**		**1,621**		**1,476**
Proposed Project			**1,626**		**1,626**		**1,626**
Over/(Under) Proposed Project			**(180)**		**(5)**		**(150)**

Operations

The off-site improvements are proposed to accommodate existing and future demand on the circulation system generated by the Proposed Project. These off-site mitigation improvements, therefore, would not result in increased vehicular movement on any of the roadways. Rather, these improvements would serve to improve the overall efficiency of the circulation system by accommodating demand. A beneficial impact would result, and no mitigation measures would be required.

Construction

During construction, however, noticeable traffic delays could occur in a manner typical of such roadway improvements. Impacts on traffic conditions associated with construction of projects are typically considered temporary, short-term adverse impacts, but not significant. Nonetheless, there is a potential that motorists would be substantially inconvenienced by the implementation of anticipated roadway improvements. At most of the locations, construction would occur over a fairly short time frame and would not require notable lane closures. However, some of the widenings would require more extensive lane closures effecting large numbers of travelers. In particular, the construction activities along the Centinela Avenue Corridor, and the widening along Centinela Avenue at the intersection of La Tijera Boulevard. The inconvenience encountered in some cases may be considered substantial by the travelers.

Also, during construction, there may be disruption of bus stops at some intersection locations. These bus stops would be required to be moved to a temporary location outside of the construction area until completion of construction activities, which would replace the affected bus stops at their current locations, resulting in inconvenience for bus riders. A mitigation measure is proposed that would require that the responsible transit agency be contacted to determine the appropriate temporary location of the bus stops affected by the proposed street widenings.

The mitigation measures that are proposed for the Proposed Project in Section 4.0 include measures for reducing the impacts of construction on adjacent roadways. Those measures would be applicable to the off-improvements as well. The applicable measures are so designated with an asterisk. In addition to the measures cited for the Proposed Project, an additional measure has been proposed that would be applicable to the off-site improvements only.

While the mitigation measures would reduce the impacts of construction on local traffic flows, there may still be short-term impacts that would be considered substantial by travelers. Therefore, short-term significant impacts during construction of the off-site improvements may

occur, individually, as well as contribute to the significant short-term construction impact identified for the Proposed Project itself.

4.0 MITIGATION MEASURES

Mitigation for the Proposed Project and the Equivalency Program

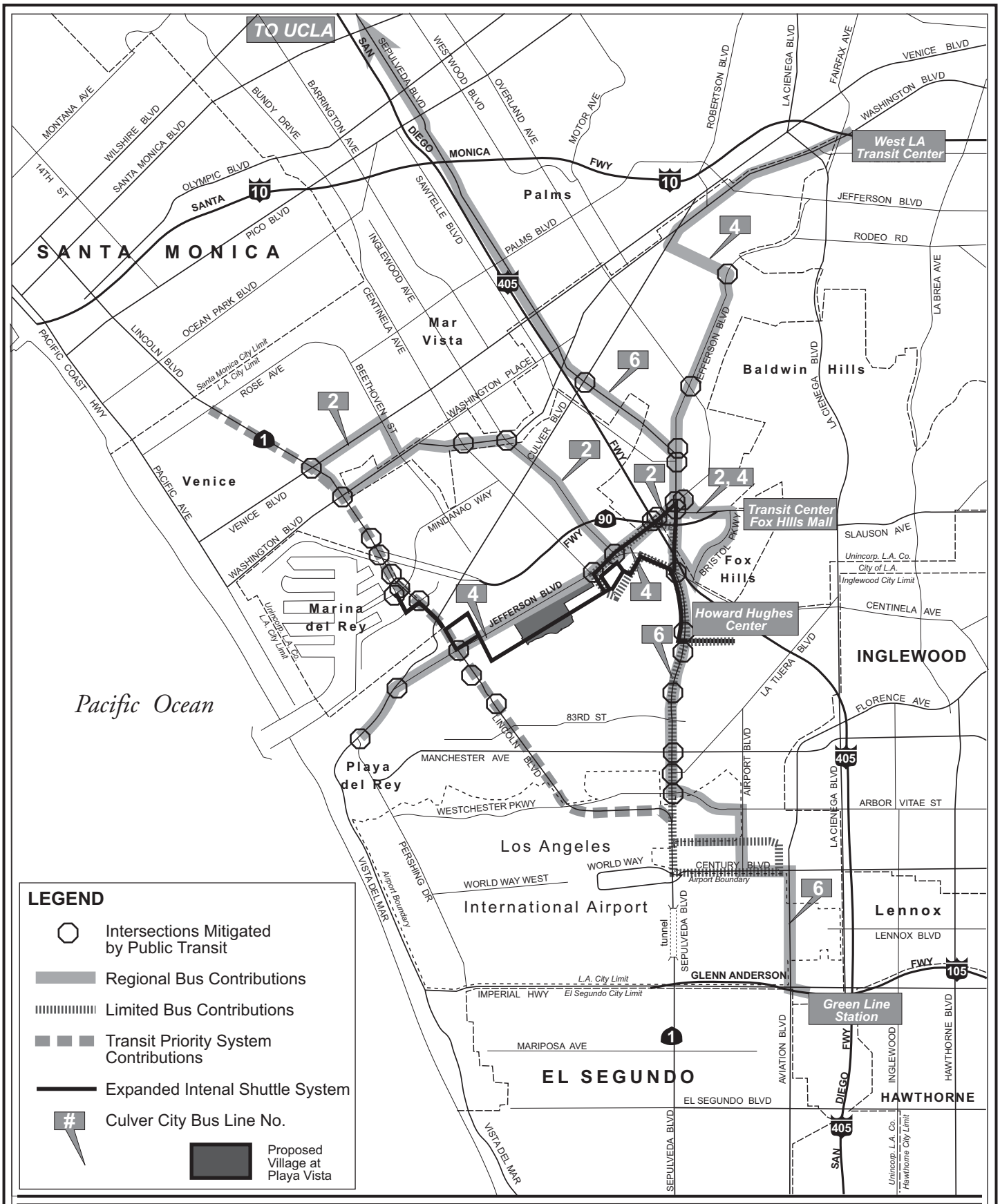
Introduction

The traffic mitigation measures, referred to collectively as the Village at Playa Vista Transportation Improvement Program, include several mechanisms for reducing potential traffic impacts. These mechanisms consist of: (1) public transit improvements which support and encourage the use of public transit systems; (2) improvements to major and secondary arterial roadways and intersections in the vicinity of the Project site; (3) improvements to the signalized intersections in the study area to upgrade locations to include the latest generation of computerized traffic signal system controls; (4) neighborhood traffic management plans; and (5) measures to reduce potential impacts from construction activity. All of the mitigation measures have been organized in a subphasing plan that addresses the timing and sequencing of the mitigation measures. The public transit improvements are portrayed in Figure 76 on page 888. Exhibits which illustrate these roadway improvements are provided in detail in the Traffic Study, Appendix K of the EIR. A general portrayal of the physical roadway and intersection improvements is provided in Figure 77 on page 889.

All traffic mitigation measures within the City shall be completed to the satisfaction of LADOT. If any of the traffic mitigation measures within the City of Los Angeles or any other jurisdiction are determined to be infeasible, or necessary permits/approvals to implement the mitigation measures cannot be obtained, then a significant impact (or impacts) may remain.

All traffic mitigation measure improvements within the responsibility and jurisdiction of the public agencies other than the City of Los Angeles shall be monitored through LADOT and implemented to the extent feasible. If improvements within the responsibility and jurisdiction of public agencies other than the City of Los Angeles (i.e., County of Los Angeles, City of Culver City, City of Inglewood, Caltrans, Coastal Commission, etc.) cannot be implemented, significant traffic impacts may remain at such locations.[372]

[372] *Under CEQA Section 15091(a)(2), a Lead Agency may approve a project with significant impacts, if there is a finding that". . . changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding . . . [and that] such changes have been adopted by such other agency or can and should be adopted by such other agency."*



PCR

Figure 76
Public Transit Improvement Mitigation Measures

Source: PCR Services Corp. and Playa Capital Company, July 2003

Figure 77
Roadway Improvement Mitigation Measures

Source: PCR Services Corporation, July 2003

The Applicant shall implement or provide funding for traffic mitigation measures as required below. Funding for measures may be provided by various sources. Measures that require funding may be guaranteed with the applicable agency, or by a commitment from a funding source that may be allocated to that improvement, including, but not limited to, funds from: Mello-Roos, homeowner/property owner associations, as well as any other method of guaranteeing the measure that is acceptable to the City. In the event funding is provided for an agency to implement a measure but the measure is not implemented, there is a potential that a significant impact may remain.

If any of the traffic mitigation measures are determined to be infeasible or if superior mitigation measures are identified in the future, the Applicant may provide substitute mitigation, subject to the approval of LADOT. Any such substitute mitigation measure must be approved by the agency with jurisdiction over the location of the measure, upon demonstration that the substitute measure is equivalent to, or superior to the original mitigation measure.

Transportation Improvement Program/Phasing

- The Transportation Improvement Program shall be implemented according to the traffic mitigation measure subphasing plan presented in Table 129 on page 891, as may be modified and approved by LADOT in accordance with this measure. The subphasing plan may be revised, where appropriate and as determined by the LADOT: (1) upon demonstration that measures for each subphase in the revised subphasing plan are equivalent or superior to the original mitigation measures, and/or (2) upon demonstration that approval or implementation of measures has been delayed by other governmental entities, provided that the Applicant has demonstrated reasonable efforts and due diligence to the satisfaction of LADOT

- Prior to the issuance of any building permit for each subphase, all on- and off-site traffic mitigation measures required for that subphase shall be completed or suitably guaranteed satisfactory to LADOT.

- Prior to the issuance of the final Certificate of Occupancy in the final subphase, all required improvements in the entire mitigation phasing plan shall be funded, completed, or resolved to the satisfaction of the LADOT.

Table 129

THE VILLAGE AT PLAYA VISTA
DRAFT MITIGATION SUBPHASING PLAN [a]

Subphase [b]	PM Peak Hour Trips per Subphase [b]	Transportation System Improvements [c, d, e, f]	Jurisdiction
Village Subphase 1	575	1. Provide funding for 1 bus for Culver City Bus Line 6 (CC6)	Culver City
		2. Provide funding for 1 bus for Culver City Bus Line 2 (CC2)	Culver City
		3. Provide funding for Airport System ATCS	City of Los Angeles
		4. Provide funding for Transit Priority System (TPS) on Lincoln Corridor	City of LA/Caltrans
		5. Signal improvement (phasing) at Lincoln Bl/83rd St	City of LA/Caltrans
		6. Provide funding for neighborhood traffic management	City of Los Angeles
Village Subphase 2	575	1. Provide funding for 2 buses for CC4 (includes extension to Playa Del Rey)	Culver City
	(1,150	2. Physical and/or operational improvements at:	
	cumulative)	2a. Centinela Av/Venice Bl	City of LA/Caltrans
		2b. Green Valley Circle/Centinela Avenue	Culver City
		2c. La Tijera Bl/Centinela Av	City of Los Angeles
		2d. Overland Av/Culver Bl	Culver City
		2e. Sawtelle Bl/Culver Bl	Culver City
		3. Provide funding for signal improvement at Aviation Bl/Florence Av/Manchester Av	City of Inglewood
		4. Project component – Jefferson Boulevard Corridor Improvement (Beethoven Av to Centinela Av) [g]	City of Los Angeles
Village Subphase 3	575	1. Provide funding for Smart Corridor System ATCS	City of Los Angeles
	(1,725	2. Extension of internal shuttle to off-site locations	LA/Culver City/LA County
	cumulative)	3. Physical and/or operational improvements at:	
		3a. Centinela Av/Culver Bl	City of Los Angeles
		3b. Centinela Av/Washington Pl	Culver City
		3c. La Brea Av/Centinela Av	City of Inglewood
		3d. Palawan Way/Admiralty Way	Los Angeles County

Table 129 (Continued)

THE VILLAGE AT PLAYA VISTA
DRAFT MITIGATION SUBPHASING PLAN

Subphase [b]	PM Peak Hour Trips per Subphase [b]	Transportation System Improvements [c, d, e, f]	Jurisdiction
Village Subphase 4	575 (2,300 cumulative)	1. Provide funding for 2 buses for CC6 Limited	Culver City
		2. Operational improvement at I-405 NB Ramps/Jefferson Bl	Culver City/Caltrans
		3. Centinela Avenue corridor improvement (Culver to SR-90)	City of Los Angeles
		4. Project component – Jefferson Boulevard Corridor Improvement (Beethoven Av to Centinela Av) [g]	City of Los Angeles

[a] *The subphasing plan may be revised, where appropriate and as determined by the LADOT: (1) upon demonstration that measures for each subphase in the revised subphasing plan are equivalent or superior to the original mitigation measures, and/or (2) upon demonstration that approval or implementation of measures has been delayed, provided that the Applicant has demonstrated reasonable efforts and due diligence to the satisfaction of LADOT.*

[b] *P.M. peak-hour trip generation for each subphase would determine the specific traffic improvements shown. P.M. peak-hour trip generation to be estimated as subphases develop using the following factors:*

Dwelling Units – 0.54 trip per unit
Office – 1.74 trips per 1,000 sf
Retail – 3.83 trips per 1,000 sf (includes pass-by reduction)
Community Serving Uses – 0.45 trip per 1,000 sf (includes internal capture reduction)

[c] *Prior to the issuance of any building permit for each subphase, all on- and off-site mitigation measures for the subphase shall be complete or suitably guaranteed satisfactory to the LADOT.*

[d] *Temporary Certificates of Occupancy may be granted in the event of any delay through no fault of the applicant, provided that, in each case, the applicant has demonstrated reasonable efforts and due diligence to the satisfaction of LADOT.*

[e] *Substitute mitigation measures may be provided subject to approval by the agency with jurisdiction over the location of the measure, upon demonstration that the substitute measure is equivalent or superior to the original mitigation measure.*

[f] *Prior to the issuance of the final Certificate of Occupancy in the final subphase, all required improvements in the entire mitigation phasing plan shall be funded, completed, or resolved to the satisfaction of the LADOT.*

[g] *The Jefferson Boulevard and Bluff Creek corridor improvements are components of the Project and are included in this table to establish the appropriate timing of completion.*

Public Transit System Improvements

- The Proposed Project shall provide four additional buses (to be operated by the City of Culver City) to supplement regional bus transit service along key travel corridors. The Proposed Project shall provide one bus each to supplement peak-hour operations for Lines 2 and 6, and two buses to supplement peak-hour operations and to extend Line 4 to provide all-day bus service from Fox Hills Transit Center along Jefferson Boulevard to the west. The Proposed Project shall also fully fund operations and maintenance costs for each new bus for a period of three years and compensate for the unsubsidized portion of the operations and maintenance costs for an additional seven years to ensure continued operations. Farebox revenues shall be credited against operating costs. The City shall be provided a copy of the agreement between the applicant and Culver City regarding implementation of the measure prior to tract recordation.

- The Proposed Project shall provide design and implementation costs for implementation of the Transit Priority System (TPS) associated with the Metro Rapid Expansion Project at twenty-five (25) intersections along the Lincoln Boulevard Rapid Bus Route corridor. The TPS hardware includes updated traffic signal controllers at signalized intersections and other associated bus vehicle identification system components that contribute to a system of real-time signalization control.

- The Proposed Project shall extend and expand the Internal Shuttle System, creating an intelligent demand-responsive Expanded Shuttle System which provides enhanced transit service for Project residents, visitors, employees, and the surrounding community, focusing on providing connections to key destinations such as Marina del Rey, Howard Hughes Center, the adjacent Playa Vista First Phase Project, and the Fox Hills Mall. Connections to regional transit service shall be provided at Lincoln Boulevard/Jefferson Boulevard and Fox Hills Mall Transit Center. This shuttle shall consist of the following key features:

  – Core Service Area – The central portion of the service area includes the area within the Proposed Project and Playa Vista First Phase Project sites. This core service area shall be continuously served by a core route along Runway Road from Crescent Park on the west side of the development to the Campus on the east. Minimum 15 minute-headways shall be provided during the morning and evening peak hours along this core route. Key neighboring destinations, including Marina Del Rey, Fox Hills Mall, and Howard Hughes Center, shall be included as part of the demand-response component within the service area.

  – Specially Equipped Buses – Buses shall be low emission or zero emission buses sized appropriate to their role within the project (approximately 20 to 25 passenger vehicles). The buses shall be equipped with GPS (global

positioning system) or other vehicle tracking system devices and communications systems in order to be able to provide the "Next Bus" locational and status information and to respond to calls from the extended service areas on a real-time basis.

- "Next Bus" Real Time Information – Information on bus location and status shall be available over the internet and at bus shelters

- Bus Call Ability – Patrons at bus stops outside of the central system core shall have the ability to call for the shuttle bus at the bus stop; whereby the shuttle operator would proceed to the requested location. Information on the status of the bus and the anticipated wait time would then be given to the patron.

- The Proposed Project shall provide two additional buses for the implementation of a Limited Stop Bus Service (to be operated by the Culver City Bus) during peak hours. Service frequency shall be approximately 30 minutes during the peak hours. This Limited Bus shall originate from the Fox Hills Mall Transit Center and shall serve the areas along the Sepulveda, Jefferson, and Centinela corridors, including the office, studio, and residential uses within the Proposed Project and adjacent First Phase Playa Vista project; the retail and office complex at Howard Hughes Center; downtown Westchester; and the Century Boulevard Office Corridor. The Limited Bus Service would offer connections and potentially coordinated transfers with other regional bus service and the Playa Vista intelligent shuttle. Farebox revenues shall be credited against operating costs. The City shall be provided a copy of the agreement between the applicant and Culver City regarding implementation of the measure prior to tract recordation.

Roadway and Intersection Improvements

City of Los Angeles

Widening, re-striping, signal system improvements such as Adaptive Traffic Control Systems (ATCS)[373] and/or public transit enhancements at the following intersections shall be required in a manner satisfactory to LADOT.

[373] *This system includes provisions of ATCS-associated signal equipment, additional loop detectors, communications set-up and the associated controller hardware/software, if required. The ATCS is a PC-based traffic signal control program that provides full-response signal control based on real time traffic operating conditions. ATCS automatically adjusts and optimizes traffic signal timing in response to current traffic demands on the entire signal subsystem such that the number of stops and the amount of delay are minimized along with improved traffic signal coordination throughout the subsystem. Currently, the Mar Vista subsystem*
(Footnote continued on next page)

- *Centinela Avenue Corridor.* This corridor is proposed to be improved between Culver Boulevard and the SR-90 Freeway. This improvement consists of provision of an additional northbound lane along Centinela Avenue within the corridor along with a central turn lane where feasible. This improvement would result in three lanes northbound and two lanes southbound and effectively extend the three-lane-per-direction improvement provisions of the adjacent Playa Vista First Phase Project between Jefferson Boulevard and SR-90 to the north to Culver Boulevard. All the intersections along this corridor would also be improved with the additional travel lane in the northbound direction. The implementation of this corridor improvement would occur in two phases. The first phase of this improvement involves widening the Centinela Avenue roadway to provide two lanes in each direction plus a central two-way left turn lane and parking on both sides of the street. In the second phase, on-street parking would be restricted on the east side of the roadway during peak commute hours to facilitate provision of a third northbound lane between SR 90 and Culver Boulevard. This second phase improvement would not be considered until traffic demands reveal the need for added roadway capacity.

- *La Tijera Boulevard/Centinela Avenue.* Add a westbound through lane along Centinela Avenue so that the westbound approach would provide two through lanes, a shared through–right-turn lane, and dual left-turn lanes.

- *Culver Boulevard/Nicholson Street.* Implement the Regional Bus enhancements providing additional service along Culver City Bus Line 4 extending its service to Playa del Rey along Jefferson Boulevard and Culver Boulevard.

- *Sepulveda Boulevard/Howard Hughes Parkway*. Implement the Regional Bus enhancements providing additional service along the Culver City Bus Line 6 and the design and implementation of the expanded internal shuttle system serving the Howard Hughes Center. Additionally, contribute to the design and implementation of a Limited Bus Service along Sepulveda Boulevard between the Proposed Project and Howard Hughes Center and the Century Boulevard Office Corridor.

- *Sepulveda Boulevard/Imperial Highway.* Contribute to the design and implementation of Airport System ATCS or a similar signal system enhancement program.

- *I-405 NB Ramps/Jefferson Boulevard.* Implement the Regional Bus enhancements providing additional service along the Culver City Bus Lines 2 and 4 and its extension and the design and implementation of the expanded internal shuttle system

within the City of Los Angeles is under ATCS control. LADOT estimates that the ATCS improves intersection capacity by an additional 3% over that operating under ATSAC only.

serving the Fox Hills Mall. Additionally, restripe the intersection's westbound approach to provide a separate right-turn lane, a through–right-turn lane, and two through lanes.

- *I-405 SB Ramps/Jefferson Boulevard.* Implement the Regional Bus enhancements providing additional service along Culver City Bus Lines 2 and 4 and its extension and the design and implementation of the expanded internal shuttle system serving the Fox Hills Mall.

- *Lincoln Boulevard/83rd Street.* Contribute to the provision of additional signal equipment, if required, to obtain the following overlapping right-turn arrow signal indications: Westbound 83rd Street right turns overlapping with the Lincoln Boulevard north-south left-turn phase. Contribute to the design and implementation of Airport System ATCS.

- *Lincoln Boulevard/Manchester Avenue.* Contribute to the design and implementation of Airport System ATCS.

- *Lincoln Boulevard/Venice Boulevard.* Implement the Regional Bus enhancements providing additional service along the Culver City Bus Line 2. Contribute to the design and implementation of a Transit Priority System (signal system components) along Lincoln Boulevard.

- *Sepulveda Boulevard/Manchester Avenue.* Implement the Regional Bus enhancements providing additional service along the Culver City Bus Line 6. Contribute to the design and implementation of a Limited Bus Service serving Howard Hughes Center and the Century Boulevard Office Corridor. Contribute to the design and implementation of Airport System ATCS.

- *Sepulveda Boulevard/I-105 WB Off-Ramp.* Contribute to the design and implementation of Airport System ATCS.

- *Sepulveda Boulevard/76th and 77th Streets.* Contribute to the design and implementation of a Limited Bus Service between the Proposed Project, Howard Hughes Center, and the Century Boulevard Office Corridor.

- *Bundy Drive/Ocean Park Boulevard.* Contribute to the design and implementation of Smart Corridor System ATCS.

