Final Environmental Impact Report
(Final EIR)
[State Clearinghouse No. 1997061047]

for

Los Angeles International Airport (LAX)
Proposed Master Plan Improvements

Addendum

City of Los Angeles

September 2004

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Appendices

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[1] Use of "AD" preceding appendix, table, and figure numbers in this document denotes Addendum.

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1. INTRODUCTION

1.1 Background and Purpose of this Addendum to the Final Environmental Impact Report

In April 2004, a Final Environmental Impact Report (EIR) for the Los Angeles International Airport (LAX) Proposed Master Plan Improvements was published by the City of Los Angeles, the lead agency for the project under the California Environmental Quality Act (CEQA). The Final EIR represented the culmination of a comprehensive multi-year evaluation of the potential impacts associated with several alternatives for the LAX Master Plan, including the preparation and public review in 2001 of a Draft EIS/EIR for the proposed project, as well as the preparation and review in 2003 of the Supplement to the Draft EIS/EIR. The Final EIR reflected the information and analyses presented in those documents. Also included as part of the Final EIR were the public and agency comments received during the public review periods for the Draft EIS/EIR and the Supplement to the Draft EIS/EIR, as well as written responses to each of those comments.

Subsequent to the publication of the Final EIR, Los Angeles World Airports (LAWA) decided to prepare this Addendum to the Final EIR to provide additional information that clarifies and amplifies the contents of the Final EIR. In accordance with Section 15164(c) of the State CEQA Guidelines, an addendum need not be circulated for public review and an additional round of public comments, but can be included in or attached to the Final EIR. The decision-making body, in this case the Los Angeles City Council, shall consider this Addendum to the Final EIR in conjunction with the Final EIR and other planning documents prior to making a decision on the project (CEQA Guidelines Section 15164(d)).

As indicated above, this Addendum to the Final EIR amplifies and clarifies information contained in the Final EIR and does not contain "significant new information" that would meet the criteria for recirculation of an EIR prior to certification under Section 15088.5 of the State CEQA Guidelines. More specifically, Section 15088.5 of the State CEQA Guidelines states the following:

> A lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review under Section 15087 but before certification. As used in this section, the term 'information' can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement. 'Significant new information' requiring recirculation include, for example, a disclosure showing that:
>
> > (1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
> >
> > (2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
> >
> > (3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.
> >
> > (4) The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded. (Mountain Lion Coalition v. Fish and Game Com. (1989) 214 Cal.App.3d 1043).
>
> Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR.

1.2 Organization of the Addendum to the Final EIR

The following describes the structure and content of this Addendum to the Final EIR.

Chapter 1 - Introduction

This chapter provides a discussion of the background, purpose, and structure of the Addendum to the Final EIR.

Chapter 2 - Additional Discussion of Environmental Consequences

Section 2.1 - Relocation Plan/Property Acquisition: This section provides an updated exhibit and information pertaining to the LAX Master Plan Program Draft Relocation Plan and property acquisition statistics associated with Alternative D, and discusses the implications of those changes relative to the Final EIR analysis of property acquisition and relocation impacts.

Section 2.2 - Environmental Justice: Subsequent to preparation of the Final EIR, a decision was made by LAWA and the Federal Aviation Administration (FAA) to focus the environmental justice analysis in the Final EIR solely on findings for purposes of CEQA, with the FAA's analysis and findings under federal law to be presented in the Final EIS. The differences between these two approaches are described in this section. This section also describes changes in the terminology used in the Final EIR to describe benefits proposed to address or off-set disproportionately high and adverse effects on environmental justice under CEQA. Previously termed environmental justice "benefits" are now referred to as "Master Plan commitments" in order to correspond more directly to the physical impacts of the proposed Master Plan, and to provide an implementation approach that is coordinated through the Mitigation Monitoring and Reporting Program.

Section 2.3 - Air Quality: This section discusses the evolution of the air quality mitigation program during the preparation of the EIS/EIR. This section also discusses certain fleet vehicle rules developed by the South Coast Air Quality Management District (SCAQMD), the status of the fleet rules in light of a recent U.S. Supreme Court decision, and the implications, if any, of the SCAQMD fleet rules on the air quality impact analysis included in the Final EIR.

Chapter 3 - Refinements to Alternative D

Subsequent to the publication of the Final EIR and related planning documents in April 2004, certain refinements have been made to the LAX Plan and the LAX Specific Plan. These refinements are described and their implications discussed.

Chapter 4 - Feasibility Analysis of the Three "Alternative E" Proposals

In their comments on the Supplement to the Draft EIS/EIR, the Alliance for Regional Solution to Airport Congestion (ARSAC) presented their ideas for improvements to LAX. These ideas were forwarded as "Alternative E" and later as a revised proposal identified as "Alternative E-1." In addition, Councilmember Bernard Parks proposed improvements under the name "Alternative E-1." The viability of ARSAC's Alternative E proposal was previously evaluated as part of the responses to comments on the Draft EIS/EIR and the Supplement to the Draft EIS/EIR, presented in Part II of the Final EIR (April 2004). Additional discussion of the feasibility of all three of the subject proposals is provided in this Addendum.

Chapter 5 - Refinements to the Environmental Action Plan

This section provides a refined Environmental Action Plan, which reflects the addition of Environmental Justice-related Master Plan commitments as presented in Section 2.2, *Environmental Justice*, of this Addendum to the Final EIR. Additionally, a new Master Plan commitment has been added to reaffirm the fact that LAWA will contribute on a fair-share basis to future transportation improvements identified in the Final EIR through the Congestion Management Plan (CMP) analysis completed for Alternative D. Furthermore, Mitigation Measure MM-AQ-1 has been refined to clarify the intent of the measure and its associated performance standard.

Appendix AD-A **Additional Comments on the Draft EIS/EIR and Responses (PC03587 through PC03616)**

Appendix AD-B **Errata to the Final EIR**

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2. ADDITIONAL DISCUSSION OF ENVIRONMENTAL CONSEQUENCES

This chapter provides clarifications and/or additional information related to relocation/property acquisition, environmental justice, and air quality associated with the LAX Master Plan, and discusses the implications of such clarifications and additional information relative to the analyses in the corresponding sections of the Final EIR (i.e., Section 4.4.2, *Relocation of Residences or Businesses*, Section 4.4.3, *Environmental Justice*, and Section 4.6, *Air Quality*).

2.1 Relocation Plan/Property Acquisition

The following provides an updated exhibit and information pertaining to the LAX Master Plan Program Draft Relocation Plan and property acquisition statistics associated with Alternative D, and discusses the implications of those changes relative to the Final EIR analysis of property acquisition and relocation impacts, specifically Section 4.4.2, *Relocation of Residences or Businesses*.

2.1.1 LAX Master Plan Program Draft Relocation Plan

Revised Figure

Figure 2.7-1 on page 19 of the April 2004 LAX Master Plan Program Draft Relocation Plan depicted the proposed property acquisition areas under Alternative D. This figure is replaced by **Figure AD2.1-1**, LAX Master Plan Program Draft Relocation Plan Revised Figure 2.7-1, Alternative D Proposed Property Acquisition Areas, presented in this section. While the information shown in Figure 2.7-1 of the April 2004 LAX Master Plan Program Draft Relocation Plan accurately depicts the extent of acquisition, the revised Figure 2.7-1 as shown in **Figure AD2.1-1** delineates Map Reference Areas (B, C, D, E and F) to assist the reader in identifying the properties listed in Table 9-2, LAX MP Program Existing Properties Uses, beginning on page 15 of the April 2004 LAX Master Plan Program Draft Relocation Plan.

Future printings of the LAX Master Plan Program Draft Relocation Plan and the Final Relocation Plan will contain the revised version of Figure 2.7-1.

Updated Property Acquisition Statistics

Subsequent to the analysis of impacts associated with relocation of residences or businesses associated with Alternative D conducted for the Final EIR, a field survey was completed during preparation of the April 2004 LAX Master Plan Program Draft Relocation Plan to provide more current statistics for the land and associated uses that would be acquired under Alternative D. These updated property statistics, as included in the April 2004 LAX Master Plan Program Draft Relocation Plan, are provided herein in **Table AD2.1-1**, Updated LAX Master Plan Program Land Acquisition Summary Statistics. For purposes of the LAX Master Plan environmental analysis, the key differences between the land acquisition summary statistics contained in the Final EIR (refer to Table F4.4.2-18) and in the April 2004 LAX Master Plan Program Draft Relocation Plan, as provided in **Table AD2.1-1,** are the acquisition of an additional 20,026 square feet of air freight and 4,874 square feet of office uses. These differences reflect building renovation/construction activities on the parcels proposed for acquisition under Alternative D that have occurred over time since the parcels were initially identified for acquisition. Thus, the depiction of the parcels proposed for acquisition under Alternative D, as shown on Figure F3-19, 2015 Alternative D Proposed Property Acquisition Areas, in Chapter 3, *Alternatives*, of the Final EIR, remains accurate (i.e., no additional parcels have subsequently been identified for acquisition under Alternative D), and is supplemented by updated property use statistics provided in **Table AD2.1-1**.

Table AD2.1-1

Updated LAX Master Plan Program Land Acquisition Summary Statistics

Land Use[1]	Total Businesses	Acres	Square Feet (Developed)	Billboards	Dwelling Units
Light Industrial	6	15.49	96,901	15	
Air Freight	5	10.84	166,893	1	
Office	9	41.64	245,481	17	
Retail	13	4.89	57,943	7	
Hotel	1	2.84	63,595		
Residential					
Single-Family		0	0	0	0
Multi-Family		0	0	0	0
Right-of-Way/Other[2]		2.12			
Total	34	77.82	630,813	40	0

[1] Reflects parcel data updated as of February 2004.
[2] Includes properties indicated as public service, building frontage, and utilities.

Source: LAX Master Plan Program Draft Relocation Plan, April 2004.

The increases in the square footage of office and air freight uses described above that would potentially be acquired, should Alternative D be approved, would not represent a substantial increase in the severity (i.e., would represent a nominal 2 percent increase) of, nor change the conclusions of the analysis of relocation impacts contained in Section 4.4.2, *Relocation of Residences or Businesses*, of the Final EIR. As described in Section 4.4.2 of the Final EIR, approximately 50,000 square feet of office uses to be acquired under Alternative D would not be accommodated on LAWA property. However, the approximately 50,000 square feet of office uses could be easily absorbed into the nearly 3 million square feet of office space that is available in the surrounding areas and, therefore, no significant impacts related to acquisition of office uses would occur. The additional 4,874 square feet of office uses that would be acquired under Alternative D as identified by the subsequent field survey could similarly be absorbed into the office space available in the surrounding areas.

With respect to air freight uses, Section 4.2.2 of the Final EIR concluded that, under Alternative D, there would be significant impacts associated with 146,867 square feet of air freight uses that could not be accommodated on airport property. However, these relocation impacts would be less than significant with implementation of Mitigation Measures MM-RBR-1, Phasing for Business Relocations (Alternatives A, B, C, and D), and MM-RBR-2, Relocation Opportunities through Aircraft Noise Mitigation Program (Alternatives A, B, C, and D). The relocation impacts related to the additional 20,026 square feet of air freight uses identified in the subsequent field survey would not represent a substantial increase in the severity of the impact discussed in the Final EIR (i.e., would represent only a 14 percent increase), and, moreover, the overall impact, even with the additional square footage, would still be less than significant with implementation of Mitigation Measures MM-RBR-1 and MM-RBR-2.

One other difference between the statistics contained in Table F4.4.2-18 of the Final EIR and **Table AD2.1-1** is the identification of 40 billboards that would be acquired under Alternative D. As discussed in subsection 6.11, *Billboard Market*, of the April 2004 LAX Master Plan Program Draft Relocation Plan, the existence of a City of Los Angeles ban on the relocation of existing billboards, and restrictions on the construction of new billboards in the vicinity of LAX, will substantially constrain the opportunity to relocate those billboards that must be removed under Alternative D, unless they are permitted in the LAX Specific Plan for relocation on airport property. In the event that all or some of the billboards could not be relocated on airport property, this would not be considered a significant relocation impact as defined in Section 4.4.2, *Relocation of Residences or Businesses* (subsection 4.4.2.4.1), as billboard use is not considered to be a business use that is uniquely dependent on airport proximity.

Los Angeles International Airport Master Plan	Alternative D Proposed Property Acquisition Areas	Figure 2.7-1

Implementation of Alternative D would include the removal or modification of structures on certain properties located at and near LAX that are currently owned by LAWA, consequently the tenancy of such properties may be affected. Some of these LAWA-owned structures are leased for commercial uses under leases that are terminable at will by LAWA, subject to applicable notice provisions and other requirements. Because these properties are already owned by LAWA and are subject to leases terminable at will by LAWA, they are not included in **Table AD2.1-1**. LAWA tenants that qualify as a displaced business as a result of implementation of the LAX Master Plan would be entitled to relocation benefits under applicable federal and state relocation law and would be incorporated into the LAX Master Plan Program Relocation Plan before it is finalized to recognize and provide resolution of potential problems in relocation of the business

Additional LAWA office tenancies in property currently owned by LAWA that have not been identified in the April 2004 LAX Master Plan Program Draft Relocation Plan total less than 100,000 square feet of office space. There would be no significant impacts associated with the potential relocation of these tenants because they could be absorbed in the nearly 3 million square feet of vacant office space in the vicinity of the airport or in future development of LAX Northside. Retail concession tenants affected by Alternative D in the terminal complex currently occupy approximately 209,000 square feet. Reconfiguration as a result of Alternative D would result in concession expansion to approximately 579,000 square feet resulting in no significant adverse impact in availability of relocation sites for retail tenants currently located in the terminal complex.

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2.2 Environmental Justice

2.2.1 Introduction

Subsequent to preparation of the Final EIR, a decision was made by LAWA and the FAA to focus the environmental justice analysis in the Final EIR solely on findings for purposes of CEQA, with the FAA's analysis and findings under federal law to be presented in the Final EIS. The differences between these two approaches are described below. This more focused approach has not altered the findings on environmental justice presented in the Final EIR. The evaluation of environmental justice in the Final EIS will, however, include new information and may present findings that differ from the Final EIR.

This section also describes changes in the terminology used in the Final EIR to describe benefits proposed to address or off-set disproportionately high and adverse effects on environmental justice under CEQA. Previously termed environmental justice "benefits" are now referred to as "Master Plan commitments" in order to correspond more directly to the physical impacts of the proposed Master Plan, and to provide an implementation approach that is coordinated through the Mitigation Monitoring and Reporting Program. In addition, certain minor corrections and additions to Section 4.4.3, *Environmental Justice*, of the Final EIR have been made and are presented as errata in Appendix AD-B, of this Addendum to the Final EIR.

2.2.2 Clarifications Regarding Approach and Methodology

Regarding approach and methodology, changes have been made to correct a misstatement contained in the Final EIR. LAWA's findings on environmental justice for purposes of CEQA are assessed using a 1996 environmental baseline, as distinguished from the FAA's findings on environmental justice which use the No Action/No Project Alternative as the benchmark for comparison. The Final EIR erroneously indicated that for certain impact categories, the 1996 baseline would serve as the basis for comparison of impacts and conclusions of significance for both NEPA and CEQA purposes. The FAA's findings on environmental justice will be presented in the Final EIS, and, in light of the fundamental differences in the benchmarks for comparison, will include conclusions regarding environmental justice that may differ from those of the Final EIR. Changes to clarify environmental justice methodology for purposes of CEQA have been made to Section 4.4.3, *Environmental Justice* (subsection 4.4.3.1, Introduction, and subsection 4.4.3.2, General Approach and Methodology), of the Final EIR. These changes are presented as errata in Appendix AD-B, of this Addendum to the Final EIR.

2.2.3 Refinement and Implementation of Environmental Justice Benefits

Section 4.4.3, *Environmental Justice*, of the Final EIR referenced Master Plan commitments and mitigation measures presented in other sections of the document that addressed those identified significant physical impacts of the proposed project that had the potential to fall disproportionately on minority and low-income communities. The section also presented a set of environmental justice "benefits" that went beyond the Master Plan commitments and mitigation measures from other sections of the Final EIR. Some of the environmental justice "benefits" are now presented as Master Plan commitments in Section 4.6, *Air Quality*, and Section 4.3.2, *Off-Airport Surface Transportation*, of the Final EIR, to more closely correspond to the identified impacts. Specifically, three benefits relating to air quality are incorporated into Section 4.6, *Air Quality,* of the Final EIR as Master Plan commitments. These include Master Plan Commitment AQ-1, Air Quality Source Apportionment Study (previously listed as an Air Toxic Study benefit), Master Plan Commitment AQ-2, School Air Filters, and Master Plan Commitment AQ-3, Mobile Health Research Lab (previously listed as a Mobile Health Clinic benefit). Benefits that would expand Gateway LAX Improvements/Greening of Impacted Communities (including Roadway Improvements, Special Landscaping, and Street Signage) are incorporated into Section 4.3.2, *Off-Airport Surface Transportation*, of the Final EIR as Master Plan commitments. The benefits for Neighborhood Cultural/Artistic Projects, a Nature Center, and Health Risk Assessments are no longer proposed, based on the fact that further evaluation of those measures determined they were not related to impacts of the proposed Master Plan and were not feasible to fund and implement. As stated in the Final EIR, all of the proposals for what were termed benefits may be influenced by funding constraints, such as legal limitations placed on the use of airport revenue, although LAWA will investigate, pursue, and implement such proposals as feasible and allowable by law.

2.2.4 Master Plan Commitments

As noted above and listed below, many of the previously termed environmental justice "benefit" proposals have now been refined to be "Master Plan commitments" specific to Section 4.4.3, *Environmental Justice*, of the Final EIR. In addition, "benefit" proposals now incorporated into other sections of the Final EIR as Master Plan commitments, specifically Section 4.6, *Air Quality*, and Section 4.3.2, *Off-Airport Surface Transportation*, are also identified below. All of these environmental justice related Master Plan commitments are also presented in Chapter 5, *Refinements to the Environmental Action Plan*, of this Addendum to the Final EIR, and all have been incorporated into the Mitigation Monitoring and Reporting Program.

Environmental Justice (added to Section 4.4.3, *Environmental Justice*)

- **EJ-1. Aviation Curriculum (Alternatives A, B, C, and D).**

  LAWA will work with local school districts to offer aviation-related curriculum at elementary schools, middle schools, high schools and colleges in affected communities near the Los Angeles International Airport. Potential pilot schools could include: Beulah Payne Elementary School, Lennox Middle School, Hillcrest Continuation School, Inglewood High School, Morningside High School, and Los Angeles Southwest College.

- **EJ-2. Aviation Academy (Alternatives A, B, C, and D).**

  LAWA will work with local school districts to provide comprehensive educational and trade training for aviation-related careers, targeting students in the affected communities to provide them with increased career opportunities.

- **EJ-3. Job Outreach Center (Alternatives A, B, C, and D). Construction and Other LAX-Related Job Outreach -** LAWA will create or utilize an existing resource center to assist historically underrepresented and at-risk local residents to find construction and other substantive jobs with LAWA and surrounding airport-related businesses through training and comprehensive outreach. Written materials regarding job training and placements should be compiled and disseminated from the existing LAWA Job Outreach Center. The Job Outreach Center will accomplish the following:

  - Fund outreach efforts;
  - Encourage minority firms within the affected communities to participate in each phase of the plan, including the design phase;
  - Coordinate with local organizations (including, among others, The Urban League, National Association for the Advancement of Colored People (NAACP), Southern Christian Leadership Conference (SCLC), Watts Labor Community Action Committee (WLCAC), Brotherhood Crusade, First African Methodist Episcopal (FAME) Renaissance, Concerned Citizens of South Central Los Angeles (CCSCLA), Black Business Association (BBA), Greater Los Angeles African American Chamber of Commerce (GLAAACC), and LAX Coalition for Economic, Environmental and Educational Justice) regarding job training, outreach and incubator programs to ensure expansive outreach;
  - Establish specific outreach and/or training programs for special targeted populations such as local ex-offenders, welfare recipients, homeless persons, and low-income area residents;
  - Hold workshops and training classes for professional development across disciplines that may provide service to LAX pre- and post- employment;
  - Establish educational/training/internship programs for local students;
  - Provide referrals and linkages to manufacturing (assembly line) job opportunities in impacted communities, especially South Los Angeles, that produce materials and/or devices used by the airport. This would help to revitalize the community through the provision of long-term work for existing industrial businesses.

Community Job Database - LAWA will coordinate data gathering, outreach and counseling through the following:

- Research and assess existing specialties and current capabilities of local work force to assist with targeted training and outreach efforts;
- Develop and manage a complete database of minority contractors;
- Produce a database of potential jobs and specialties needed, per Master Plan phase, and disseminate the information throughout the communities and to local Minority Business Enterprises/Disadvantaged Business Enterprises (MBE/DBE) companies.

MBE/DBE Business Outreach - LAWA will implement proactive measures that further State and local initiatives to ensure meaningful contract participation of DBE/MBE firms as follows:

- Research and assess existing specialties and current capabilities of local MBE/DBE firms to assist with targeted training and outreach efforts;
- Good Faith Effort (GFE) Outreach Training - assist prime contractors with their outreach to local and MBE/DBE firms by providing them use of relevant databases and referring them to other local organizations that may be able to assist them in their efforts;
- Encourage use of MBE/DBE local subcontractors;
- LAWA shall adopt policies to promote the use of MBE/WBE/DBE subcontractors by requiring Prime Contractors to document outreach to MBE/WBE/DBEs; dividing projects into smaller component parts, or tasks to permit maximum participation by smaller entities; placing qualified MBE/WBE/DBEs on solicitation lists available to Prime Contractors; and advertising the availability of services of the Small Business Administration and the Minority Business Development Agency of the Department of Commerce to Prime Contractors.
- Monitor and implement specific GFE guidelines for outreach to MBE/DBE firms.

Small Business Outreach - LAWA will establish the below-listed proactive measures to ensure meaningful contract participation of small businesses. The resources obtained through small business outreach will be compiled in a user-friendly brochure or report and disseminated from the existing LAWA job outreach center. Contacts and loan conditions will be included where available. Counselors will be available to provide one-on-one assistance.

- Fund and institute sub-contractor training/apprentice programs to be instituted pre-construction and during construction;
- Establish sensitivity training - educate prime contractors of the concerns and needs of the local business owners and MBE/DBE contractors;
- Develop special work packages to provide small businesses prime contracting opportunities;
- Establish loan assistance information programs that would provide counseling to small businesses in need of loans and, through potential partnerships with local banks, facilitate relationships with lenders;
- Establish incentives to large businesses for mentorship of, or partnering with local small businesses;
- Provide bonding assistance;
- Provide licensing assistance;
- Ensure prime and sub-contracting opportunities for local small businesses.

- **EJ-4. Community Mitigation Monitoring (Alternatives A, B, C, and D).**

  LAWA will include community participation in monitoring the implementation of the final Mitigation Measures and Master Plan Commitments in order to ensure agency compliance and accountability. The community participation will include a diverse group of residents, stakeholders, environmental specialists and community leaders that will convene on a regular basis.

Relocation of Residences or Businesses (provided in Section 4.4.2, *Relocation of Residences or Businesses*)

- **RBR-1. Residential and Business Relocation Program (Alternatives A, B, C, and D).**

  The above commitment is provided in its entirety in Section 4.4.2, *Relocation of Residences or Businesses,* and Chapter 5, *Environmental Action Plan*.

Air Quality (added to Section 4.6, *Air Quality*)

- **AQ-1. Air Quality Source Apportionment Study (Alternatives A, B, C, and D).**

  In cooperation with FAA, the U.S. Environmental Protection Agency (USEPA), the California Air Resources Board (CARB), and the South Coast Air Quality Management District (SCAQMD), LAWA will conduct an air quality source apportionment study to evaluate the contribution of on-airport aircraft emissions to off-airport air pollutant concentrations. For the study, LAWA will monitor aircraft emissions at the eastern end of the runways at LAX and will monitor air pollutant concentrations in nearby surrounding communities. On-airport emissions will be compared to the monitored concentrations in the communities to determine the contribution of these emissions to local air pollution.

- **AQ-2. School Air Filters (Alternatives A, B, C, and D).**

  LAWA will provide funding for air filtration at qualifying public schools with air conditioning systems in place. The qualifying schools will be determined based upon review of the conclusions and recommendations of the Air Quality Source Apportionment Study to be conducted in Master Plan Commitment AQ-1.

- **AQ-3. Mobile Health Research Lab (Alternatives A, B, C, and D).**

  LAWA will explore the ability to fund/co-fund, to the extent feasible and permissible by federal and local regulations, or seek funding sources to support the goal of a Mobile Health Research Lab. The goal of the Mobile Health Research Lab will be to research and study, not diagnose or treat, upper respiratory and hearing impacts that may be directly related to the operation of LAX.

Off-Airport Surface Transportation (added to Section 4.3.2, *Off-Airport Surface Transportation)*

- **ST-23. Expanded Gateway LAX Improvements/Greening of Impacted Communities (Alternatives A, B, C, and D).**

  Gateway LAX improvements will be enabled through transportation improvements along Century Boulevard to the east as they are proposed to extend into low-income and minority communities in the City of Inglewood. LAWA anticipates making financial contribution, on a fair-share basis up to a maximum of 10 million dollars, to various off-airport surface transportation related components which may include:

  - Roadway Improvements - Construct roadway improvements on streets heavily trafficked for LAX.
  - Special Landscaping - Extend the Century Boulevard Traffic Corridor Mitigation Program and LAX Beautification Enhancements Program to include landscaping requirements along Century Boulevard in the City of Inglewood.
  - Street Signage - Install aesthetically pleasing, branding signage and way-finding in impacted communities to improve airport-related circulation and to help direct airport users to services in those areas.

2.3 Air Quality

This section discusses the evolution of the air quality mitigation program during the preparation of the EIS/EIR. This section also discusses certain fleet vehicle rules developed by the South Coast Air Quality Management District (SCAQMD), the status of the fleet rules in light of a recent U.S. Supreme Court decision, and the implications, if any, of the SCAQMD fleet rules on the air quality impact analysis included in the Final EIR.

2.3.1 Air Quality Mitigation Measures

2.3.1.1 Standard of Performance for Air Quality Mitigation Measures

The LAX Master Plan Final EIR lists and describes four air quality mitigation measures to address air quality impacts associated with the LAX Master Plan build alternatives. These mitigation measures include the following.

- MM-AQ-1. LAX Master Plan - Mitigation Plan for Air Quality (LAX MP-MPAQ) (Alternatives A, B, C, and D)
- MM-AQ-2. Construction-Related Measure (Alternatives A, B, C, and D)
- MM-AQ-3. Transportation-Related Measure (Alternatives A, B, C, and D)
- MM-AQ-4. Operations-Related Measure (Alternatives A, B, C, and D)

Subsequent to publication of the Final EIR, LAWA modified the language of MM-AQ-1 to clarify the intent of the measure and to specify a performance standard for its implementation. The first paragraph of the measure now reads as follows:

> LAWA shall expand and revise the existing air quality mitigation programs at LAX through the development of an LAX Master Plan-Mitigation Plan for Air Quality (LAX MP-MPAQ). The LAX MP-MPAQ shall be developed in consultation with FAA, the U.S. Environmental Protection Agency (USEPA), the California Air Resources Board (CARB), and the South Coast Air Quality Management District (SCAQMD), as appropriate, and shall include all feasible methods to reduce air pollutant emissions from aircraft, ground support equipment (GSE), traffic, and construction equipment both on and off the airport. The goal of the LAX MP-MPAQ shall be to reduce potential air pollutant emissions associated with implementation of the LAX Master Plan to levels equal to, or less than, the thresholds of significance identified in the Final EIS/EIR for the project. At a minimum, air pollutant emissions associated with implementation of the LAX Master Plan will be reduced to levels equal to those identified in Table AD5-8, Total Operational and Construction Emissions - Mitigated, of the Final EIS/EIR.

Mitigation measure MM-AQ-1 provides for the development of a comprehensive Mitigation Plan for Air Quality addressing Master Plan impacts (referred to as the LAX MP-MPAQ). The other three mitigation measures itemize specific measures associated with certain aspects of the Master Plan, namely construction, transportation, and operations. The LAX MP-MPAQ will include all feasible methods to reduce air pollutant emissions associated with the Master Plan, with the goal of reducing air pollutant emissions to levels equal to, or less than, the significance thresholds identified in the Final EIR. "Feasible" methods are those methods which are capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.[2]

LAWA will consult with FAA, USEPA, CARB, and SCAQMD, as appropriate, to develop the LAX MP-MPAQ, which will detail how each of the three component measures will be implemented. The process for development of the LAX MP-MPAQ will provide LAWA the maximum amount of flexibility to adopt all feasible air quality mitigation measures that ultimately meet the performance standard contained within the MM-AQ-1 and that allow LAWA to achieve the objectives of the LAX Master Plan.

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[2] CEQA Guidelines § 15364.

The three component measures outlined in the Final EIR --MM-AQ-2, MM-AQ-3, and MM-AQ-4--contain elements for which emission reductions were able to be readily quantified (identified as the minimum requirements) and elements that have air quality benefits but for which emission reductions were not able to be readily quantified. The elements that make up these three mitigation measures were selected from hundreds of ideas that were generated by FAA and LAWA and from public comments, including comments from USEPA, CARB, and SCAQMD, on the Draft EIS/EIR and the Supplement to the Draft EIS/EIR. The elements that make up the three component mitigation measures outlined in the Final EIR are considered to be the most feasible and effective methods to mitigate the air quality impacts of the LAX Master Plan.

Based on LAWA's intent to implement both the quantified and unquantified mitigation measures identified in MM-AQ-2, MM-AQ-3, and MM-AQ-4, the likely air quality impacts due to the LAX Master Plan should in fact be less than those predicted in the mitigated analyses presented in the Final EIR. In other words, the Final EIR's estimate of post-mitigation emissions includes only those mitigation measures for which the reductions can be quantified at this time, recognizing that implementation of any of the other remaining mitigation measures would provide for additional reductions in emissions. If, during the development of the LAX MP-MPAQ, LAWA determines that any component for which emission reductions were not able to be readily quantified is infeasible, the post-mitigation emission levels quantified in the Final EIR are still expected to be fully attained.

2.3.1.2 Evolution of Air Quality Mitigation Measures

As noted above, the air quality mitigation measures outlined in the Final EIR will provide LAWA the maximum amount of flexibility to adopt all feasible air quality mitigation measures that ultimately meet the performance standard contained within the MM-AQ-1 and that allow LAWA to achieve the objectives of the LAX Master Plan. The four mitigation measures included in the Final EIR represent a refinement of the preliminary air quality mitigation measures included in the Draft EIS/EIR and the Supplement to the Draft EIS/EIR. The evolution of the proposed air quality mitigation measures is described below.

The Draft EIS/EIR included a single mitigation measure for air quality, requiring LAWA to expand and revise the existing air quality mitigation programs at LAX to reduce air quality impacts associated with implementation of the Master Plan. A preliminary list of discrete measures was identified that would, at a minimum, be included in the mitigation program. This preliminary list of measures was selected from an extensive list of potential measures developed by FAA and LAWA; the extensive list was provided in Attachment X of Technical Report 4, *Air Quality Technical Report*. In order to calculate post-mitigation impacts for the Draft EIS/EIR analysis, mitigation measures with potentially quantifiable air quality benefits were identified and their effectiveness was calculated. Based on public comments received on the Draft EIS/EIR, the list of potential discrete measures was refined, as discussed in Section 2.3 of Appendix S-E, *Supplemental Air Quality Impact Analysis*. However, the underlying approach to mitigation in the Supplement to the Draft EIS/EIR was unchanged from the Draft EIS/EIR.

For the Final EIR, the overall approach to air quality mitigation was refined. Instead of a single measure aimed at expanding and revising the existing air quality mitigation program at LAX, the Final EIR identifies four mitigation measures. The first measure, MM-AQ-1, LAX Master Plan - Mitigation Plan for Air Quality, is similar in nature to the measure previously included in the Draft EIS/EIR and the Supplement to the Draft EIS/EIR in that it requires LAWA to expand and revise the existing air quality mitigation programs at LAX. However, MM-AQ-1 in the Final EIR provides an implementation mechanism, namely development of the LAX Master Plan - Mitigation Plan for Air Quality, and a minimum performance standard. MM-AQ-1 recognizes that the Final EIR is a program-level document and provides a mechanism for identification of all feasible methods for reducing air pollutant emissions in accordance with the performance standard provided in the measure. The measure provides a firm commitment to future mitigation of the significant impacts associated with the Master Plan to the extent feasible.

MM-AQ-1 is accompanied by three additional mitigation measures, each aimed at a different source of air pollutant emissions at LAX: construction activities, transportation, and operations. These measures include specific components to reduce emissions from their respective sources. Together, the four mitigation measures will provide for the maximum feasible reduction of air quality impacts associated with the Master Plan. However, although the level of construction-related, transportation-related, and operations-related emissions may be considerably reduced when the final mitigation plan has been

developed and approved in accordance with Mitigation Measure MM-AQ-1, it is anticipated that air quality impacts would remain significant.

2.3.2 South Coast Air Quality Management District's Fleet Rules

The SCAQMD's Fleet Rules (Rules 1186.1, 1191, 1192, 1193, 1194, 1195, and 1196) were vacated by the U.S. Supreme Court on April 28, 2004. This recent Supreme Court decision does not have any effect on estimated emissions contained in the air quality analysis for the LAX Master Plan as presented in the Final EIR as such rules and programs are not accounted for as part of the EMFAC2002 modeling software (CARB V2.2) used to create emission factors for on-road vehicles.[3] It should be noted that any fleet conversion that LAWA is implementing or will implement voluntarily, including the current conversion of its own fleet to low-emission technologies, and the option of requiring certain companies doing business with LAWA (i.e., large fleet operators) to convert to and/or use low-emission technologies, could result in emission reductions that enhance the mitigation program developed for the LAX Master Plan (see Mitigation Measures MM-AQ-1 and MM-AQ-3).

[3] Personal Communication, J. Long, CARB via email to T. Raine, CDM July 1, 2004.

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3. REFINEMENTS TO ALTERNATIVE D

Subsequent to the publication of the Final EIR and related planning documents in April 2004, certain refinements have been made to the LAX Plan and the LAX Specific Plan. Such changes are largely the result of Councilmember Cindy Miscikowski's efforts to obtain input from, and develop a consensus with, key stakeholders on the approach for implementing LAX Master Plan Alternative D.

The "Consensus Plan" establishes procedures for how the LAX Master Plan will be implemented, including the identification of specific improvements that will require additional study, review, and community input prior to being implemented. It did not propose changes to the land use plan contained in the Alternative D Master Plan. The proposed changes related solely to the LAX Plan and the LAX Specific Plan, the land use and zoning documents for the project, which establish the policy and regulatory framework for development of the Master Plan. In general, they provided for greater oversight, public participation and reporting. A more detailed description of the changes is provided below.

The following changes to the LAX Plan and LAX Specific Plan do not alter the conclusions of the Final EIR. However, revisions to Section 4.2, *Land Use*, of the Final EIR are included in Appendix A-B, *Errata to the Final EIR*, of this Addendum to the Final EIR, to reflect changes associated with the land use designations of the Imperial Terminal and Belford areas.

The focus of the discussion of this section is on refinements to the LAX Plan and LAX Specific Plan that are policy and process-related and that relate to topics addressed in the Final EIR.

3.1 Refinements to the LAX Plan

Several refinements and corrections to the LAX Plan have occurred since the time that the Final EIR was prepared; however, the changes do not alter the characteristics of Alternative D, but rather are intended to make the LAX Plan more concise and to clarify existing goals and policies. For example, corrections were made to factual details such as the total acreage of the LAX Plan area. Also, repetitive language and policies were deleted to create a more succinct document. Unclear or awkward subjects and language were clarified. As examples, the limits of the Belford Study Area are now more clearly described in the text of the LAX Plan and the land use designation of the Imperial Terminal Area has been changed from Airport Landside to Airport Airside. This latter change is reflected in **Figure AD3-1**, LAX Plan Revised Figure 1, Plan Areas. The land uses proposed under Alternative D for the Imperial Terminal Area are comparable to the land uses envisioned in Airport Airside, with the exception that the use of aircraft operating under power is not permitted within this area. Therefore, it was appropriate to change the land use designation for clarification purposes, although the proposed land uses within the Imperial Terminal Area were not changed, and "tug and tow" procedures (i.e., aircraft will not operate under their own power) are still required. Please see Section 3.2, *Refinements to the LAX Specific Plan*, for further discussion regarding the Imperial Terminal Area. In addition, a review of the organization of the LAX Plan was performed to make sure that all LAX Plan goals, objectives, policies, and programs are consistent in terms of their levels of broadness and specificity. Some objectives have been moved to a policy level and vice versa to correct any such inconsistencies. The LAX Plan was also revised to ensure consistency with regional plans, including policies from the 1991 Los Angeles County Airport Land Use Plan concerning noise and safety. Lastly, emphasis has been added to certain objectives and policies to amplify and strengthen existing goals. For example, the LAX Plan now puts a greater emphasis on the regional system of airports and regional access improvements to and from these airports. The LAX Plan also places a greater emphasis on economic benefits to local business districts and establishes an LAX Master Plan Stakeholder Liaison to provide opportunities for community participation in Master Plan decisions that could affect stakeholders. While the refinements made to the LAX Plan serve to enhance and articulate goals and policies associated with implementation of the proposed project, including important provisions relative to public participation and additional study, these refinements do not materially change the basic nature and characteristics of Alternative D, as addressed in the Final EIR. Although the land use designation for the Imperial Terminal Area has been changed in the LAX Plan from Airport Landside to Airport Airside, the uses anticipated and allowed for the subject area are not materially different relative to the land use assumptions addressed in the Final EIR, especially given the continuing requirement that aircraft do not operate under power within the subject area (also see Item 8 in Section 3.2, *Refinements to the LAX Specific Plan*).

3.2 Refinements to the LAX Specific Plan

As a result of the public hearing process for the Final EIR and LAX Master Plan Program, and integration of the provisions of Councilmember Miscikowski's Consensus Plan described in the introduction to Section 3 above, the LAX Specific Plan has been revised in the following areas since the April 2004 version, which was published concurrently with the Final EIR for the LAX Master Plan:

1. From its inception, the LAX Master Plan has been planned in a regional context, taking into consideration future growth at other airports in the region. Alternative D would provide for modernization of LAX while shifting the accommodation of future aviation demand to other airports in the region. This concept of promoting a regional airport system is now included in the purpose of the LAX Specific Plan. This revision augments the Specific Plan to reflect a concept that has always been one of the cornerstones of LAX Master Plan Alternative D.

2. Additional opportunities for public input have been added into the process of approving projects within the Airport Airside and Airport Landside Sub-Areas of the Specific Plan Area by way of the requirement that LAWA consult with appropriate stakeholders - business, labor, community, and government - through a stakeholder liaison. This revision constitutes a refinement to the LAX Plan Compliance Review procedures by which individual Master Plan projects are approved for construction. This revision results in additional oversight and increased opportunities for public comment. The Specific Plan does not require any material changes to the projects proposed under LAX Master Plan Alternative D, and a finding must still be made that each project has been adequately analyzed in compliance with CEQA.

3. The City Council, rather than the Board of Airport Commissioners, was given the final authority to grant approvals for individual Master Plan projects under the LAX Plan Compliance Review procedures. This revision constitutes a refinement to the LAX Plan Compliance Review procedures by which individual Master Plan projects are approved for construction. This revision results in additional oversight and increased opportunities for public comment. The Specific Plan does not require any material changes to the projects proposed under LAX Master Plan Alternative D, and a finding must still be made that each project has been adequately analyzed in compliance with CEQA.

4. In addition to an annual report on the Mitigation Monitoring and Reporting Program, provisions were added to the LAX Specific Plan to require LAWA to prepare and submit an annual traffic generation report and aviation activity analysis to the Board of Airport Commissioners, the Department of City Planning, Los Angeles Department of Transportation (LADOT), and the City Council. These reports must be taken into consideration when approving individual LAX Master Plan Alternative D projects pursuant to the LAX Plan Compliance Review procedures. This revision represents an increase in the monitoring efforts and oversight that will take place throughout implementation of the Master Plan, thus providing additional assurances that development will be consistent with the Master Plan and corresponding Final EIR analysis.

5. The requirement for a Specific Plan Amendment Study to address security benefits, traffic, and aviation activity was added and must occur under any of the following circumstances: (1) prior to seeking approval for certain specified LAX Master Plan Alternative D projects; (2) if the annual traffic generation report shows that any LAX Master Plan Alternative D projects will generate net new airport peak hour trips in excess of 8,236, the number analyzed in the Final EIR[4]); or (3) if the annual aviation activity analysis forecasts that annual passengers are anticipated to exceed 78.9 million. This revision provides a process by which to reaffirm that implementation of LAX Master Plan Alternative D does not result in traffic impacts and/or aviation activity beyond what was projected in the Final EIR, or that further study is required to address any notable differences from the Final EIR. This revision also establishes a process for analyzing the potential security benefits before the development of certain LAX Master Plan projects.

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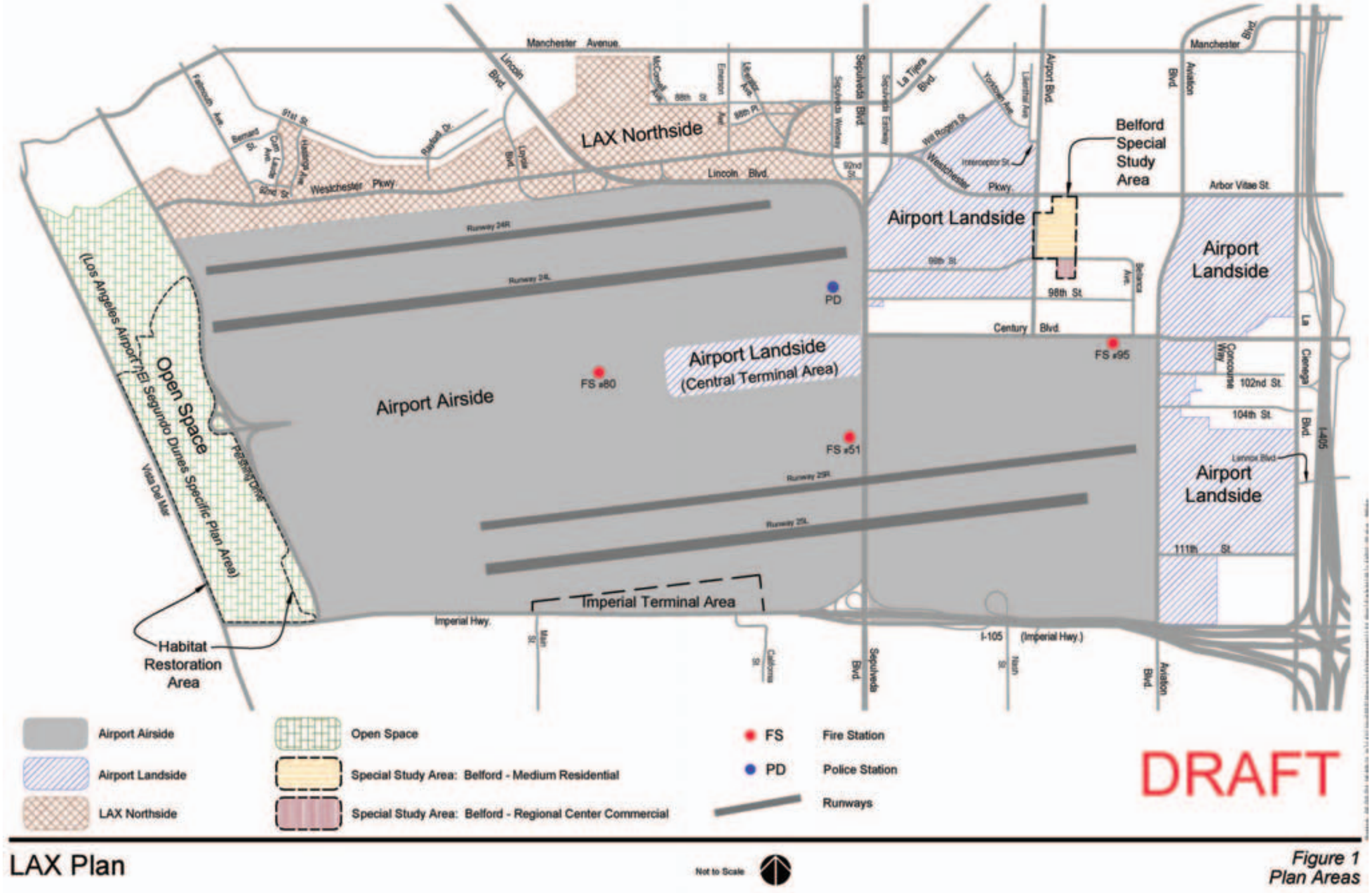
[4] Calculated from "Phase 3F Trip Generation Summary for 1996 Existing Conditions, Also Adjusted Environmental Baseline" in Attachment A of Technical Report 3b, *Off-Airport Ground Access Impacts and Mitigation Measures*, and "Trip Generation Summary for 2015 Alternative D" in Attachment A of Technical Report S2b, *Supplemental Off-Airport Surface Transportation Technical Report.*



LAX Master Plan Addendum to the Final EIR	**LAX Plan** **Revised Figure 1, Plan Areas**	Figure **AD3-1**

6. In an effort to monitor traffic impacts and the effectiveness of traffic mitigation measures, a requirement was added to conduct traffic counts or otherwise determine the traffic impacts of projects within all three Sub-Areas of the Master Plan. This information will form the basis of the annual traffic generation reports. This revision represents an increase in the monitoring efforts and oversight that will take place throughout implementation of LAX Master Plan Alternative D, thus providing additional assurances that development will be consistent with the Master Plan and corresponding Final EIR analysis.