- *Bluff Creek Drive/Centinela Avenue*. Restripe northbound Bluff Creek Drive to have a left-turn lane, two through lanes, and two right-turn lanes.

- *Lincoln Boulevard/La Tijera Boulevard.* Contribute to the design and implementation of Airport System ATCS.

- *Sepulveda Boulevard/79th and 80th Streets.* Implement the Regional Bus enhancements providing additional service along the Culver City Bus Line 6. Contribute to the design and implementation of the Limited Bus Service serving Howard Hughes Center and the Century Boulevard Office Corridor.

- *Sepulveda Boulevard/Westchester Parkway.* Implement the Regional Bus enhancements providing additional service along the Culver City Bus Line 6.

- *Centinela Avenue/Venice Boulevard.* Restripe to provide a separate southbound right-turn lane so that this Centinela Avenue approach would have a separate right-turn lane, two through lanes, and a single left-turn lane. Contribute to the design and implementation of Smart Corridor System ATCS.

- *Centinela Avenue/Culver Boulevard.* Provide a westbound right-turn lane so that the Culver Boulevard westbound approach would have a separate right-turn lane, two through lanes, and a single left-turn lane.

- *Inglewood Boulevard/Culver Boulevard.* Provide left-turn lanes along eastbound and westbound Culver Boulevard, such that the eastbound and westbound approaches would each have a separate left-turn lane, a through lane, and a shared through–right-turn lane.

- *Centinela Avenue/Jefferson Boulevard.* Implement the Regional Bus enhancements providing additional service along the Culver City Bus Line 4 and its extension between Fox Hills Mall and Playa del Rey along Jefferson Boulevard. Also, contribute to the design and implementation of the expanded internal shuttle system serving the Fox Hills Mall and its environs. Contribute to the design and implementation of the Limited Bus Service serving the Proposed Project, Howard Hughes Center and the Century Boulevard Office Corridor.

- *Culver Boulevard/Jefferson Boulevard.* Implement the Regional Bus enhancements providing additional service along the Culver City Bus Line 4 and its extension between Fox Hills Mall and Playa del Rey along Jefferson Boulevard.

- *Lincoln Boulevard/Jefferson Boulevard.* Implement the Regional Bus enhancements providing additional service along the Culver City Bus Line 4 and its extension between Fox Hills Mall and Playa del Rey along Jefferson Boulevard. Contribute to the design and implementation of the expanded internal shuttle system serving the Marina del Rey area. Also, contribute to the design and early implementation of a Transit Priority System (signal system components) along Lincoln Boulevard.

- *La Cienega Boulevard/Centinela Avenue.* Contribute to the design and implementation of Airport System ATCS.

- *Sepulveda Boulevard/La Tijera Boulevard.* Implement the Regional Bus enhancements providing additional service along the Culver City Bus Line 6. Contribute to the design and implementation of the Limited Bus Service serving Howard Hughes Center and the Century Boulevard Office Corridor.

- *Lincoln Boulevard/Marina Expressway (SR 90).* Contribute to the design and implementation of Transit Priority System (signal system components) along Lincoln Boulevard.

- *Lincoln Boulevard/Maxella Avenue.* Contribute to the design and implementation of Transit Priority System (signal system components) along Lincoln Boulevard.

- *Lincoln Boulevard/Washington Boulevard.* Contribute to the design and implementation of a Transit Priority System (signal system components) along Lincoln Boulevard.

- *Lincoln Boulevard/Bluff Creek Drive*. Contribute to the design and implementation of a Transit Priority System (signal system components) along Lincoln Boulevard.

- *Lincoln Boulevard/Loyola Marymount (LMU) Drive.* Contribute to design and implementation of Transit Priority System (signal system components) along Lincoln Boulevard. Also, contribute to the design and implementation of the Limited Bus Service serving Howard Hughes Center and the Century Boulevard Office Corridor and provide for the expansion of the internal shuttle system.

- *Inglewood Boulevard/Jefferson Boulevard*. Implement the Regional Bus enhancements providing additional service along the Culver City Bus Line 4 and its extension between Fox Hills Mall and Playa del Rey along Jefferson Boulevard, and towards additional service along the Culver City Bus Line 2. Also, contribute to the design and implementation of the expanded internal shuttle system serving the Fox Hills Mall and its environs. Contribute to the design and implementation of the Limited Bus Service serving Howard Hughes Center and the Century Boulevard Office Corridor.

County of Los Angeles

The Proposed Project shall provide the following intersection improvements to the satisfaction of the Los Angeles County Department of Public Works (LACDPW).

- *Admiralty Way/Mindanao Way*. Contribute to the design and implementation of an expanded internal shuttle system serving the Marina del Rey area.

- *Palawan Way/Admiralty Way.* Contribute a fair share towards the intersection improvement consistent with the Los Angeles County Department of Public Works proposed Admiralty Way Corridor Improvements. The improvement required by the Proposed Project consists of providing dual southbound left turn lanes which is consistent with the County planned improvements at this location. The southbound approach would have dual southbound left-turn lanes, a through lane, and a separate right-turn lane.

- *Sherbourne Drive/Centinela Avenue*. Contribute to the design and implementation of ATCS or any other signal system enhancement similar to it.

- *Lincoln Boulevard/Marina Freeway*. Contribute to the design and implementation of a Transit Priority System (signal system components) along Lincoln Boulevard.

- *Lincoln Boulevard/Bali Way*. Contribute to the design and implementation of a Transit Priority System (signal system components) along Lincoln Boulevard.

- *Lincoln Boulevard/Fiji Way*. Contribute to the design and implementation of a Transit Priority System (signal system components) along Lincoln Boulevard. Contribute to the design and implementation of an expanded internal shuttle system serving the Marina del Rey area.

- *Lincoln Boulevard/Mindanao Way*. Contribute to the design and early implementation of a Transit Priority System (signal system components) along Lincoln Boulevard.

City of Culver City

The following intersection improvements shall be provided in a manner satisfactory to the City of Culver City:

- *Sepulveda Boulevard/Centinela Avenue.* Contribute to the design and implementation of ATCS. Implement the Regional Bus enhancements providing additional service (one bus) along the Culver City Bus Line 6; and the design and implementation of the expanded internal shuttle system serving Howard Hughes Center. Contribute to the design and implementation of Limited Bus Service serving Howard Hughes Center and the Century Boulevard Office Corridor.

- *Inglewood Boulevard/Washington Boulevard.* Implement the Regional Bus enhancements providing additional service (one bus) along the Culver City Bus Line 2.

- *Jefferson Boulevard/Overland Avenue.* Implement the Regional Bus enhancements providing additional service (two buses) along the Culver City Bus Line 4 and its extension.

- *Sepulveda Boulevard/Jefferson Boulevard and Playa Street*. Implement the Regional Bus enhancements providing additional service (two buses) along the Culver City Bus Line 4 and its extension. Also, contribute to the design and implementation of additional service (one bus) along the Culver City Bus Line 6.

- *Sepulveda Boulevard/Slauson Avenue.* Implement the Regional Bus enhancements providing additional service (one bus) along the Culver City Bus Line 6.

- *Green Valley Circle/Centinela Avenue* – Restripe in order to provide a separate westbound right-turn lane on Centinela Avenue. The westbound approach would have a separate right lane and two through lanes.

- *Centinela Avenue/Washington Place* – Add a second left-turn lane to both eastbound and westbound approaches on Washington Place. The eastbound approach would have dual lefts, a shared through-right, and a separate through lane. The westbound approach would have dual lefts, two through lanes, and a separate right-turn lane.

- *Overland Avenue/Culver Boulevard*. Add a right-turn lane along the westbound approach on Culver Boulevard. This approach would have a separate right-turn lane, a left-turn lane, and two through lanes. In addition, provide a southbound right-turn-only lane on Overland Avenue at this location resulting in a separate right-turn lane, two through lanes, and dual left-turn lanes.

- *Sepulveda Boulevard/Culver Boulevard*. Implement the Regional Bus enhancements providing additional service (one bus) along the Culver City Bus Line 6.

- *Sawtelle Boulevard/Culver Boulevard*. Contribute towards provision of separate northbound and southbound right-turn lanes along Sawtelle Boulevard, consistent with the Caltrans' proposed improvement at this location. Both north- and southbound Sawtelle Boulevard approaches would have a separate right-turn lane, two through lanes, and a left-turn lane.

- *Hannum Avenue/Playa Street*. Implement the Regional Bus enhancements providing additional service (one bus) along the Culver City Bus Line 2.

- *Jefferson Boulevard/Duquesne Avenue*. Implement the Regional Bus enhancements providing additional service (two buses) along the Culver City Bus Line 4 and its extension.

- *Centinela Avenue/Washington Boulevard*. Implement the Regional Bus enhancements providing additional service (one bus) along the Culver City Bus Line 2.

- *Jefferson Boulevard/Sepulveda Boulevard (N).* Implement the Regional Bus enhancements providing additional service (two buses) along the Culver City Bus Line 4 and its extension.

- *Sepulveda Boulevard/Sawtelle Boulevard.* Implement the Regional Bus enhancements providing additional service (two buses) along the Culver City Bus Line 4 and its extension. Also, implement the Regional Bus enhancements providing additional service (one bus) along the Culver City Bus Line 6.

City of Inglewood

The following intersection improvements shall be provided in a manner satisfactory to the City of Inglewood Department of Public Works.

- *Aviation Boulevard/Manchester Boulevard*. Contribute to the design and implementation of ATCS or any other similar computerized signal system enhancement.

- *La Brea Avenue/Centinela Avenue*. Restripe in order to add a westbound right-turn lane on Centinela Avenue. The westbound approach would have a right, a left and two through lanes.

City of El Segundo

Proposed improvements to the following intersection (which lies on the boundary of the City of El Segundo and the City of Los Angeles) shall be required in a manner satisfactory to the respective City Departments of Transportation/Public Works.

- *Sepulveda Boulevard/Imperial Highway (El Segundo)*. Contribute to the design and implementation of ATCS at this location or a similar signal system enhancement program.

Caltrans

The following improvements, which are described above, are located on State Roadways and shall be implemented to the satisfaction of Caltrans working closely with the jurisdictions in which the cross-streets are located. The proposed improvements at each of these intersection locations are described in more detail under the discussion of the mitigation measures for the various other jurisdictions, above. These improvements shall be coordinated with the City of Los Angeles, the County of Los Angeles, and the City of El Segundo as applicable. They include the following locations:

1. Lincoln Boulevard (SR 1) / Marina Freeway (SR 90) intersection (Contribution to Transit Priority System (signal system components) (City of Los Angeles)
2. Lincoln Boulevard / Maxella Avenue (City of Los Angeles)
3. Lincoln Boulevard / Venice Boulevard (City of Los Angeles)
4. Lincoln Boulevard / Washington Boulevard (City of Los Angeles)
5 Lincoln Boulevard / 83rd street (City of Los Angeles)
6. Venice Boulevard / Centinela Avenue (City of Los Angeles)
7. Sepulveda Boulevard / I-105 WB off-ramp (City of Los Angeles)
8. Sepulveda Boulevard / Imperial Highway (City of Los Angeles/El Segundo)
9. I-405 NB ramps / Jefferson Boulevard (City of Los Angeles)
10. I-405 SB ramps / Jefferson Boulevard (City of Los Angeles)
11. Lincoln Boulevard / Jefferson Boulevard (City of Los Angeles)
12. Lincoln Boulevard / Bluff Creek Drive (City of Los Angeles)
13. Lincoln Boulevard / Loyola Marymount University (LMU) Drive (City of Los Angeles)
14. Lincoln Boulevard / Fiji Way (Los Angeles County)
15. Lincoln Boulevard / Mindanao Way (Los Angeles County)
16. Lincoln Boulevard / Bali Way (Los Angeles County)

17. Lincoln Boulevard / Manchester Boulevard (City of Los Angeles)

18. Lincoln Boulevard / La Tijera Boulevard (City of Los Angeles)

Neighborhood Traffic Management

- Pursuant to the schedule established in the final adopted subphasing program, the project applicant shall provide a funding mechanism acceptable to LADOT for necessary City staff support for development of neighborhood traffic management plan(s) and for subsequent implementation of traffic calming measures contained in the plan(s). Development of a plan for any particular community would be initiated at the request of the residents in the community. Eligible communities would consist of the residential neighborhoods within the boundaries listed below:

  – Inglewood Boulevard, Ballona Creek, Sawtelle Boulevard, Bray Street/Port Road

  – Kentwood Avenue, 77th Street, Sepulveda Boulevard, Manchester Avenue

  – Sepulveda Boulevard, 74th Street, La Tijera Boulevard, Manchester Avenue

  – Rayford Drive, 83rd Street, Lincoln Boulevard, La Tijera Boulevard

Construction Impact Measures for the Proposed Project

- Prior to the issuance of any building or grading permit for the Project, construction traffic management plans, including street closure information, detour plans, haul routes, and staging plans shall be prepared, satisfactory to LADOT. All construction contracts shall include provisions requiring compliance with the approved construction traffic management plans. Construction traffic management plans shall include, but are not limited to, the following:

  – Configure construction parking to minimize traffic interference to the extent feasible.

  – Provide temporary traffic control during all phases of construction activities to improve traffic flow on public roadways (e.g., flag person).

  – Schedule construction activities that affect traffic flow on public roadways to off-peak hours to the extent feasible.

  – Reroute construction trucks off congested streets.

  – Consolidate truck deliveries.

  - Provide dedicated turn lanes for movement of construction trucks and equipment on- and off-site, to the extent feasible.

  - Construction-related vehicles shall not park on any residential street, with the exception of active construction sites within the Project.

  - No construction activity shall block access to any residence or place of business, without prior notice.

  - Safety precautions shall be provided for pedestrians and bicyclists through such measures as alternate routing, and protection barriers.

  - All contractors shall be required to participate in a common carpool registry during all periods of contract performance monitored and maintained by the Applicant's Monitor.

  - All construction-related deliveries, other than concrete and earthwork-related deliveries, shall be restricted to non-peak travel periods to the extent feasible.

- Construction vehicle travel through neighboring jurisdictions other than the City of Los Angeles shall be conducted in accordance with the standard rules and regulations established by the respective jurisdictions where such jurisdictions would be subject to construction impacts. These include allowable operating times for construction activities, truck haul routes, clearance requirements, etc.

- Prior to the issuance of any permit for the Project, required permits for the truck haul routes shall be obtained from LADOT, Caltrans, and other affected jurisdictions.

Additional Construction Mitigation Measures for Off-Site Improvements

- Provide temporary traffic control during all phases of construction activities to improve traffic flow on public roadways (e.g., flag person).

- Schedule construction activities that affect traffic flow on public roadways to off-peak hours to the extent feasible.

- Reroute construction trucks off congested streets.

- Consolidate truck deliveries.

- Provide dedicated turn lanes for movement of construction trucks and equipment on- and off-site, to the extent feasible.

- Construction-related vehicles shall not park on any residential street, with the exception of active construction sites within the Project.

- No construction activity shall block access to any residence or place of business, without prior notice.

- Safety precautions shall be provided for pedestrians and bicyclist through such measures as alternate routing and protection barriers.

- There shall be coordination with applicable transit agencies for temporary alternative pick-up/drop-off points if bus stops are affected by construction of the off-site improvements.

5.0 UNAVOIDABLE ADVERSE IMPACTS

5.1 Impacts on Study Intersections – After Mitigation

5.1.1 Effectiveness of the Mitigation Measures

As described in Subsection 3.4.5.1 on page 863, the Project would create a significant traffic impact at 31 intersections in the morning peak hour and 47 intersections in the afternoon peak hour. The first three elements of the Village at Playa Vista Transportation Improvement Program (i.e., the public transit, roadway intersection and traffic signal system improvements) have been developed to mitigate the Project's impacts on the study intersections. The intent and effect of the three elements can be summarized as follows:

1. The transit mitigations seek to increase the capacity of the transit system in the area, thereby reducing the number of people that have to travel by automobile. By adding buses to deficient transit routes traversing impacted intersections and also by extending regional bus service to the Project site and points west, the Project increases the capacity of the bus system and offers the ability to reduce the number of automobiles in the corridors served by the additional buses. The mitigation program would add six regional transit buses to the morning and afternoon peak-hour service. In addition, the mitigation program calls for the extension of the Playa Vista internal shuttle bus service to serve key destinations within the community such as Marina del Rey, the Howard Hughes Center, and the Fox Hills Mall Transit Center. By comparing the additional capacity added to the system to the typical auto occupancy in the study area, an estimate can be made of the potential auto reduction through the impacted intersections. Mitigation credit (in terms of the number of autos reduced) was taken for only one additional regional transit bus trip per hour and one additional

shuttle trip per hour, even though many of the additional buses would be able to make more than one trip per hour. Under this conservative set of assumptions, the mitigation program's addition of transit capacity to the system would contribute toward mitigation of the Project's incremental impact to less-than-significant levels at 10 of the 31 impacted intersections during the morning peak hour and 20 of the 47 afternoon peak-hour impacted intersections.

2. The roadway improvements included as part of the mitigation program are aimed at increasing the capacity of the impacted intersections. Intersection capacity calculations show whether or not a mitigation measure adds enough capacity to the intersection to compensate for the incremental Project traffic added to the intersection. The analysis summarized below shows that the intersection and corridor improvements included in the Project mitigation program contribute toward mitigation of 7 of the 31 intersections in the morning peak hour and 6 of the 47 afternoon peak-hour impacted intersections.

3. The signalization improvements further increase roadway capacity. The Los Angeles Department of Transportation has conducted before and after studies to measure the effects of traffic signal system improvements. The implementation of Automated Traffic Signal and Capacity (ATSAC) technology to an intersection operating under independent status (i.e., not interconnected to adjacent intersections in the corridor) has the effect of increasing the capacity of that intersection by 7 percent. More vehicles are able to be processed through the intersection because by interconnecting the signals along a corridor through a computerized system, and fewer vehicles are required to stop for the signal. Start-up delays are minimized, and the ability of the intersection to accommodate traffic is increased. The ATSAC system has been improved through a second generation of computerized signal system control known as Adaptive Traffic Control System (ATCS). LADOT conservatively estimates that the additional capacity increase afforded by ATCS control is 3 percent. The Project mitigation program upgrades existing ATSAC control to ATCS system control at 38 locations across two different sub-systems within the City of Los Angeles and at two locations outside of the City of Los Angeles, one each in the City of Inglewood and the County of Los Angeles. These signal system improvements, in concert with the improvements described above, mitigate project impacts at 13 intersections in the A.M. and 20 intersections in the P.M.

As described further below, the net effect of the three mitigation elements described above results in the mitigation of 30 of the 31 morning impacts and 46 of the 47 intersections significantly impacted under P.M. conditions.

5.1.2 Summary of Intersection Impacts

An analysis of the Proposed Project impacts after mitigation was performed for all of the 218 intersections studied. The V/C ratios and level of significance for the Proposed Project with and without the mitigation measures are presented in Table 130 on page 908. The resulting levels of service are illustrated in Figure 78 and Figure 79 on pages 926 and 927 for the A.M. and P.M. peak hours, respectively. The resulting significant impacts are illustrated in Figure 80 on page 928. Prior to mitigation, significant impacts occur at 31 intersections in the A.M. peak hour and 47 in the P.M. peak hour. After mitigation, net significant impacts would occur at one intersection during both the A.M. and P.M. peak hours. This intersection is located at Jefferson Boulevard and Centinela Avenue.

While not considered in this traffic analysis, the adjacent Playa Vista First Phase Project provided improvements at numerous locations that resulted in mitigation beyond the level of impacts caused by its traffic. This excess capacity or over-mitigation credit was computed for various intersection locations using the Playa Vista First Phase Project's impacts and its improvement effectiveness. These values are shown in Table 5-9 within the Traffic Study, Appendix K. Excess capacity was provided by the Playa Vista First Phase Project at 33 intersections in the A.M. peak hour and 37 intersections in the P.M. peak hour. Included within the intersections with such over-mitigation is the Proposed Project's one intersection identified above as having a significant impact after mitigation: the intersection of Jefferson Boulevard and Centinela Avenue. The First Phase excess capacity or over-mitigation (as shown in Table 5-9 of the Traffic Study) at the Jefferson Boulevard and Centinela Avenue location provides adequate capacity to mitigate both the First Phase Project's impacts, as well as the Proposed Project's impacts. Therefore, if the excess capacity from the adjacent Playa Vista First Phase Project was taken into consideration, the impacts identified above as significant after mitigation would not be considered significant.

Table 131 on page 929 provides a summary of the information presented in Table 130. It indicates the number of intersections that would be operating at satisfactory levels of service (LOS A through D) and unsatisfactory levels of service (LOS E and F) under the various scenarios analyzed: 2003 Baseline, 2010 Baseline, 2010 Baseline with the Proposed Project added, and 2010 Baseline with the Proposed Project and its Mitigation Measures added. Table 131 also indicates the operating characteristics of the intersections where significant impacts occur with the Proposed Project, both prior to and after implementation of the mitigation measures.

Table 130

PROJECT IMPACTS – BEFORE AND AFTER MITIGATION

Intersection			Intersection #	Peak Hours	2010 Base w/out Project[a]		2010 w/Project [a]				2010 w/Project and Mitigation Program			
					V/C	LOS	V/C	LOS	V/C Change	Significant Impact	V/C	LOS	V/C Change	Significant Impact
City of Los Angeles														
111th St	@	La Cienega Bl	192	A.M.	0.273	A	0.273	A	0.000	N	0.273	A	0.000	N
				P.M.	0.531	A	0.532	A	0.001	N	0.532	A	0.001	N
12th St	@	Bluff Creek Dr	220	A.M.	0.327	A	0.393	A	0.066	N	0.393	A	0.066	N
				P.M.	0.415	A	0.525	A	0.110	N	0.525	A	0.110	N
77th St/76th St	@	Sepulveda Bl	64	A.M.	1.048	F	1.056	F	0.008	N	1.029	F	-0.019	N
				P.M.	1.000	E	1.034	F	0.034	Y	1.007	F	0.007	N
80th St/79th St	@	Sepulveda Bl	91	A.M.	0.761	C	0.767	C	0.006	N	0.741	C	-0.020	N
				P.M.	1.005	F	1.022	F	0.017	Y	0.997	E	-0.008	N
83rd St	@	Lincoln Bl	45	A.M.	1.339	F	1.366	F	0.027	Y	1.265	F	-0.074	N
				P.M.	1.021	F	1.083	F	0.062	Y	1.011	F	-0.010	N
83rd St	@	Sepulveda Bl	92	A.M.	0.738	C	0.742	C	0.004	N	0.742	C	0.004	N
				P.M.	0.859	D	0.873	D	0.014	N	0.873	D	0.014	N
88th St/La Tijera Bl	@	Sepulveda Bl	44	A.M.	0.843	D	0.847	D	0.004	N	0.819	D	-0.024	N
				P.M.	0.913	E	0.932	E	0.019	Y	0.875	D	-0.038	N
96th St	@	Airport Bl	68	A.M.	0.419	A	0.427	A	0.008	N	0.427	A	0.008	N
				P.M.	0.672	B	0.688	B	0.016	N	0.688	B	0.016	N
Abbott Kinney Bl	@	Venice Bl	171	A.M.	0.707	C	0.710	C	0.003	N	0.710	C	0.003	N
				P.M.	0.764	C	0.771	C	0.007	N	0.771	C	0.007	N
Airport Bl	@	Century Bl	2	A.M.	0.626	B	0.631	B	0.005	N	0.631	B	0.005	N
				P.M.	0.652	B	0.659	B	0.007	N	0.659	B	0.007	N
Airport Bl	@	La Tijera Bl	3	A.M.	0.742	C	0.743	C	0.001	N	0.743	C	0.001	N
				P.M.	0.715	C	0.715	C	0.000	N	0.715	C	0.000	N
Airport Bl	@	Manchester Av	172	A.M.	0.752	C	0.757	C	0.005	N	0.757	C	0.005	N
				P.M.	0.870	D	0.878	D	0.008	N	0.878	D	0.008	N

Table 130 (Continued)

PROJECT IMPACTS – BEFORE AND AFTER MITIGATION

Intersection			Intersection #	Peak Hours	2010 Base w/out Project[a]		2010 w/Project [a]				2010 w/Project and Mitigation Program			
					V/C	LOS	V/C	LOS	V/C Change	Significant Impact	V/C	LOS	V/C Change	Significant Impact
Airport Bl	@	Westchester Pkwy/ Arbor Vitae St	1	A.M.	0.707	C	0.707	C	0.000	N	0.707	C	0.000	N
				P.M.	0.819	D	0.825	D	0.006	N	0.825	D	0.006	N
Alla Rd	@	Jefferson Bl	69	A.M.	0.550	A	0.584	A	0.034	N	0.584	A	0.034	N
				P.M.	0.468	A	0.512	A	0.044	N	0.512	A	0.044	N
Arbor Vitae St	@	Aviation Bl	4	A.M.	0.667	B	0.670	B	0.003	N	0.670	B	0.003	N
				P.M.	0.802	D	0.807	D	0.005	N	0.807	D	0.005	N
Aviation Bl	@	Century Bl	6	A.M.	0.886	D	0.888	D	0.002	N	0.888	D	0.002	N
				P.M.	0.972	E	0.981	E	0.009	N	0.981	E	0.009	N
Aviation Bl	@	Imperial Hwy	7	A.M.	0.865	D	0.865	D	0.000	N	0.865	D	0.000	N
				P.M.	0.908	E	0.908	E	0.000	N	0.908	E	0.000	N
B St	@	Playa Vista Dr	216	A.M.	0.382	A	0.388	A	0.006	N	0.388	A	0.006	N
				P.M.	0.337	A	0.344	A	0.007	N	0.344	A	N/A	N
Beethoven St	@	Jefferson Bl	70	A.M.	0.370	A	0.402	A	0.032	N	0.402	A	0.032	N
				P.M.	0.367	A	0.402	A	0.035	N	0.402	A	0.035	N
Braddock Dr	@	Sawtelle Bl	152	A.M.	0.699	B	0.703	C	0.004	N	0.703	C	0.004	N
				P.M.	0.753	C	0.758	C	0.005	N	0.758	C	0.005	N
Brooks Av/Abbot Kinney Bl	@	Main St	71	A.M.	0.610	B	0.611	B	0.001	N	0.511	B	0.001	N
				P.M.	0.858	D	0.860	D	0.002	N	0.860	D	0.002	N
Bundy Dr	@	I-10 EB On-Ramp	173	A.M.	1.297	F	1.297	F	0.000	N	1.297	F	0.000	N
				P.M.	1.169	F	1.169	F	0.000	N	1.169	F	0.000	N
Bundy Dr	@	Ocean Park Bl	72	A.M.	1.086	F	1.098	F	0.012	Y	1.068	F	-0.018	N
				P.M.	1.332	F	1.348	F	0.016	Y	1.318	F	-0.014	N
Centinela Av	@	Culver Bl	11	A.M.	0.892	D	0.905	E	0.013	Y	0.839	D	-0.053	N
				P.M.	0.850	D	0.869	D	0.019	N	0.845	D	-0.005	N
Centinela Av	@	Jefferson Bl	12	A.M.	0.656	B	0.746	C	0.090	Y	0.728	C	0.072	Y
				P.M.	0.747	C	0.855	D	0.108	Y	0.837	D	0.090	Y

Table 130 (Continued)

PROJECT IMPACTS – BEFORE AND AFTER MITIGATION

Intersection			Intersection #	Peak Hours	2010 Base w/out Project[a]		2010 w/Project [a]				2010 w/Project and Mitigation Program			
					V/C	LOS	V/C	LOS	V/C Change	Significant Impact	V/C	LOS	V/C Change	Significant Impact
Centinela Av	@	La Cienega Bl	13	A.M.	1.201	F	1.211	F	0.010	Y	1.181	F	-0.020	N
				P.M.	1.253	F	1.262	F	0.009	N	1.232	F	-0.021	N
Centinela Av	@	La Tijera Bl	14	A.M.	1.048	F	1.089	F	0.041	Y	0.914	E	-0.134	N
				P.M.	0.872	D	0.902	E	0.030	Y	0.798	C	-0.074	N
Centinela Av	@	Marina Fwy EB Ramps	73	A.M.	0.398	A	0.462	A	0.064	N	0.462	A	0.064	N
				P.M.	0.566	A	0.615	B	0.049	N	0.615	B	0.049	N
Centinela Av	@	Marina Fwy WB Ramps	74	A.M.	0.478	A	0.497	A	0.019	N	0.497	A	0.019	N
				P.M.	0.449	A	0.470	A	0.021	N	0.470	A	0.021	N
Centinela Av	@	Mesmer Av	75	A.M.	0.438	A	0.457	A	0.019	N	0.457	A	0.019	N
				P.M.	0.406	A	0.447	A	0.041	N	0.447	A	0.041	N
Centinela Av	@	Short Av	123	A.M.	0.643	B	0.655	B	0.012	N	0.655	B	0.012	N
				P.M.	0.634	B	0.653	B	0.019	N	0.653	B	0.019	N
Centinela Av	@	Bluff Creek Dr	76	A.M.	0.474	A	0.512	A	0.038	N	0.512	A	0.038	N
				P.M.	0.591	A	0.726	C	0.135	Y	0.698	B	0.107	N
Centinela Av	@	Venice Bl	209	A.M.	1.228	F	1.248	F	0.020	Y	1.199	F	-0.029	N
				P.M.	1.332	F	1.350	F	0.018	Y	1.251	F	-0.081	N
Century Bl	@	Sepulveda Bl	17	A.M.	0.691	B	0.698	B	0.007	N	0.698	B	0.007	N
				P.M.	0.887	D	0.895	D	0.008	N	0.895	D	0.008	N
Crenshaw Bl	@	Florence Av	180	A.M.	0.815	D	0.817	D	0.002	N	0.817	D	0.002	N
				P.M.	0.873	D	0.875	D	0.002	N	0.875	D	0.002	N
Crenshaw Bl	@	Slauson Av	178	A.M.	1.057	F	1.059	F	0.002	N	1.059	F	0.002	N
				P.M.	1.289	F	1.292	F	0.003	N	1.292	F	0.003	N
Crenshaw Bl	@	Stocker St	174	A.M.	0.793	C	0.799	C	0.006	N	0.799	C	0.006	N
				P.M.	0.794	C	0.799	C	0.005	N	0.799	C	0.005	N
Culver Bl	@	Inglewood Bl	77	A.M.	0.798	C	0.846	D	0.048	Y	0.661	B	-0.019	N
				P.M.	0.979	E	1.053	F	0.074	Y	0.824	D	-0.155	N

Table 130 (Continued)

PROJECT IMPACTS – BEFORE AND AFTER MITIGATION

Intersection			Intersection #	Peak Hours	2010 Base w/out Project[a]		2010 w/Project [a]				2010 w/Project and Mitigation Program			
					V/C	LOS	V/C	LOS	V/C Change	Significant Impact	V/C	LOS	V/C Change	Significant Impact
Culver Bl	@	Jefferson Bl	18	A.M.	0.817	D	0.835	D	0.018	N	0.807	D	-0.010	N
				P.M.	0.807	D	0.829	D	0.022	Y	0.801	D	-0.006	N
Culver Bl	@	Marina Exwy EB Ramps	19	A.M.	0.785	C	0.790	C	0.005	N	0.790	C	0.005	N
				P.M.	0.621	B	0.623	B	0.002	N	0.623	B	0.002	N
Culver Bl	@	Marina Exwy WB Ramps	20	A.M.	1.082	F	1.084	F	0.002	N	1.084	F	0.002	N
				P.M.	1.033	F	1.042	F	0.009	N	1.042	F	0.009	N
Culver Bl	@	Nicholson St	78	A.M.	0.917	E	0.933	E	0.016	Y	0.907	E	-0.010	N
				P.M.	0.739	C	0.765	C	0.026	N	0.739	C	0.000	N
Culver Bl	@	Playa Vista Dr	215	A.M.	0.678	B	0.678	B	0.000	N	0.678	B	0.000	N
				P.M.	0.474	A	0.478	A	0.004	N	0.478	A	N/A	N
Culver Bl	@	Venice Bl	161	A.M.	1.035	F	1.039	F	0.004	N	1.039	F	0.004	N
				P.M.	0.994	E	0.997	E	0.003	N	0.997	E	0.003	N
Culver Bl	@	Vista Del Mar	22	A.M.	0.883	D	0.896	D	0.013	N	0.896	D	0.013	N
				P.M.	0.599	A	0.618	B	0.019	N	0.618	B	0.019	N
Culver Bl (Southeast)	@	Lincoln Bl Ramp	142	A.M.	0.521	A	0.521	A	0.000	N	0.521	A	0.000	N
				P.M.	0.228	A	0.228	A	0.000	N	0.228	A	0.000	N
Fairfax Av	@	La Cienega Bl	67	A.M.	1.113	F	1.121	F	0.008	N	1.121	F	0.008	N
				P.M.	0.929	E	0.938	E	0.009	N	0.938	E	0.009	N
Fairfax Av	@	Washington Bl	179	A.M.	1.225	F	1.233	F	0.008	N	1.233	F	0.008	N
				P.M.	0.693	B	0.700	B	0.007	N	0.700	B	0.007	N
Falmouth Av	@	Manchester Av	79	A.M.	0.455	A	0.463	A	0.008	N	0.463	A	0.008	N
				P.M.	0.594	A	0.597	A	0.003	N	0.597	A	0.003	N
Glencoe Av	@	Maxella Av	80	A.M.	0.323	A	0.323	A	0.000	N	0.323	A	0.000	N
				P.M.	0.571	A	0.572	A	0.001	N	0.572	A	0.001	N
Grand Av	@	Vista Del Mar	177	A.M.	0.803	D	0.809	D	0.006	N	0.809	D	0.006	N
				P.M.	0.540	A	0.548	A	0.008	N	0.548	A	0.008	N

Table 130 (Continued)

PROJECT IMPACTS – BEFORE AND AFTER MITIGATION

Intersection			Intersection #	Peak Hours	2010 Base w/out Project[a]		2010 w/Project [a]				2010 w/Project and Mitigation Program			
					V/C	LOS	V/C	LOS	V/C Change	Significant Impact	V/C	LOS	V/C Change	Significant Impact
Howard Hughes Pkwy	@	Sepulveda Bl	26	A.M.	0.962	E	0.984	E	0.022	Y	0.938	E	-0.024	N
				P.M.	0.953	E	1.003	F	0.050	Y	0.957	E	0.004	N
I-10 EB Off Ramp	@	La Brea Av	186	A.M.	0.585	A	0.586	A	0.001	N	0.586	A	0.001	N
				P.M.	0.689	B	0.691	B	0.002	N	0.691	B	0.002	N
I-10 EB Off Ramp	@	La Cienega Bl	191	A.M.	0.814	D	0.815	D	0.001	N	0.815	D	0.001	N
				P.M.	0.785	C	0.786	C	0.001	N	0.786	C	0.001	N
I-10 EB On-Ramp	@	Washington Bl	210	A.M.	0.551	A	0.563	A	0.012	N	0.563	A	0.012	N
				P.M.	0.661	B	0.667	B	0.006	N	0.667	B	0.006	N
I-10 WB Off Ramp	@	La Brea Av	187	A.M.	0.639	B	0.639	B	0.000	N	0.639	B	0.000	N
				P.M.	0.639	B	0.639	B	0.000	N	0.639	B	0.000	N
I-10 WB Off Ramp/Apple St	@	Washington Bl	211	A.M.	0.531	A	0.536	A	0.005	N	0.536	A	0.005	N
				P.M.	0.577	A	0.583	A	0.006	N	0.583	A	0.006	N
I-105 WB Off Ramp	@	Sepulveda Bl	63	A.M.	1.237	F	1.246	F	0.009	N	1.216	F	-0.021	N
				P.M.	1.237	F	1.256	F	0.019	Y	1.226	F	-0.011	N
I-405 NB Ramps	@	Jefferson Bl	30	A.M.	0.835	D	0.855	D	0.020	Y	0.783	C	-0.052	N
				P.M.	1.313	F	1.323	F	0.010	Y	1.114	F	-0.199	N
I-405 NB Ramps	@	La Tijera Bl	40	A.M.	0.693	B	0.693	B	0.000	N	0.693	B	0.000	N
				P.M.	0.763	C	0.763	C	0.000	N	0.763	C	0.000	N
I-405 SB Ramps	@	Jefferson Bl	31	A.M.	0.678	B	0.733	C	0.055	Y	0.677	B	-0.001	N
				P.M.	0.761	C	0.815	D	0.054	Y	0.763	C	0.002	N
I-405 SB Ramps	@	La Tijera Bl	41	A.M.	0.668	B	0.668	B	0.000	N	0.668	B	0.000	N
				P.M.	0.703	C	0.703	C	0.000	N	0.703	C	0.000	N
I-405 SB Ramps N/O Century Bl	@	La Cienega Bl	201	A.M.	0.633	B	0.634	B	0.001	N	0.634	B	0.001	N
				P.M.	0.620	B	0.623	B	0.003	N	0.623	B	0.003	N
I-405 SB Ramps N/O Imperial Hwy	@	La Cienega Bl	194	A.M.	0.453	A	0.454	A	0.001	N	0.454	A	0.001	N
				P.M.	0.306	A	0.307	A	0.001	N	0.307	A	0.001	N

Table 130 (Continued)

PROJECT IMPACTS – BEFORE AND AFTER MITIGATION

Intersection			Intersection #	Peak Hours	2010 Base w/out Project[a]		2010 w/Project [a]				2010 w/Project and Mitigation Program			
					V/C	LOS	V/C	LOS	V/C Change	Significant Impact	V/C	LOS	V/C Change	Significant Impact
I-405 SB Ramps S/O Century Bl	@	La Cienega Bl	193	A.M.	0.541	A	0.543	A	0.002	N	0.543	A	0.002	N
				P.M.	0.506	A	0.508	A	0.002	N	0.508	A	0.002	N
Imperial Hwy	@	La Cienega Bl	185	A.M.	0.645	B	0.645	B	0.000	N	0.645	B	0.000	N
				P.M.	0.464	A	0.464	A	0.000	N	0.464	A	0.000	N
Imperial Hwy	@	Pershing Dr	27	A.M.	0.955	E	0.957	E	0.002	N	0.957	E	0.002	N
				P.M.	0.521	A	0.525	A	0.004	N	0.525	A	0.004	N
Imperial Hwy	@	Sepulveda Bl	28	A.M.	0.969	E	0.974	E	0.005	N	0.944	E	-0.025	N
				P.M.	1.230	F	1.255	F	0.025	Y	1.225	F	-0.005	N
Imperial Hwy	@	Vista Del Mar	184	A.M.	1.092	F	1.100	F	0.008	N	1.100	F	0.008	N
				P.M.	0.483	A	0.490	A	0.007	N	0.490	A	0.007	N
Inglewood Bl/Centinela Av	@	Jefferson Bl	82	A.M.	0.833	D	0.862	D	0.029	Y	0.831	D	-0.002	N
				P.M.	0.789	C	0.828	D	0.039	Y	0.805	D	0.016	N
Jefferson Bl	@	La Cienega Bl	32	A.M.	1.308	F	1.316	F	0.008	N	1.316	F	0.008	N
				P.M.	1.178	F	1.185	F	0.007	N	1.185	F	0.007	N
Jefferson Bl	@	Lincoln Bl	33	A.M.	0.991	E	1.024	F	0.033	Y	0.988	E	-0.003	N
				P.M.	1.051	F	1.110	F	0.059	Y	1.060	F	0.009	N
Jefferson Bl	@	McConnell Av	83	A.M.	95.4 [c]	F	0.451	A	N/A	N	0.451	A	N/A	N
				P.M.	696.2 [c]	F	0.385	A	N/A	N	0.385	A	N/A	N
Jefferson Bl	@	Mesmer Av	84	A.M.	0.416	A	0.442	A	0.026	N	0.442	A	0.026	N
				P.M.	0.464	A	0.517	A	0.053	N	0.517	A	0.053	N
Jefferson Bl	@	National Bl	163	A.M.	0.466	A	0.469	A	0.003	N	0.469	A	0.003	N
				P.M.	0.635	B	0.646	B	0.011	N	0.646	B	0.011	N
Jefferson Bl	@	Playa Vista Dr	217	A.M.	0.661	B	0.687	B	0.026	N	0.687	B	0.026	N
				P.M.	0.715	C	0.744	C	0.029	N	0.744	C	0.029	N
Jefferson Bl	@	Rodeo Rd	164	A.M.	0.806	D	0.818	D	0.012	N	0.818	D	0.012	N
				P.M.	0.878	D	0.886	D	0.008	N	0.886	D	0.008	N

Table 130 (Continued)

PROJECT IMPACTS – BEFORE AND AFTER MITIGATION

Intersection			Intersection #	Peak Hours	2010 Base w/out Project[a]		2010 w/Project [a]				2010 w/Project and Mitigation Program			
					V/C	LOS	V/C	LOS	V/C Change	Significant Impact	V/C	LOS	V/C Change	Significant Impact
Jefferson Bl	@	Westlawn Av	85	A.M.	0.447	A	0.499	A	0.052	N	0.499	A	0.052	N
				P.M.	0.473	A	0.572	A	0.099	N	0.572	A	0.099	N
La Cienega Bl	@	La Tijera Bl	36	A.M.	0.898	D	0.904	E	0.006	N	0.904	E	0.006	N
				P.M.	0.789	C	0.799	C	0.010	N	0.799	C	0.010	N
La Cienega Bl	@	Rodeo Rd	37	A.M.	1.161	F	1.170	F	0.009	N	1.170	F	0.009	N
				P.M.	1.253	F	1.262	F	0.009	N	1.262	F	0.009	N
La Cienega Bl	@	Venice Bl	198	A.M.	1.176	F	1.178	F	0.002	N	1.178	F	0.002	N
				P.M.	1.064	F	1.065	F	0.001	N	1.065	F	0.001	N
La Tijera Bl	@	Lincoln Bl	42	A.M.	0.799	C	0.818	D	0.019	N	0.788	C	-0.011	N
				P.M.	0.868	D	0.894	D	0.026	Y	0.864	D	-0.004	N
La Tijera Bl	@	Manchester Av	43	A.M.	0.747	C	0.752	C	0.005	N	0.752	C	0.005	N
				P.M.	0.769	C	0.777	C	0.008	N	0.777	C	0.008	N
Lincoln Bl	@	LMU Drive	81	A.M.	0.585	A	0.605	B	0.020	N	0.598	A	0.013	N
				P.M.	0.780	C	0.824	D	0.044	Y	0.798	C	0.018	N
Lincoln Bl	@	Loyola Bl	86	A.M.	0.723	C	0.744	C	0.021	N	0.744	C	0.021	N
				P.M.	0.699	B	0.728	C	0.029	N	0.728	C	0.029	N
Lincoln Bl	@	Manchester Av	46	A.M.	1.264	F	1.291	F	0.027	Y	1.261	F	-0.003	N
				P.M.	1.203	F	1.237	F	0.034	Y	1.207	F	0.004	N
Lincoln Bl	@	Marina Exwy	47	A.M.	1.039	F	1.056	F	0.017	Y	1.048	F	0.009	N
				P.M.	1.096	F	1.113	F	0.017	Y	1.105	F	0.009	N
Lincoln Bl	@	Maxella Av	48	A.M.	0.897	D	0.909	E	0.012	Y	0.901	E	0.004	N
				P.M.	0.952	E	0.963	E	0.011	Y	0.955	E	0.003	N
Lincoln Bl	@	Rose Av	50	A.M.	0.929	E	0.938	E	0.009	N	0.938	E	0.009	N
				P.M.	0.894	D	0.902	E	0.008	N	0.902	E	0.008	N
Lincoln Bl	@	Sepulveda Bl	51	A.M.	0.595	A	0.603	B	0.008	N	0.603	B	0.008	N
				P.M.	0.819	D	0.836	D	0.017	N	0.836	D	0.017	N

Table 130 (Continued)