7. The trip cap for all projects within the LAX Northside Sub-Area was revised to be based on total a.m. and p.m. peak hour trips, rather than only inbound or outbound trips in the a.m. and p.m. peak hours, respectively. The trip generation rates required to be used to determine the number of trips generated by each project was also changed from those in the LAX Master Plan Final EIR surface transportation analysis to those in the Coastal Transportation Corridor Specific Plan and/or determined appropriate by LADOT. First, the use of total a.m. and p.m. peak hour trips is recommended by LADOT and represents a more accurate measure of trip generation. The new numbers stated in the Specific Plan are taken directly from the Final EIR[5]. Secondly, there are no trip generation rates included in the Final EIR surface transportation analysis to use for projects in the LAX Northside Sub-Area and, therefore, the Specific Plan as originally written was incorrect.

8. The land use designation of the Imperial Terminal Area, an approximately 42.5-acre area located north of Imperial Highway between Main Street and California Street, was changed from the Airport Landside Sub-Area to the Airport Airside Sub-Area. This change is reflected in **Figure AD3-2**, LAX Specific Plan Revised Map 2, Specific Plan Sub-Areas. With the exception of aircraft operating under power, the land uses proposed under LAX Master Plan Alternative D for the Imperial Terminal Area are more comparable to the land uses envisioned and specified for the Airport Airside Sub-Area. The Imperial Terminal Area consists primarily of airport airfield activities and other uses similar to those located immediately to the east along Imperial Highway, these adjacent areas being part of the Airport Airside Sub-Area. When included in the Landside Sub-Area, more exceptions to the permitted and prohibited uses are required to be specified within the Specific Plan for this area. Consequently, it is more appropriate from a planning perspective to designate this area in the Airport Airside Sub-Area, while still restricting aircraft under power. The permitted and prohibited uses that apply to this area remain substantially the same, and aircraft maneuvering continues to be permitted only if conducted by tug and tow procedures.

9. A triangular-shaped parcel, owned by LAWA and located just west of the golf course, was added to the LAX Northside Sub-Area and designated as Area 13. The requirements in Appendix A of the Specific Plan and the "Design Plan and Guidelines for LAX Northside" by Albert C. Martin and Associates, dated April 20, 1989, do not apply to this area, nor does the trip cap for the LAX Northside Sub-Area. Area 13 must be used for recreational facilities and other public benefit type uses, including child care, children's play area, picnic amenities, athletic fields, parks, libraries, etc. This revision is necessary to correct an oversight, as Area 13 has always been within the boundary of the Master Plan. Moreover, it is LAWA's intent to include all airport-owned and/or Master Plan property within the LAX Plan and LAX Specific Plan, as appropriate and when consistent with the analysis in the Final EIR. Appendix A, the "Design Plan and Guidelines for LAX Northside," and the trip cap are not applied to Area 13 because these requirements originated from Ordinance No. 159,526 which did not pertain to this parcel. The permitted uses stated within the Specific Plan are consistent with the open space/recreational land uses identified in the Master Plan for this area, and with the uses established for this area in the recently adopted Westchester-Playa del Rey Community Plan.

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[5] Trip Generation Summary for 2015 Alternative D" in Attachment A of Technical Report S2b, *Supplemental Off-Airport Surface Transportation Technical Report.*

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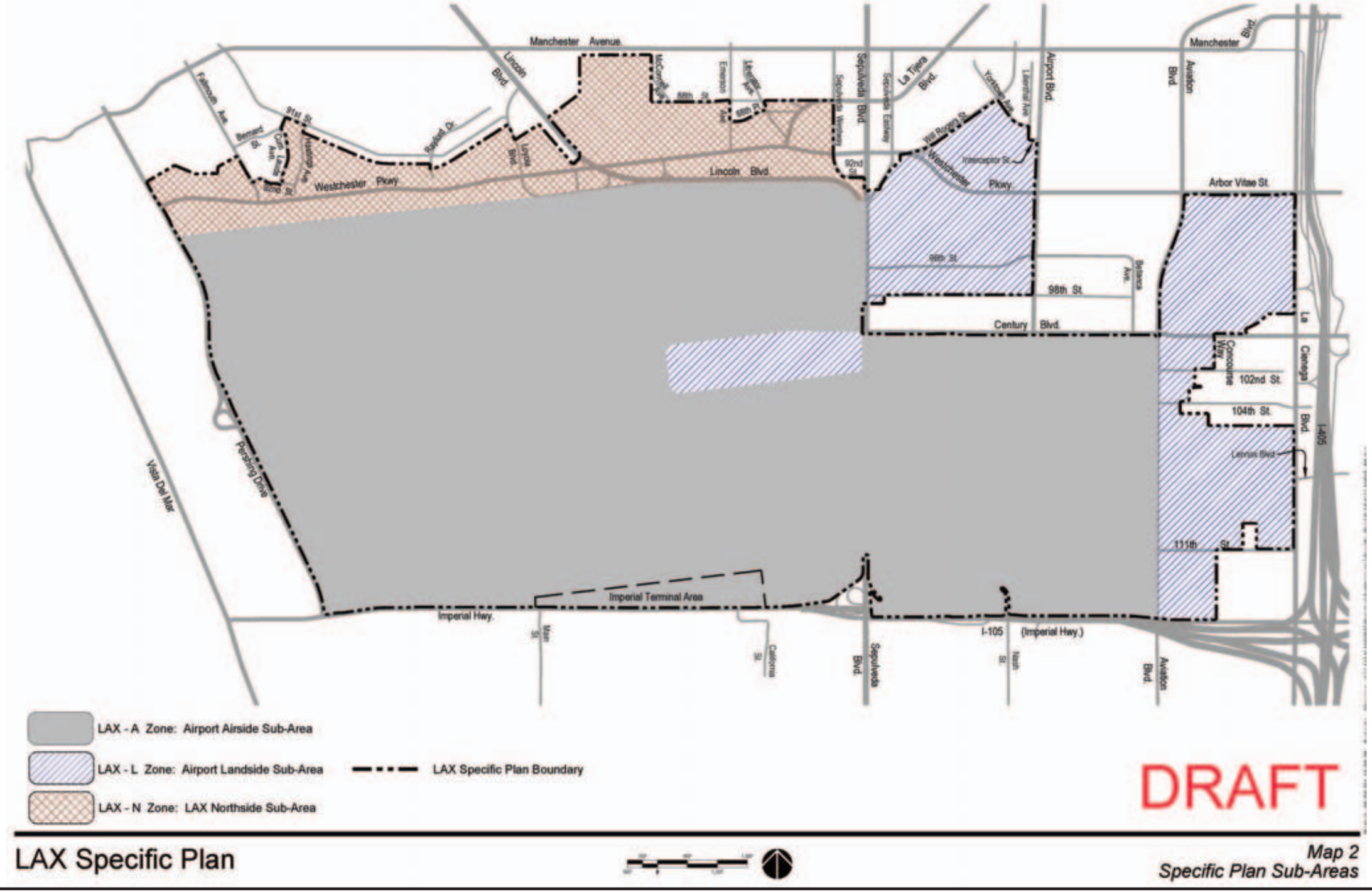


LAX Specific Plan

Map 2
Specific Plan Sub-Areas

LAX Master Plan Addendum to the Final EIR	**LAX Specific Plan Revised Map 2** **Specific Plan Sub-Areas**	Figure **AD3-2**

4. FEASIBILITY ANALYSIS OF THE THREE "ALTERNATIVE E" PROPOSALS

4.1 Introduction

During the public review period for the Supplement to the Draft EIS/EIR, a local citizens group that goes by the name "Alliance for Regional Solution to Airport Congestion" ("ARSAC") suggested a master plan for LAX with improvements different from those of Alternative D. ARSAC referred to that plan as "Alternative E" and submitted the proposal to LAWA and the FAA as a comment on the Supplement to the Draft EIS/EIR. A written response to that comment was prepared by LAWA and FAA, and is provided as Response to Comment SPC00035-4 of the Final EIR. Subsequent to the introduction of Alternative E, ARSAC developed a revised plan for LAX referred to as "Alternative E-1." At the joint hearing of the Los Angeles Citywide Planning Commission and the Los Angeles World Airports Board of Airport Commissioners on June 14, 2004, Los Angeles City Councilmember Bernard Parks proposed an alternative plan for LAX that, while slightly different from ARSAC's Alternative E-1, was also referred to by Councilmember Parks as "Alternative E-1". Provided herein is a description of the main aspects of each of the three plans noted above, referred to as "ARSAC E," "ARSAC E-1," and "Parks E-1," respectively. Also provided are evaluations of the feasibility of each plan, including the ability of each plan to satisfy the purpose and objectives of the LAX Master Plan. Environmental considerations associated with the main components of each plan are also discussed, and comparisons to Alternative D are provided, where appropriate. To facilitate the discussion and comparisons provided below, the following figures and table are provided herein:

Figure AD4-1 *Alternative D Plan*

Figure AD4-2 *ARSAC E Plan*

Figure AD4-3 *ARSAC E-1 Plan*

Figure AD4-4 *Parks E-1 Plan*

Table AD4-1 *Comparison of Plan Components of Alternative D and Variations of Alternative E*

4.2 Evaluation of Alternative E Proposals

4.2.1 Proposed Facilities

Airside Facilities

North Airfield - All three of the Alternative E proposals (i.e., ARSAC E, ARSAC E-1, and Parks E-1) would leave the north airfield in its existing condition. As such, the existing potential for runway incursions[6] on the north airfield would remain, and the existing constraints to using the north airfield for more long-haul and heavy aircraft departures, which would help provide a better balance in activities between the north and south airfields, would also remain.

By adding a center parallel taxiway between the runways, as would occur under all of the other build alternatives, including Alternative D but not any of the Alternative E proposals, the potential for runway incursions would be greatly reduced. ARSAC E calls for airfield improvements in the south airfield for the express reason of reducing runway incursions. The north airfield currently experiences the same type of incursion concerns facing the south airfield, and the existing north runways are even closer together than the existing south runways. The ARSAC E-1 and Parks E-1 plans are similar to ARSAC E in proposing improvements in the south airfield but not in the north airfield. As such, all three of the Alternative E proposals would forego the north airfield improvements that help respond to the overall purpose and objectives of the Project, such as enhancing airport safety and responding to the future demand for local

[6] As discussed in Chapter 3, *Alternatives*, of the LAX Master Plan Final EIR, a runway incursion is defined by the FAA as any occurrence in the airport runway environment involving an aircraft, vehicle, person, or object on the ground that creates a collision hazard or results in a loss of required separation with an aircraft taking off, intending to take off, landing, or intending to land.

and regional air transportation taking into consideration the nature of that demand (i.e., continued potential for runway incursions and operational inefficiencies would not be responsive to accommodating future demand at LAX).

In addition to not addressing the existing potential for runway incursions, the failure to provide north airfield improvements would leave operations of the north and south airfields in an unbalanced condition. Additional departure runway length on Runway 6R/24L is needed to balance long haul and heavy aircraft departures with those that focus on using Runway 7L/25R, the longest runway at LAX, on the south airfield. Without this improvement, additional aircraft noise is focused on the south airfield and the efficiency of the airspace during peak departure times is degraded by the number of airplanes that air traffic controllers must cross in the air instead of on the ground to reach departure points or fixes north of LAX.

Environmental implications associated with not improving the north airfield include increased air pollutant emissions, including air toxics, due to increased aircraft taxi/idle operations associated with inefficient and unbalanced airfield operations. As noted in Section 4.24.1, *Human Health Risk Assessment,* of the Final EIR (specifically pages 4-1351, 4-1355, 4-1360, and 4-1364), more efficient aircraft operations associated with each of the four build alternatives result in reduced emissions from aircraft in taxi/idle mode. Such improvements in aircraft operation efficiencies would not occur in the absence of north airfield improvements, as proposed under the Alternative E plans.

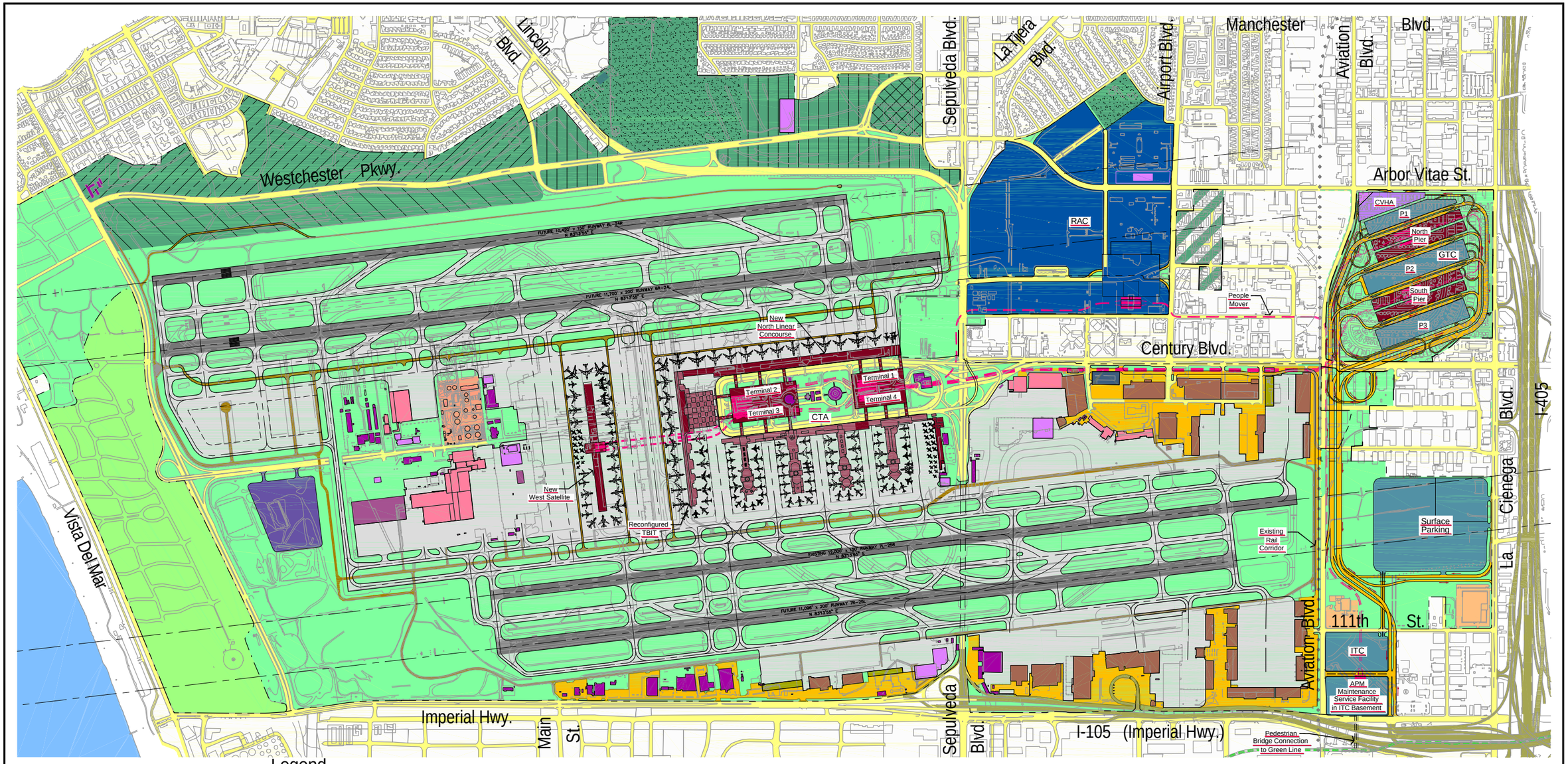
South Airfield - The south airfield in ARSAC E and in ARSAC E-1 suggests moving Runway 7L/25R 55 feet north of its current location to add a center parallel taxiway between the runways. ARSAC E and ARSAC E-1 generally state that the, "basic terminal configuration [should be] left intact," ostensibly to relieve the financial burden that would be placed on the airlines by reconfiguring terminals. However, proposing that Runway 7L/25R be moved north would force the reconstruction of Taxiways B and C and would require the elimination of 19 to 22 wide body end gates that exist on the south terminal concourses. This loss of gates for large aircraft, combined with the loss of aircraft gates from other suggestions in the plan, would limit the number of gates at LAX to between approximately 93 and 103. This 37 percent reduction in gates at LAX would severely change the operation of the airport to the point that it could no longer provide its basic function as a major airport that is an integral part of a worldwide air transportation system. This change in the basic function of LAX would be unresponsive to, and, in direct conflict with, three major objectives of the LAX Master Plan, which include responding to future demands for air transportation, maximizing the return on existing infrastructure capital at LAX, and sustaining and advancing the international trade component of the regional economy and the international commercial gateway role of the City of Los Angeles.

The south airfield in Parks E-1 is the same as in Alternative D, which provides for Runway 25L to be relocated 55 feet south and a center parallel taxiway to be constructed.[7] Unlike ARSAC E and ARSAC E-1, these improvements would address the existing incursion problem in the south airfield without the elimination/loss of 19 to 22 wide-body end gates.

Terminal/Passenger Processing Facilities

Central Terminal Area (CTA) - ARSAC E suggests removing the existing auto parking in the CTA. In place of the existing CTA parking would be new ticketing, baggage claim, concessions, and people mover stations (similar to facilities in Alternative D). This design for the CTA is comparable to that of Alternative D, which suggests, although not explicitly stated in the ARSAC E description, that the CTA would be closed to public vehicle access. ARSAC E-1 and Parks E-1 suggest leaving the existing auto parking in the CTA and keeping it open to public vehicle access. The CTA design and improvements occurring under ARSAC E and Alternative D would provide for needed additional terminal space to improve passenger processing, better accommodate security areas and facilities, and enhance passenger and visitor amenities at LAX. Such improvements to the CTA would be consistent with and responsive to the Master Plan objectives of ensuring the safety of all airport users and maximizing the return on existing infrastructure capital at LAX.

[7] While not explicitly stated in Councilmember Park's description of Alternative E-1, it is assumed that Runway 25L would move 55 feet south based on his indication that the southern runways will be remodeled to accommodate the newer, larger aircraft, and that runways would not be moved closer to the terminal. It is also assumed that a center parallel taxiway would be added.



Legend

- Airport Property Boundary Line
- El Segundo Blue Butterfly Habitat Restoration Area
- Airfield/Airport Open Space
- Runways
- Taxiways/Aircraft Aprons
- Existing Terminal Buildings
- Existing Cargo Building
- Existing Maintenance Facility
- Existing Light Rail Transit
- Existing Collateral Development
- Existing Ancillary Facility
- Existing Roadways
- Existing Commercial Use
- Existing Off-Airport Use
- Existing Employee Parking
- Existing Fuel Farm
- Proposed Terminals
- Existing MTA Right-of-Way
- Proposed Cargo Building
- Proposed Maintenance Facility
- Proposed Ancillary Facility
- Proposed Airside Service Roads
- Proposed Public Parking
- Proposed Commercial Vehicle Staging Area
- Proposed Employee Parking
- Airport Landside
- Proposed People Mover
- Proposed Rental Car Facility
- High Density Mixed Use (Hotel, Office, Retail)
- Medium Density Commercial (Hotel, Office, Retail)
- R/D Business Park
- Airport Related
- Golf Course/Open Space/Recreation
- ANMP Acquisition Area

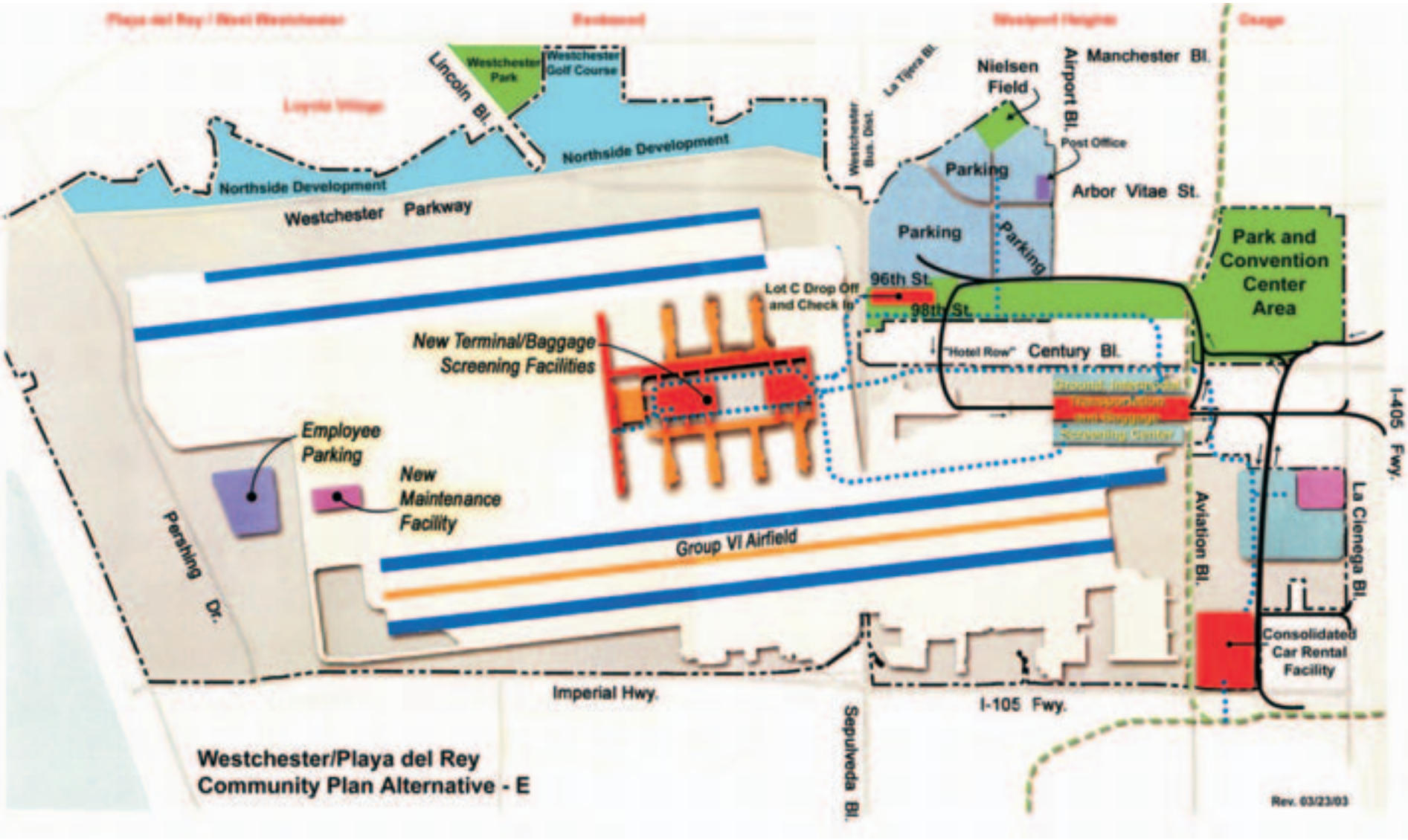
375' 750' 2,250'
750' 0 1,500'