PROJECT IMPACTS – BEFORE AND AFTER MITIGATION

Intersection			Intersection #	Peak Hours	2010 Base w/out Project[a]		2010 w/Project [a]				2010 w/Project and Mitigation Program			
					V/C	LOS	V/C	LOS	V/C Change	Significant Impact	V/C	LOS	V/C Change	Significant Impact
Lincoln Bl	@	Bluff Creek Dr (Hughes Way)	52	A.M.	0.710	C	0.737	C	0.027	N	0.730	C	0.020	N
				P.M.	0.868	D	0.908	E	0.040	Y	0.884	D	0.016	N
Lincoln Bl	@	Venice Bl	53	A.M.	1.087	F	1.100	F	0.013	Y	1.086	F	-0.001	N
				P.M.	1.060	F	1.071	F	0.011	Y	1.065	F	0.005	N
Lincoln Bl	@	Washington Bl	54	A.M.	1.153	F	1.163	F	0.010	Y	1.151	F	-0.002	N
				P.M.	1.241	F	1.254	F	0.013	Y	1.242	F	0.001	N
Main St	@	Rose Av	55	A.M.	0.510	A	0.511	A	0.001	N	0.511	A	0.001	N
				P.M.	0.900	D	0.903	E	0.003	N	0.903	E	0.003	N
Manchester Av	@	Pershing Dr	56	A.M.	0.443	A	0.445	A	0.002	N	0.445	A	0.002	N
				P.M.	0.411	A	0.419	A	0.008	N	0.419	A	0.008	N
Manchester Av	@	Sepulveda Bl	57	A.M.	1.001	F	1.008	F	0.007	N	0.950	E	-0.051	N
				P.M.	1.178	F	1.235	F	0.057	Y	1.184	F	0.006	N
Marina Exwy EB Ramps	@	Mindanao Wy	87	A.M.	0.804	D	0.804	D	0.000	N	0.804	D	0.000	N
				P.M.	0.889	D	0.893	D	0.004	N	0.893	D	0.004	N
Marina Exwy WB Ramps	@	Mindanao Wy	88	A.M.	0.560	A	0.562	A	0.002	N	0.562	A	0.002	N
				P.M.	0.635	B	0.635	B	0.000	N	0.635	B	0.000	N
McConnell Av	@	Bluff Creek Dr	219	A.M.	N/A	N/A	0.310	A	N/A	N	0.310	A	N/A	N
				P.M.	N/A	N/A	0.455	A	N/A	N	0.455	A	N/A	N
Motor Av	@	Venice Bl	160	A.M.	0.991	E	0.993	E	0.002	N	0.993	E	0.002	N
				P.M.	1.019	F	1.028	F	0.009	N	1.028	F	0.009	N
Ocean Av/Via Marina	@	Washington Bl	94	A.M.	1.233	F	1.236	F	0.003	N	1.236	F	0.003	N
				P.M.	1.311	F	1.314	F	0.003	N	1.314	F	0.003	N
Overland Av	@	Palms Bl	212	A.M.	0.913	E	0.915	E	0.002	N	0.915	E	0.002	N
				P.M.	1.106	F	1.111	F	0.005	N	1.111	F	0.005	N
Overland Av	@	Venice Bl	157	A.M.	1.124	F	1.126	F	0.002	N	1.126	F	0.002	N
				P.M.	1.145	F	1.151	F	0.006	N	1.151	F	0.006	N

Table 130 (Continued)

PROJECT IMPACTS – BEFORE AND AFTER MITIGATION

Intersection			Intersection #	Peak Hours	2010 Base w/out Project[a]		2010 w/Project [a]				2010 w/Project and Mitigation Program			
					V/C	LOS	V/C	LOS	V/C Change	Significant Impact	V/C	LOS	V/C Change	Significant Impact
Pacific Av	@	Washington Bl	89	A.M.	0.673	B	0.674	B	0.001	N	0.674	B	0.001	N
				P.M.	0.697	B	0.699	B	0.002	N	0.699	B	0.002	N
Palawan Way	@	Washington Bl	90	A.M.	1.009	F	1.009	F	0.000	N	1.009	F	0.000	N
				P.M.	0.948	E	0.948	E	0.000	N	0.948	E	0.000	N
Pershing Dr	@	Westchester Pkwy	59	A.M.	0.432	A	0.434	A	0.002	N	0.434	A	0.002	N
				P.M.	0.388	A	0.392	A	0.004	N	0.392	A	0.004	N
Playa Vista Dr	@	Bluff Creek Dr	218	A.M.	0.439	A	0.473	A	0.034	N	0.473	A	0.034	N
				P.M.	0.549	A	0.599	A	0.050	N	0.599	A	0.050	N
Sepulveda Bl	@	Westchester Pkwy	200	A.M.	1.056	F	1.062	F	0.006	N	1.009	F	-0.047	N
				P.M.	1.200	F	1.239	F	0.039	Y	1.185	F	-0.015	N
Venice Bl	@	Walgrove Av	93	A.M.	0.864	D	0.866	D	0.002	N	0.866	D	0.002	N
				P.M.	1.079	F	1.082	F	0.003	N	1.082	F	0.003	N
County of Los Angeles														
Admiralty Way	@	Bali Way	112	A.M.	0.771	C	0.775	C	0.004	N	0.775	C	0.004	N
				P.M.	1.069	F	1.078	F	0.009	N	1.078	F	0.009	N
Admiralty Way	@	Fiji Way	113	A.M.	0.473	A	0.477	A	0.004	N	0.477	A	0.004	N
				P.M.	0.647	B	0.659	B	0.012	N	0.659	B	0.012	N
Admiralty Way	@	Mindanao Way	114	A.M.	0.903	E	0.906	E	0.003	N	0.898	D	-0.005	N
				P.M.	1.132	F	1.145	F	0.013	Y	1.138	F	0.006	N
Admiralty Way	@	Palawan Way	115	A.M.	0.865	D	0.871	D	0.006	N	0.793	C	-0.072	N
				P.M.	1.132	F	1.145	F	0.013	Y	1.019	F	-0.113	N
Admiralty Way	@	Via Marina	116	A.M.	0.912	E	0.918	E	0.006	N	0.918	E	0.006	N
				P.M.	1.119	F	1.127	F	0.008	N	1.127	F	0.008	N
Alvern St	@	Centinela Av	140	A.M.	0.741	C	0.762	C	0.021	N	0.762	C	0.021	N
				P.M.	0.752	C	0.781	C	0.029	N	0.781	C	0.029	N

Table 130 (Continued)

PROJECT IMPACTS – BEFORE AND AFTER MITIGATION

Intersection			Intersection #	Peak Hours	2010 Base w/out Project[a]		2010 w/Project [a]				2010 w/Project and Mitigation Program			
					V/C	LOS	V/C	LOS	V/C Change	Significant Impact	V/C	LOS	V/C Change	Significant Impact
Bali Way	@	Lincoln Bl	10	A.M.	0.833	D	0.844	D	0.011	N	0.834	D	0.001	N
				P.M.	1.018	F	1.034	F	0.016	Y	1.024	F	0.006	N
Centinela Av	@	Sherbourne Dr	141	A.M.	0.785	C	0.807	D	0.022	Y	0.777	C	-0.008	N
				P.M.	0.700	B	0.724	C	0.024	N	0.694	B	-0.006	N
Century Bl	@	I-405 NB Off Ramp	202	A.M.	1.114	F	1.115	F	0.001	N	1.115	F	0.001	N
				P.M.	0.600	A	0.601	B	0.001	N	0.601	B	0.001	N
Corning Av	@	Slauson Av	144	A.M.	0.859	D	0.864	D	0.005	N	0.864	D	0.005	N
				P.M.	0.691	B	0.696	B	0.005	N	0.696	B	0.005	N
Fairfax Av	@	Slauson Av	147	A.M.	1.091	F	1.092	F	0.001	N	1.092	F	0.001	N
				P.M.	1.008	F	1.015	F	0.007	N	1.015	F	0.007	N
Fiji Way	@	Lincoln Bl	24	A.M.	0.779	C	0.792	C	0.013	N	0.774	C	-0.005	N
				P.M.	0.903	E	0.927	E	0.024	Y	0.910	E	0.007	N
Hawthorne Bl	@	I-105 EB Off Ramp	203	A.M.	0.519	A	0.519	A	0.000	N	0.519	A	0.000	N
				P.M.	0.600	A	0.600	A	0.000	N	0.600	A	0.000	N
Hawthorne Bl	@	Lennox Bl	204	A.M.	0.662	B	0.662	B	0.000	N	0.662	B	0.000	N
				P.M.	0.840	D	0.841	D	0.001	N	0.841	D	0.001	N
Inglewood Av	@	Lennox Bl	205	A.M.	0.825	D	0.827	D	0.002	N	0.827	D	0.002	N
				P.M.	0.920	E	0.921	E	0.001	N	0.921	E	0.001	N
Kings Rd	@	Slauson Av	145	A.M.	0.558	A	0.559	A	0.001	N	0.559	A	0.001	N
				P.M.	0.575	A	0.586	A	0.011	N	0.586	A	0.011	N
La Brea Av	@	Slauson Av	189	A.M.	1.132	F	1.139	F	0.007	N	1.139	F	0.007	N
				P.M.	1.081	F	1.090	F	0.009	N	1.090	F	0.009	N
La Brea Av/Overhill Dr	@	Stocker St	190	A.M.	0.953	E	0.956	E	0.003	N	0.956	E	0.003	N
				P.M.	1.168	F	1.174	F	0.006	N	1.174	F	0.006	N
La Cienega Bl	@	Lennox Bl	195	A.M.	0.402	A	0.405	A	0.003	N	0.405	A	0.003	N
				P.M.	0.516	A	0.519	A	0.003	N	0.519	A	0.003	N

Table 130 (Continued)

PROJECT IMPACTS – BEFORE AND AFTER MITIGATION

Intersection			Intersection #	Peak Hours	2010 Base w/out Project[a]		2010 w/Project [a]				2010 w/Project and Mitigation Program			
					V/C	LOS	V/C	LOS	V/C Change	Significant Impact	V/C	LOS	V/C Change	Significant Impact
La Cienega Bl	@	Stocker St	197	A.M.	1.335	F	1.341	F	0.006	N	1.341	F	0.006	N
				P.M.	1.218	F	1.225	F	0.007	N	1.225	F	0.007	N
La Cienega Bl Ramps N	@	Slauson Av	38	A.M.	0.926	E	0.926	E	0.000	N	0.926	E	0.000	N
				P.M.	0.625	B	0.629	B	0.004	N	0.629	B	0.004	N
La Cienega Bl Ramps S	@	Slauson Av	39	A.M.	0.795	C	0.804	D	0.009	N	0.804	D	0.009	N
				P.M.	0.758	C	0.773	C	0.015	N	0.773	C	0.015	N
La Tijera Bl	@	Slauson Av	146	A.M.	0.616	B	0.617	B	0.001	N	0.617	B	0.001	N
				P.M.	0.734	C	0.743	C	0.009	N	0.743	C	0.009	N
Lincoln Bl	@	Mindanao Way	49	A.M.	0.996	E	1.013	F	0.017	Y	1.001	F	0.005	N
				P.M.	1.152	F	1.171	F	0.019	Y	1.159	F	0.007	N
Shenandoah Av	@	Slauson Av	143	A.M.	0.753	C	0.759	C	0.006	N	0.759	C	0.006	N
				P.M.	0.641	B	0.648	B	0.007	N	0.648	B	0.007	N
City of Culver City														
Braddock Dr	@	Overland Av	159	A.M.	0.881	D	0.897	D	0.016	N	0.897	D	0.016	N
				P.M.	0.965	E	0.974	E	0.009	N	0.974	E	0.009	N
Braddock Dr	@	Sepulveda Bl	153	A.M.	0.847	D	0.849	D	0.002	N	0.849	D	0.002	N
				P.M.	0.968	E	0.974	E	0.006	N	0.974	E	0.006	N
Bristol Pkwy	@	Centinela Av	96	A.M.	0.603	B	0.625	B	0.022	N	0.625	B	0.022	N
				P.M.	0.571	A	0.620	B	0.049	N	0.620	B	0.049	N
Bristol Pkwy	@	Slauson Av	95	A.M.	0.725	C	0.730	C	0.005	N	0.730	C	0.005	N
				P.M.	0.675	B	0.684	B	0.009	N	0.684	B	0.009	N
Buckingham Pkwy	@	Slauson Av	97	A.M.	0.792	C	0.796	C	0.004	N	0.796	C	0.004	N
				P.M.	0.792	C	0.801	D	0.009	N	0.801	D	0.009	N
Centinela Av	@	Green Valley Cir	98	A.M.	0.895	D	0.916	E	0.021	Y	0.735	C	-0.160	N
				P.M.	0.670	B	0.699	B	0.029	N	0.681	B	0.011	N

Table 130 (Continued)

PROJECT IMPACTS – BEFORE AND AFTER MITIGATION

Intersection			Intersection #	Peak Hours	2010 Base w/out Project[a]		2010 w/Project [a]				2010 w/Project and Mitigation Program			
					V/C	LOS	V/C	LOS	V/C Change	Significant Impact	V/C	LOS	V/C Change	Significant Impact
Centinela Av	@	Sepulveda Bl	15	A.M.	1.230	F	1.261	F	0.031	Y	1.159	F	-0.071	N
				P.M.	1.185	F	1.262	F	0.077	Y	1.192	F	0.007	N
Centinela Av	@	Washington Bl	16	A.M.	0.882	D	0.901	E	0.019	Y	0.889	D	0.007	N
				P.M.	0.973	E	0.991	E	0.018	Y	0.978	E	0.005	N
Centinela Av	@	Washington Pl	99	A.M.	0.918	E	0.929	E	0.011	Y	0.861	D	-0.057	N
				P.M.	0.941	E	0.955	E	0.014	Y	0.879	D	-0.062	N
Culver Bl	@	Main St/ Washington Bl	21	A.M.	1.084	F	1.091	F	0.007	N	1.091	F	0.007	N
				P.M.	0.881	D	0.885	D	0.004	N	0.885	D	0.004	N
Culver Bl	@	Overland Av	100	A.M.	0.971	E	0.990	E	0.019	Y	0.901	E	-0.070	N
				P.M.	0.945	E	0.966	E	0.021	Y	0.913	E	-0.032	N
Culver Bl	@	Sawtelle Bl	102	A.M.	0.889	D	0.897	D	0.008	N	0.825	D	-0.064	N
				P.M.	1.027	F	1.046	F	0.019	Y	0.932	E	-0.095	N
Culver Bl	@	Sepulveda Bl	101	A.M.	0.993	E	1.003	F	0.010	Y	0.990	E	-0.003	N
				P.M.	0.926	E	0.937	E	0.011	Y	0.923	E	-0.003	N
Duquesne Av	@	Jefferson Bl	165	A.M.	0.964	E	0.971	E	0.007	N	0.917	E	-0.047	N
				P.M.	0.976	E	0.987	E	0.011	Y	0.934	E	-0.042	N
Glencoe Av	@	Washington Bl	103	A.M.	0.678	B	0.679	B	0.001	N	0.679	B	0.001	N
				P.M.	0.968	E	0.969	E	0.001	N	0.969	E	0.001	N
Green Valley Cir	@	Sepulveda Bl	166	A.M.	0.679	B	0.679	B	0.000	N	0.679	B	0.000	N
				P.M.	0.740	C	0.741	C	0.001	N	0.741	C	0.001	N
Hannum Av	@	Playa St	104	A.M.	0.869	D	0.897	D	0.028	Y	0.884	D	0.015	N
				P.M.	0.788	C	0.799	C	0.011	N	0.786	C	-0.002	N
Hannum Av	@	Slauson Av	105	A.M.	0.551	A	0.551	A	0.000	N	0.551	A	0.000	N
				P.M.	0.536	A	0.541	A	0.005	N	0.541	A	0.005	N
I-405 NB Ramps S/O Venice Bl	@	Sepulveda Bl	156	A.M.	1.002	F	1.007	F	0.005	N	1.007	F	0.005	N
				P.M.	0.977	E	0.985	E	0.008	N	0.985	E	0.008	N

Table 130 (Continued)

PROJECT IMPACTS – BEFORE AND AFTER MITIGATION

Intersection			Intersection #	Peak Hours	2010 Base w/out Project[a]		2010 w/Project [a]				2010 w/Project and Mitigation Program			
					V/C	LOS	V/C	LOS	V/C Change	Significant Impact	V/C	LOS	V/C Change	Significant Impact
I-405 SB Off Ramp N/O Culver Bl	@	Sawtelle Bl	151	A.M.	0.495	A	0.499	A	0.004	N	0.499	A	0.004	N
				P.M.	0.494	A	0.499	A	0.005	N	0.499	A	0.005	N
Inglewood Bl	@	Washington Bl	29	A.M.	0.808	D	0.818	D	0.010	N	0.781	C	-0.027	N
				P.M.	0.993	E	1.014	F	0.021	Y	0.974	E	-0.019	N
Jefferson Bl	@	Overland Av	34	A.M.	1.006	F	1.035	F	0.029	Y	1.007	F	0.001	N
				P.M.	0.874	D	0.897	D	0.023	Y	0.870	D	-0.004	N
Jefferson Bl	@	Sepulveda Bl (N)	35	A.M.	1.079	F	1.086	F	0.007	N	1.058	F	-0.021	N
				P.M.	0.986	E	0.996	E	0.010	Y	0.964	E	-0.022	N
Jefferson Bl	@	Slauson Av	106	A.M.	0.577	A	0.591	A	0.014	N	0.591	A	0.014	N
				P.M.	0.654	B	0.691	B	0.037	N	0.691	B	0.037	N
La Cienega Bl	@	Washington Bl	199	A.M.	1.032	F	1.034	F	0.002	N	1.034	F	0.002	N
				P.M.	0.816	D	0.817	D	0.001	N	0.817	D	0.001	N
Marina Fwy	@	Slauson Av	107	A.M.	0.672	B	0.692	B	0.020	N	0.692	B	0.020	N
				P.M.	0.747	C	0.760	C	0.013	N	0.760	C	0.013	N
Matteson Av/I-405 SB Ramps	@	Sawtelle Bl	148	A.M.	1.126	F	1.129	F	0.003	N	1.129	F	0.003	N
				P.M.	1.081	F	1.087	F	0.006	N	1.087	F	0.006	N
Motor Av	@	Washington Bl	162	A.M.	1.004	F	1.006	F	0.002	N	1.006	F	0.002	N
				P.M.	0.922	E	0.931	E	0.009	N	0.931	E	0.009	N
Overland Av	@	Washington Bl	158	A.M.	1.011	F	1.020	F	0.009	N	1.020	F	0.009	N
				P.M.	1.213	F	1.221	F	0.008	N	1.221	F	0.008	N
Playa St/Jefferson Bl	@	Sepulveda Bl	60	A.M.	0.865	D	0.898	D	0.033	Y	0.877	D	0.012	N
				P.M.	0.925	E	0.953	E	0.028	Y	0.925	E	0.000	N
Redwood Av	@	Washington Bl	108	A.M.	0.657	B	0.657	B	0.000	N	0.657	B	0.000	N
				P.M.	0.713	C	0.714	C	0.001	N	0.714	C	0.001	N
Sawtelle Bl	@	Sepulveda Bl	170	A.M.	1.079	F	1.086	F	0.007	N	1.058	F	-0.021	N
				P.M.	0.986	E	0.996	E	0.010	Y	0.964	E	-0.022	N

Table 130 (Continued)

PROJECT IMPACTS – BEFORE AND AFTER MITIGATION

Intersection			Intersection #	Peak Hours	2010 Base w/out Project[a]		2010 w/Project [a]				2010 w/Project and Mitigation Program			
					V/C	LOS	V/C	LOS	V/C Change	Significant Impact	V/C	LOS	V/C Change	Significant Impact
Sawtelle Bl	@	Venice Bl	62	A.M.	1.161	F	1.164	F	0.003	N	1.164	F	0.003	N
				P.M.	1.238	F	1.242	F	0.004	N	1.242	F	0.004	N
Sawtelle Bl	@	Washington Bl	150	A.M.	0.771	C	0.775	C	0.004	N	0.775	C	0.004	N
				P.M.	0.981	E	0.987	E	0.006	N	0.987	E	0.006	N
Sawtelle Bl	@	Washington Pl	149	A.M.	0.906	E	0.907	E	0.001	N	0.907	E	0.001	N
				P.M.	1.072	F	1.075	F	0.003	N	1.075	F	0.003	N
Sepulveda Bl	@	Slauson Av	65	A.M.	1.068	F	1.073	F	0.005	N	1.032	F	-0.036	N
				P.M.	1.029	F	1.042	F	0.013	Y	1.001	F	-0.028	N
Sepulveda Bl	@	Venice Bl	66	A.M.	1.152	F	1.155	F	0.003	N	1.155	F	0.003	N
				P.M.	1.124	F	1.127	F	0.003	N	1.127	F	0.003	N
Sepulveda Bl	@	Washington Bl	155	A.M.	0.891	D	0.898	D	0.007	N	0.898	D	0.007	N
				P.M.	1.026	F	1.035	F	0.009	N	1.035	F	0.009	N
Sepulveda Bl	@	Washington Pl	154	A.M.	1.027	F	1.029	F	0.002	N	1.029	F	0.002	N
				P.M.	1.107	F	1.113	F	0.006	N	1.113	F	0.006	N
Walgrove Av	@	Washington Bl	167	A.M.	0.791	C	0.791	C	0.000	N	0.791	C	0.000	N
				P.M.	0.955	E	0.957	E	0.002	N	0.957	E	0.002	N
City of Santa Monica														
23rd St	@	Ocean Park Bl	133	A.M.	1.095	F	1.097	F	0.002	N	1.097	F	0.002	N
				P.M.	1.308	F	1.311	F	0.003	N	1.311	F	0.003	N
23rd St	@	Pico Bl	132	A.M.	0.730	C	0.732	C	0.002	N	0.732	C	0.002	N
				P.M.	0.988	E	0.990	E	0.002	N	0.990	E	0.002	N
26th St	@	Wilshire Bl	136	A.M.	0.952	E	0.953	E	0.001	N	0.953	E	0.001	N
				P.M.	0.970	E	0.970	E	0.000	N	0.970	E	0.000	N
4th St	@	Colorado Av	137	A.M.	0.692	B	0.692	B	0.000	N	0.692	B	0.000	N
				P.M.	0.902	E	0.903	E	0.001	N	0.903	E	0.001	N
4th St	@	Ocean Park Bl N	129	A.M.	0.471	A	0.473	A	0.002	N	0.473	A	0.002	N
				P.M.	0.551	A	0.552	A	0.001	N	0.552	A	0.001	N

Table 130 (Continued)