Prepared by: Landrum & Brown, April 2003

LAX Master Plan Final EIS/EIR

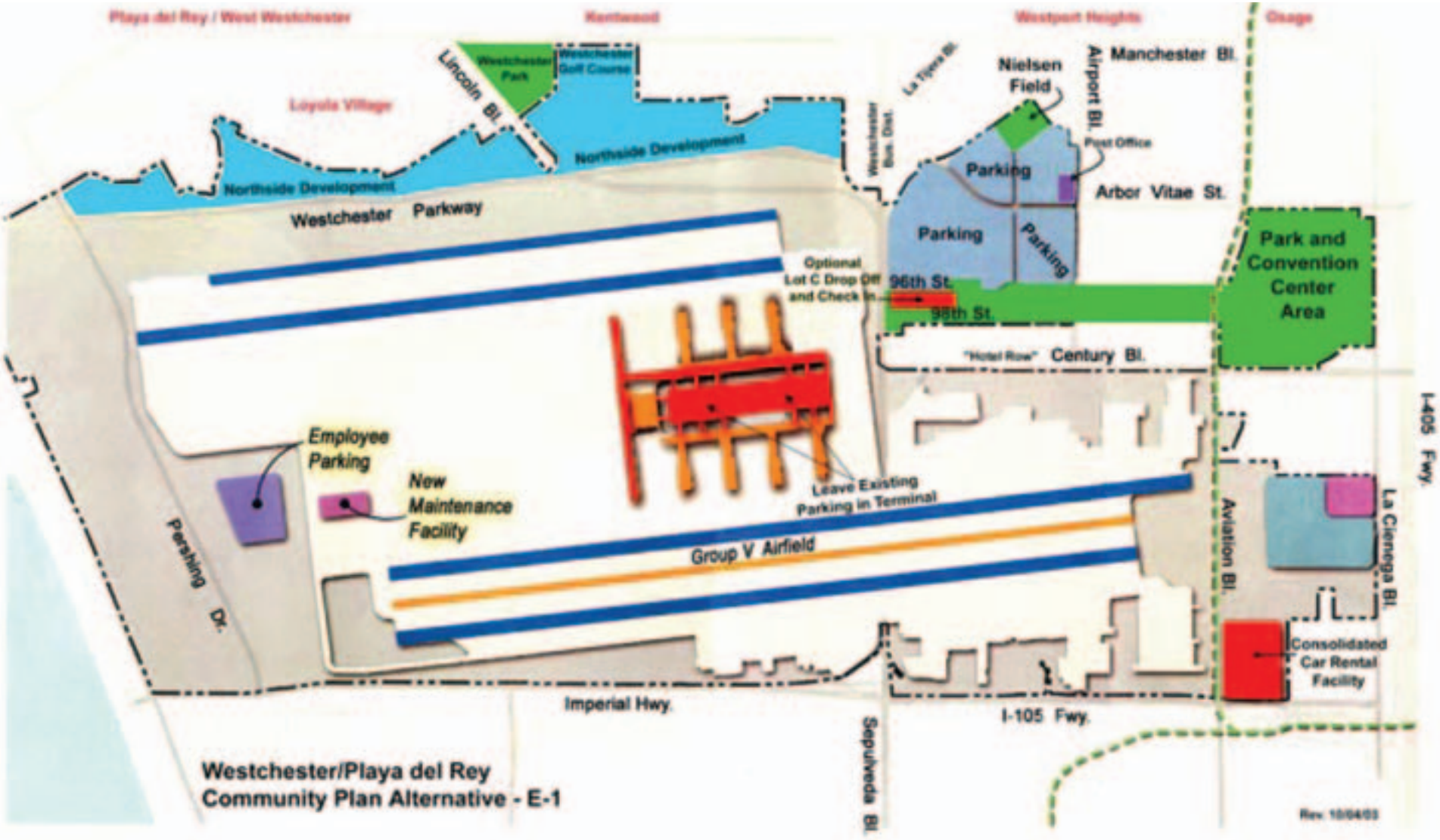
Alternative D - 2015 Enhanced Safety and Security Plan

Figure
F3-14



Source: Alliance for a Regional Solution to Airport Congestion.

LAX Master Plan **Addendum to the Final EIR**	**ARSAC E Plan**	Figure **AD4-2**



Source: Alliance for a Regional Solution to Airport Congestion.

LAX Master Plan **Addendum to the Final EIR**	**ARSAC E-1 Plan**	Figure **AD4-3**

Source: Councilmember Bernard Parks

LAX Master Plan Addendum to the Final EIR	Parks E-1 Plan	Figure AD4-4

Table AD4-1

Comparison of Plan Components of Alternative D and Variations of Alternative E

Plan Components	Alternative D	Community Provided Alternatives		
		Alternative E (ARSAC)	Alternative E-1 (ARSAC)	Alternative E-1 (Parks)
Airfield				
North	Runway 24L moved 340' south and extended to balance departures. Center parallel taxiway added.	No improvements made to existing North Airfield.	No improvements made to existing North Airfield.	No improvements made to existing North Airfield.
South	Runway 25L moved 50' south. Center parallel taxiway added.	Runway 25R appears to be moved 55' north (loss of 19 to 22 wide-body end gates at south concourses. Center parallel taxiway added.	Runway 25R appears to be moved 55' north (loss of 19 to 22 wide-body end gates at south concourses. Center parallel taxiway added.	Runway 25L moved 55' south. Center parallel taxiway added.
Terminal Area				
Central Terminal Area (CTA)	Ticketing, bag claim, concessions, and Automated People Mover (APM) station replace existing parking garages.	Ticketing, bag claim, concessions, and APM station replace existing parking garages.	Existing parking remains.	Existing parking remains.
North Concourses	Replace existing concourses with an east/west linear concourse.	Existing concourses remain.	Existing concourses remain.	Existing concourses remain.
South Concourses	Existing concourses remain.	Loss of 19 to 22 wide-body end gates.	Loss of 19 to 22 wide-body end gates.	Existing concourses remain.
Bradley Terminal	West contact gates/concourse added.	Upgrade end gates only for New Large Aircraft (i.e., A380).	West contact gates/concourse added.	Upgrade end gates only for New Large Aircraft (i.e., A380).
West Satellite	All gates dual taxiway accessible.	Not included	Not included	Not included
West Remote Gates	Aircraft parking only, after all terminal improvements completed.	Removed from service.	Not clearly addressed but assumed to be removed from service.	Removed from service.
Remote Commuter Gates	Aircraft parking only, after all terminal improvements completed.	Removed from service.	Not clearly addressed but assumed to be removed from service.	Removed from service.
Other	None	Lot C drop-off and check-in area.	Optional Lot C drop-off/check-in area for commuter passengers to relieve CTA congestion.	Optional Lot C drop-off/check-in area for commuter passengers to relieve CTA congestion.
Gate count (2015)	153 (Existing [2004] totals 163)	As few as 93-103 total	As few as 93-103 total	As few as 115 total
Automated People Mover (APM)/Transit/Green Line				
APM 1	Intermodal Transportation Center (ITC) at Green Line station, which would connect with Rent-A-Car (RAC) facility to CTA.	RAC (at Continental City) to CTA.	Not included	Not addressed
APM 2	Ground Transportation Center (GTC) to CTA (2 lines)	GTC at Century Cargo Complex to CTA.	Not included	Not addressed
Expanded FlyAways	Eight (8) additional locations.	"Continue to be encouraged" but no specifics provided.	"Continue to be encouraged" but no specifics provided.	Not addressed

Table AD4-1

Comparison of Plan Components of Alternative D and Variations of Alternative E

Plan Components	Alternative D	Community Provided Alternatives		
		Alternative E (ARSAC)	Alternative E-1 (ARSAC)	Alternative E-1 (Parks)
Green Line	Connected to ITC via sky bridge; ITC connected to CTA via automated people mover (APM)	Extend north underground along MTA ROW through Crenshaw area to Union Station. Connect to GTC/ITC at Century Cargo Complex.	Extend north underground along MTA ROW through Crenshaw area to Union Station. Connect to regional transportation center proposed at northwest corner of Century Blvd. and Aviation Blvd.; however, no connection to CTA mentioned.	Extend north underground along MTA ROW through Crenshaw area to Union Station. Connect to ITC proposed west of Century Blvd between Century Blvd and 98th St.; however, no connection to CTA mentioned.
Consolidated Rent-A-Car (RAC) Facility	All components including storage at existing Lot C area	Multistory building in Continental City area with freeway access.	Multistory building in Continental City area.	Multistory building in Continental City area.
Ground Transportation Center (GTC)	GTC to be developed at Manchester Square area with dedicated airport roads and mitigation recommendations for connections to the 105 and 405 Freeways.	GTC at Century Cargo Complex incorporating ITC and Baggage Screening Center; Manchester Square designated as park and convention center area.	No GTC proposed. Manchester Square designated as park and convention center area.	No GTC proposed. Manchester Square will remain as a part of the local community for restoration of removed housing or a green belt, open space will be created.
Intermodal Transportation Center (ITC)	ITC to be developed at Continental City site adjacent to Green Line station, with APM connection, dedicated airport roads nearby, and mitigation recommendations for direct connections to the 105 and 405 Freeways.	Part of combined GTC/ITC and Baggage Screening Center at southwest corner of Aviation and Century. To connect with proposed Green Line extension, APM, and dedicated airport roads nearby that lead to freeway connections.	Regional transportation center proposed at northwest corner of Aviation and Century Blvds. for buses and taxis. To connect with proposed Green Line extension.	ITC shown west of Aviation Blvd. between Century Blvd. And 98th St. To connect with proposed Green Line extension.
Public Auto Parking	22,112 on-airport spaces provided, which is similar to existing conditions.	TBD	TBD	TBD
Employee Auto Parking	Add West Employee Parking garage.	Add West Employee Parking garage.	Add West Employee Parking garage.	Add West Employee Parking garage.
Cargo Handling Facilities	Upgraded within existing areas.	Reduced cargo warehouse and aircraft parking space with addition of GTC/ITC and Baggage Screening Center at southwest corner of Aviation and Century.	Same as existing	Enhance security and "additional accommodations will reduce the impacts of trucks on local traffic."
Other Issues				Complete an "updated southern California regional airport plan and the creation and implementation of a Regional Airports Authority." To be created by municipalities, state and federal agencies.

North Concourses - As indicated above, none of the three proposals for Alternative E call for improvements to the north airfield. Without relocation of Runway 6R/24L, such as proposed in Alternative D to accommodate a center parallel taxiway, there would be no need to make changes to the north concourses associated with Terminals 1, 2, 3 and the Tom Bradley International Terminal. As such, the north concourses would not be altered under any of the Alternative E proposals.

South Concourses - As discussed above, changes to the south airfield suggested by ARSAC E and ARSAC E-1 require the elimination of 19 to 22 end gates at Terminals 4, 5, 6, 7, 8 and the Tom Bradley International Terminal. This loss of gates for large aircraft in combination with other suggestions in the subject proposals would limit the number of gates at LAX to between approximately 93 and 103. This 37-43 percent reduction in gates at LAX would severely change the operation of the airport to the point that it could no longer provide its basic function. To help illustrate the implications of such a substantial reduction in gates, a comparison to the gate utilization characteristics of the No Action/No Project Alternative can be considered. The No Action/No Project design day operations total 2,279. In the Year 2000 the design day operations totaled 2,275. This level of activity with the current gates at LAX represents an average of approximately seven flights per day per gate. This is very high gate utilization, particularly in consideration of the high proportion of international flights at LAX that have considerably lower gate utilization due to long turn-around times between flight arrival and flight departure. This gate utilization level associated with the No Action/No Project design day operations includes nine remote gates that act as over-flow gates today and are not actively scheduled for airline use. By comparison, if the ARSAC E gate count were used to attempt to accommodate the No Action/No Project design day operations total, the average gate utilization would be 11 flights per day per gate. This level of gate utilization has only been reached by Southwest Airlines at LAX under extreme circumstances. The unique character of Southwest's short haul operation allowed this utilization to be reached but severely overburdened the terminal facility for passengers. Even Southwest has been changing its operations to include more long haul flights and the resulting schedule has lowered their gate utilization. As such, the substantial reduction in gates at LAX that would occur under ARSAC E and ARSAC E-1 would result in significant changes to the operational characteristics of LAX, and, as noted above, such changes would be unresponsive to, and in conflict with, the basic LAX Master Plan objectives.

Under Parks E-1, the changes to the south airfield would not require the elimination of gates on the south concourse, as is also the case under Alternative D.

Tom Bradley International Terminal (TBIT) - ARSAC E and Parks E-1 suggest upgrading gates at the ends of the TBIT to accommodate New Large Aircraft (NLA) such as the Airbus A380. Such improvements at only the ends of the TBIT would be of limited benefit in accommodating the increased number of NLAs anticipated to be included in the future (2015) commercial aircraft fleet mix. Constraints to and the inability to accommodate NLAs at LAX in the future would be inconsistent with the basic LAX Master Plan objectives of responding to future air transportation demands and of sustaining and advancing the international trade component of the regional economy and the international commercial gateway role of the City of Los Angeles.

ARSAC E-1 suggests adding contact gates to the west side of the TBIT. This is a change from the original proposal - ARSAC E, described above.

The addition of gates to the west side of the TBIT requires a number of enabling projects that have not been included in ARSAC E-1. To accommodate these gates, the TBIT requires the addition of building space for passenger circulation and hold rooms on the west side of the existing building. The existing north/south Taxiways S and Q would have to be relocated to allow for the new aircraft parking positions added to the TBIT. In order to relocate these taxiways, relocation is also required for the American Airlines low-bay aircraft maintenance hangar, the American Eagle commuter facility, the Aircraft Rescue and Fire Fighting (ARFF) Station, the American Airlines north high-bay aircraft maintenance hangar, flight kitchen facilities, ground service equipment maintenance facilities and an airfield command post. It is unclear whether the nature, timing, and feasibility of these enabling projects have been considered in the proposal for ARSAC E-1.

Remote Gates - ARSAC E and Parks E-1 suggest removing remote jet and remote commuter gates from service at LAX. While not explicitly stated in the description of ARSAC E-1, it is assumed that this aspect of the proposal would be the same as in the original proposal - ARSAC E. Under ARSAC E and ARSAC E-1, the removal of remote gates would be accompanied by a reduction in gates to the south CTA concourses. Without the remote gates in place, implementation of ARSAC E and ARSAC E-1 would, in

conjunction with other proposed changes, result in a reduction of 60 to 70 gates from the existing total of 163. The loss of remote gates under Parks E-1, which under that proposal would not require the elimination of gates from the south CTA concourse, would reduce the total number of gates at LAX to as few as 115. While Alternative D discontinues use of the existing remote gates, it does so after replacement contact gates have been constructed. As such, Alternative D proposes the elimination of existing remote gates in favor of new replacement contact gates that provide an improved quality of passenger service while being designed to accommodate a passenger volume comparable to that of No Action/No Project, whereas ARSAC E and ARSAC E-1 would simply eliminate the remote gates and rely on a reduced number of existing contact gates to serve passengers.

Overall, the reduction in remote gates at LAX occurring under any of the three proposals for Alternative E would severely change the operation of the airport to the point that it could no longer provide its basic function. All of the existing gate facilities at LAX are in use on a regular basis except for nine of the 19 remote jet gates that act as over-flow gates during peak international periods. A restriction of the remote facilities without replacement gates would reduce the number of destinations served from LAX as well as the frequency of service, and would increase aircraft delays for those that are presently served. This limitation would also reduce the competitiveness of the existing LAX market. By having gates available at LAX, space is available for new entrant carriers to challenge the market and keep incumbent carriers' prices in line with the market. The types of changes in the characteristics of LAX under the three Alternative E proposals are inconsistent with the basic objectives of the LAX Master Plan.

Cargo Facilities

Cargo facilities in ARSAC E would be further limited from those proposed in Alternative D. In ARSAC E, cargo facilities in the Century Cargo Complex would be removed and replaced by the addition of a combined Ground Transportation Center/Intermodal Transportation Center (GTC/ITC) in this location. Under Alternative D, cargo facilities and associated cargo activity are already constrained. If it were possible to construct the GTC/ITC facility suggested in ARSAC E in the Century Cargo Complex, it would cause a reduction of approximately 1.6 million square feet of cargo warehouse space at LAX. In addition to the on-airport cargo warehouse space reduction, ARSAC E would also impact existing properties east of LAX and west of the 405 Freeway that are used for air cargo processing and forwarding. Entrance and exit roads suggested as part of ARSAC E would either directly displace or indirectly cut off access to these compatible airport land uses near LAX. Alternative D is specifically designed to avoid and preserve as many of these off-airport land uses as possible to avoid the costly and necessary replacement of these facilities. Such loss of cargo warehouse space and impairment of cargo access routes occurring under ARSAC E would be inconsistent with the basic project objectives of responding to future air transportation demands, which would include cargo transport, maximizing the return on existing infrastructure capital, and sustaining and advancing the international trade component of the regional economy and the international commercial gateway role of the City of Los Angeles.

The proposal to construct the combined GTC/ITC at the location of the existing Century Cargo Complex was eliminated by ARSAC in their revised proposal. As such, the amount and location of cargo facilities under ARSAC E-1 would be similar to those occurring under Alternative D. However, as indicated in Table AD4-1, upgrades within existing cargo handling areas would occur under Alternative D. It is uncertain if ARSAC E-1 would provide for such upgrades.

The Parks E-1 proposal simply states that it will provide, "additional accommodations [that] will reduce the impacts of trucks on local traffic." These accommodations are not defined in the proposal. Alternative D provides for the completion of an inner airport cargo road to help alleviate cargo truck traffic impacts on local city streets.

4.2.2 Collateral Development

ARSAC E and ARSAC E-1 include the, "[LAX] Northside Development to house more LAX operations related support and will be built as a sound barrier to reduce impacts on Westchester-Playa del Rey from on-airport operational noise." Alternative D incorporates the LAX Northside development but, unlike ARSAC E as proposed, also provides for a reduction in the number of allowable vehicles trips associated with this development plan. As such, the ARSAC E and ARSAC E-1 provisions for LAX Northside could result in greater traffic, and associated air quality and noise impacts, than would otherwise occur under Alternative D. The Parks E-1 proposal does not provide any specifics regarding LAX Northside, although the subject development is shown on the conceptual land use plan.

All three proposals for Alternative E include a park and convention center area within Manchester Square and along the north side of 98th Street.[8] The development of park uses in the subject area is not considered appropriate, as the vast majority of the area proposed under Alternative E for park and convention center uses is currently subject to aircraft noise levels greater than 65 decibels (dB) Community Noise Equivalent Level (CNEL), with areas at or approaching 70 dB CNEL. With noise levels forecasted to increase in this area, park uses would be inconsistent with the policies, programs, and guidelines of the City of Los Angeles Noise Element. The replacement of existing uses along the north side of 98th Street that are compatible with existing and anticipated aircraft noise levels with park uses that would be incompatible with high noise levels, would undermine considerable time, effort, and money spent by the City of Los Angeles mitigating incompatible land uses. The proposed park uses, presumably with an emphasis on outdoor park/recreational uses, would be exposed to high levels of aircraft noise that could not be mitigated. This condition would occur under all three Alternative E proposals, but would not occur under Alternative D. Based on the above, development of park uses under all three proposals for Alternative E is not considered appropriate.

The Alternative E proposals do not include any specifics on the location, size, nature, and operational characteristics of convention center uses within the subject area; hence, the ability to evaluate the feasibility and potential impacts of such uses is not possible. It should be noted, however, that many, if not most, of the major hotels near the airport currently have conference facilities. In light of business competition among such existing facilities, it is possible that the conference facility proposed under ARSAC E, ARSAC E-1, and Parks E-1 might specialize in hosting large events that could not otherwise be accommodated by the hotels nearby. Such events would result in certain traffic, and associated noise and air quality impacts, that would not otherwise occur under Alternative D.

4.2.3 Construction Sequencing

Construction sequencing has not been provided for any of the three proposals for Alternative E. To fully assess the construction feasibility and construction impacts, a sequence diagram or chart would be needed. In general, however, it can be anticipated that the construction of landside and surface transportation facilities and configuration suggested by these proposals would be highly disruptive to the existing hotel and office uses along Century Boulevard (see additional discussion below regarding Surface Transportation Analysis).

4.2.4 Surface Transportation Analysis

GTC and ITC Facilities

Each of the three proposals for Alternative E differs from Alternative D, and from each other, relative to provisions for a GTC and an ITC. Under ARSAC E, a combined GTC/ITC is proposed to be developed southwest of the intersection of Century Boulevard and Aviation Boulevard. This facility would include connections to the MTA Green Line, assumed to be extended north along Aviation Boulevard from the existing station near the 105 Freeway, and to an Automated People Mover (APM) that travels between the CTA, parking areas, and a consolidated Rent-A-Car (RAC) facility, and also connects with a proposed loop road system. The area suggested as part of ARSAC E is inadequate to accommodate the intended activities and uses as they have been programmed in Alternative D. The following is a brief comparison.

Alternative D

GTC (includes Commercial Vehicle Holding Area):	**5.28 million square feet**
ITC:	**1.24 million square feet**
Alternative D Total:	**6.52 million square feet**

ARSAC E

Combined GTC/ITC (Commercial Vehicle Holding Area is not accommodated in the plan):	**2.86 million square feet**

[8] Although the text description (i.e., press release) for Parks E-1 indicates that those portions of Manchester Square where housing has been removed will "either be restored or a green belt, open space area will be created," the land use plan for the alternative proposed by Councilmember Parks indicates park and convention center uses within Manchester Square.

Based on the footprint alone, the proposed GTC/ITC facility of the ARSAC E plan (see **Figure AD4-2**) would have insufficient space to accommodate the basic functions of the GTC and ITC. Additionally, the ARSAC E proposal indicates that the subject facility would be used as a baggage screening center and the plan submitted by ARSAC shows several roadways occurring within and adjacent to the facility, along with several APM lines and a connection to the proposed Green Line extension. This complicated system of roads and rail lines, all converging at or adjacent to an undersized GTC/ITC facility, raise substantial questions as to the viability of such a proposal. Although ARSAC E includes a passenger drop-off and check-in area at Lot C, the location and nature of such a facility is unlikely to substantially reduce the demands on the combined GTC/ITC facility to the point that all of the functions proposed for that facility could be adequately accommodated.

The ARSAC E-1 plan does not identify an ITC; however, the text description of the subject proposal indicates that a regional transportation center would be located at the northwest corner of Century and Aviation Boulevards, and that the MTA Green Line would be extended north along Aviation Boulevard from its current terminus south of the I-105 as a below grade route to continue through the Crenshaw area and on to Union Station. The ARSAC E-1 proposal indicates that, in conjunction with the Green Line extension, a regional transportation center would be incorporated into the northwest corner of Century Boulevard and Aviation Boulevard to connect all busses and taxis. The absence of an APM system or any other direct connection between the subject transportation center and the CTA would not provide an incentive for airport passengers and employees to use public transit for convenient travel to and from LAX. This is similar to the existing Green Line station that is located close to LAX, but requires using a shuttle bus between the station and the CTA.

The Parks E-1 proposal identifies an ITC west of Aviation Boulevard, between 98th Street and Century Boulevard, adjacent to the plan's proposed extension of the MTA Green Line north from the existing station near the 105 Freeway. Its function as an intermodal transportation facility would appear to be very limited in that it would only connect with the Green Line and the three adjacent surface streets. There does not appear to be an APM system linked to the ITC, nor any direct or convenient freeway access to/from the facility. Additionally, there does not appear to be any direct connection between the subject ITC and the CTA, which is the same as exists today relative to the Green Line station being located near LAX, but having no direct connection to the CTA.

The ARSAC E-1 and Parks E-1 proposals identify an optional Lot C drop-off area for "commuter" passengers, which can also serve as a redundant backup in case of a security incident at the CTA. The option appears to be offered in lieu of the GTC proposed in Alternative D. Given the small size of this facility, it would be of limited benefit in reducing congestion at the CTA and, without an APM system, would still require transport via car, bus, or shuttle to and from the CTA. Additionally, being substantially removed from points of freeway access, travel to and from the drop-off area would require more surface street travel than would otherwise occur with the GTC under Alternative D.

Rent-A-Car (RAC) Facility

All three of the Alternative E proposals identify a consolidated RAC at the northeast corner of Aviation Boulevard and Imperial Highway (i.e., the "Continental City" site). The 2015 demand determined in the LAX Master Plan, and the Alternative D and the Alternative E (same for all three proposals) provisions for a consolidated RAC facility are as follows:

Rental Car Area Demand in 2015:	**3.40 million square feet**
Area Provided Under Alternative D:	**7.87 million square feet**
Area Provided Under Alternative E:	**1.24 million square feet**

As stated in subsection 4.3.1.6.1.5 of Section 4.3.1, *On-Airport Surface Transportation*, of the Final EIR, the design of the consolidated RAC proposed under Alternative D provides for the essential facilities and services necessary to meet the rental car area demands in 2015 plus additional area to enhance the operational efficiency and quality of customer service. The additional area provides for the inclusion and efficient operation of uses such as a customer service building, a station for the APM, vehicle storage/overflow parking, car wash bays, fueling/vacuum stations, queuing lanes for car wash and fueling, and maintenance buildings. Having these services at a common facility would eliminate the need for rental car vehicles to leave the RAC facility for these services to occur at off-airport locations operated

by individual rental car companies. Of particular importance is the additional area that would allow for the long-term storage of rental cars, which would enable the consolidated RAC facility to better accommodate periodic surges in rental car demands such as during holidays and other peak travel periods. This would reduce the need for, and potential impacts from, having to transport rental cars to and from off-site long-term storage areas.

Since the area footprint of the proposed RAC facility in Alternative E is significantly smaller than the RAC facility proposed under Alternative D, the Alternative E RAC would need to be a minimum of three stories just to accommodate the expected 2015 demand. Based on the limited space available, it is unlikely that the RAC services proposed under Alternative D could be provided in any of the proposals for Alternative E. This would result in rental vehicles being driven off-airport for maintenance and fueling needs, and long-term storage. Therefore, these additional vehicle trips generated would need to be assessed and mitigated as necessary.

Under ARSAC E, access to the consolidated RAC would appear to be available from Aviation Boulevard and Imperial Highway, as well as from a proposed APM and a new road system that includes direct connections to the I-105 and I-405 Freeways. Under ARSAC E-1 and Parks E-1, access to the consolidated RAC appears to be available only from Aviation Boulevard and Imperial Highway. Without an APM or other alternative means of transport between the RAC and the CTA, there would be the need for busses and shuttles to transport customers between the RAC and the CTA, creating local traffic impacts along with the associated noise and air quality impacts. Such impacts would not occur under Alternative D.

On-Airport Public Parking

Under the three variations proposed for Alternative E, parking at the existing Lot B would be expanded similar to Alternative D, and parking at Lot C would be expanded to encompass adjacent areas currently used by rental car companies. The land use plan for ARSAC E suggests that airport parking would also be provided at the combined ITC/GTC; however, as described above, the subject facility does not appear to have sufficient area for the proposed uses. The ability to use a multi-story design approach in order for the subject facility to provide sufficient space would be subject to the height limits associated with placing a new structure in close proximity to Runway 25R.

Due to the proximity of the combined GTC/ITC, proposed under ARSAC E, to the northern runway on the south airfield (25R), the parking structures for this facility would need to be restricted in height. This problem is exacerbated by ARSAC E's proposal to shift Runway 25R northerly in order to accommodate the center taxiway in the south airfield, which would place the runway even closer to the combined GTC/ITC.

Under Alternative D, parking at the GTC and the ITC, which represents 75 percent of the total on-airport public parking, would be in structures that are well-removed from runway areas but within close proximity to an APM station. Under all three of the Alternative E proposals, the majority of parking spaces appear to be located in the expanded Lot B and the expanded Lot C (expanded to encompass the existing rental car areas), which are open-air facilities. Due to the large size of surface lot C, the typical distance between parking areas and the APM station under ARSAC E would be much greater than in Alternative D, resulting in less passenger convenience than that offered in Alternative D. There is apparently no APM proposed under ARSAC E-1 or Parks E-1, consequently the operation of shuttles between the CTA and these parking areas would be necessary, resulting in traffic, air quality, and noise impacts that would not otherwise occur under Alternative D.

Circulation Roadway Design

According to the ARSAC E description, the roadway system proposed to serve the airport would be elevated in some sections and connect to dedicated on- and off ramps of the I-105 Freeway at Imperial and the I-405 Freeway at Century Boulevard. The intent of these direct freeway ramps, as is the intent of Alternative D, is to "take airport traffic off of city streets and keep airport traffic away from and out of the surrounding neighboring areas." While the stated intent to efficiently accommodate airport-related traffic and reduce impacts to local streets and neighboring areas is shared by both Alternative D and ARSAC E, the provisions of each plan to accomplish this goal are substantially different, as described below.

Under Alternative D, the GTC would have approximately 6,000 inbound trips during the airport peak hour. The ITC is expected to generate approximately 2,900 inbound trips during the airport peak hour. To

accommodate this traffic, Alternative D provides 16 lanes of traffic from the freeway and city street system to these facilities. These locations are as follows:

Location	Number of Lanes
La Cienega Boulevard southbound (right turn)	2 lanes
Aviation Boulevard northbound (right turn)	1 lane
Imperial Highway westbound (right turn)	2 lanes
Century Boulevard eastbound (right turn)	2 lanes
I-105 Freeway westbound	2 lanes
I-405 Freeway northbound	2 lanes
I-405 Freeway southbound	2 lanes
111th Street eastbound (left turn)	1 lane
111th Street westbound (right turn)	1 lane
Arbor Vitae Street eastbound (right turn)	1 (commercial vehicles)

These multiple points of entry were designed to spread out the traffic to the separate GTC and ITC facilities. Entry lanes were located so as to reduce the likelihood of queuing on City streets and curtail the amount of right-of-way required to build exclusive turning lanes from the City streets into the on-airport roadways.

With the limited level of detail presented for ARSAC E, it is not possible to offer a thorough analysis of the proposed roadway system. Some of the unspecified major components include:

- The roadway segments that are intended as one-way and those intended as two-way;
- Where the roadway is elevated and where it is at grade;
- The number of entrance lanes provided to the proposed passenger facilities;
- The ingress and egress points from the proposed off-airport roadways and the city street system; and
- Whether the roadway is single level or dual-level, and where these potential changes would occur.

With the level of detail that ARSAC E does provide, it would appear that the ARSAC E proposal offers far fewer points and lanes of entry to the GTC/ITC than Alternative D provides to the separate GTC and ITC facilities. Given the location of the proposed GTC/ITC facility, the only direct entrances from the city street system are limited to eastbound Century Boulevard (right turn), westbound Century Boulevard (left turn) and southbound Airport Boulevard (left turn). If these are intended as entrances, they would offer very little, if any, queuing area off the city street system. Therefore, significant queuing and traffic congestion, particularly on Century Boulevard, would be expected with the ARSAC E design.

GTC Roadway Design -- Under Alternative D, it is estimated that the GTC includes the following roadway infrastructure:

Lower Level Outside Roadway	4.2 lane-miles
Lower Level Inside Roadway	2.1 lane-miles
Upper Level	4.2 lane-miles
Total	10.5 lane-miles

This proposed infrastructure accommodates the volume of projected traffic to and from the GTC during the airport peak hour with acceptable volume/capacity ratios. All but a few segments of the proposed roadway system would operate at Levels of Service C or better. (Figure S15 of Technical Report S-2a of the Final EIR).

Given the footprint of the proposed GTC/ITC under ARSAC E, it is difficult to visualize how the proposed linear roadway that bisects the facility would accommodate access to and egress from the parking structures and the City street system. It is also uncertain as to how the connections to the I-405 and I-

105 would tie into the GTC/ITC and the related local street system. Notwithstanding the questionable viability of the roadway system improvements suggested by ARSAC E, the operational characteristics of the system and its ability to adequately accommodate airport-related traffic are much less favorable and less effective than those of the roadway system improvements proposed under Alternative D.

The ARSAC E-1 description does not offer any roadway improvements except for freeway access to the RAC facility and the proposal that "Aviation will be subterranean along LAX so that there is no longer a bottleneck" at the "highly congested" intersection of Aviation Boulevard and Imperial Highway. There are no details provided as to the limits of this grade separation or where connections to the existing roadways would occur. For instance, it is not evident whether traffic would be allowed access to and from Aviation Boulevard and its cross streets of Imperial Highway, 111th Street, 104th Street, 102nd Street, Century Boulevard, and Arbor Vitae Street. If connections are planned, ramps would need to be provided for these grade-separated intersections. These ramps would require substantial right-of-way at the locations where connections are provided. For the intersection of Aviation Boulevard and Imperial Highway, it is highly unlikely that this right-of-way could be obtained. Three of these corners involve other jurisdictions or agencies (City of El Segundo, County of Los Angeles, Metropolitan Transportation Authority) and the fourth corner is the site of the proposed RAC facility.

The Alternative E-1 description states that the Green Line would also be built below grade as it extends northerly. Any design for a grade separation at the intersection of Aviation Boulevard and Imperial Highway which would need to incorporate the Green Line route simultaneously crossing and rapidly descending from its elevated station at the southeast corner of this intersection to the tracks on the northwest corner, while avoiding the I-105 Freeway columns in the median of Imperial Highway, would likely be impossible.

The Parks E-1 proposal neither shows nor describes any roadway system improvements.

Unlike Alternative D, which provides separate passenger facilities to spread the airport related traffic through the area, ARSAC E-1 and Parks E-1 offer no solution to address the bottleneck at the existing Century Boulevard and Sepulveda Boulevard interchange as traffic enters the existing CTA roadways. As vehicle demand to the airport increases, so too will delay and congestion. With no additional roadway enhancements proposed, traffic will continue to seek alternative routes to access the airport, potentially including local neighborhood streets. As such, local traffic impacts, including those likely to affect local neighborhoods, could be expected to be substantially greater under ARSAC E-1 and Parks E-1 than under Alternative D.

Passenger Drop off and Pickup Accommodations

As indicated in Table F4.3.1-8 of the Final EIR, the future (2015) curb front demand expected for a GTC alone is estimated to be as follows:

Upper Level:	3,309 feet
Lower Level:	7,066 feet

Under Alternative D, this curb front is provided as follows:

Upper Level:	5,940 feet	180% capacity over demand
Lower Level:	8,910 feet	126% capacity over demand

As discussed in the Final EIR, the future (2015) curb front demand would far exceed the capacity of the existing curb front at LAX, and would result in highly congested on-airport traffic operations which would effectively constrain future (2015) passenger activity levels to approximately 78.7 MAP. As indicated on Table F4.3.1-7 of the Final EIR, several of the road segments of the on-airport surface transportation system currently operate at Level of Service (LOS) D or F, and in 2015 under the No Action/No Project Alternative (i.e., no improvements to curb front areas) the vast majority of the roads would operate at LOS F. Under Alternative D, the activity level control point would be moved from the landside operations (i.e., curbside constraint) to airside operations (i.e., gate constraint). The majority of roads within the on-airport

surface transportation system would operate at LOS A or B, while future (2015) passenger activity levels at LAX would be effectively controlled through the proposed gate constraints.

Under ARSAC E, the length of the combined GTC/ITC facility would be approximately 2,200 feet. Given the need for the roadway system to accommodate access to and from the roadway system and parking structures, it would appear that ARSAC E provides substantially less than the curb front required to accommodate the demand. Although ARSAC E proposes an additional drop off and check-in location near the southeast corner of 96th Street and Sepulveda Boulevard, there is no indication that the proposed roadway system provides for the additional curb front necessary to meet the overall passenger demand. The expected result would be significant delays for passengers and visitors seeking curbside accommodations. ARSAC E would, in essence, simply take the existing curbside constraint problem and reconfigure it, but not address the problem of existing and future curbside congestion.

Under ARSAC E-1 and Parks E-1, there appear to be no notable provisions to address the existing lack of curb front area; consequently, future (2015) curb front congestion is likely to be substantial under those two proposals.

Business Impacts

Unlike the proposed Alternative D airport roadways, which do not require the removal of any Century Boulevard hotels, the proposed ARSAC E roadway system crosses the property of the existing Westin Hotel on Century Boulevard. The proposed roadway also crosses through "hotel row" between Airport and Sepulveda Boulevards, although the impacted property is not indicated. The proposed freeway connection from northbound I-405 Freeway and the airport roadway may require the demolition of an existing hotel on the east side of La Cienega Boulevard. The proposed ARSAC E roadway system would also require the elimination of several cargo and freight forwarding businesses south of Century Boulevard which are not impacted in Alternative D. Finally, the park area proposed between 96th Street and 98th Street under all three variations of Alternative E would result in the acquisition and displacement/relocation of businesses in the subject area that would not be affected under Alternative D. This would also be the case relative to the ITC proposed under Parks E-1.

Light Rail

Alternative D and all three variations of Alternative E leave the MTA right-of-way intact on the west side of Aviation Boulevard for future light rail or other mass-transit service. Alternative D provides connectivity between the existing Green Line station and the proposed ITC via a moving pedestrian walkway over Imperial Highway. ARSAC E proposes its light rail interface with airport facilities at the combined GTC/ITC at Aviation Boulevard and Century Boulevard. It is not clear as to whether ARSAC E, ARSAC E-1 or Parks E-1, intends to provide a Green Line passenger connection at the RAC facility proposed at the Continental City site. It is unlikely that passenger demand at this facility would warrant the capital expenditure, since RAC customers have already decided upon a private automobile as their mode choice. Under ARSAC E, Green Line passengers from the South Bay going to LAX would be forced to transfer at the Aviation/Imperial station to a northbound train, depart at the GTC/ITC station, and transfer to the APM to travel to the CTA terminals. This is an additional transfer from what is proposed in Alternative D. For Green Line passengers from points east, it can be assumed that for every train that goes north to the GTC/ITC, another train would turn toward the South Bay. Therefore, unlike Alternative D, in which every westbound Green Line train in effect stops at the airport (the ITC), only 50 percent of the westbound Green Line trains would provide access to the airport's APM station without requiring a transfer in ARSAC E.

Under the ARSAC E-1 and Parks E-1 proposals, Green Line passengers traveling to or from LAX would have airport access at the regional transportation center/ITC proposed under those plans at the northwest corner of Century Boulevard and Aviation Boulevard, and would have to transfer to or from a bus/shuttle for transport between the subject facility and the CTA. Such a requirement would not represent a notable improvement over the current situation at the existing Green Line station.

Convention Center Traffic

Vehicle trips generated by the convention center proposed under all three variations of Alternative E would be in addition to the trip generation totals established for Alternative D. To fully assess this project component, these vehicle trips would need to be modeled, their impact on the surface transportation network determined, and a mitigation plan developed. ARSAC E does not provide any information as to

the size of the proposed convention center, parking availability and street/freeway access. The only parameter established by the proposal is that the convention center and a park would be located within Manchester Square. However, the Manchester Square area is of sufficient size to house both the existing downtown Los Angeles Convention Center and the Staples Center. Even assuming the proposed convention center would be smaller than these existing facilities, the potential for a significant amount of additional traffic due to the operation of a convention center is not only possible but highly likely under this plan.

4.3 Summary and Conclusions

Based on the above, LAWA has carefully considered all three variations of Alternative E, including ARSAC E, ARSAC E-1, and Parks E-1, and has concluded that these proposals are infeasible and fail to meet the purpose and objectives of the LAX Master Plan. By contrast, Alternative D's improvements respond to the purpose and objectives of the project by responding to local and regional demand for air transportation, maximizing the return on existing infrastructure, promoting operational efficiency, and ensuring the safety of all airport users.

Compared to Alternative E, inclusive of all three variations, Alternative D provides a superior airfield operations area configuration and operational characteristics that would better accommodate both existing and anticipated aircraft activities. This is true relative to Alternative D's superior ability to address potential runway incursion problems and to provide for a better balance of operations between the north airfield and the south airfield. The design approach of Alternative D provides for a slight reduction in the number of existing gates, but with improvements to, and reconfiguration of, the remaining gates such that LAX will accommodate a future capacity comparable to that of the No Action/No Project Alternative, but at a far superior quality of service. All three variations of Alternative E result in the outright elimination of numerous existing gates, with little, if any, stated provisions for reconfiguration of existing gates to accommodate anticipated changes in the nature of aircraft activity at LAX (i.e., increase number of New Large Aircraft (NLA)). Only Alternative D and ARSAC E provide for additional space within the CTA, which is much needed to serve existing and future activities at LAX. Only Alternative D provides a GTC, ITC, APM, and over 36 lane-miles of new on-airport roads to effectively alleviate passenger activity congestion at the CTA, establish a well integrated surface transportation system that emphasizes alternative modes of surface transportation, and, with mitigation, allows direct freeway access between LAX and the I-105 and I-405 Freeways. Of the three proposals for Alternative E, only ARSAC E has any provision for a GTC, ITC, and APM; however, the combined GTC/ITC suggested under that proposal appears to be substantially undersized and is technically questionable relative to the size, location, and design of such a facility being able to integrate numerous functions, roads, and rail lines. Public transit under all three variations of Alternative E features the proposed extension of the Green Line as a below-grade rail line that would extend north along Aviation Boulevard and extend to downtown Los Angeles. Such an extension from the existing elevated Green Line station near LAX would be very costly to construct and potentially challenging from an engineering standpoint and the ability of MTA trains to safely operate (i.e., extension from existing elevated station to a perpendicular below grade route, requiring a sharp turn and rapid descent). Alternative D proposes a more practical, feasible approach of effectively linking the MTA system with LAX by providing a "moving sidewalk" between the Green Line station and the ITC, and providing an efficient APM link between the ITC and the CTA. While ARSAC E-1 and Parks E-1 propose a regional transportation center and an ITC, respectively, connected to the proposed Green Line extension, neither proposal includes a link to the CTA. As such, the public would be less inclined to use the Green Line for traveling to and from LAX, and there would be additional on-airport traffic impacts due to buses and shuttles traveling to and from the CTA under these proposals.

In light of the above, the three proposals for Alternative E would be less responsive to, and in fundamental respects, in conflict with, the basic objectives of the LAX Master Plan, as compared to Alternative D. The first objective of the LAX Master Plan is to respond to local and regional demand for air transportation during the period 2000 to 2015, taking into consideration the amount, type, location, and timing of such demand. While Alternatives A, B, and C, developed early in the planning process for the Master Plan, were proposed to fully or largely respond to this objective, Alternative D was later proposed as an environmentally superior alternative carefully designed to serve a smaller portion of that future demand, comparable to that of the No Action/No Project Alternative, but at a far superior level of service. All three variations of Alternative E would result in substantial reductions in the number of existing gates at LAX, with no notable provisions for reconfiguring and improving the remaining gates, would not

address the existing potential for runway incursions in the north airfield, would not address the imbalance in aircraft operations between the north and south airfields, would not, with the exception of ARSAC E, provide for additional terminal space, and would not provide for necessary or desirable improvements to the on-airport surface transportation system including access to public transit. As such, Alternative E would be far less responsive to meeting existing and future demands for air transportation than Alternative D, and not only would Alternative E not provide the quality of service that would otherwise occur under Alternative D, but would more likely result in substantial congestion and inefficiencies in both airside and landside operations.

The second basic objective of the LAX Master Plan is to ensure that new investments in airport capacity are efficient and cost-effective, maximizing the return on existing infrastructure capital. Granted the direct costs of the improvements associated with all three variations of Alternative E would be less than those of Alternative D, the long-term economic losses to the region resulting from the inability of LAX, under Alternative E, to respond to future air transportation demands would be substantial. The airside and landside constraints and inefficiencies associated with Alternative E that are summarized above would substantially change the basic function of LAX and undermine the many years of both public and private investments in the existing infrastructure and operation of LAX. Alternative D provides a means to optimize the use of existing infrastructure, and invest in improvements that will enhance the overall efficiency and quality of service of LAX.

The third basic objective of the LAX Master Plan is to sustain and advance the international trade component of the regional economy and the international commercial gateway role of the City of Los Angeles. The operation of LAX has long been key to the nature and success of international trade in the Los Angeles region. The airside and landside constraints and inefficiencies associated with all three variations of Alternative D would be in direct conflict with this objective of the LAX Master Plan. Alternative D carefully and intentionally provides for airside and landside improvements that are specifically intended to enhance the role of LAX in continuing to serve the international market. Such improvements include, but are not limited to: (1) north airfield improvements that address the potential for runway incursions and, by better accommodating long-haul and heavy aircraft departures, provide an improved balance between north and south airfield operations; (2) improved gate configurations that would better accommodate large aircraft typically associated with international air transportation; (3) expanded and improved terminal area; and (4) improved surface transportation system and facilities.