PROJECT IMPACTS – BEFORE AND AFTER MITIGATION

Intersection			Intersection #	Peak Hours	2010 Base w/out Project[a]		2010 w/Project [a]				2010 w/Project and Mitigation Program			
					V/C	LOS	V/C	LOS	V/C Change	Significant Impact	V/C	LOS	V/C Change	Significant Impact
4th St	@	Ocean Park Bl S	130	A.M.	0.454	A	0.455	A	0.001	N	0.455	A	0.001	N
				P.M.	0.493	A	0.495	A	0.002	N	0.495	A	0.002	N
4th St	@	Pico Bl	128	A.M.	1.031	F	1.035	F	0.004	N	1.035	F	0.004	N
				P.M.	1.021	F	1.023	F	0.002	N	1.023	F	0.002	N
4th St	@	Wilshire Bl	127	A.M.	0.659	B	0.660	B	0.001	N	0.660	B	0.001	N
				P.M.	0.726	C	0.726	C	0.000	N	0.726	C	0.000	N
Cloverfield Bl	@	I-10 EB On Ramp	138	A.M.	0.888	D	0.888	D	0.000	N	0.888	D	0.000	N
				P.M.	1.116	F	1.116	F	0.000	N	1.116	F	0.000	N
Cloverfield Bl	@	I-10 WB Off Ramp	139	A.M.	0.951	E	0.953	E	0.002	N	0.953	E	0.002	N
				P.M.	0.919	E	0.920	E	0.001	N	0.920	E	0.001	N
Cloverfield Bl	@	Ocean Park Bl	135	A.M.	0.727	C	0.729	C	0.002	N	0.729	C	0.002	N
				P.M.	0.819	D	0.823	D	0.004	N	0.823	D	0.004	N
Cloverfield Bl	@	Pico Bl	134	A.M.	0.931	E	0.933	E	0.002	N	0.933	E	0.002	N
				P.M.	0.916	E	0.917	E	0.001	N	0.917	E	0.001	N
I-10 EB On Ramp	@	Lincoln Bl	168	A.M.	1.208	F	1.212	F	0.004	N	1.212	F	0.004	N
				P.M.	1.039	F	1.041	F	0.002	N	1.041	F	0.002	N
I-10 WB Off Ramp	@	Lincoln Bl	169	A.M.	0.971	E	0.971	E	0.000	N	0.971	E	0.000	N
				P.M.	1.138	F	1.141	F	0.003	N	1.141	F	0.003	N
Lincoln Bl	@	Ocean Park Bl	109	A.M.	1.248	F	1.252	F	0.004	N	1.252	F	0.004	N
				P.M.	1.369	F	1.372	F	0.003	N	1.372	F	0.003	N
Lincoln Bl	@	Pico Bl	124	A.M.	1.240	F	1.243	F	0.003	N	1.243	F	0.003	N
				P.M.	1.228	F	1.232	F	0.004	N	1.232	F	0.004	N
Lincoln Bl	@	Wilshire Bl	131	A.M.	0.897	D	0.899	D	0.002	N	0.899	D	0.002	N
				P.M.	0.910	E	0.912	E	0.002	N	0.912	E	0.002	N
Main St	@	Ocean Park Bl	110	A.M.	0.958	E	0.958	E	0.000	N	0.958	E	0.000	N
				P.M.	1.022	F	1.023	F	0.001	N	1.023	F	0.001	N

Table 130 (Continued)

PROJECT IMPACTS – BEFORE AND AFTER MITIGATION

Intersection			Intersection #	Peak Hours	2010 Base w/out Project[a]		2010 w/Project [a]				2010 w/Project and Mitigation Program			
					V/C	LOS	V/C	LOS	V/C Change	Significant Impact	V/C	LOS	V/C Change	Significant Impact
Main St	@	Pico Bl	117	A.M.	0.775	C	0.775	C	0.000	N	0.775	C	0.000	N
				P.M.	0.945	E	0.945	E	0.000	N	0.945	E	0.000	N
Neilson Way	@	Ocean Park Bl	111	A.M.	0.726	C	0.727	C	0.001	N	0.727	C	0.001	N
				P.M.	0.775	C	0.776	C	0.001	N	0.776	C	0.001	N
Ocean Av	@	Palisades Beach Rd Ramps	126	A.M.	0.621	B	0.622	B	0.001	N	0.622	B	0.001	N
				P.M.	0.958	E	0.959	E	0.001	N	0.959	E	0.001	N
Ocean Av	@	Wilshire Bl	125	A.M.	0.717	C	0.717	C	0.000	N	0.717	C	0.000	N
				P.M.	0.684	B	0.684	B	0.000	N	0.684	B	0.000	N
Ocean Av/ Neilson Way	@	Pico Bl	118	A.M.	0.729	C	0.730	C	0.001	N	0.730	C	0.001	N
				P.M.	0.888	D	0.889	D	0.001	N	0.889	D	0.001	N
City of Inglewood														
Arbor Vitae St	@	La Cienega Bl	5	A.M.	0.678	B	0.679	B	0.001	N	0.679	B	0.001	N
				P.M.	0.731	C	0.734	C	0.003	N	0.734	C	0.003	N
Centinela Av	@	Florence Av	206	A.M.	0.613	B	0.622	B	0.009	N	0.622	B	0.009	N
				P.M.	0.825	D	0.832	D	0.007	N	0.832	D	0.007	N
Centinela Av	@	La Brea Av	175	A.M.	1.395	F	1.412	F	0.017	Y	1.304	F	-0.091	N
				P.M.	1.192	F	1.201	F	0.009	N	1.132	F	-0.060	N
Florence Av/ Aviation Bl	@	Manchester Bl	8	A.M.	1.143	F	1.147	F	0.004	N	1.117	F	-0.026	N
				P.M.	0.887	D	0.921	E	0.034	Y	0.891	D	0.004	N
La Brea Av	@	Manchester Bl	188	A.M.	1.070	F	1.071	F	0.001	N	1.071	F	0.001	N
				P.M.	1.123	F	1.124	F	0.001	N	1.124	F	0.001	N
La Cienega Bl	@	Manchester Bl	196	A.M.	0.899	D	0.902	E	0.003	N	0.902	E	0.003	N
				P.M.	0.940	E	0.942	E	0.002	N	0.942	E	0.002	N
South Bay Cities[b]														
Artesia Bl	@	Sepulveda Bl/PCH	208	A.M.	0.869	D	0.873	D	0.004	N	0.873	D	0.004	N
				P.M.	1.220	F	1.222	F	0.002	N	1.222	F	0.002	N

Table 130 (Continued)

PROJECT IMPACTS – BEFORE AND AFTER MITIGATION

Intersection			Intersection #	Peak Hours	2010 Base w/out Project[a]		2010 w/Project [a]				2010 w/Project and Mitigation Program			
					V/C	LOS	V/C	LOS	V/C Change	Significant Impact	V/C	LOS	V/C Change	Significant Impact
Aviation Bl	@	Rosecrans Av	9	A.M.	1.001	F	1.003	F	0.002	N	1.003	F	0.002	N
				P.M.	1.064	F	1.064	F	0.000	N	1.064	F	0.000	N
Douglas St	@	Imperial Hwy	176	A.M.	0.770	C	0.771	C	0.001	N	0.771	C	0.001	N
				P.M.	0.590	A	0.593	A	0.003	N	0.593	A	0.003	N
El Segundo Bl	@	Sepulveda Bl	23	A.M.	1.074	F	1.076	F	0.002	N	1.076	F	0.002	N
				P.M.	1.297	F	1.303	F	0.006	N	1.303	F	0.006	N
Grand Av	@	Sepulveda Bl	120	A.M.	1.026	F	1.034	F	0.008	N	1.034	F	0.008	N
				P.M.	1.305	F	1.310	F	0.005	N	1.310	F	0.005	N
Highland Av	@	Manhattan Beach Bl	207	A.M.	0.787	C	0.790	C	0.003	N	0.790	C	0.003	N
				P.M.	0.620	B	0.621	B	0.001	N	0.621	B	0.001	N
I-405 NB Ramps	@	Imperial Hwy	181	A.M.	0.415	A	0.416	A	0.001	N	0.416	A	0.001	N
				P.M.	0.497	A	0.498	A	0.001	N	0.498	A	0.001	N
I-105 WB Off Ramp/Nash St	@	Imperial Hwy	183	A.M.	0.796	C	0.799	C	0.003	N	0.799	C	0.003	N
				P.M.	0.425	A	0.427	A	0.002	N	0.427	A	0.002	N
Imperial Hwy	@	Main St	182	A.M.	1.007	F	1.011	F	0.004	N	1.011	F	0.004	N
				P.M.	0.904	E	0.906	E	0.002	N	0.906	E	0.002	N
Manhattan Beach Bl	@	Sepulveda Bl	122	A.M.	1.189	F	1.193	F	0.004	N	1.193	F	0.004	N
				P.M.	1.335	F	1.337	F	0.002	N	1.337	F	0.002	N
Maple Av	@	Sepulveda Bl	119	A.M.	0.827	D	0.831	D	0.004	N	0.831	D	0.004	N
				P.M.	1.075	F	1.078	F	0.003	N	1.078	F	0.003	N
Marine Av	@	Sepulveda Bl	121	A.M.	1.103	F	1.105	F	0.002	N	1.105	F	0.002	N
				P.M.	1.330	F	1.332	F	0.002	N	1.332	F	0.002	N
Mariposa Av	@	Sepulveda Bl	58	A.M.	0.898	D	0.901	E	0.003	N	0.901	E	0.003	N
				P.M.	1.074	F	1.077	F	0.003	N	1.077	F	0.003	N
Rosecrans Av	@	Sepulveda Bl	61	A.M.	1.020	F	1.023	F	0.003	N	1.023	F	0.003	N
				P.M.	1.397	F	1.400	F	0.003	N	1.400	F	0.003	N

Table 130 (Continued)

PROJECT IMPACTS – BEFORE AND AFTER MITIGATION

Intersection	Intersection #	Peak Hours	2010 Base w/out Project[a] V/C	2010 Base w/out Project[a] LOS	2010 w/Project[a] V/C	2010 w/Project[a] LOS	2010 w/Project[a] V/C Change	2010 w/Project[a] Significant Impact	2010 w/Project and Mitigation Program V/C	2010 w/Project and Mitigation Program LOS	2010 w/Project and Mitigation Program V/C Change	2010 w/Project and Mitigation Program Significant Impact
Rosecrans Av @ Vista Del Mar/ Highland Av	25	A.M.	1.278	F	1.281	F	0.003	N	1.281	F	0.003	N
		P.M.	0.893	D	0.897	D	0.004	N	0.897	D	0.004	N
TOTAL NUMBER OF INTERSECTIONS AT LOS E OR F		**A.M.**		**84**		**90**				**85**		
		P.M.		**104**		**108**				**102**		
NUMBER OF INTERSECTIONS WITH SIGNIFICANT IMPACTS		**A.M.**						**31**				**1**
		P.M.						**47**				**1**

S/O = south of *SB = southbound*
N/O = north of *NB = northbound*
E/O = east of *EB = eastbound*
W/O = west of *WB = westbound*
N/A = Not Applicable. Intersection does not currently exist or intersection has been eliminated by traffic improvements.

[a] *All known related projects were checked against the year 2010 land use projections to verify the assumptions in the model. (These related projects are listed and illustrated in Section III.B.) The 2010 assumptions are sufficient to include ambient growth, as well as the related projects. The 2010 roadways analyzed include the those forecasted street improvements that have firm funding or other commitments to be built by the year 2010, as described in Subsection 3.4.2, above.*
[b] *South Bay Cities Include El Segundo, Manhattan Beach, Hawthorne, and Hermosa Beach.*
[c] *Denotes intersections controlled by Stop Signs on minor approaches. Indicates average vehicle delay in seconds (not V/C Ratio) for the intersections.*

Source: Kaku Associates, Inc. and Raju Associates, Inc., July 2003.

Figure 78
Intersection Levels of Service Future 2010 with Project and Mitigation Measures - AM Peak Hours

Source: Kaku Associates, July 2003

LEGEND

	Number of Intersections	Percentage	Significantly Impacted Intersections	Percentage Significantly
▲ LOS A-D	116	53%	1	.5%
■ LOS E	38	18%	0	0%
● LOS F	64	29%	0	0%
TOTAL	218	100%	1	.5%

Proposed Village at Playa Vista

N

0 1 2 Miles

PCR

Figure 79
Intersection Levels of Service
Future 2010 with Project &
Mitigations Measures - PM Peak Hours

Source: Kaku Associates, July 2003

Figure 80
Summary of Significantly Impacted Intersections
Future 2010 with Project and Mitigation Measures

Source: Kaku Associates, July 2003

Table 131

SUMMARY OF OPERATING LEVELS AND SIGNIFICANT IMPACTS

	2003 Base	2010 Base	2010 with Project		2010 with Project and Mitigation	
LOS Levels	**Total**	**Total**	**Total**	**Significant**	**Total**	**Significant**
A.M. Peak Hour						
A-D	167	133	128	8	133	1
E	21	23	27	8	26	0
F	21	61	63	15	59	0
P.M. Peak Hour						
A-D	160	113	110	8	116	1
E	25	38	39	14	38	0
F	24	66	69	25	64	0

Source: Kaku Associates, Inc. and Raju Associates, Inc., July 2003.

As indicated, there would be approximately the same number of intersections operating at unacceptable levels of service with the Proposed Project as mitigated versus the 2010 baseline. There would be one more intersection operating at unsatisfactory levels of service in the A.M. peak hour and two fewer intersections in the P.M. peak hour. The 2010 operating conditions at Jefferson Boulevard and Centinela Avenue with the Proposed Project and Mitigation Measures, the location of the residual significant impact, would be LOS C and D during A.M. and P.M. peak hours, respectively.

5.1.3 Impacts By Jurisdiction

The Proposed Project's significant impacts prior to mitigation, and net impacts with mitigation are listed by jurisdiction in Table 132 on page 930, and discussed below. The net impacts listed for all jurisdictions are based on the assumption that recommended mitigation measures for the Project that are subject to the responsibility and jurisdiction of public agencies other than the City of Los Angeles (i.e., County of Los Angeles, City of Culver City, City of Inglewood, Caltrans, Coastal Commission, etc.) would be implemented. (The local impact of constructing such roadway improvements is analyzed in Appendix K of the EIR, Analysis for Off-Site Mitigation Measures). If such mitigation measures are not implemented due to a public agency's failure to implement such measures, a significant traffic impact at those locations would remain.

5.1.3.1 City of Los Angeles

With the implementation of the mitigation measures identified above, the Proposed Project would result in significant impacts at one location during both the A.M. and the P.M. peak

Table 132

SIGNIFICANT IMPACTS AFTER MITIGATION BY JURISDICTION

Jurisdiction	Number of Significant Impacts			
	2010 with Project		2010 with Project with Mitigation	
	A.M.	P.M.	A.M.	P.M.
Los Angeles	19	28	1	1
Los Angeles County	2	5	0	0
Culver City	9	13	0	0
Santa Monica	0	0	0	0
Inglewood	1	1	0	0
South Bay Cities [a]	0	0	0	0
TOTAL	**31**	**47**	**1**	**1**

[a] *South Bay Cities includes El Segundo, Manhattan Beach, Hawthorne and Hermosa Beach.*

Source: Kaku Associates, Inc. and Raju Associates, Inc., July 2003.

hours. However, this location, Jefferson Boulevard and Centinela Avenue, is projected to operate at acceptable levels of service: LOS C and D during A.M. and P.M. peak hours, respectively.

5.1.3.2 County of Los Angeles

With the implementation of mitigation measures identified above, no significant impacts are expected to remain at any of the County of Los Angeles intersection locations.

5.1.3.3 City of Culver City

With the implementation of the mitigation measures identified above, no significant impacts are expected to remain at any of the City of Culver City intersection locations.

5.1.3.4 City of Inglewood

With the implementation of the mitigation measures identified above, no significant impacts are expected to remain at any of the City of Inglewood intersection locations.

5.1.3.5 City of Santa Monica

No significant impacts are expected at any of the City of Santa Monica intersection locations.

5.1.3.6 South Bay Cities

No significant impacts are expected at any of the South Bay Cities intersection locations.

5.1.4 Impacts Associated with Subphasing

There could be situations where anticipated impacts do not occur during the short-term, and unanticipated impacts do occur, prior to the implementation of a specific mitigation measure. Therefore, there remains a potential for short-term significant impacts to occur during the subphasing of mitigation that would be resolved at later stages of implementation.

5.1.5 Impacts With an Alternative 2010 Baseline Assumption

The Traffic Report, Appendix K, also includes an analysis of the impacts of the Proposed Project with mitigation if the impacts were to occur with a modification in the 2010 Baseline conditions. Under this scenario, it was assumed that the Playa Vista Drive bridge and extension to Culver Boulevard as required as a condition of the adjacent Playa Vista First Phase Project was not implemented in a timely manner. That analysis indicates that the Proposed Project's mitigation measures would be sufficient to reduce Proposed Project impacts to less-than-significant levels at the same intersections as would occur with the Playa Vista Drive bridge and extension in place. In other words, the Project's significant impacts after mitigation are the same regardless of whether the Playa Vista Drive Bridge and extension is built.

5.2 Impacts on Freeway Capacity – After Mitigation

Potential Project impacts on freeway conditions for the A.M. and P.M. peak hours are shown on Table 122 on page 870 and Table 123 on page 871. Potential conditions are shown for the following scenarios: the 2003 baseline condition, the 2010 baseline conditions, and the 2010 baseline with the Proposed Project.

As indicated, prior to mitigation, no significant impacts are noted on the CMP freeway system during both the A.M. and P.M. peak hours. Therefore, operation levels and net impacts would be the same after mitigation as prior to mitigation, as described in Table 122 and Table 123. With the implementation of the mitigation measures as well, there would be no significant impacts during both the A.M. and P.M. peak hours.

5.3 Impacts on Neighborhood Streets – After Mitigation

In the above analysis, four neighborhoods were identified that may be subject to significant neighborhood impacts. These neighborhoods are bounded by the following roadways:

- Inglewood Boulevard, Ballona Creek, Sawtelle Boulevard, Bray Street/Port Road
- Kentwood Avenue, 77th Street, Sepulveda Boulevard, Manchester Avenue
- Sepulveda Boulevard, 74th Street, La Tijera Boulevard, Manchester Avenue
- Rayford Drive, 83rd Street, Lincoln Boulevard, La Tijera Boulevard

Accordingly, a mitigation measure was included to address the potentially significant impacts. The measure provides mechanisms for the development of neighborhood traffic management plan(s) in the potentially impacted neighborhoods should such plans be requested by the residents in the community. Implementation of mitigation measure would reduce potential impacts to less-than-significant levels.

5.4 Impacts on Project Access – After Mitigation

With the Proposed Project's mitigation measures, operating conditions at all of the intersections providing access to the Proposed Project would be at acceptable levels of service. There would be excellent levels of service (LOS A) at all intersections during the A.M. and P.M. peak hours except Jefferson Boulevard and Centinela Avenue. At that intersection there would be LOS C (good service) and LOS D (fair service) operations during the A.M. and P.M. peak hours respectively. Service would not operate at conditions considered significant, LOS E and F (poor/failure service). Access impacts with regard to roadway operations would be less than significant.

The design of the Proposed Project has been prepared to meet all safety regulations, and avoid hazardous conditions (e.g., inadequate sight lines, conflict between travel modes, etc). Mitigation measures have been included to protect public safety from construction activities. Hazardous conditions would be avoided, and access impacts with regard to safety of Project accessibility would be less than significant.

5.5 Impacts on Public Transit – After Mitigation

As stated earlier, the bus transit system shows excess capacity when evaluated on a system-wide basis. However, an examination of the individual line-by-line analysis indicates that operational and service deficiencies exist along various bus lines serving congested travel corridors within the study area. Mitigation measures have been implemented to address these service deficiencies and increase transit capacity and convenience. As discussed in Subsection 4.0, above, and in Appendix K, adding additional buses improves capacity and convenience of service. National research has shown that increased transit service on heavily traveled bus corridors is linked to increased ridership and has the ability to reduce the number of automobiles on those corridors.[374] A brief discussion of the role of the individual transit line improvements on traffic impacts follows.

The Culver City Line 6 route traverses the congested Sepulveda Boulevard corridor between UCLA and the Green Line Station at Aviation Boulevard serving numerous communities including Westwood, Culver City, Fox Hills Mall, Howard Hughes Center, and Westchester Downtown. The Project proposes to improve this line by providing funding for one additional bus, increasing the frequency of services from one bus every 12 minutes to one bus every 10 minutes. Additionally, the Project, in partnership with the Culver City Bus System proposes to provide two additional buses to enable a limited-stop route along Sepulveda Boulevard serving the Fox Hills Mall, Playa Vista, and the Century Boulevard office corridor. These transit improvements provide mitigation at numerous intersections along Sepulveda Boulevard in the City of Culver City and City of Los Angeles.

The Culver City Line 4 is being proposed for improvement through the provision of funding for two additional buses to provide improved operating frequencies, increasing the frequency of services from one bus every hour to one bus every 30 minutes, and an extension along Jefferson Boulevard to Playa del Rey and the beach, thereby offering those service area users a critical connection to the rest of the regional transit system by connecting to The Fox Hills Transit Center and the West L.A. Transit Center. This improvement, in addition to providing regional transit connections, would provide project mitigation along Jefferson Boulevard within both the Cities of Los Angeles and Culver City.

The Culver City Line 2 is a local area circulator that provides bus service within Mar Vista and Culver City during the peak periods. The hourly service frequency along this route is being doubled (once every 30 minutes) through the provision of funding for one

[374] *McLeod, Malcolm S., Jr., et al., "Multivariate Time-Series Model of Transit Ridership Based on Historical, Aggregate Data: The Past Present and Future of Honolulu," Transportation Research Record 1297, January 1991.*

additional bus to enable enhanced local area connections offered by this route. This route improves service along the Centinela Avenue/Inglewood Boulevard travel corridors and offers project mitigation at several intersections within this corridor. Further, in the future, this Culver City route may be evaluated for extension service to Marina del Rey and Venice Beach areas.

The proposed transit mitigation measures discussed above require the Proposed Project to provide four additional buses for existing lines, two additional buses that would provide limited-stop bus service and an expanded intelligent shuttle system. These measures would mitigate the project's traffic impacts at numerous locations, as well as mitigate individual line-by-line operational and service deficiencies that currently exist. On a line-by-line basis, seating capacity would not be exceeded with implementation of the mitigation measures. Of the 189 additional seats, 80 would be occupied by Project population in the A.M. peak hour and 113 in the P.M. peak hour. The balance would be available to serve other regional travelers. Therefore, the seating capacity would not be exceeded on either an individual line or a system-wide basis, and impacts would be less than significant.