Based on the above, LAWA has concluded that all three variations of Alternative E are infeasible and fail to meet the purpose and objectives of the LAX Master Plan. Additionally, in view of the above, there is at least a substantial issue as to whether the Alternative E proposals are legally approvable by FAA. 49 USC Section 47107 (a) (16) provides that any alteration to LAX or any of its facilities shall be permitted only if FAA determines that the alteration will not 'affect adversely the safety, utility, or efficiency of the airport.' Given that the proposed alternatives would likely have the effect of substantially decreasing the existing capacity of LAX and the efficient utilization of the airfield and terminals, it appears unlikely that FAA would be able to make the necessary findings required in order to approve the alterations proposed under ARSAC E, ARSAC E-1, or Parks E-1.

5. REFINEMENTS TO THE ENVIRONMENTAL ACTION PLAN

The following incorporates refinements to the Environmental Action Plan of the Final EIR, which reflect the addition of Environmental Justice-related Master Plan commitments as presented in Section 2.2, *Environmental Justice*, of this Addendum to the Final EIR. These additional Master Plan commitments are included below under the headings Environmental Justice (refer to Master Plan Commitments EJ-1, EJ-2, EJ-3 and EJ-4), Air Quality (refer to Master Plan Commitments AQ-1, AQ-2, and AQ-3), and Off-Airport Surface Transportation (refer to Master Plan Commitment ST-23). Additionally, a new Master Plan commitment has been added as ST-24 for Off-Airport Surface Transportation to reaffirm the fact that LAWA will contribute on a fair-share basis to future transportation improvements identified in the Final EIR through the Congestion Management Plan (CMP) analysis completed for Alternative D. Further, Mitigation Measure MM-AQ-1 has been refined to clarify the intent of the measure and its associated performance standard. Finally, refinements have been made to the text within subsection 5.1, *Project Design Features,* to clarify how airfield improvements associated with Alternative D address the potential for runway incursions. The following Environmental Action Plan replaces and supersedes the Environmental Action Plan contained in Chapter 5 of the LAX Master Plan Improvements Final EIR.

5.0 Environmental Action Plan

Through the course of formulating, designing, evaluating, and refining the Master Plan project, measures have been, and will be, incorporated to avoid or reduce impacts to the environment. Such measures are numerous and diverse, ranging from environmentally sensitive aspects of the project's physical design to policies and practices for mitigating impacts during project construction and operation. Collectively, these measures comprise an environmental action plan to minimize the overall impacts of the Master Plan project.

The nature and characteristics of the measures that serve to avoid or reduce impacts to the environment are described in Chapter 4, *Affected Environment, Consequences, and Mitigation Measures*, relative to each environmental topic addressed therein. The numerous measures that constitute the environmental action plan for the Master Plan project are grouped into three categories - Project Design Features, Master Plan Commitments, and Proposed Mitigation Measures - as described below.

Project Design Features are physical aspects of the Master Plan that, by virtue of their design, location or function, serve to avoid or reduce environmental impacts. Although the Final EIS/EIR analyses focuses primarily on the impacts from the construction and operation of the physical features of the project, it is important to recognize that several of those key features were specifically intended and designed to avoid or reduce impacts that would otherwise occur.

Master Plan Commitments are primarily activities, policies, and practices included in the proposed Master Plan that would serve to avoid or reduce environmental impacts. The Master Plan commitments identified in this section are applicable to the extent that the use of airport revenue to fund such measures is permissible under federal law and policies. The Master Plan provides a comprehensive program to guide the future development and operation of LAX, of which commitments related to the preservation, protection, and enhancement of the environment are a key element. The rationale behind the formulation of Master Plan commitments is provided in the Introduction to Chapter 4.

Proposed Mitigation Measures are additional means of avoiding or reducing environmental effects as determined in conjunction with the impacts analyses presented in Chapter 4. The mitigation measures identified in this section are applicable to the extent that the use of airport revenue to fund such measures is permissible under federal law and policies. Mitigation measures and Master Plan commitments are incorporated into a comprehensive Mitigation Monitoring and Report Program (MMRP) and a mechanism for establishing compliance with the program is included. A final MMRP that specifies the Master Plan commitments and mitigation measures for the selected alternative, and the monitoring and reporting procedures and requirements for each of those commitments and measures, is included among the various planning documents to be considered during the City of Los Angeles' decision-making process for the project.

The following presents the project design features, Master Plan commitments, and proposed mitigation measures that constitute the environmental action plan for the Master Plan project.

5.1 Project Design Features

The formulation and design of the Master Plan project included attention to environmental issues, with the objective being to avoid or reduce potential environmental impacts where possible. This objective was considered in the planning of the many improvements proposed as part of the Master Plan. The following highlights some of the more notable project design features for Alternatives A, B, C, and D that achieve the objective, realizing that several other aspects of the Master Plan also contribute to the objective, but to a lesser degree.

Airside Improvements - A key aspect of the Master Plan relates to airfield and aircraft gate improvements that would both enhance existing and future operations of aircraft and improve provisions for passengers and visitors at the airport. Under Alternatives A, B, and C, the addition and/or modification of runways and improvements to taxiways would allow more efficient movement and operation of aircraft on the ground, with the direct environmental benefit of reducing air pollutant emissions from aircraft engines. Additionally, gate electrification would further reduce aircraft-related emissions. The nature and location of the runway and taxiway improvements, particularly under Alternatives A and C, are designed to direct and orient aircraft activity away from nearby residential areas and other sensitive uses, thereby reducing potential impacts related to aircraft noise and air pollutant emissions. These improvements take advantage of the airport's coastal location (whereby the higher noise levels associated with aircraft takeoffs can be oriented westward away from noise-sensitive receptors) while ensuring that sensitive coastal resources, such as habitat for the El Segundo blue butterfly, are protected by limiting runway improvements to areas east of the El Segundo Dunes. Similarly, major improvements to better accommodate passengers and visitors at the airport, such as development of the West Terminal Area, have been situated in the west central portion of the airfield, generally away from residential areas near the airport. By so doing, potential impacts related to construction and to operational noise, and air quality impacts at the terminal gates are reduced. Alternatives A, B, and C would, to the greatest extent possible, comply with federal security requirements.

The airfield modifications for Alternative D, summarized herein, would reduce delays and reduce the potential for runway incursions, thereby enhancing the safety of passengers and aircraft at LAX. Under Alternative D, runways would be modified, two new parallel taxiways (one between each pair of parallel runways) would be constructed, and the number of taxiways directly linking parallel runways would be reduced. In addition, all existing high-speed exit taxiways that directly cross the inboard departure runways would be reconfigured to direct arriving aircraft onto the new center parallel taxiway. Such airfield improvements would allow LAX to meet current FAA safety design standards as well as reduce the potential for runway incursions. The modification of runways and taxiways would allow more efficient movement and operation of aircraft on the ground, with the direct environmental benefit of reducing air pollutant emissions from idling aircraft engines. Additionally, gate electrification would further reduce aircraft-related emissions. As described above, Alternative D would maintain the existing four-runway system with modifications to runways and the addition of center taxiways between runways on the north and south airfields. These modifications are designed to accommodate for Design Group V aircraft, with operational and modified Design Group VI solutions for the anticipated limited operations of New Large Aircraft (NLA). Similarly, reconfiguration of the Central Terminal Area (CTA) and addition of a West Satellite Concourse would improve passenger processing efficiency. It should be noted that the relocation of Runway 6R/24L proposed under Alternative D to help accommodate NLAs would occur by moving the runway south, away from the existing community of Westchester, and development of the West Satellite Concourse would also occur away from the community. Similar to Alternatives A, B, and C, the airfield improvements proposed under Alternative D would provide for more efficient movement of aircraft while on the ground, which engenders certain environmental benefits such as reduced air pollutant emissions that would not occur under the No Action/No Project Alternative; however, unlike Alternatives A, B, and C, Alternative D is designed to accommodate a future (2015) airport activity level comparable to that of the No Action/No Project Alternative. This relatively lower level of future airport activity provides for reduced environmental impacts compared to those of the other build alternatives. Alternative D is specifically designed with an emphasis on safety and security and would, to the greatest extent possible, comply with federal security requirements.

Landside Improvements - Key aspects of Master Plan Alternatives A, B, and C relate to the extensive on-airport and off-airport transportation and circulation improvements that are proposed to reduce potential traffic impacts. With respect to on-airport improvements, each of these Master Plan alternatives would reduce curbfront demand at the Central Terminal Area (CTA) by relocating a substantial portion of the air passenger demand from the CTA to the new West Terminal Area, thereby spreading on-airport traffic over a wider area. The West Terminal Area would be designed to accommodate over one half of the airport's traffic, with direct access provided via a non-stop ring road linking the airport to both of the airport vicinity freeways, the San Diego Freeway (I-405) and the Glenn M. Anderson Freeway (I-105). Also, the alternatives provide for substantial improvements in on-airport parking, with the planned parking capacity to exceed demand for 2015 by about 3,800 stalls. These additional public parking spaces would serve to reduce the number of double trips, and associated traffic congestion and air pollutant emissions, generated by people forced to recirculate on the terminal service loop due to CTA congestion or by not being able to find parking spaces. Alternatives A, B, and C include a single, consolidated on-airport rental car facility that would share a common shuttle bus service and would be fed by the on-airport Automated People Mover, thereby eliminating a great many congestion-causing shuttle trips.

Relative to the off-airport system for Alternatives A, B, and C, a number of major improvements are proposed around the airport area to reduce potential traffic impacts. Such improvements include: on the north, the LAX Expressway to provide direct freeway access to LAX for motorists traveling south on I-405 and for those exiting the airport heading north; from the east, I-105 would be extended so that it terminates directly onto the airport and the existing MTA Green Line would also be extended onto the airport; and, most importantly, direct freeway connections from the I-105 and I-405 would tie into a ring road that provides direct access to all parts of the airport, including the proposed new West Terminal Area. The design and operation of the ring road would reduce potential environmental impacts in several ways. It would provide an efficient access route for airport traffic, thereby diverting traffic from the surrounding surface streets, including roads within residential neighborhoods nearby. The location and configuration of the ring road would generally be confined to the edge of the airport property, thereby avoiding intrusion into, and disruption of, nearby communities. Similarly, the location and design of the LAX Expressway is intended to minimize impacts on existing communities by proposing alignments that generally follow other existing highways (i.e., I-405 for Alternatives A and C) or vacant right-of-way (i.e., MTA right of way for Alternative B). Both the LAX Expressway and the ring road feature the use of elevated roadway sections to reduce impacts on nearby areas.

Modifications to the landside system in Alternative D would enhance the safety and security of the airport to protect the airport's critical infrastructure components by controlling access to the CTA. This would be accomplished by restricting vehicles, other than FlyAway buses and vehicles that are currently cleared to drive on the secure airside of the airport, from terminal roadway access and eliminating public parking facilities near the CTA. The new system would be composed of four primary facilities: the CTA, the GTC, the ITC, and the RAC facility. The new Automated People Mover (APM) would connect each of these facilities to the CTA. Unlike the way the terminals are accessed today, the GTC would function as the primary access point for all passenger drop-off/pick-up and would be used for private vehicle parking. The ITC would provide an intermodal facility for passengers using the MTA Green Line or regional buses and also includes premium parking for airport users. The addition of a RAC facility in Alternative D would consolidate rental car companies into a single location, which would substantially reduce the amount of rental car company shuttle trips currently experienced at LAX. The combination of the GTC, ITC, RAC, and APM provide for reduced vehicle trips and traffic congestion at, and near, the CTA, which serves to reduce traffic impacts as well as mobile source air pollutant emissions.

Alternative D would also result in an increase in parking availability at the airport. Public parking would be provided in the ITC, GTC and in an expanded Lot B. In the GTC, three garages would provide short-term and long-term parking. The parking facilities at the ITC would provide short-term parking and the surface lot north of 111th Street would be incorporated into Lot B and would provide long-term parking. A shuttle bus would transport people between this lot and the ITC for access to the CTA (via the landside APM). Alternative D would include a series of improvements to the off-airport transportation network, including adding lanes to accommodate the shift in traffic patterns associated with the relocation of the primary passenger congregation areas from the CTA to the GTC and ITC. These improvements are designed to improve those intersections that would experience the primary increase in traffic as a result of Alternative D implementation. Local surface transportation improvements associated with Alternative D would

provide more efficient movement of ground vehicles and contribute to reducing the amounts of air pollutant emissions associated with the long-term operation of LAX.

5.2 Master Plan Commitments

The following provides a list of the Master Plan commitments that are identified, by environmental discipline, throughout Chapter 4 to avoid or reduce potential environmental impacts of the project.

Noise

- **N-1. Maintenance of Applicable Elements of Existing Aircraft Noise Abatement Program (Alternatives A, B, C, and D).**

  All components of the current airport noise abatement program that pertain to aircraft noise will be maintained.

Land Use

- **LU-1. Incorporation of City of Los Angeles Ordinance No. 159,526 [Q] Zoning Conditions for LAX Northside into the LAX Northside/Westchester Southside Project (Alternatives A, B, C, and D).**

  To the maximum extent feasible, all [Q] Conditions (Qualifications of Approval) from City of Los Angeles Ordinance No. 159,526 that address the Northside project area will be incorporated by LAWA into a new LAX Zone/LAX Specific Plan for the LAX Northside/Westchester Southside project. Accepting that certain conditions may be updated, revised, or determined infeasible as a result of changes to the LAX Northside project, the final conditions for the LAX Northside/Westchester Southside project will ensure that the level of environmental protection afforded by the full set of existing LAX Northside project [Q] conditions is maintained or increased.

- **LU-2. Establishment of a Landscape Maintenance Program for Parcels Acquired Due to Airport Expansion (Alternatives A, B, C, and D).**

  Land acquired and cleared for airport development will be fenced, landscaped, and maintained regularly until the properties are actually developed for airport purposes.

- **LU-3. Comply with City of Los Angeles Transportation Element Bicycle Plan (Alternatives A, B, and C).**

  LAWA will comply with bicycle policies and plans in the vicinity of LAX, most notably those outlined in the City of Los Angeles Transportation Element Bicycle Plan and the General Plan Framework. As a primary objective, LAWA will provide maximum feasible incorporation of bike paths and bike lanes into the proposed LAX Master Plan circulation systems with a fundamental priority for ensuring safe and efficient bicycle and vehicular circulation. This commitment will include the provision of bicycle lanes along Imperial Highway between Sepulveda Boulevard and immediately west of Pershing Drive. In addition, bicycle access and parking facilities will be provided at transit centers, including the West Terminal Metro Rail Station, major parking lots, and Bus Transit Centers. Bicycle facilities such as lockers and showers will also be provided where feasible to promote employee bicycle use.

- **LU-4. Neighborhood Compatibility Program (Alternatives A, B, C, and D).**

  Ongoing coordination and planning will be undertaken by LAWA to ensure that the airport is as compatible as possible with surrounding properties and neighborhoods. Measures to enforce this policy will include:

  - Along the northerly and southerly boundary areas of the airport, LAWA will provide and maintain landscaped buffer areas that will include setbacks, landscaping, screening or other appropriate view sensitive uses with the goal of avoiding land use conflicts, shielding lighting, enhancing privacy and better screening views of airport facilities from adjacent residential uses. Use of existing facilities in buffer areas may continue as required until LAWA can develop alternative facilities.

- Locate airport uses and activities with the potential to adversely affect nearby residential land uses through noise, light spill-over, odor, vibration and other consequences of airport operations and development as far from adjacent residential neighborhoods as feasible.
- Provide community outreach efforts to property owners and occupants when new development on airport property is in proximity to and could potentially affect nearby residential uses.

- **LU-5. Comply with City of Los Angeles Transportation Element Bicycle Plan (Alternative D).**

  LAWA will comply with bicycle policies and plans in the vicinity of LAX, most notably those outlined in the City of Los Angeles Transportation Element Bicycle Plan and the General Plan Framework, including Pershing Drive, Sepulveda Boulevard, and Aviation Boulevard. As a priority, a Class I bike path will be incorporated on Aviation Boulevard, as practical and feasible per the standards identified in the City of Los Angeles Transportation Element Bicycle Plan generally extending from the Inglewood City limits (Arbor Vitae Street) to the north to Imperial Highway to the south. As a primary objective, LAWA will provide maximum feasible incorporation of other bike paths and bike lanes into the design of projects that will be constructed under the LAX Master Plan program with a fundamental emphasis on ensuring safe and efficient bicycle and vehicular circulation. In addition, bicycle access and parking facilities will be provided at the Ground Transportation Center, Intermodal Transportation Center, and major parking lots. Bicycle facilities such as lockers and showers will also be provided where feasible to promote employee bicycle use.

On-Airport Surface Transportation

- **ST-1. Adequate West Terminal Design (Alternatives A, B, and C).**

  The West Terminal Area surface transportation system and curbfront, commercial vehicle staging areas, and APM systems will be designed to adequately accommodate all forecast vehicular activity through 2015.

- **ST-2. Non-Peak CTA Deliveries (Alternatives A, B, C, and D).**

  Deliveries to the CTA terminal reconstruction projects will be limited to non-peak traffic hours whenever possible.

- **ST-3. Construction Traffic Uses Upper Level (Alternatives A, B, and C).**

  All construction traffic required to travel through the CTA will use the upper level roadways whenever practical and feasible since the upper level roadways are typically less congested than lower level roads. Four curb areas will be designated for construction deliveries. Each curb area will be a minimum length of one hundred feet, to allow terminal access for construction vehicles. Two of the curb areas will be located on World Way North and two will be located on World Way South. One of the curb areas will be in close proximity to Tom Bradley International Terminal.

- **ST-4. Limited Short-Term Lane Closures (Alternatives A, B, and C).**

  When construction of any new ramps at the Century Boulevard/Sepulveda Boulevard interchange or the APM elevated structures requires short-term lane closures, the lane closures will be for as brief a period as practical, with a goal that closures would last for no more than twelve consecutive hours at a time and would principally be scheduled for non-peak periods.

- **ST-5. Additional Lot C Shuttles (Alternatives A, B, and C).**

  Additional shuttles, as needed, will be added between the Remote Public Parking Lot C and the CTA to accommodate the closure of parking areas when the CTA Parking Expansion project is being constructed.

- **ST-6. Removal of Spoil Material (Alternatives A, B, and C).**

  The spoil material that is removed from the APM and Commercial Vehicle Road (CVR) tunneling projects in the CTA vicinity will be stockpiled and subsequently removed from a point west of the CTA to minimize interruptions in the CTA curb operations.

- **ST-7. Adequate GTC, ITC, and APM Design (Alternative D).**

  LAWA will ensure that the surface transportation system and curbfront for the GTC and ITC, commercial vehicle staging areas, and APM systems will be designed to adequately accommodate all forecast vehicular activity through 2015.

- **ST-8. Limited Short-Term Lane Closures (Alternative D).**

  When construction of any new ramps at the Century Boulevard/Sepulveda Boulevard interchange or construction for the GTC, ITC, or APM elevated structures require short-term lane closures, the lane closures will be for as brief a period as practical and with a goal that closures would principally be scheduled for non-peak periods.

Off-Airport Surface Transportation

- **ST-9. Construction Deliveries (Alternatives A, B, C, and D).**

  Construction deliveries requiring lane closures shall receive prior approval from the Construction Coordination Office. Notification of deliveries shall be made with sufficient time to allow for any modifications of approved traffic detour plans.

- **ST-10. Designated Truck Routes (Alternatives A, B, and C).**

  For dirt and aggregate and all other materials and equipment, truck deliveries will be on designated routes only (freeways and non-residential streets). Every effort will be made for routes to avoid residential frontages. The designated routes on City of Los Angeles streets are subject to approval by LADOT's Bureau of Traffic Management and may include, but will not necessarily be limited to:

  - Florence Avenue (I-405 to Aviation Boulevard)
  - Manchester Avenue (east of Aviation Boulevard)
  - Aviation Boulevard (Manchester Boulevard to Imperial Highway)
  - Arbor Vitae Street (I-405 to Sepulveda Boulevard)
  - Westchester Parkway
  - Imperial Highway (east of Sepulveda Boulevard)
  - La Cienega Boulevard (Manchester Boulevard to Imperial Highway)
  - Airport Boulevard (south of Arbor Vitae Street)
  - Sepulveda Boulevard (La Tijera Boulevard to Imperial Highway)
  - I-405
  - I-105 (east of Sepulveda Boulevard)
  - Pershing Drive (Westchester Parkway to Imperial Highway)

- **ST-11. Stockpile Locations (Alternatives A, B, and C).**

  Stockpile locations will be confined to the eastern area of the airport vicinity, to the extent practical and feasible. Multiple stockpile locations may be provided, as required.

- **ST-12. Designated Truck Delivery Hours (Alternatives A, B, C, and D).**

  Truck deliveries shall be encouraged to use nighttime hours and shall avoid the peak periods of 7:00 a.m. to 9:00 a.m. and 4:30 p.m. to 6:30 p.m.

- **ST-13. Construction Employee Parking Locations (Alternatives A, B, and C).**

  Employee parking will be provided along the east end of the airport, to the extent possible. Shuttle buses will transport employees to construction sites. In addition, remote parking locations (of not less than 1 mile away from project construction activities) will be established for construction employees with shuttle service to the airport. An emergency return system will be established for employees that must leave unexpectedly.

- **ST-14. Construction Employee Shift Hours (Alternatives A, B, C, and D).**

  Shift hours that do not coincide with the heaviest commuter traffic periods (7:00 a.m. to 9:00 a.m., 4:30 p.m. to 6:30 p.m.) will be established. Work periods will be extended to include weekends and multiple work shifts, to the extent possible and necessary.

- **ST-15. Separation of Construction Traffic (Alternatives A, B, and C).**

  Construction traffic will be separated from regular airport traffic by various means, including keeping in service as haul routes any existing roads that would be replaced and any detour routes (where appropriate), even after the parallel new roadway is open to traffic.

- **ST-16. Designated Haul Routes (Alternatives A, B, C, and D).**

  Every effort will be made to ensure that haul routes are located away from sensitive noise receptors.

- **ST-17. Maintenance of Haul Routes (Alternatives A, B, C, and D).**

  Haul routes on off-airport roadways will be maintained periodically and will comply with City of Los Angeles or other appropriate jurisdictional requirements for maintenance. Minor striping, lane configurations, and signal phasing modifications will be provided as needed.

- **ST-18. Construction Traffic Management Plan (Alternatives A, B, C, and D).**

  A complete construction traffic plan will be developed to designate detour and/or haul routes, variable message and other sign locations, communication methods with airport passengers, construction deliveries, construction employee shift hours, construction employee parking locations, and other relevant factors.

- **ST-19. Closure Restrictions of Existing Roadways (Alternatives A, B, C, and D).**

  Other than short time periods during nighttime construction, existing roadways will remain open until they are no longer needed for regular traffic or construction traffic, unless a temporary detour route is available to serve the same function. This will recognize that there are three functions taking place concurrently: (1) airport traffic, (2) construction haul routes, and (3) construction of new facilities.