5.6 Construction-Related Impacts – After Mitigation

Adverse traffic impacts from grading/excavation/construction activities would be expected to occur as the result of the three following types of activities:

- Increases in truck traffic associated with removal or import of fill materials and delivery of construction materials;
- Increases in automobile traffic associated with construction workers traveling to and from the site; and
- Reductions in existing street capacity from temporary lane closures necessary for the construction of roadway improvements, utility relocation, and drainage facilities. Such effects could occur as follows:

The construction activities would primarily affect the following roadways in and around the Proposed Project site:

- Dawn Creek Drive, Runway Road, Bluff Creek Drive, Discovery Creek, Playa Vista Drive, Pacific Promenade, Seabluff Drive, Celedon Road, Alla Road, Millennium Drive, Westlawn Avenue, Centinela Avenue, Campus Center Drive, and Jefferson Boulevard.

Overall, the impact on the transportation system from construction activities would be temporary in nature and would cause an intermittent reduction in street and intersection operating capacity and efficiency near the Proposed Project site. The above analysis identified a potentially significant, short-term impact from construction traffic occurring during the time one lane would be temporarily closed on the south side of Jefferson Boulevard for construction activities. Additional impacts from construction would occur at the six locations requiring roadway-widening improvements as mitigation to the Proposed Project. These impacts would be adverse and some may result in potentially significant, temporary short-term impacts. Such impacts would be most likely to occur along the Centinela Corridor and at the intersection of Centinela Avenue and La Tijera Boulevard. Otherwise, the impacts were identified above as adverse, but not significant. Mitigation measures have been developed to address traffic operations and safety during construction of the Proposed Project. However, even with the implementation of the mitigation measures, delays in traffic along Jefferson Boulevard could still be considered substantial by the affected parties and thus result in short-term significant impacts after mitigation.

5.7 Summary of the Proposed Project's Unavoidable Adverse Impacts

As indicated in the previous sections, six separate analyses were performed addressing the Proposed Project's adverse impact. Those sections and the conclusions reached for each analysis are as follows:

- Intersection Analysis: The Proposed Project's mitigation program would eliminate the significant impacts at all intersections except Jefferson Boulevard and Centinela Avenue. Operating conditions at this intersection, located within the City of Los Angeles, would be LOS C (good service) during the A.M. peak hour and LOS D (fair service) during the P.M peak hour. No significant impacts would remain in any of the other jurisdictions included in the Traffic Study. The number of intersections operating at LOS E or F would increase during the A.M. peak hour from 84 intersections (2010 base) to 85 intersections with the Proposed Project and mitigation. During the P.M peak hour the number would decrease from 104 intersections to 102 intersections. These impacts would be the same under the Proposed Project's Equivalency Program, which would generate no greater number of trips during the A.M. and P.M. peak hours than the Proposed Project. Implementation of the Project's off-site improvements would not generate additional traffic, but would implement the mitigation program.

- Freeway Analysis: The Proposed Project would not have a significant impact on the CMP freeway system, prior to mitigation, during either the A.M. or P.M peak hours. The Project's net impacts would be the same after mitigation as prior to mitigation,

and would be less than significant. These impacts would be the same for the Proposed Project and the Equivalency Program.

- Impacts on Neighborhood Streets: Four neighborhoods were identified as being subject to potentially significant impacts on neighborhood streets. A Project mitigation measures provides mechanisms for the development of neighborhood traffic management plan(s) in the potentially impacted neighborhoods should such plans be requested by the residents in the community. Implementation of mitigation measure would reduce potential impacts to less-than-significant levels. These impacts would be the same under the Proposed Project's Equivalency Program, which would generate no greater number of trips during the A.M. and P.M. peak hours than the Proposed Project. Implementation of the Project's off-site improvements would reduce the pressure for drivers to use neighborhood streets.

- Impacts on Project Access: Impacts at all intersections providing access to the Project site would operate at services levels rates as having excellent, good or fair levels of service. Access to the Project site through these intersections would be less than significant. Project design would avoid hazardous conditions at points of site access, and access impacts with regard to safety of Project accessibility would be less than significant. Impacts would be the same under the Project's Equivalency Program. The implementation of the off-site improvements would have no long-term impacts on accessibility to adjacent areas. Potential construction impacts on accessibility at off-site locations would be short term, mitigated, and less than significant.

- Impact on Public Transit: Per the Project's mitigation measures, the Proposed Project provides improved bus service. The available seating capacity on a system-wide basis would be increased by 189 seats, with 80 seats for Project population in the A.M. peak hour and 113 in the P.M. peak hour. The balance would be available to serve other regional population. Frequency of service would be improved on Culver City Line 6 from 12-minute intervals to 10-minute intervals. On Culver City Bus Lines 2 and 4, the frequency would be improved from one-hour intervals to 30-minute intervals. These are net beneficial impacts. The Project's off-site improvements would support implementation of the public transit programs.

- Construction-Related Impacts: Overall, the construction impacts on the transportation system would be temporary in nature and would cause an intermittent reduction in street and intersection operating capacity and efficiency. A potentially significant, short-term impact was identified from construction traffic occurring during the time one lane would be temporarily closed on the south side of Jefferson Boulevard for construction activities. Otherwise, the impacts were identified above as adverse, but not significant. In addition to the Project's direct and indirect impacts

on traffic, secondary traffic impacts would occur at off-site locations that would be improved to implement the mitigation measures described in the preceding sections. Potentially significant secondary impacts could occur along the Centinela Corridor improvement, between Culver Boulevard and the SR-90 Freeway, and at the intersection of La Tijera Boulevard and Centinela Avenue. Mitigation measures have been developed to address traffic operations and safety during construction of the Proposed Project and at the off-site locations. However, even with the implementation of the mitigation measures, delays in traffic at these locations could still be considered substantial by the affected parties and, thus, result in short-term, temporary significant impacts after mitigation.

5.8 Secondary Impacts Resulting from Implementation of the Recommended Mitigation Measures

Implementation of the Mitigation Measures described in Subsection 4.0, above, would require the construction and operations of new roadway and public transit improvements at off-site locations that would have environmental impacts at their respective locations. These measures include construction activities for the widening of roadways, as well as lesser facility improvements such as the re-striping of roadways within existing curbs and improved signalization to upgrade roadway and public transit operations.

Roadway Widenings

Implementation of the mitigation measures would require the widening of roadways at seven locations to allow for increases in the number of through traffic- and/or turning-lanes to enhance traffic flow, as follows:[375]

- Centinela Corridor (City of Los Angeles) – The existing curb along the eastern side of Centinela Avenue would be moved back approximately 8 feet, and the curb along the western side would be moved back approximately 6 feet, between Milton Street and Wagner Street south of Culver Boulevard.

- Centinela Avenue/La Tijera Boulevard (City of Los Angeles) – The roadway would be widened along the west leg of the intersection approximately 4 feet on the north curb of Centinela Avenue for approximately 1,200 feet and on the south curb for approximately 250 feet. The roadway would be widened along the east leg approximately 4 feet for approximately 300 feet along the north side of Centinela Avenue and for approximately 250 feet along the south side.

[375] *Dimensions shown are approximate and may vary slightly based on final design.*

- Centinela Avenue/Culver Boulevard (City of Los Angeles) – The north side of South Culver Boulevard would be widened approximately 12 feet for approximately 250 feet on the east leg of the intersection.

- Culver Boulevard/Inglewood Boulevard (City of Los Angeles) – The north side of South Culver Boulevard would be widened by approximately 12 feet for approximately 250 feet on the east leg of the intersection; it would be widened approximately 12 feet for approximately 200 feet on the west leg of the intersection.

- Centinela Avenue/Washington Place (Culver City) – At the northeast corner, the north side of Washington Place would be widened approximately 4 feet for approximately 150 feet.

- Overland Avenue/Culver Boulevard (Culver City) – The existing median along the east leg of Culver Boulevard would be relocated; its size would not be altered. In addition, the roadway would be widened 2 feet for approximately 180 feet along the south side of Culver Boulevard on the east leg of the intersection.

- Sawtelle Boulevard/Culver Boulevard (Culver City) – The east side of Sawtelle Boulevard would be widened by approximately 2 feet for approximately 200 feet on the south leg of the intersection.

The construction required to implement these improvements includes demolition of existing pavement and curbs, clearing and grubbing of vegetated areas, the laying of roadbed and new pavement, the construction of new curbs and sidewalks, and, finally, the re-striping of the new roadways. In some cases, the relocation of signal poles or utility poles is also required. The impacts on the environment from implementation of these improvements are discussed under the impact analysis of each of the environmental topics in Section IV of the EIR.

Other Improvements

Mitigation Measures for the other intersections described in Subsection 4.0 would require minor facility improvements, such as re-striping within existing curbs, improved signalization, and upgrades to communication equipment along bus routes to provide "next-bus" and other key information online and at the local shuttle stops. Re-striping of roadways involves removal of the old striping by sandblasting, if necessary, and then provision of the new striping. Re-striping typically occurs over a very short time duration and, if appropriate, can be implemented during off-peak hours. Implementation of re-Estriping is a common occurrence in urban areas, requires no construction work, and has minimal impacts.

Implementation of the signalization and communications features would require replacing/updating signal controllers; providing communications hardware and connections; providing additional loop detectors on the pavement at the approaches, if necessary; and providing the software system and integration to operate the particular system. Additionally, close-circuit video cameras would be mounted at strategic locations to provide information to the control center. These activities require very little in-pavement construction, except for additional loop detectors that may be required at some locations. Implementation of such facilities is a common occurrence in urban areas and has minimal impacts. The long-term effects of these minor facility enhancements would be beneficial. Their implementation could cause minor traffic delays for very short durations.

6.0 CUMULATIVE IMPACTS

The methodology and the analysis presented in the previous sections include the consideration of long-range cumulative impacts. The travel forecasts for the year 2010, which are identified in Table 119 on pages 847 through 858, include growth in background land uses not only within the study area but also within the Southern California region. All known related projects were checked against the year 2010 land use projections to verify the assumptions in the model. (These related projects are listed in Section III.B, and illustrated on Figure 11 on page 194.) Therefore, the year 2010 Baseline conditions identified in Table 119 include the effects of land use growth and the resulting transportation growth within the entire study area. The travel forecasts, as well as the intersection capacity calculations, the freeway impact analyses, and the neighborhood impact analysis, include the cumulative impacts resulting from Project traffic, as well as regional land use growth.

Direct impacts of the Proposed Project on the street system in the vicinity of the Proposed Project site were identified in the previous section using significance criteria established by the City of Los Angeles Department of Transportation and by the Los Angeles County Congestion Management Program. As discussed previously, impacts exceeding the LADOT threshold criteria have been projected at 31 intersections during the A.M. peak hour and at 47 intersections during the P.M. peak hour, with mitigation identified for each. Also as discussed previously, no impacts exceeding the CMP threshold criteria have been identified at CMP freeway monitoring locations.

The cumulative traffic increases associated with the Proposed Project and Related Projects could lead to increased congestion along major travel corridors and increased levels of neighborhood intrusion, with the potential for Project traffic to exceed the LADOT neighborhood impact significance threshold identified on local residential streets within four residential neighborhoods, as stated in the Neighborhood Traffic Intrusion Analysis section earlier. Also, as indicated previously, the Proposed Project is not expected to have a significant

impact on the public transit system since there would be available seating capacity on the transit lines serving the project site during peak periods after the addition of project-generated transit trips.

In addition to the direct Project impacts identified previously, however, the Proposed Project also has the potential to contribute to cumulative impacts at locations that are operating poorly under cumulative conditions even though the Project's addition of trips does not exceed LADOT or CMP threshold criteria. The Proposed Project is located within the west side of the City of Los Angeles. Traffic congestion is experienced on many freeways and surface streets throughout the greater Los Angeles area, in general, and in the west side, in particular, during peak periods.

The 2002 Congestion Management Program notes that the Los Angeles County freeway system is highly congested, with nearly half of the system operating at the two most congested levels (LOS E and F) during both the morning and afternoon peak hours. In the vicinity of the Proposed Project, data from the 2002 Congestion Management Program shows that the I-405 currently operates at LOS E and F during the morning and afternoon peak hours throughout the west side of Los Angeles and beyond, while the I-10 currently operates at LOS F during peak hours east of the I-405 and segments of the I-105 currently operates at LOS E and F during peak hours. The I-405 segments on the west side of Los Angeles are planned to be improved by Caltrans with the addition of high occupancy vehicle (HOV) lanes between the I-105 and the I-10. This would enhance capacity on these freeways and facilitate bus travel and carpools/ vanpools by completing the gap in the HOV lanes between the I-105 and the I-10. Plans to complete the gap in the HOV system between the I-10 and US 101 are beyond the timeframe of this project.

The intersection analysis presented previously in Table 131 shows that 42 and 49 of the 218 study intersections operate at LOS E or F under 2003 baseline conditions during the A.M. and P.M. peak hours, respectively, and that these figures are projected to increase to 90 and 108 intersections operating at LOS E or F under future 2010 cumulative with Project conditions during the A.M. and P.M. peak hours, respectively.

The Proposed Project is projected to add traffic to locations that are either currently experiencing congestion or would experience congestion under cumulative future conditions. The incremental addition of even a small amount of Project-generated traffic to poorly performing locations, even locations where a significant impact would not be triggered under the LADOT or L.A. County CMP significant impact threshold criteria, would constitute a contribution to significant cumulative impacts at these locations. This could include intersection or freeway locations projected to operate at LOS E or F under cumulative conditions, local residential streets already experiencing intrusion traffic under cumulative conditions, or public transit lines experiencing overcrowding under cumulative conditions.

Mitigation measures for the Proposed Project were identified in the previous section of the EIR for the direct Project impacts identified using the LADOT significance criteria. Those mitigation measures that are physical or operational in nature (i.e., physical intersection improvements, ATCS) would improve cumulative conditions and would alleviate the Project's contribution to cumulative impacts at the mitigated locations. Mitigation measures consisting of improvements to the public transit system would also help to alleviate cumulative conditions not only at locations impacted by the Proposed Project but also at additional locations along the transit corridors to be improved. Funding and implementation of neighborhood traffic management plan(s) for eligible communities as mitigation for potential Project neighborhood intrusion impacts would also help to relieve other cumulative cut-through traffic through the same neighborhoods.

With implementation of the proposed improvement measures, the impact of the Proposed Project on cumulative impacts would be reduced, with the number of intersections projected to operate at LOS E or F reduced to 85 and 102 during the A.M. and P.M. peak hours, respectively, under cumulative conditions with the Proposed Project and mitigation measures. On a system-wide basis, the average performance of the transportation system measured by intersection V/C ratios would be better during both peak hours under future cumulative conditions with the Proposed Project and mitigation measures than that under the future 2010 baseline conditions without the project. The Project's transportation system improvements consisting of roadway corridor and intersection enhancements, signal system improvements, and transit system improvements would improve cumulative intersection operations at 51 and 61 congested LOS E/F locations in the A.M. and P.M. peak hours, respectively. This mitigation effectiveness is much greater in number and magnitude than the impact caused by the Proposed Project's traffic at these locations. Therefore, the Proposed Project improvements would not only mitigate the Project's direct impacts, but would also mitigate some of the cumulative growth forecasted to occur. Furthermore, implementation of the Proposed Project's transit system improvements would add a substantial number of seats to the capacity of the public transit system serving not only the project site but also surrounding areas of the Los Angeles west side.

In conclusion, Proposed Project impacts at locations where the magnitude of the impacts exceed the LADOT or LA County CMP significance criteria are addressed by the Project's mitigation program, resulting in system-wide performance that is estimated to be better with the Proposed Project and its mitigation measures than under cumulative conditions without the Project. Nevertheless, the addition of small amounts of project traffic (below the LADOT or L.A. County CMP significance criteria) to other individual locations that may operate poorly under cumulative conditions (whether it be individual intersections, freeway segments, local residential streets, or transit lines) could contribute to potentially significant cumulative impacts at those locations. This conclusion applies to the Proposed Project inclusive of the Equivalency Program and the construction of the Project's off-site improvements.

Cumulative impacts regarding Proposed Project access would be cumulatively less than significant, since the operating conditions at the Project Project's access points are projected to be better than LOS E during both the A.M. and P.M. peak hours inclusive of anticipated cumulative traffic growth and there are no related projects in the immediate vicinity that would contribute to an obstruction of visual conditions for travelers or pedestrians accessing the Proposed Project site. Cumulative impacts from construction may occur on roadways when multiple projects require lane closures in proximity to one another at the same time. Both the Proposed Project and related projects would be expected to implement standard procedures for mitigating construction traffic impacts on roadways and insuring safety. Nonetheless, since the Proposed Project's impacts from construction, inclusive of the Equivalency Program and the off-site improvements, have been identified as potentially significant short-term impacts, cumulative impacts from construction are considered to be potentially significant temporary, short-term significant impacts.

IV. ENVIRONMENTAL IMPACT ANALYSIS
K. TRANSPORTATION
(2) PARKING

1.0 INTRODUCTION

This section addresses the amount of parking that would be required and provided within the Proposed Project. The analysis addresses potential Project impacts on both on- and off-street parking. The analysis addresses the impacts that would occur for the Project as Proposed, for the Project's Equivalency Program and for the Project's secondary impacts that would occur from the implementation of the Project's off-site mitigation measures.

The following discussion has been summarized from a Parking Study that was prepared for the Proposed Project. The parking analysis, prepared by Kaku Associates, *Parking Analysis for The Village at Playa Vista* (Parking Study), can be found in Appendix K.

2.0 ENVIRONMENTAL SETTING

2.1 Regulatory Framework

Parking regulations that are applicable to the Proposed Project are included in the Playa Vista Area D Specific Plan (Ordinance No. 160,523). Section 9A sets forth parking space requirements for dwelling units, office and other commercial uses, industrial buildings, and mixed-use developments that supersede those in the Municipal Code for projects within the Specific Plan area. Municipal Code parking requirements apply to all other uses not specified in the Specific Plan. Requirements that are applicable to the Proposed Project include the following:

Office and Other Commercial Uses	2.5 spaces per 1,000 square feet of floor area (*Section 9.A.2*) (Also used in this analysis to calculate parking for retail and all community-serving uses.)
Residential	1.5 spaces per unit for studio, efficiency, or one-bedroom unit, 2 spaces per unit with 2 or more bedrooms, plus 1 visitor space per 4 dwelling units (*Section 9.A.1*)

Mixed-Use Developments	Section 9A includes a provision for the determination of parking requirements in mixed-use developments that start with the required number of parking spaces for each individual use. The required numbers may be adjusted/reduced according to formulas specified in the Specific Plan. (*Section 9.A.4*).

In addition to these parking requirements, Section 9B of the Specific Plan states that parking requirements may be reduced below those specified in Section 9A of the Specific Plan or the Code, if the Director of Planning finds that such reductions are justified based on substantial evidence including, but not limited to, a parking demand analysis or measures that will be implemented by the owner or tenants to reduce traffic to and from the project.

2.2 Existing Conditions

The parking analysis addresses both off-street and on-street parking. Off-street parking generally includes spaces provided in surface lots and structures. On-street parking includes parking spaces provided within the public right-of-way, usually on minor arterial and residential collector streets.

2.2.1 Off-Street Parking

In the area of the former Plant Site (predominantly located within the First Phase Project, some within the Proposed Project), there is surface parking, which is intermittently used for activities associated with the remaining plant site buildings. Otherwise, there are no existing off-street parking facilities within the Proposed Project site.

2.2.2 Street Parking

There is currently no street parking located within the Proposed Project site. Centinela Avenue and Jefferson Boulevard are the only arterials adjacent to the Proposed Project site. The only parking available on these roadways is on the north side of Jefferson Boulevard, between Centinela Avenue and just west of Westlawn Avenue. This parking is not striped or metered, but can generally accommodate about 20 on-street spaces. On-street parking is prohibited in this section from 3 P.M. to 6 P.M. Parking on Jefferson Boulevard is prohibited in the remaining sections adjacent to the Proposed Project.

3.0 IMPACT ANALYSIS

3.1 Methodology

This analysis includes calculations of Project parking requirements based on two methodologies. The first calculation determines the number of parking spaces that would be required pursuant to the single use parking requirements of Section 9A of the Playa Vista Area D Specific Plan. The number of residential units, and size of commercial/office uses are multiplied by the specified per unit parking requirements.

The second calculation determines the number of spaces that would be needed to meet the demand for parking that is expected to arise given the types of development and site activity proposed. This calculation takes into account such factors as survey data on parking, mixed/shared-use efficiencies, etc. This demand based study addresses the alternative requirement provisions described in Section 9B of the Playa Vista Area D Specific Plan.

The two calculations are compared to determine whether the provisions of the Specific Plan and requirements would result in provision of an adequate number of off-street parking spaces to meet Proposed Project demand.

3.2 Significance Thresholds

The Draft Los Angeles CEQA Thresholds Guide (p. F.7-1) states the following regarding project impacts on parking:

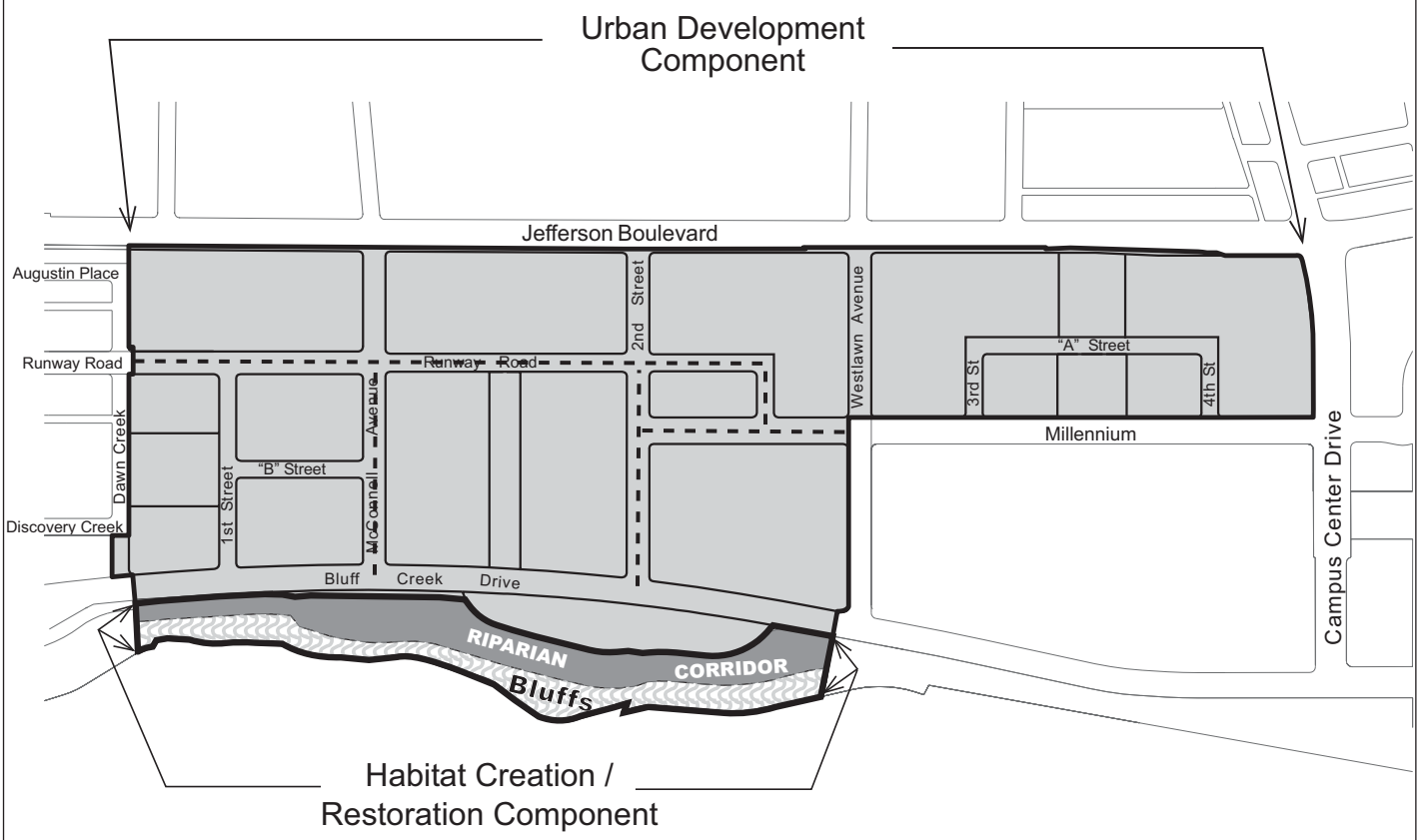
- A project would normally have a significant impact on parking if the project provides less parking than needed as determined through an analysis of demand from the project.

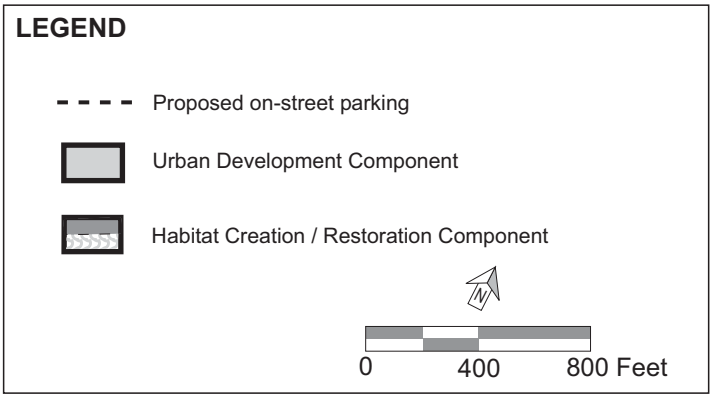
Based on this guidance, the Proposed Project would have a significant impact on parking if:

- The number of parking spaces required to accommodate Project activities exceeds the number of parking spaces provided.

3.3 Project Design Features

The Proposed Project intends to provide off-street parking as required by the Playa Vista Area D Specific Plan. It would also provide on-street parking within the Proposed Project site as portrayed in Figure 81 on page 946. The on-street parking would be provided in a manner that is





PCR

Figure 81
Proposed Project On-Street Parking Locations

Source: PCR Services Corporation, July 2003

consistent with the City of Los Angeles local and collector street design standards, avoiding any sight-distance or other hazards at driveways and intersections. The specific location and number of on-street parking spaces would be dependent upon the final design and approval of subdivision maps where location of driveways, fire hydrants and other infrastructure details are taken into consideration.

3.4 Project Impacts

3.4.1 Off-Street Parking

Development within the Proposed Project is bounded by Jefferson Boulevard on the north, Campus Center Drive on the east, Bluff Creek Drive on the south and Dawn Creek Drive (approximately Beethoven Street) on the west. Table 133 on page 948 compares the number of parking spaces calculated pursuant to Section 9A of the Specific Plan to those calculated through the demand analysis based on expected site activities. As indicated in Table 133, Section 9A of the Specific Plan would require 6,337 parking spaces, of which 5,424 spaces would be for residential use and 913 spaces would be for non-residential uses without application of the mixed-use considerations. However, the Project's mixed uses would offer shared parking efficiencies as different non-residential uses vary in terms of the times of day when their respective parking demands would be expected to peak. Section 9.A.4 of the Area D Specific Plan sets forth the provisions under which shared parking would occur. For example, office uses peak in the late morning hours, while retail uses peak in the mid-afternoon and restaurants peak in the evening. The number of non-residential parking spaces required with shared parking would be 762 spaces. The total number of spaces required would be 6,186 spaces with shared parking.

The amount of parking demand based on the individual land uses is estimated to be 4,568 spaces, of which 3,718 spaces would be for residential uses and 850 spaces would be for non-residential uses. With shared parking, the demand for non-residential uses is estimated to be 751 spaces, and the total for all uses would be 4,469. The application of shared parking for office, retail and restaurant uses results in a demand for total non-residential parking spaces that is less than the required parking under the specific plan for the uses, individually. For both residential and non-residential uses, the demand for parking would be less than the amount of parking that would be required by the direct application of the single-use parking factors in Section 9A.

The Proposed Project would provide parking per the requirements of the Area D Specific Plan. The amount of parking for individual projects would be calculated on the basis of the standard use requirements established in Section 9A of the Specific Plan, or on the basis of a demand study, per the requirements of Section 9B. Since, the demand for parking requires fewer spaces than the standard rates of Section 9A, it may be concluded that the demand for parking

Table 133

REQUIRED NUMBER OF OFF-STREET PARKING SPACES

		Specific Plan – Section 9A		Demand Analysis	
Land Use	**Size**	**Requirements[a]**	**Spaces**	**Factor**	**Spaces**
Residential					
Studio, One-Bedroom	853 dwelling units	1.75/unit	1,493	1.43/unit[b]	1,220
Two+ Bedrooms	1,747 dwelling units	2.25/unit	3,931	1.43/unit[b]	2,498
Total Residential			5,424		3,718
Non-Residential					
Office	175,000 sq.ft.	2.5/1,000 sq.ft.	438	2.7/1,000 sq.ft.[c, d]	473
Retail	120,000 sq.ft.	2.5/1,000 sq.ft.	300	1.14/1,000 sq.ft.[c, d]	137
Restaurant	30,000 sq.ft.	2.5/1,000 sq.ft.	75	6.0/1,000 sq.ft.[c, d]	180
Community-Serving Uses	40,000 sq.ft.	2.5/1,000 sq.ft.	100	1.5/1,000 sq.ft.[c, d]	60
Total Non-Residential			913		850
Total Non-Residential With Shared Parking[e]			762		751
Total – All Uses			**6,337**		**4,568**
Total – All Uses With Shared Parking			**6,186**		**4,469**

[a] *Based on Area D Specific Plan, Ordinance No. 160,523 Section 9A.*

[b] *Based on survey data collected by Kaku Associates, Inc., per the Parking Study, Appendix K of the EIR.*

[c] *These values are based on weekday parking demand. Saturday parking demand is also evaluated in the Parking Study. Per the Parking Study, the weekday requirements are greater than the weekend requirements and, therefore, more conservatively reflect the peak requirements to be met.*

[d] *These demand factors are based on Urban Land Institute (ULI) studies as amended to reflect the urban mixed-use nature of the Proposed Project and anticipated use of non-automotive modes. For the office use, the demand factors were reduced 10% to reflect commuter trip reductions related to transit measures being implemented in and around the project area (ULI factor: 3.0 less 10% = 2.7 spaces/1,000 sq.ft.). For the retail, restaurant, and community serving uses, the demand factors were reduced 70% due to anticipated use of walk, bicycle, or internal Playa Vista shuttle for internal trips between uses within the Proposed Project and the adjacent Playa Vista First Phase Project and for walk-ins from the office use. (For retail, ULI factor 3.8 spaces/1,000 less 70% = 1.14 spaces/1,000 sq.ft.; for restaurant, ULI factor 20.0 spaces/1,000 less 70% = 6.0 spaces/1,000 sq.ft.; for community serving uses, ULI factor 5.0 space/1,000 less 70% = 1.5 spaces/1,000 sq.ft.)*

[e] *Mixed uses offer shared parking efficiencies as different uses vary in terms of the times of day when their respective parking demands would be expected to peak. For example, office uses peak in the late morning hours, while retail uses peak in the mid-afternoon and restaurants peak in the evening. The factors used for calculating shared parking are included in Section 9.A.4 of the Area D Specific Plan.*

Source: Kaku Associates, Inc. and Raju Associates, July 2003.

would be met under either section of the Specific Plan. Therefore, the number of parking spaces required to accommodate Project activities would not exceed the number of parking spaces provided, and impact on parking would be less than significant.

3.4.2 Street Parking

No street parking will be provided on major arterial streets adjacent to the Proposed Project. However, some new streets created within the Proposed Project can accommodate on-street parking. Figure 81 on page 946 identifies the internal roadways located within the Proposed Project that can accommodate on-street parking. The specific location and number of on-street parking spaces would be dependent upon the final design and approval of subdivision maps where location of driveways, fire hydrants and other infrastructure details are taken into consideration.

As described in the analysis of off-street parking that would be provided on the Project site, above, the Proposed Project's provision of on-site parking would sufficiently meet the Project's demand for parking. As a result, the Project's street parking would supplement the off-street parking supply to provide additional convenience for the on-site population. Further, convenient short-term street parking would be made available adjacent to the Proposed Project's neighborhood retail and community serving uses.

3.4.3 Equivalency Program Impacts

The preceding parking analysis addressed impacts associated with the demand for parking at the Project site. Such demand is generated by the types of development that would occur and the activity characteristics of each.

The exchange of office uses for retail and/or assisted living units would be accomplished within the same building parameters, and would occur at relatively limited locations within the Project site. Furthermore, under the Equivalency Program, there would be no substantial variation in the Project's street configurations, or related use of subterranean parking. Street parking would be provided in a manner similar to that of the Proposed Project. As with the Proposed Project, the Equivalency Program would provide off-street parking at the rate required under the Area D Specific Plan. Such parking would be provided under Section 9A of the Specific Plan, or under Section 9B pursuant to a demand study indicating lesser parking is required than under Section 9A. The Proposed Project's parking demand analysis, as described above, demonstrated that the Project's actual parking demand would be less than that required per the Area D Specific Plan standard factors. A similar analysis for each of the Equivalency Scenarios also indicated that the demand for parking would be less the standard parking requirements per Section 9A. As indicated in Table 134 on page 950, parking requirements for each of the Equivalency Scenarios would be less than those of the Proposed Project. Further, the estimated demand for parking would be less than the requirements under Section 9A of the Area D Specific Plan. Therefore, compliance with the Specific Plan will ensure that there is

Table 134

PARKING REQUIREMENTS – PROPOSED PROJECT AND EQUIVALENCY SCENARIOS

	Equivalency Scenario: All Retail		Equivalency Scenario: All Assisted Living		Equivalency Scenario: Retail/Assisted Living	
	Specific Plan Section 9A	Demand Analysis	Specific Plan Section 9A	Demand Analysis	Specific Plan Section 9A	Demand Analysis
Equivalency Program						
By Individual Use	6,166	4,350	6,316	4,562	6,179	4,387
With Shared Parking	6,030	4,245	6,170	4,465	6,045	4,286
Proposed Project						
By Individual Use	6,337	4,568	6,337	4,568	6,337	4,568
With Shared Parking	6,186	4,469	6,186	4,469	6,186	4,469
Over/(Under) Proposed Project						
By Individual Use	**(171)**	**(218)**	**(21)**	**(6)**	**(158)**	**(181)**
With Shared Parking	**(138)**	**(224)**	**(16)**	**(4)**	**(123)**	**(183)**

The same methodology as was used for the Proposed Project was used to determine the Equivalency Program parking requirements (see Table 133 on page 948).

sufficient parking to meet demand. Consequently, parking impacts attributable to the Equivalency Program, as is the case with the Proposed Project, would be less than significant.

3.4.4 Impacts of Off-Site Improvements

Proposed Project development could result in secondary impacts arising from implementation of the Project's mitigation measures, as well as the direct impacts described above. Mitigation measures within Section IV.K.(1), Traffic and Circulation, require physical improvements in transportation facilities at numerous locations including roadway widening at seven locations, as described in Subsection 5.8 of that Section. In addition, as discussed in Section IV.N.(1), Water Consumption, the Proposed Project would require the construction of a water regulator station in the vicinity of Jefferson Boulevard and Mesmer Avenue.

These infrastructure improvements would reduce the traffic and water utility impacts of the Proposed Project. They would not add new population or structures to the area, and would therefore have no impacts on the demand for parking.

However, the increase in travel lanes would affect existing parking at one off-site location. Approximately 27 parking spaces on the east side of Centinela Avenue, between the Ballona Channel and Culver Boulevard, would be affected both during construction and after

implementation of peak hour parking restrictions. Off-street parking associated with adjacent businesses and residential uses is currently available along the east side of Centinela Avenue and would not be affected by the off-site street improvements. The overall implementation of the Centinela Avenue Corridor improvement is proposed in two steps. The first step includes construction of the proposed roadway widening improvements, while the second step involves re-striping the roadway and imposition of parking restrictions during peak periods to facilitate a third northbound through lane. At this time, the applicant is required to provide this roadway corridor widening improvement, while the second step, namely, the imposition of peak-period parking restrictions and striping to allow a third northbound through lane, will be implemented when increases in traffic volumes triggering the need for this improvement are observed by the LADOT.

During construction of this corridor improvement, existing on-street parking may be temporarily unavailable. Approximately eight to ten spaces may be unavailable at any given point in time during construction; available spaces can be found along adjacent local streets. However, adverse impacts on parking due to construction activities are projected to occur. After construction, the impacts on on-street parking are limited in location and times of day affected. Because other parking is available off of Centinela Avenue, impacts on parking from off-site improvements are considered adverse but less than significant. As the Proposed Project would have no impacts on off-street parking, Proposed Project impacts, inclusive of the off-site improvements, would be less than significant.

4.0 MITIGATION MEASURES

The Proposed Project would not have significant impacts on parking. Mitigation Measures are not recommended or required for the Proposed Project, inclusive of the Equivalency Program and off-site improvements.

5.0 UNAVOIDABLE ADVERSE IMPACTS

There would be no adverse impacts to existing street parking bordering the Proposed Project site or to the street parking that would be created by the Proposed Project. Specific Plan requirements and the demand for off-street parking would be met with on-site parking facilities. Such parking would be provided for the Proposed Project and the Equivalency Program.

The Proposed Project includes mitigation measures to reduce traffic impacts which would require off-site roadway improvements. These improvements would generate indirect, secondary impacts which would result in the implementation of parking restrictions during the A.M. and

P.M. peak hour periods along the Centinela Corridor, between Ballona Channel and Culver Boulevard, as well as full-time unavailability of some spaces during construction, adverse impacts. Parking impacts of the Proposed Project, inclusive of the Equivalency Program and off-site improvements would be less than significant.

6.0 CUMULATIVE IMPACTS

It is expected that all development in related projects would include mitigation measures requiring conformance with the applicable regulations, and other projects would not utilize the same parking facilities as the Proposed Project. The only related project in the immediate vicinity of the Proposed Project site is Related Project 40, the Playa Vista First Phase Project. Both the Proposed Project and the Playa Vista First Phase Project are expected to provide sufficient parking space to meet the demand for parking. Cumulative impacts, inclusive of the Proposed Project, the Equivalency Program and the off-site improvements, would be less than significant.

1.0 INTRODUCTION

This section addresses the bikeways serving the area surrounding the Proposed Project, and the future continuity of the bikeway system. The analysis addresses existing bikeway plans and the new linkages included in the Proposed Project. The analysis addresses the impacts that would occur for the Project as Proposed, for the Project's Equivalency Program and for the Project's secondary impacts that would occur from the implementation of the Project's off-site mitigation measures.

2.0 ENVIRONMENTAL SETTING

2.1 Regulatory Framework

2.1.1 County Level

The County has provided planning for bikeways in its "Plan of Bikeways."[376] Adopted in 1975 and amended in 1980, this plan sets forth a coordinated framework for bikeways while allowing room for each of the cities within the County to incorporate routes and unique features of its own. The County is currently in the process of updating this plan. The accompanying mapped policy which indicates existing and future bikeway corridor routes does not show many of the community or local routes.

The County's Plan of Bikeways also includes guidelines for the provision of bikeways which address such issues as safety, landscaping, speed, parking and clearances, base material, and lighting. The standards are based on criteria developed by the California Department of

[376] *County of Los Angeles, Department of Regional Planning, Plan of Bikeways, a Sub-Element of the Circulatory Element, Adopted September 18, 1975, and November 1980.*

Transportation (Caltrans). Today, the County generally uses standards included in Chapter 11, "Bikeway Planning and Design," of the Caltrans, Highway Design Manual.[377]

2.1.2 Local Level

2.1.2.1 General Plan

The City of Los Angeles has addressed the provision of bikeways for the Project site in both the Bicycle Plan Element[378] of the General Plan and the District Plan for the Project site.

The revised Bicycle Plan Element was adopted by the Los Angeles City Council on August 6, 1996. The Plan includes a variety of policies and criteria regarding the provision of new bikeways. The policies address the provision of a bicycle transportation system which would be a dual purpose network serving both recreational and transportation needs. The Plan calls for bike routes, bike paths, bike lanes and non-motorized trail corridors as part of a citywide and regional system. The following objectives are included in the Bicycle Plan:

- To make bicycling, for both transportation and recreation, a safer activity.
- To encourage and facilitate bicycle riding as an important mode of personal transportation as well as a pleasant source of outdoor exercise.
- To establish policies, guidelines, standards and criteria to facilitate the development of a comprehensive bicycle transportation and recreation system for the City.
- To identify route locations appropriate for known and potential bicycle trip demand.
- To assure that the routes chosen are compatible with the routes of neighboring municipalities.
- To establish criteria for implementation.
- To qualify the City for various funding sources.

The criteria address both the desired location of bikeways and the design standards under which they would be developed. Some of the locational criteria are related to the costs and

[377] *Anthony Nyivih, Civil Engineer, Program Development Division, Los Angeles County Department of Public Works, February 25, 2003.*

[378] *City of Los Angeles, Department of City Planning, Bicycle Plan, A Part of the Transportation Element of the City General Plan, August 6, 1996.*

benefits of alternative routes which would be provided by the City. Other locational criteria would be applicable to the private provision of bikeways. These include linkage with existing bikeway systems, and other areas of the City, (although not seeking to preclude neighborhood systems where appropriate); and preference, although not a requirement, for off-street locations.

The Bicycle Plan does not include specific standards for provision of bikeways. It does, however, reference the State Highway Design Manual, and other "tentative standards" which may be in use. In addition, the Bicycle Plan points out design issues which should be considered, such as traffic control, safety, and convenience. At this time the City uses standards in Chapter 11, "Bikeway Planning and Design," of the Caltrans Highway Design Manual.[379] These standards address design criteria relating to lane widths, striping, signing, intersection design, surface materials, and other related topics.

2.1.2.2 Westchester-Playa del Rey District Plan

The Proposed Project is located within the Westchester-Playa del Rey District Plan. Current plan maps identify preferred locations for new bikeways.[380] These maps do not designate any bikeways within, nor immediately adjacent to, the Proposed Project site. The nearest designated bikeway in the District Plan is located along the west side of Lincoln Boulevard, approximately ¾ miles west of the Proposed Project site.

2.2 Existing Conditions

2.2.1 Regional Context

Bikeway systems have been grouped into three classes:

- Class I Bikeway – Bicycle Path or Trail
- Class II Bikeway – Bicycle Lane
- Class III Bikeway – Bicycle Route

Class I bicycle paths provide exclusive bicycle rights-of-way separate from vehicular traffic and are usually located along flood control channels and beaches. Class I bicycle paths

[379] *City of Los Angeles, Bicycle Plan, a part of the Transportation Element of the City General Plan, II, 1.1. Policies, adopted, August 6, 1996.*

[380] *City of Los Angeles, Westchester-Playa del Rey District Plans, adopted in 1974, and amended thereto.*

are characterized by yellow striping to separate opposing directions of bicycle travel. Class II bicycle lanes are on-street bicycle lanes adjacent to automobile travel lanes and are depicted by white striping along the right hand side of the street. Class II bicycle lanes also include a bicycle marking symbol with the word message "bike lane." Class III bicycle routes are travel lanes shared by automobiles and are designated by signs.

Figure 82 on page 957 depicts the existing bikeway system within the study area. As shown in Figure 82, bikeways are available along the beach to Washington Boulevard and again from Ballona Channel to the south, Venice Boulevard, Ballona Channel, Fiji Way, Sepulveda Boulevard, short segments of Olympic Boulevard, Pico Boulevard, Barrington Avenue/ McLaughlin Avenue, Jefferson Boulevard to the east and Overland Avenue, and Imperial Highway.

2.2.2 Local Conditions

There are two regional serving, Class I bike trails lying to the north and west of the Proposed Project site. The first, the South Bay Bicycle Trail, is a 22-mile bikeway that serves the beach and Marina communities, extending from Will Rogers Beach on the north to Torrance Beach on the south. This route, at its nearest point, is located approximately 0.75 mile west of the Proposed Project site. From the north, the bikeway passes through Marina del Rey along Admiralty Way, Fiji Way and the northern levee of the Ballona Channel. It proceeds along the Ballona Channel to the Pacific Avenue bridge, where it crosses the Channel and proceeds south through the South Bay communities.

The second bikeway, the Ballona Creek Bike Trail, provides an inland route to the Marina and Santa Monica Bay beach areas along the Ballona Channel and links up with the South Bay Bicycle Trail. This route is located approximately 0.5 mile north of the Proposed Project site. From the east, this bikeway proceeds west along the north side of Ballona Channel. It continues until it connects with the South Bay Bicycle Trail near the end of Fiji Way.