- **ST-20. Stockpile Locations (Alternative D).**

  Stockpile locations will be confined to the eastern area of the airport vicinity, to the extent practical and feasible. After the eastern facilities are under construction in Alternative D, stockpile locations will be selected that are as close to I-405 and I-105 as possible, and can be accessed by construction vehicles with minimal disruption to adjacent streets. Multiple stockpile locations may be provided, as required.

- **ST-21. Construction Employee Parking Locations (Alternative D).**

  During construction of the eastern airport facilities, employee parking locations will be selected that are as close to I-405 and I-105 as possible and can be accessed by employee vehicles with minimal disruption to adjacent streets. Shuttle buses will transport employees to construction sites. In addition, remote parking locations (of not less than 1 mile away from project construction activities) will be established for construction employees with shuttle service to the airport. An emergency return system will be established for employees that must leave unexpectedly.

- **ST-22. Designated Truck Routes (Alternative D).**

  For dirt and aggregate and all other materials and equipment, truck deliveries will be on designated routes only (freeways and non-residential streets). Every effort will be made for routes to avoid residential frontages. The designated routes on City of Los Angeles streets are subject to approval by LADOT's Bureau of Traffic Management and may include, but will not necessarily be limited to:

  - Pershing Drive (Westchester Parkway to Imperial Highway)
  - Florence Avenue (Aviation Boulevard to I-405)
  - Manchester Boulevard (Aviation Boulevard to I-405)
  - Aviation Boulevard (Manchester Avenue to Imperial Highway)
  - Westchester Parkway/Arbor Vitae Street (Pershing Drive to I-405)

- Century Boulevard (Sepulveda Boulevard to I-405)
- Imperial Highway (Pershing Drive to I-405)
- La Cienega Boulevard (north of Imperial Highway)
- Airport Boulevard (Arbor Vitae Street to Century Boulevard)
- Sepulveda Boulevard (Westchester Parkway to Imperial Highway)
- I-405
- I-105

- **ST-23. Expanded Gateway LAX Improvements/Greening of Impacted Communities (Alternatives A, B, C, and D).**

  Gateway LAX improvements will be enabled through transportation improvements along Century Boulevard to the east as they are proposed to extend into low-income and minority communities in the City of Inglewood. LAWA anticipates making financial contribution, on a fair-share basis up to a maximum of 10 million dollars, to various off-airport surface transportation related components which may include:

  - Roadway Improvements - Construct roadway improvements on streets heavily trafficked for LAX.
  - Special Landscaping - Extend the Century Boulevard Traffic Corridor Mitigation Program and LAX Beautification Enhancements Program to include landscaping requirements along Century Boulevard in the City of Inglewood.
  - Street Signage - Install aesthetically pleasing, branding signage and way finding in impacted communities to improve airport-related circulation and to help direct airport users to services in those areas.

- **ST-24. Fair-Share Contribution to CMP Improvements (Alternative D).**

  At the time of substantial completion of the LAX Master Plan, LAWA will contribute funding on a fair-share basis to future transportation improvements identified through the Congestion Management Plan (CMP) analysis completed for Alternative D. Potential future improvements are identified below.

Jurisdiction	Impacted Facility	Potential Future Improvement	Estimate of LAWA's Fair-Share Contribution
Manhattan Beach	Sepulveda, Marine to Manhattan Beach Bl.	Signal Synchronization	$12,400
	Sepulveda, Manhattan Beach Bl. to Artesia	Signal Synchronization	$33,200
Culver City	Venice, I-405 to Overland	Signal Synchronization	$26,550
Los Angeles	La Cienega, Fairfax to Jefferson	Contribution to Transit	$10,950
	La Cienega, Jefferson to Rodeo	Contribution to Transit	$28,500
	Manchester, Sepulveda to La Tijera	Contribution to Transit	$6,900
LA County	La Cienega, Rodeo to Stocker	Signal Synchronization	$125,650
	La Cienega, Stocker to Slauson	Signal Synchronization	$31,400
Inglewood	La Cienega, Slauson to Centinela	Signal Synchronization	$87,000
Caltrans	I-405 at Santa Fe Ave.	Future Freeway Improvements	$308,000
	I-405 s/o I-110 at Carson Scales	Future Freeway Improvements	$670,000
	I-405 n/o Inglewood Ave.	Future Freeway Improvements	$4,050,000

LAWA's financial contribution will be based upon, and coordinated with, traffic impacts attributable to implementation of the LAX Master Plan, and will occur at the time the individual future improvements at the locations listed above are implemented, subject to federal approval regarding airport revenue diversion.

Relocation of Residences or Businesses

- **RBR-1. Residential and Business Relocation Program (Alternatives A, B, C, and D).**

  To address the acquisition of properties and relocation of businesses and residents associated with the proposed Master Plan, LAWA will prepare a Residential and Business Relocation Plan ("Relocation Plan") in compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, state and local regulations, and FAA Advisory Circular 150/5100-17, prior to the commencement of acquisition. LAWA will achieve the following objectives:

  - Fully inform eligible project-area residential occupants and business owners of the nature of and procedures for obtaining relocation assistance and benefits.
  - Determine the needs of each residential relocatee and business owner.
  - Provide an adequate number of referrals to comparable, decent, safe, and sanitary housing units within a reasonable time prior to relocation. No residential occupant would be required to move until comparable decent, safe, and sanitary housing is made available.
  - Provide at least 90 days advance written notice to vacate, as required by law. The notice period may be extended according to the needs of the affected relocatees.
  - Provide current and continuously updated information concerning replacement housing and business choices and opportunities.
  - Ensure that the relocation process does not result in different or separate treatment because of race, religion, national origin, gender, marital status, or other arbitrary circumstances.
  - Ensure that the unique needs of minority and low-income persons and businesses are addressed, including the provision of assistance and materials in Spanish and other languages as necessary.
  - Supply information concerning federal, state, city, and other governmental programs providing assistance to displaced persons or businesses.
  - Assist each eligible person or business in the completion of all applications and claims for payment of benefits.
  - Make relocation payments in accordance with Federal Relocation Regulations, including the provisions of Last Resort Housing, where applicable.
  - Inform all affected occupants of LAWA's policies with regard to eviction and property management.
  - Establish and maintain a formal grievance procedure for use by relocatees seeking administrative review of LAWA decisions with respect to relocation assistance.

  Although it is expected that comparable replacement housing resources are available, LAWA will take all reasonable steps to make such resources available, including but not limited to the following:

  - Provide vacated project structures to agencies that could relocate the structures to new sites and make them available for program-affected residents.
  - Provide funding for possible construction of replacement housing.
  - Provide funding for rehabilitation of housing units being sold or rented to program-affected residents.
  - Consider other innovative actions to ensure the availability of replacement housing.

  In addition to the above services, distinct business assistance services will include but not be limited to the following:

  - LAWA will implement a business relocation assistance program to insure prompt and equitable relocation and re-establishment of businesses displaced as a result of the proposed Master Plan. The business relocation assistance program will include: 1) a determination of the relocation needs and preferences of each business to be displaced; 2) the maintenance of listings and contacts with commercial real estate brokers, commercial lenders, and government economic development agencies to assist displaced businesses in locating suitable replacement sites;

3) the provision to displaced businesses of information on programs administered by the Small Business Administration and other federal and state programs offering assistance to displaced persons; 4) the provision of special assistance to those who wish to remain close to their current sites or close to an airport in finding such sites, including sites on the airport such as LAX Northside/Westchester Southside, or other airport owned properties or developments; and 5) the provision of special assistance to address the specific needs of minority-owned businesses.

- LAWA will coordinate with the County of Los Angeles and the cities of Inglewood, Hawthorne, and El Segundo to locate properties within their jurisdictions suitable for businesses displaced by the acquisition program.
- LAWA will investigate and consider the use of the separate and ongoing Aircraft Noise Mitigation Program to redevelop noise impacted residential areas into commercial areas suitable for businesses displaced by the Master Plan acquisition program. As part of these efforts, LAWA will coordinate with the City of Inglewood and the County of Los Angeles to identify areas east of I-405 where land acquisition and conversion to compatible land uses is contemplated under applicable plans or is otherwise deemed appropriate.
- LAWA will provide opportunities for air freight, flight kitchens and other airport-related uses displaced by the acquisition program to relocate onto airport property, to the maximum extent practicable.
- LAWA will, to the maximum practicable extent, develop its property in Manchester Square (under Alternative A) and LAX Northside/Westchester Southside (under Alternatives A, B, C, and D) so as to provide relocation opportunities for businesses displaced by the acquisition program.
- With respect to any and all residential acquisitions under Alternatives A, B, C, and D, LAWA will implement a housing program similar to the existing "Move On Housing Program," which is currently being implemented in conjunction with the Existing ANMP Relocation Plan. The Move On Housing Program is a collaborative effort between public and not-for-profit organizations to move and rehabilitate Manchester Square and Belford area structures in order to transfer housing assets to residential areas in Los Angeles County, provide reasonable housing for displaced tenants, and provide construction-related employment opportunities to community residents.

Environmental Justice

- **EJ-1. Aviation Curriculum (Alternatives A, B, C, and D).**

  LAWA will work with local school districts to offer aviation-related curriculum at elementary schools, middle schools, high schools and colleges in affected communities near the Los Angeles International Airport. Potential pilot schools could include: Beulah Payne Elementary School, Lennox Middle School, Hillcrest Continuation School, Inglewood High School, Morningside High School, and Los Angeles Southwest College.

- **EJ-2. Aviation Academy (Alternatives A, B, C, and D).**

  LAWA will work with local school districts to provide comprehensive educational and trade training for aviation-related careers, targeting students in the affected communities to provide them with increased career opportunities.

- **EJ-3. Job Outreach Center (Alternatives A, B, C, and D).**

  Construction and Other LAX-Related Job Outreach - LAWA will create or utilize an existing resource center to assist historically underrepresented and at-risk local residents to find construction and other substantive jobs with LAWA and surrounding airport-related businesses through training and comprehensive outreach. Written materials regarding job training and placements should be compiled and disseminated from the existing LAWA Job Outreach Center. The Job Outreach Center will accomplish the following:

  - Fund outreach efforts;
  - Encourage minority firms within the affected communities to participate in each phase of the plan, including the design phase;

- Coordinate with local organizations (including, among others, The Urban League, National Association for the Advancement of Colored People (NAACP), Southern Christian Leadership Conference (SCLC), Watts Labor Community Action Committee (WLCAC), Brotherhood Crusade, First African Methodist Episcopal (FAME) Renaissance, Concerned Citizens of South Central Los Angeles (CCSCLA), Black Business Association (BBA), Greater Los Angeles African American Chamber of Commerce (GLAAACC), and LAX Coalition for Economic, Environmental and Educational Justice) regarding job training, outreach and incubator programs to ensure expansive outreach;
- Establish specific outreach and/or training programs for special targeted populations such as local ex-offenders, welfare recipients, homeless persons, and low-income area residents;
- Hold workshops and training classes for professional development across disciplines that may provide service to LAX pre- and post- employment;
- Establish educational/training/internship programs for local students;
- Provide referrals and linkages to manufacturing (assembly line) job opportunities in impacted communities, especially South Los Angeles, that produce materials and/or devices used by the airport. This would help to revitalize the community through the provision of long-term work for existing industrial businesses.

Community Job Database - LAWA will coordinate data gathering, outreach and counseling through the following:

- Research and assess existing specialties and current capabilities of local work force to assist with targeted training and outreach efforts;
- Develop and manage a complete database of minority contractors;
- Produce a database of potential jobs and specialties needed, per Master Plan phase, and disseminate the information throughout the communities and to local Minority Business Enterprises/Disadvantaged Business Enterprises (MBE/DBE) companies.

MBE/DBE Business Outreach - LAWA will implement proactive measures that further State and local initiatives to ensure meaningful contract participation of DBE/MBE firms as follows:

- Research and assess existing specialties and current capabilities of local MBE/DBE firms to assist with targeted training and outreach efforts;
- Good Faith Effort (GFE) Outreach Training - assist prime contractors with their outreach to local and MBE/DBE firms by providing them use of relevant databases and referring them to other local organizations that may be able to assist them in their efforts;
- Encourage use of MBE/DBE local subcontractors;
- LAWA shall adopt policies to promote the use of MBE/WBE/DBE subcontractors by requiring Prime Contractors to document outreach to MBE/WBE/DBEs; dividing projects into smaller component parts, or tasks to permit maximum participation by smaller entities; placing qualified MBE/WBE/DBEs on solicitation lists available to Prime Contractors; and advertising the availability of services of the Small Business Administration and the Minority Business Development Agency of the Department of Commerce to Prime Contractors.
- Monitor and implement specific GFE guidelines for outreach to MBE/DBE firms.

Small Business Outreach - LAWA will establish the below-listed proactive measures to ensure meaningful contract participation of small businesses. The resources obtained through small business outreach will be compiled in a user-friendly brochure or report and disseminated from the existing LAWA job outreach center. Contacts and loan conditions will be included where available. Counselors will be available to provide one-on-one assistance.

- Fund and institute sub-contractor training/apprentice programs to be instituted pre-construction and during construction;
- Establish sensitivity training - educate prime contractors of the concerns and needs of the local business owners and MBE/DBE contractors;
- Develop special work packages to provide small businesses prime contracting opportunities;

- Establish loan assistance information programs that would provide counseling to small businesses in need of loans and, through potential partnerships with local banks, facilitate relationships with lenders;
- Establish incentives to large businesses for mentorship of, or partnering with local small businesses;
- Provide bonding assistance;
- Provide licensing assistance;
- Ensure prime and sub-contracting opportunities for local small businesses.

- **EJ-4. Community Mitigation Monitoring (Alternatives A, B, C, and D).**

  LAWA will include community participation in monitoring the implementation of the final Mitigation Measures and Master Plan Commitments in order to ensure agency compliance and accountability. The community participation will include a diverse group of residents, stakeholders, environmental specialists and community leaders that will convene on a regular basis.

Air Quality

- **AQ-1. Air Quality Source Apportionment Study (Alternatives A, B, C, and D).**

  In cooperation with FAA, the U.S. Environmental Protection Agency (USEPA), the California Air Resources Board (CARB), and the South Coast Air Quality Management District (SCAQMD), LAWA will conduct an air quality source apportionment study to evaluate the contribution of on-airport aircraft emissions to off-airport air pollutant concentrations. For the study, LAWA will monitor aircraft emissions at the eastern end of the runways at LAX and will monitor air pollutant concentrations in nearby surrounding communities. On-airport emissions will be compared to the monitored concentrations in the communities to determine the contribution of these emissions to local air pollution.

- **AQ-2. School Air Filters (Alternatives A, B, C, and D).**

  LAWA will provide funding for air filtration at qualifying public schools with air conditioning systems in place. The qualifying schools will be determined based upon review of the conclusions and recommendations of the Air Quality Source Apportionment Study to be conducted in Master Plan Commitment AQ-1.

- **AQ-3. Mobile Health Research Lab (Alternatives A, B, C, and D).**

  LAWA will explore the ability to fund/co-fund, to the extent feasible and permissible by federal and local regulations, or seek funding sources to support the goal of a Mobile Health Research Lab. The goal of the Mobile Health Research Lab will be to research and study, not diagnose or treat, upper respiratory and hearing impacts that may be directly related to the operation of LAX.

Hydrology and Water Quality

- **HWQ-1. Conceptual Drainage Plan (Alternatives A, B, C, and D).**

  Once a Master Plan alternative is selected, and in conjunction with its design, LAWA will develop a conceptual drainage plan of the area within the boundaries of the Master Plan alternative (in accordance with FAA guidance and to the satisfaction of the City of Los Angeles Department of Public Works, Bureau of Engineering). The purpose of the drainage plan will be to assess area-wide drainage flows as related to the Master Plan project area, at a level of detail sufficient to identify the overall improvements necessary to provide adequate drainage capacity to prevent flooding. The conceptual drainage plan will provide the basis and specifications by which detailed drainage improvement plans shall be designed in conjunction with site engineering specific to each Master Plan project. Best Management Practices (BMPs) will be incorporated to minimize the effect of airport operations on surface water quality and to prevent a net increase in pollutant loads to surface water resulting from the selected Master Plan alternative.

  To evaluate drainage capacity, LAWA will use either the Peak Rate Method specified in Part G - Storm Drain Design of the City of Los Angeles' Bureau of Engineering Manual or the Los Angeles County Modified Rational Method, both of which are acceptable to the LADPW. In areas within the

boundary of the selected alternative where the surface water runoff rates are found to exceed the capacity of the storm water conveyance infrastructure with the potential to cause flooding, LAWA will take measures to either reduce peak flow rates or increase the structure's capacity. These drainage facilities will be designed to ensure that they adequately convey storm water runoff and prevent flooding by adhering to the procedures set forth by the Peak Rate Method/Los Angeles County Modified Rational Method. Methods to reduce the peak flow of surface water runoff could include:

- Decreasing impervious area by removing unnecessary pavement or utilizing porous concrete or modular pavement.
- Building storm water detention structures.
- Diverting runoff to pervious areas (reducing directly-connected impervious areas).
- Diverting runoff to outfalls with additional capacity (reducing the total drainage area for an individual outfall).
- Redirecting storm water flows to increase the time of concentration.

Measures to increase drainage capacity could include:

- Increasing the size and slope (capacity) of storm water conveyance structures (pipes, culverts, channels, etc.).
- Increasing the number of storm water conveyance structures and/or outfalls.

To evaluate the effect of the selected Master Plan alternative on surface water quality, LAWA will prepare a specific Standard Urban Stormwater Mitigation Plan (SUSMP) for the selected alternative, as required by the LARWQCB. The SUSMP addresses water quality and drainage issues by specifying source control, structural, and treatment control BMPs with the objective of reducing the discharge of pollutants from the storm water conveyance system to the maximum extent practicable. Once BMPs are identified, an updated pollutant load estimate will be calculated that takes into account reductions from treatment control BMPs. These BMPs will be applied to both existing and future sources with the goal of achieving no net increase in loadings of pollutants of concern to receiving water bodies. LAWA will therefore address water quality issues, including erosion and sedimentation, and comply with the SUSMP requirements by designing the storm water system through incorporation of the structural and treatment control BMPs specified in the SUSMP.

The following list includes some of the BMPs that could be employed to infiltrate or treat storm water runoff and dry weather flows, and control peak flow rates:

- Vegetated swales and strips
- Oil/Water separators
- Clarifiers
- Media filtration
- Catch basin inserts and screens
- Continuous flow deflective systems
- Bioretention and infiltration
- Detention basins
- Manufactured treatment units
- Hydrodynamic devices

Other structural BMPs may also be selected from the literature and the many federal, state and local guidance documents available. It should be noted that, if an alternative is selected that involves the elimination of the Imperial water quality retention basin (Alternatives A, B, and C), an alternative retention and/or water quality treatment BMP will be provided as per SUSMP requirements.

Performance of structural BMPs varies considerably based on their design.[9] USEPA has published estimated ranges of pollutant removal efficiencies for structural BMPs based on substantial document review. These ranges of removal efficiencies are presented in **Table AD5-1**, Structural BMP Expected Pollutant Removal Efficiency.

Table AD5-1

Structural BMP Expected Pollutant Removal Efficiency

BMP Type	Typical Pollutant Removal (percent)			
	Suspended Solids	Nitrogen	Phosphorus	Metals
Dry Detention Basins	30-35	15-45	15-45	15-45
Retention Basins	50-80	30-65	30-65	50-80
Infiltration Basins	50-80	50-80	50-80	50-80
Infiltration Trenches/Dry Wells	50-80	50-80	15-45	50-80
Porous Pavement	65-100	65-100	30-65	65-100
Grassed Swales	30-65	15-45	15-45	15-45
Vegetated Filter Strips	50-80	50-80	50-80	30-65
Surface Sand Filters	50-80	<30	50-80	50-80
Other Media Filters	65-100	15-45	0	50-80

Source: U.S. Environmental Protection Agency, Preliminary Data Summary of Urban Storm Water Best Management Practices Methodology, August 1999.

In addition to the structural BMP types that will be used, non-structural/source control BMPs will continue to be a part of the LAX program to reduce pollutant loadings. Existing practices and potentially new ones will be extended to acquisition areas and to the areas where airport operations will increase in frequency or duration. These source control BMPs will be incorporated into the LAX Storm Water Pollution Prevention Plan (SWPPP) and will consequently be required of LAWA and all airport tenants at all locations where industrial activities occur that have the potential to impact water quality.

The overall result of Master Plan Commitment HWQ-1 will be a drainage infrastructure that provides adequate drainage capacity to prevent flooding and control peak flow discharges, that incorporates BMPs to minimize the effect of airport operations on surface water quality, and that prevents a net increase of pollutant loads to either receiving water body as a result of the selected Master Plan alternative.

Historic/Architectural and Archaeological/Cultural Resources

- **HR-1. Preservation of Historic Resources (Alternatives A, B, C, and D).**

In implementing the LAX Master Plan and conducting ongoing activities associated with the operation of the airport, LAWA will support the preservation of identified significant historic/architectural resources through careful review of design and development adjacent to those resources and by undertaking any modifications to those resources in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties.[10] Additionally, where sound insulation is proposed for identified significant historic/architectural resources under the Aircraft Noise Mitigation Program, LAWA will ensure that methods are developed with the approval of a qualified architectural historian or historic architect, who meets the Secretary of the Interior's Professional Qualifications Standards, in compliance with the Secretary of the Interior's Standards for Rehabilitation.[11]

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9 U.S. Environmental Protection Agency, Preliminary Data Summary of Urban Stormwater Best Management Practices Methodology, August 1999.

10 Weeks and Grimmer, The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, U.S. Department of the Interior, National Park Service, 1995.

11 This applies to sound insulation proposed under Mitigation Measure MM-LU-1, Implement Revised Aircraft Noise Mitigation Program (Alternatives A, B, C, and D) and Mitigation Measure MM-LU-2, Incorporate Residential Dwelling Units Exposed to

Energy Supply

- **E-1. Energy Conservation and Efficiency Program (Alternatives A, B, C, and D).**

  LAWA will seek to continually improve the energy efficiency of building design and layouts during the implementation of the LAX Master Plan. Title 24, Part 6, Article 2 of the California Administrative Code establishes maximum energy consumption levels for heating and cooling of new buildings to assure that energy conservation is incorporated into the design of new buildings. LAWA will design new facilities to meet or exceed the prescriptive standards required under Title 24. Some of the energy conservation measures that LAWA may incorporate into the design of new buildings and airports facilities may include the use of energy-efficient building materials, energy-saving lighting systems, energy-efficient air-conditioning systems, energy-efficient water-heating systems, and designed-in access for alternative means of surface transportation, including the Green Line and the APM. These energy conservation measures may be further improved upon as energy-saving design approaches and technologies develop.