These bikeways are part of a regional system of bikeways and are included in the Los Angeles City and County bikeway documents. The two bikeways are described in the "South Bay and Ballona Creek Bicycle Trails," an informational document published by the County Department of Public Works, to help bicycle riders enjoy use of the bikeways.[381] In addition, both bikeways are shown on the City's Bicycle Plan.[382] In the Bicycle Plan Element, both

[381] *County of Los Angeles, Department of Public Works, South Bay and Ballona Creek Bicycle Trails – Map and Rules of the Road, June 1990.*

[382] *City of Los Angeles, Bicycle Plan, A Part of the Transportation Element of the City General Plan.*

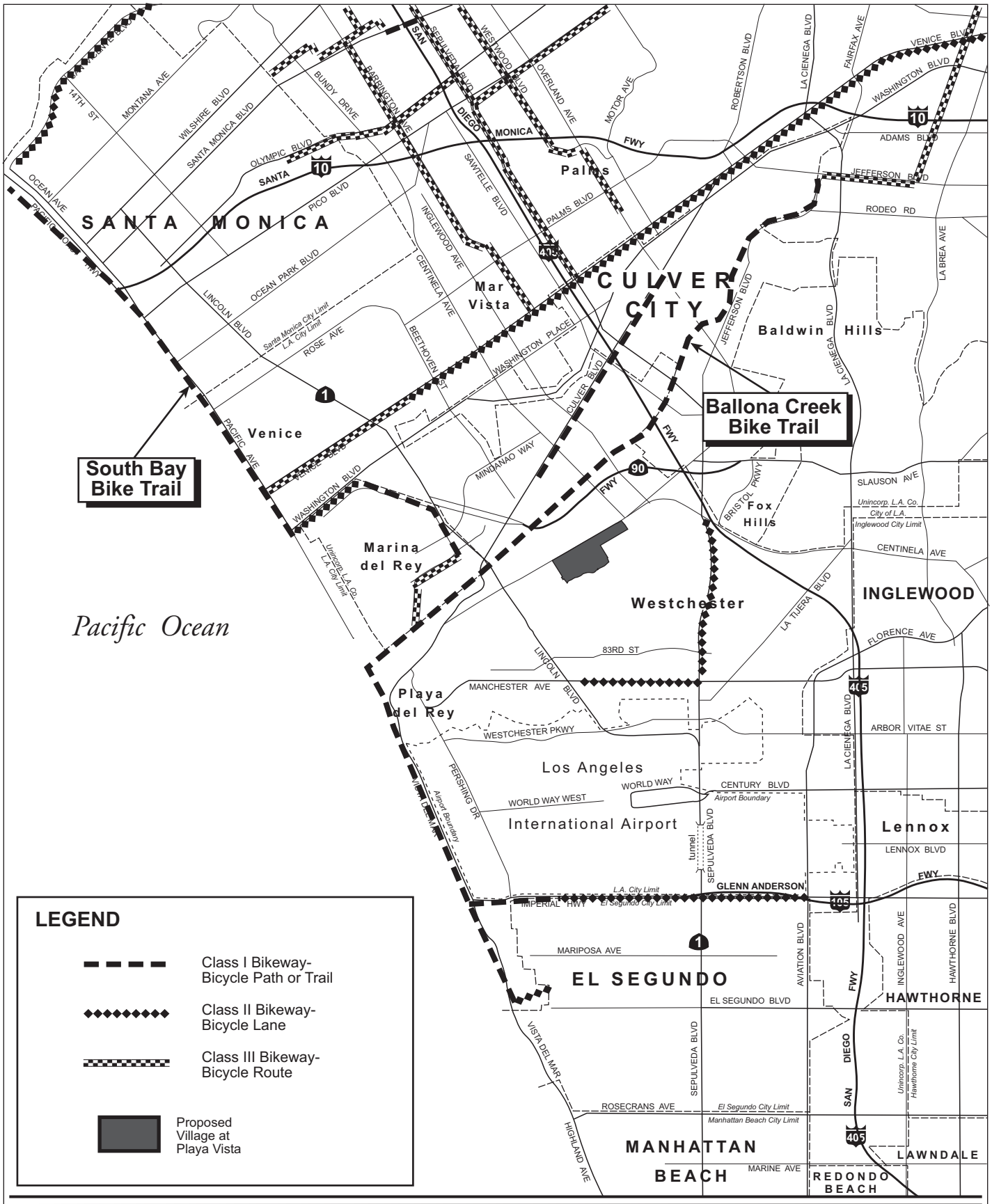


Figure 82
Existing Bikeway System

Source: Los Angeles Police Department, 2003

bikeways are designated as portions of the City's "backbone"[383] bikeway system where they pass through City areas, and as "systems by others," where they pass through unincorporated areas.

Another Class I bicycle trail runs along Culver Boulevard approximately ¾ miles north of the Proposed Project site. It begins/ends at McConnell Avenue, and extends eastward into Culver City. Class II bicycle lanes are located approximately ¾ miles east of the Proposed Project site on Sepulveda Boulevard, south of Centinela Avenue.

In addition to the existing bikeways, several new bikeways have been proposed or are under construction in the vicinity of the Proposed Project site, as Statewide Transportation Improvement Program (STIP) improvements or as components of the adjacent Playa Vista First Phase Project. These bikeways are shown on Figure 83 on page 959.

The adjacent Playa Vista First Phase Project will include several new bikeways. A Class I bicycle trail will be provided along the southwest corner of that Project along Lincoln Boulevard where it enters the Playa Vista First Phase site. This bicycle trail will be located along the east side of Lincoln Boulevard, extending from LMU Drive to Bluff Creek Drive. This route will connect to Class II bicycle lanes that extend eastward along Bluff Creek Drive and Pacific Promenade/Runway Road; and northward along Playa Vista Drive providing service to the Ballona Creek Bike Trail. The continuation of the easterly end of Runway Road, Millennium, will include a Class II bicycle lane converting to a Class III bicycle route connecting with the Class II bicycle lane on Bluff Creek Drive along the eastern portion of the Playa Vista First Phase Project.

In addition to these Playa Vista First Phase bike lanes, a new bikeway is currently proposed under the Statewide Transportation Improvement Program (STIP) being implemented by Caltrans along Lincoln Boulevard. A Class I, Bicycle Trail is currently proposed to be located along the west side of Lincoln Boulevard between Bluff Creek Drive and Jefferson Boulevard. In addition, Class II bicycle lanes are proposed to be included within Lincoln Boulevard between Jefferson Boulevard and LMU Drive.

There are currently no bikeways located on the Proposed Project site. There are currently no operating bikeways in the adjacent Playa Vista First Phase Project, however new bikeways are under construction.

[383] *Approximately 300 miles of bike routes throughout the City which provide basic continuity and which can be expanded as needed.*

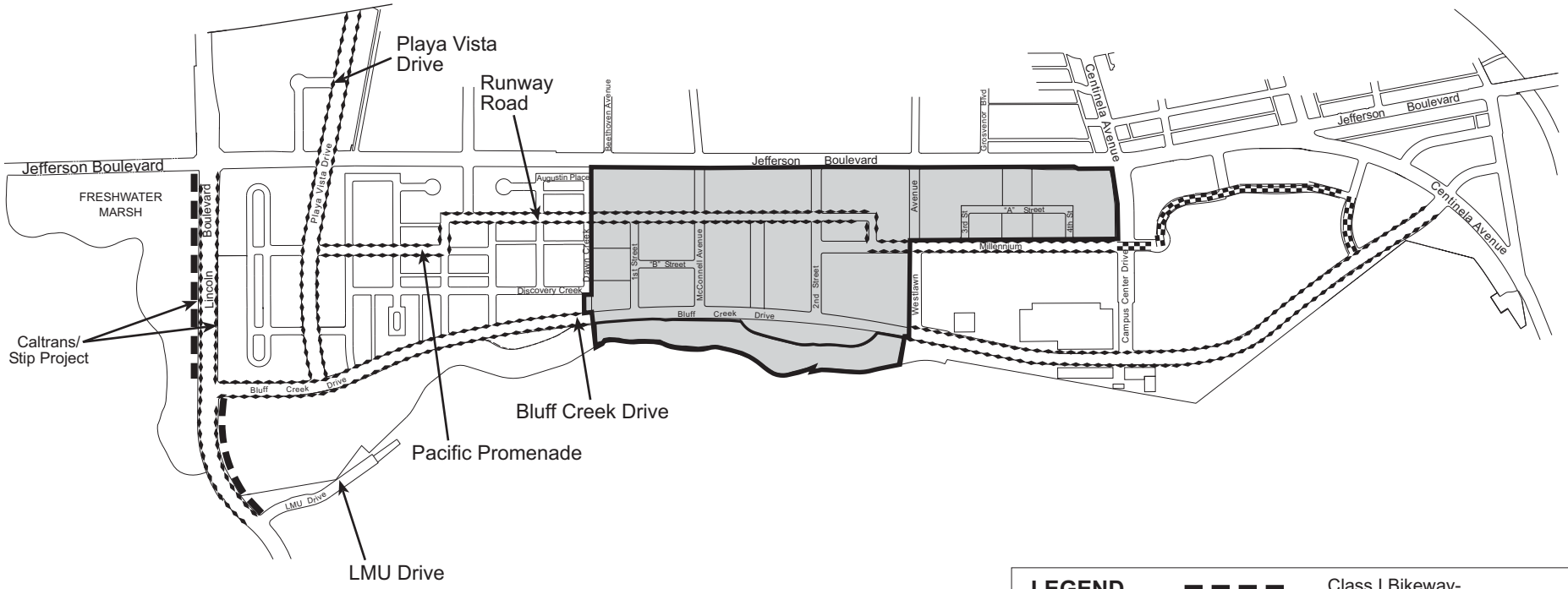


Figure 83
Bikeways Improvements in the Proposed Project Vicinity (Proposed or Under Construction)

Source: Psomas and Associates & PCR Services Corporation, July 2003

3.0 IMPACT ANALYSIS

3.1 Methodology

This analysis addresses the Proposed Project's relationship to the adopted regional and local plans as noted above. Areas where potential conflicts could result from the Proposed Project bicycle system are identified. The following are evaluated:

- Conformance to the general guidelines in the applicable plans and documents regarding the location of a bikeway.
- The proposed bikeway system links with existing paths.

3.2 Significance Thresholds

The Draft Los Angeles CEQA Thresholds Guide (the "Guide") does not have a separate category for Bicycle Plans. However, one of the factors included within the Land Use category is applicable, and that factor has been applied as a threshold here. The Guide (p.A.1-2) states that the determination of significance shall be made on a case-by-case basis, considering the following factor:

- Whether the proposal is inconsistent with the General Plan or adopted environmental goals or policies contained in other applicable (e.g., bicycle) plans.

Based on this factor, the Proposed Project would have a significant impact on Bicycle Plans if:

- The Proposed Project is not consistent with applicable Bicycle Plans, goals or policies.

3.3 Project Design Features

The Proposed Project includes a mixed-use community which would bring new activities and population to the area. Its design includes new delineated Class II bikeways within several roadway rights-of-way.

The Class II Bicycle Lanes would be located in on-street lanes adjacent to traffic lanes, with bike lane markings. The bikeways would be located along Bluff Creek Drive, and portions

of McConnell Avenue, 2nd Street, Runway Road, and Millennium. Figure 84 on page 962 shows the location of these bikeways.

The proposed system of bikeways would meet all City design standards for bikeway construction. The evaluation of bike path design for conformance with the standards would be made at the time of Plan Check.

3.4 Impact Analysis

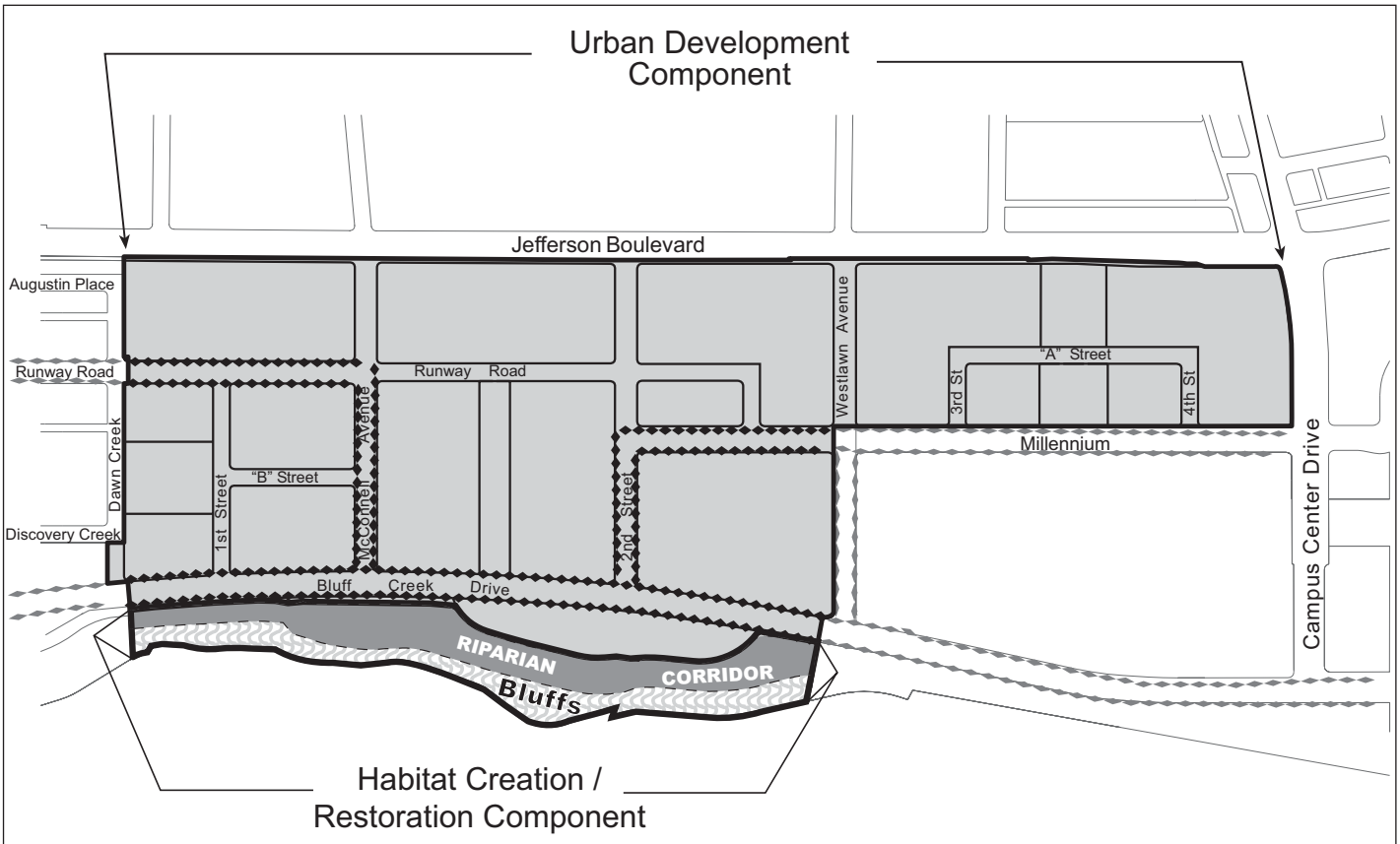
3.4.1 Proposed Project Impacts

The Proposed Project would add new bikeways to the Project site. These bikeways would add additional links to the bikeway system beyond those described in the Westchester-Playa del Rey District Plan. These bikeways would add an additional amenity to the area and would not interfere with the implementation of other planned or proposed bikeways within the District Plan area. Therefore, the bikeways would be consistent with the District Plan and would not result in a significant impact regarding the regulatory guidelines for bikeways.

The Proposed Project bikeways would complete and fill-in the local network begun under the Playa Vista First Phase Project. They would link the eastern and western portions of that Project with bike lanes along Bluff Creek Drive (formerly Teale Street). Furthermore, the Proposed Project would add a north-south linkage between Bluff Creek Drive and the Class II Bike Lanes in Runway Road and linkage to the Millennium Bicycle route that are being implemented under the Playa Vista First Phase Project. As such, the Proposed Project's bikeways would be compatible with adjacent Playa Vista First Phase Project bikeways and provide enhanced service for the Proposed Project's population, Playa Vista First Phase Project's population and regional travelers passing through the site on their longer journeys. The new bikeways would improve the quality of bikeway service. Thus, the Proposed Project would not interfere with the implementation of any planned bikeways, but would expand upon and complement existing Bike Plans. Therefore, the Proposed Project would be consistent with existing Bicycle Plans, goals and policies and would not adversely interfere with the existing bikeways in the area. Impacts would be less than significant.

3.4.2 Equivalency Program Impacts

The preceding bike plan analysis addressed the Proposed Project's compatibility with existing bikeway plans, policies and ordinances in the vicinity of the Proposed Project. The exchange of office uses for retail and/or assisted living units would be accomplished within the same building parameters, and would occur at relatively limited locations within the Project site. Furthermore, under the Equivalency Program, there would be no substantial variation in the



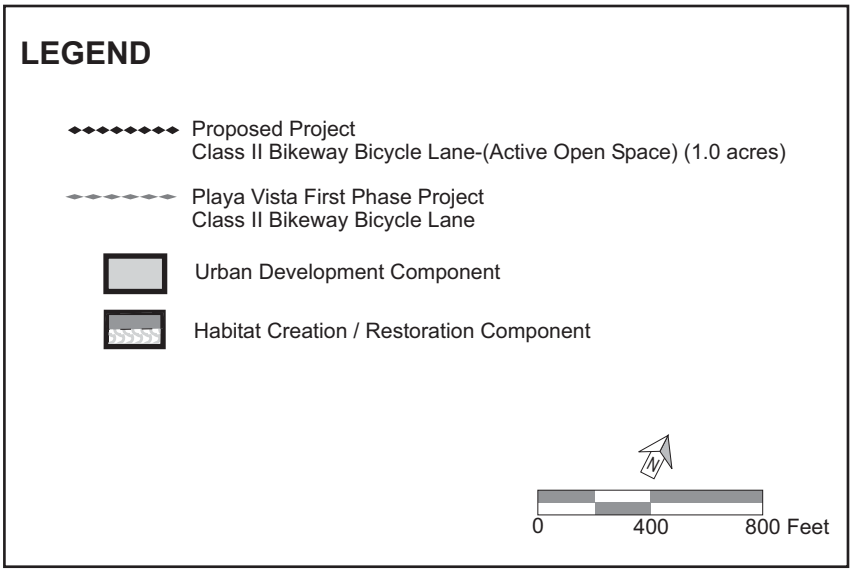


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Figure 84
Proposed Bikeways Locations

Source: PCR Services Corporation, July 2003

Project's street configurations, or implementation of bikeways within the roadways. Therefore, impacts on bikeways would be the same under the Equivalency Program as with the Proposed Project. Such bikeways would be compatible with existing bike plans, policies and ordinances. Impacts under all of the Equivalency Scenarios, as is the case with the Proposed Project, would be less than significant.

3.4.3 Impacts of the Off-Site Improvement

Proposed Project development could result in secondary impacts arising from implementation of the Project's mitigation measures, as well as the direct impacts described above. Mitigation measures within Section IV.K.(1), Traffic and Circulation, require physical improvements in transportation facilities at numerous locations including roadway widening at seven locations, as described in Subsection 5.8 of that Section. In addition, as discussed in Section IV.N.(1), Water Consumption, the Proposed Project would require the construction of a water regulator station in the vicinity of Jefferson Boulevard and Mesmer Avenue. With two exceptions, none of the measures requiring physical construction are located along existing or planned bicycle trails, and none would have any affect in regard to bicycle plans.

Two off-site roadway improvements are located in the vicinity of an existing bicycle trail. The mitigation measure at the intersection of Centinela Avenue and Culver Boulevard would require a roadway widening of approximately 12 feet for approximately 250 feet along the north side of South Culver Boulevard. The mitigation measure at the intersection of Culver Boulevard and Inglewood Boulevard would require widening of approximately 12 feet for approximately 250 feet on the east leg of the intersection and approximately 12 feet for approximately 200 feet on the west leg. These widenings would alter the large median lying between North and South Culver Boulevards at areas that include a pedestrian trail and a Class I bicycle trail. Adjustments of the trail locations within the median are proposed as part of the intersection design. These adjustments would not disrupt the integrity of the trails and they would continue to serve a recreation function similar to that currently provided. A short-term impact may occur during construction of the improvements. Mitigation measures in the Traffic Section of the EIR include measures to address safety and potential rerouting during construction. With implementation of appropriate mitigation measures during construction, these improvements would not result in a significant impact, unto themselves, nor would the off-site improvement, in combination with the Proposed Project, result in a significant impact.

4.0 MITIGATION MEASURES

As indicated in the above analysis, the Proposed Project would not generate significant impacts on Bicycle Plans. Therefore, no mitigation measures are required or recommended for the Proposed Project, inclusive of the Equivalency Program and off-site improvements.

5.0 UNAVOIDABLE ADVERSE IMPACTS

The Proposed Project would include development of a new system of bikeways that would serve the Proposed Project and off-site needs for bicycle travel. The implementation of new bikeways would be beneficial, as they would provide for additional ridership capacity, and connections to the existing bikeway network. The Proposed Project would be consistent with existing Bicycle Plans, goals and polices, and would not adversely interfere with the existing bikeways in the area. A short-term impact may occur to the bike trail at Centinela Avenue and Culver Boulevard and/or the intersection of Inglewood Boulevard and Culver Boulevard during construction of the Project's intersection mitigations at those locations. Any such impact would be mitigated, per construction mitigation measures included in Section IV.K.(1), Traffic and Circulation. Project impacts on bikeways and bike plans inclusive of the Equivalency Program and off-site improvements would be less than significant.

6.0 CUMULATIVE IMPACTS

Related Project 40, the Playa Vista First Phase Project, and currently proposed Caltrans bikeways along Lincoln Boulevard are expected to add to the local and regional bikeway systems. The new bikeways have been described in the above analysis of the Proposed Project impacts. As indicated, proposed linkages between the various projects are compatible with one another and would implement or enhance existing Bike Plans. No known related projects would compromise existing bikeways. Cumulative development with the Proposed Project, its Equivalency Program and the off-site improvements would be consistent with Bike Plans and less than significant.