- **E-2. Coordination with Utility Providers (Alternatives A, B, C, and D).**

  LAWA will implement Master Plan activities in coordination with local utility providers. Utility providers will provide input on the layout of utilities at LAX to assure that LAX and the surrounding region receive both safe and uninterrupted service. When service by existing utility lines could be affected by airport design features, LAWA will work with the utility to identify alternative means providing equivalent or superior post-construction utility service.

- **PU-1. Develop a Utility Relocation Program (Alternatives A, B, C, and D).**

  LAWA will develop and implement a utilities relocation program to minimize interference with existing utilities associated with LAX Master Plan facility construction. Prior to initiating construction of a Master Plan component, LAWA will prepare a construction evaluation to determine if the proposed construction will interfere with existing utility location or operation. LAWA will determine utility relocation needs and, for sites on LAX property, LAWA will develop a plan for relocating existing utilities as necessary before, during, and after construction of LAX Master Plan features. LAWA will implement the utility relocation program during construction of LAX Master Plan improvements.

Light Emissions

- **LI-1. Ring Road Landscaping (Alternative B).**

  Prior to approval of final plans for the ring road and the roadway proposed to connect Airport Boulevard to Bellanca Avenue, the alignments of these roadways will be modified by LAWA to provide a minimum 20-foot landscaped setback between residential properties on Morely Street. Said plans will also locate and direct lighting to avoid direct glare or light spillover effects on the residential properties. Baseline measurements of ambient lighting will be made prior to construction of the ring road. The baseline data will be used to estimate potential change in ambient lighting conditions with development of the ring road. Plantings within the setback will include dense evergreen trees and other vegetation selected and located so that roadway lighting is sufficiently screened to ensure that lighting intensity does not increase by more than 2 footcandles over existing levels at the property lines of affected residential uses. Aesthetic enhancement of views along the ring road will also be achieved.

- **LI-2. Use of Non-Glare Generating Building Materials (Alternatives A, B, C, and D).**

  Prior to approval of final plans LAWA will ensure that proposed LAX facilities will be constructed to maximize use of non-reflective materials and minimize use of undifferentiated expanses of glass.

- **LI-3. Lighting Controls (Alternatives A, B, C, and D).**

  Prior to final approval of plans for new lighting, LAWA will conduct reviews of lighting type and placement to ensure that lighting will not interfere with aeronautical lights or otherwise impair Airport Traffic Control Tower or pilot operations. Plan reviews will also ensure, where feasible, that lighting is shielded and focused to avoid glare or unnecessary light spillover. In addition, LAWA or its

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Single Event Awakenings Threshold into Aircraft Noise Mitigation Program (Alternatives A, B, C, and D).

designee will undertake consultation in selection of appropriate lighting type and placement, where feasible, to ensure that new lights or changes in lighting will not have an adverse effect on the natural behavior of sensitive flora and fauna within the Habitat Restoration Area.

Solid Waste

- **SW-1. Implement an Enhanced Recycling Program (Alternatives A, B, C, and D).**

  LAWA will enhance their existing recycling program, based on successful programs at other airports and similar facilities. Features of the enhanced recycling program will include: expansion of the existing terminal recycling program to all terminals, including new terminals; development of a recycling program at LAX Northside/Westchester Southside; lease provisions requiring that tenants meet specified diversion goals; and preference for recycled materials during procurement, where practical and appropriate.

- **SW-2. Requirements for the Use of Recycled Materials During Construction (Alternatives A, B, C, and D).**

  LAWA will require, where feasible, that contractors use a specified minimum percentage of recycled materials during construction of LAX Master Plan improvements. The percentage of recycled materials required will be specified in the construction bid documents. Recycled materials may include, but are not limited to, asphalt, drywall, steel, aluminum, ceramic tile, cellulose insulation, and composite engineered wood products. The use of recycled materials in LAX Master Plan construction will help to reduce the project's reliance upon virgin materials and support the recycled materials market, decreasing the quantity of solid waste requiring disposal.

- **SW-3. Requirements for the Recycling of Construction and Demolition Waste (Alternatives A, B, C, and D).**

  LAWA will require that contractors recycle a specified minimum percentage of waste materials generated during construction and demolition. The percentage of waste materials required to be recycled will be specified in the construction bid documents. Waste materials to be recycled may include, but are not limited to, asphalt, concrete, drywall, steel, aluminum, ceramic tile, and architectural details.

Construction Impacts

- **C-1. Establishment of a Ground Transportation/Construction Coordination Office (Alternatives A, B, C, and D).**

  Establish this office for the life of the construction projects to coordinate deliveries, monitor traffic conditions, advise motorists and those making deliveries about detours and congested areas, and monitor and enforce delivery times and routes. LAWA will periodically analyze traffic conditions on designated routes during construction to see whether there is a need to improve conditions through signage and other means.

  This office may undertake a variety of duties, including but not limited to:

  - Inform motorists about detours and congestion by use of static signs, changeable message signs, media announcements, airport website, etc.;
  - Work with airport police and the Los Angeles Police Department to enforce delivery times and routes;
  - Establish staging areas;
  - Coordinate with police and fire personnel regarding maintenance of emergency access and response times;
  - Coordinate roadway projects of Caltrans, City of Los Angeles, and other jurisdictions with those of the airport construction projects;
  - Monitor and coordinate deliveries;
  - Establish detour routes;

- Work with residential and commercial neighbors to address their concerns regarding construction activity; and
- Analyze traffic conditions to determine the need for additional traffic controls, lane restriping, signal modifications, etc.

- **C-2. Construction Personnel Airport Orientation (Alternatives A, B, C, and D).**

  All construction personnel will be required to attend an airport project-specific orientation (pre-construction meeting) that includes where to park, where staging areas are located, construction policies, etc.

Design, Art and Architecture Application/Aesthetics

- **DA-1. Provide and Maintain Airport Buffer Areas (Alternatives A, B, C, and D)**.

  Along the northerly and southerly boundary areas of the airport, LAWA will provide and maintain landscaped buffer areas that will include setbacks, landscaping, screening, or other appropriate view-sensitive improvements with the goals of avoiding land use conflicts, shielding lighting, enhancing privacy, and better screening views of airport facilities from adjacent residential uses. Use of the existing facilities in buffer areas may continue as required until LAWA can develop alternative facilities.

- **DA-2. Update and Integrate Design Plans and Guidelines (Alternatives A, B, C, and D).**

  The following plans and guidelines will be individually updated or integrated into a comprehensive set of design-related guidelines and plans; LAX Street Frontage and Landscape Development Plan (June 1994), LAX Air Cargo Facilities Development Guidelines (April 1998; updated August 2002), and LAX Northside Design Plan and Development Guidelines (1989), including conditions addressing heights, setbacks, and landscaping. The update will serve as a basis for reviewing future public and private development projects at LAX. The update will incorporate key provisions in current plans with an equivalent or greater level of compatibility and visual quality supported between LAX and adjacent land uses.

- **DA-3. Undergrounding of Utility Lines (Alternatives A, B, C, and D)**.

  In conjunction with the extension of the Century Freeway and other roadway/right-of-way improvement projects, LAWA will pursue opportunities to place existing overhead utility lines underground wherever feasible and appropriate.

Hazardous Materials

- **HM-1. Ensure Continued Implementation of Existing Remediation Efforts (Alternatives A, B, C, and D).**

  Prior to initiating construction of a Master Plan component, LAWA will conduct a pre-construction evaluation to determine if the proposed construction will interfere with existing soil or groundwater remediation efforts. For sites currently on LAX property, LAWA will work with tenants to ensure that, to the extent possible, remediation is complete prior to the construction. If remediation must be interrupted to allow for Master Plan-related construction, LAWA will notify and obtain approval from the regulatory agency with jurisdiction, as required, and will evaluate whether new or increased monitoring will be necessary. If it is determined that contamination has migrated during construction, temporary measures will be taken to stop the migration. As soon as practicable following completion of construction in the area, remediation will be reinstated, if required by the Regional Water Quality Control Board (RWQCB) or another agency with jurisdiction. In such cases, LAWA will coordinate the design of the Master Plan component and the re-design of the remediation systems to ensure that they are compatible, and to ensure that the proposed remediation system is comparable to the system currently in place. If it is determined during the pre-construction evaluation that construction will preclude reinstatement of the remediation effort, LAWA will obtain approval to initiate construction from the agency with jurisdiction.

  For properties to be acquired as part of the Master Plan, LAWA will evaluate the status of all existing soil and groundwater remediation efforts. As part of this evaluation, LAWA will assess the projected time required to complete the remediation activities and will coordinate with the land owner and the

agency with jurisdiction to ensure that remediation is completed prior to scheduled demolition and construction activities, if possible. In cases where remediation cannot be completed prior to demolition and construction activities, LAWA will undertake the same steps required above, namely, an evaluation of the need to conduct monitoring; implementation of temporary measures to stop migration, if required; and reinstatement of remediation following completion of construction, if required.

- **HM-2. Handling of Contaminated Materials Encountered During Construction (Alternatives A, B, C, and D).**

  Prior to the initiation of construction, LAWA will develop a program to coordinate all efforts associated with the handling of contaminated materials encountered during construction. The intent of this program will be to ensure that all contaminated soils and/or groundwater encountered during construction are handled in accordance with all applicable regulations. As part of this program, LAWA will identify the nature and extent of contamination in all areas where excavation, grading, and pile-driving activities are to be performed. LAWA will notify the appropriate regulatory agency when contamination has been identified. If warranted by the extent of the contamination, as determined by the regulatory agency with jurisdiction, LAWA will conduct remediation prior to initiation of construction. Otherwise, LAWA will incorporate provisions for the identification, segregation, handling and disposal of contaminated materials within the construction bid documents. In addition, LAWA will include a provision in all construction bid documents requiring all construction contractors to prepare site-specific Health and Safety Plans prior to the initiation of grading or excavation. Each Health and Safety Plan would include, at a minimum, identification/description of the following: site description and features; site map; site history; waste types encountered; waste characteristics; hazards of concern; disposal methods and practices; hazardous material summary; hazard evaluation; required protective equipment; decontamination procedures; emergency contacts; hospital map and contingency plan.

  In the event that any threshold of significance listed in the Hazardous Materials section of the EIS/EIR for the LAX Master Plan is exceeded due to the discovery of soil or groundwater contaminated by hazardous materials, or if previously unknown contaminants are discovered during construction or a spill occurs during construction, LAWA will notify the lead agency(ies) with jurisdiction and take immediate and effective measures to ensure the health and safety of the public and workers and to protect the environment, including, as necessary and appropriate, stopping work in the affected area until the appropriate agency has been notified.

Water Use

- **W-1. Maximize Use of Reclaimed Water (Alternatives A, B, C, and D).**

  To the extent feasible, LAWA will maximize the use of reclaimed water in Master Plan-related facilities and landscaping. The intent of this commitment is to maximize the use of reclaimed water as an offset for potable water use and to minimize the potential for increased water use resulting from implementation of the LAX Master Plan. This commitment also will facilitate achievement of the City of Los Angeles' goal of increased beneficial use of its reclaimed water resources. This commitment will be implemented by various means, such as installation and use of reclaimed water distribution piping for landscape irrigation and use of appropriate construction material in the new Central Utility Plant (CUP) to allow for reclaimed water use for cooling (Alternatives A, B, and C).

- **W-2. Enhance Existing Water Conservation Program (Alternatives A, B, C, and D).**

  LAWA will enhance the existing *Street Frontage and Landscape Plan for LAX* to ensure the ongoing use of water conservation practices at LAX facilities. The intent of this program, to minimize the potential for increased water use due to implementation of the LAX Master Plan, is also in accordance with regional efforts to ensure adequate water supplies for the future. Features of the enhanced conservation program will include identification of current water conservation practices and an assessment of their effectiveness; identification of alternate future conservation practices; continuation of the practice of retrofitting and installing new low-flow toilets and other water-efficient fixtures in all LAX buildings, as remodeling takes place or new construction occurs; use of Best Management Practices for maintenance; use of water efficient vegetation for landscaping, where possible; and continuation of the use of fixed automatic irrigation for landscaping.

- **PU-1. Develop a Utility Relocation Program (Alternatives A, B, C, and D).**

  LAWA will develop and implement a utilities relocation program to minimize interference with existing utilities associated with LAX Master Plan facility construction. Prior to initiating construction of a Master Plan component, LAWA will prepare a construction evaluation to determine if the proposed construction will interfere with existing utility location or operation. LAWA will determine utility relocation needs and, for sites on LAX property, LAWA will develop a plan for relocating existing utilities as necessary before, during, and after construction of LAX Master Plan features. LAWA will implement the utility relocation program during construction of LAX Master Plan improvements.

Wastewater

- **PU-1. Develop a Utility Relocation Program (Alternatives A, B, C, and D).**

  LAWA will develop and implement a utilities relocation program to minimize interference with existing utilities associated with LAX Master Plan facility construction. Prior to initiating construction of a Master Plan component, LAWA will prepare a construction evaluation to determine if the proposed construction will interfere with existing utility location or operation. LAWA will determine utility relocation needs and, for sites on LAX property, LAWA will develop a plan for relocating existing utilities as necessary before, during and after construction of LAX Master Plan features. LAWA will implement the utility relocation program during construction of LAX Master Plan improvements.

Fire Protection

- **FP-1. LAFD Design Recommendations (Alternatives A, B, C, and D).**

  During the design phase prior to initiating construction of a Master Plan component, LAWA will work with LAFD to prepare plans that contain the appropriate design features applicable to that component, such as those recommended by LAFD,[12] and listed below:

  - *Emergency Access*. During Plot Plan development and the construction phase, LAWA will coordinate with LAFD to ensure that access points for off-airport LAFD personnel and apparatus are maintained and strategically located to support timely access. In addition, at least two different ingress/egress roads for each area, which will accommodate major fire apparatus and will provide for major evacuation during emergency situations, will be provided.
  - *Fire Flow Requirements*. Proposed Master Plan development will include improvements, as needed, to ensure that adequate fire flow is provided to all new facilities. The fire flow requirements for individual Master Plan improvements will be determined in conjunction with LAFD and will meet, or exceed, fire flow requirements in effect at the time.
  - *Fire Hydrants*. Adequate off-site public and on-site private fire hydrants may be required, based on determination by the LAFD upon review of proposed plot plans.
  - *Street Dimensions*. New development will conform to the standard street dimensions shown on the applicable City of Los Angeles Department of Public Works Standard Plan.
  - *Road Turns*. Standard cut-corners will be used on all proposed road turns.
  - *Private Roadway Access*. Private roadways that will be used for general access and fire lanes shall have at least 20 feet of vertical access. Private roadways will be built to City of Los Angeles standards to the satisfaction of the City Engineer and the LAFD.
  - *Dead-End Streets*. Where fire lanes or access roads are provided, dead-end streets will terminate in a cul-de-sac or other approved turning area. No fire lane shall be greater than 700 feet in length unless secondary access is provided.
  - *Fire Lanes*. All new fire lanes will be at least 20 feet wide. Where a fire lane must accommodate a LAFD aerial ladder apparatus or where a fire hydrant is installed, the fire lane will be at least 28 feet wide.
  - *Building Setbacks*. New buildings will be constructed no greater than 150 feet from the edge of the roadways of improved streets, access roads, or designated fire lanes.

[12] Reagan, Mike, Battalion Chief, City of Los Angeles Fire Department, Personal Communication, March 3, 2000; Warford, Richard, Assistant Fire Marshall, City of Los Angeles Fire Department, Letter, January 22, 2001.

- *Building Heights*. New buildings exceeding 28 feet in height may be required to provide additional LAFD access.
- *Construction/Demolition Access*. During demolition and construction activities, emergency access will remain unobstructed.
- *Aircraft Fire Protection Systems*. Effective fire protection systems will be provided to protect the areas beneath the wings and fuselage portions of large aircraft. This may be accomplished by incorporating foam-water deluge sprinkler systems with foam-producing and oscillating nozzle (per NFPA 409, aircraft hangars for design criteria).

- **PS-1. Fire and Police Facility Relocation Plan (Alternatives A, B, C, and D).**

  Prior to any demolition, construction, or circulation changes that would affect LAFD Fire Stations 51, 80, and 95, or on-airport police facilities, a Relocation Plan will be developed by LAWA through a cooperative process involving LAFD, LAWAPD, the LAPD LAX Detail, and other airport staff. The performance standards for the plan will ensure maintenance of required response times, response distances, fire flows, and a transition to new facilities such that fire and law enforcement services at LAX will not be significantly degraded. The plan will also address future facility needs, including details regarding space requirement, siting, and design.

- **PS-2. Fire and Police Facility Space and Siting Requirements (Alternatives A, B, C, and D).**

  During the early design phase for implementation of the Master Plan elements affecting on-airport fire and police facilities, LAWA and/or its contractors will consult with LAFD, LAWAPD, LAPD, and other agencies as appropriate, to evaluate and refine as necessary, program requirements for fire and police facilities. This coordination will ensure that final plans adequately support future facility needs, including space requirements, siting and design.

Law Enforcement

- **LE-1. Routine Evaluation of Manpower and Equipment Needs (Alternatives A, B, C, and D).**

  LAWA will assure that LAWAPD and LAPD LAX Detail continue to routinely evaluate and provide additional officers, supporting administrative staff, and equipment, to keep pace with forecasted increases in activity and development at LAX in order to maintain a high level of law enforcement services. This will be achieved through LAWA notification to LAWAPD and LAPD regarding pending development and construction and through LAWA review of status reports on law enforcement services at LAX.

- **LE-2. Plan Review (Alternatives A, B, C, and D).**

  During the design phase of terminal and cargo facilities and other major airport development, the LAPD, LAWAPD, and other law enforcement agencies will be consulted to review plans so that, where possible, environmental contributors to criminal activity, such as poorly-lit areas, and unsafe design, are reduced.

- **PS-1. Fire and Police Facility Relocation Plan (Alternatives A, B, C, and D).**

  Prior to any demolition, construction, or circulation changes that would affect LAFD Fire Stations 51, 80, and 95, or on-airport police facilities, a Relocation Plan will be developed by LAWA through a cooperative process involving LAFD, LAWAPD, the LAPD LAX Detail, and other airport staff. The performance standards for the plan will ensure maintenance of required response times, response distances, fire flows, and a transition to new facilities such that fire and law enforcement services at LAX will not be significantly degraded. The plan will also address future facility needs, including details regarding space requirement, siting, and design.

- **PS-2. Fire and Police Facility Space and Siting Requirements (Alternatives A, B, C, and D).**

  During the early design phase for implementation of the Master Plan elements affecting on-airport fire and police facilities, LAWA and/or its contractors will consult with LAFD, LAWAPD, LAPD, and other agencies as appropriate, to evaluate and refine as necessary, program requirements for fire and police facilities. This coordination will ensure that final plans adequately support future facility needs, including space requirements, siting and design.

5.3 Mitigation Measures

The following provides a list of the proposed mitigation measures recommended in Chapter 4 to avoid or reduce any significant impacts that were identified in the impact analysis for each environmental discipline. These mitigation measures pertain to all four build alternatives, unless otherwise noted. Additional mitigation measures pertaining to the LAX Expressway alignments and State Route 1 improvements associated with Alternatives A and C are provided in Appendix K, *Supplemental Environmental Evaluation for LAX Expressway and State Route 1 Improvements.*

Noise

- **MM-N-1. Reserve Runway 6L/24R for Arrival Traffic Only (Alternative A).**

  Reserve Runway 6L/24R for arrival traffic only, during normal operating conditions,[13] after construction and commissioning for use.

- **MM-N-2. Reserve Runway 25L for Arrival Traffic (Alternative B).**

  Reserve Runway 25L for arrival traffic only after construction.

- **MM-N-3. Reserve Runway 7R for Departure Traffic (Alternative B).**

  Reserve Runway 7R for departure traffic only after construction.

- **MM-N-4. Update the Aircraft Noise Abatement Program Elements as Applicable to Adapt to the Future Airfield Configuration (Alternatives A, B, C, and D).**

  When existing runways are relocated or reconstructed as part of the Master Plan, the aircraft noise abatement actions associated with those runways shall be modified and re-established as appropriate to assure continuation of the intent of the existing program.

- **MM-N-5. Conduct Part 161 Study to Make Over-Ocean Procedures Mandatory (Alternatives A, B, C, and D).**

  A 14 CFR Part 161 Study shall be initiated to seek federal approval of a locally-imposed Noise and Access Restriction on departures to the east during Over-Ocean Operations, or when Westerly Operations remain in effect during the Over-Ocean Operations time period.

- **MM-N-6. Construct Noise Barrier (Soundwall) Adjacent to Areas Significantly Impacted by Road Traffic Noise (Alternatives A, B, and C).**

  In order to mitigate the significant impacts of increased road traffic noise along the I-105, a soundwall shall be constructed between the noise source (i.e., the highway) and nearby noise-sensitive receptors (i.e., existing homes and a school located south of the I-105, between Pershing Avenue and Sepulveda Boulevard).

  Due to the varying elevations of the residential units relative to the I-105, the actual height and recommended locations of the barrier necessary to break the line-of-sight between noise source and receptor will vary. For residential areas at the same elevation as the I-105, an 8+-foot tall soundwall shall be located along the south side of the I-105 right-of-way. For those noise sensitive areas that are elevated above the I-105, a soundwall constructed along the south side of the highway would need to be unreasonably tall (i.e., 20 to 25 feet) to break the line-of-sight between noise source and receptor; however, a much shorter soundwall could be located closer to the residential units in a location that obstructs all road noise, and shall not exceed eight feet in height. **Figure AD5-1**, Soundwall Mitigation Benefits Depending on Elevation, illustrates the recommended soundwall configuration for both equal and unequal elevations. To eliminate the undesirable end effects of noise that could escape around the barrier, the barrier shall extend four times as far in each direction as the distance from the noise sensitive areas to the barrier or to Pershing Drive on the west and Sepulveda Boulevard on the east.

  The specific location, height, and design of the subject soundwall shall be determined in conjunction with the detailed design and engineering of the southern segment of the proposed ring road.

[13] Normal operational conditions assume that all runways are available for use.

- **MM-N-7. Construction Noise Control Plan (Alternatives A, B, C, and D).**

  A construction Noise Control Plan will be prepared to provide feasible measures to reduce significant noise impacts throughout the construction period for all projects near noise sensitive uses. For example, noise control devices shall be used and maintained, such as equipment mufflers, enclosures, and barriers. Natural and artificial barriers such as ground elevation changes and existing buildings can shield construction noise.

- **MM-N-8. Construction Staging (Alternatives A, B, C, and D).**

  Construction operations shall be staged as far from noise-sensitive uses as feasible.

- **MM-N-9. Equipment Replacement (Alternatives A, B, C, and D).**

  Noisy equipment shall be replaced with quieter equipment (for example, rubber tired equipment rather than track equipment) when technically and economically feasible.

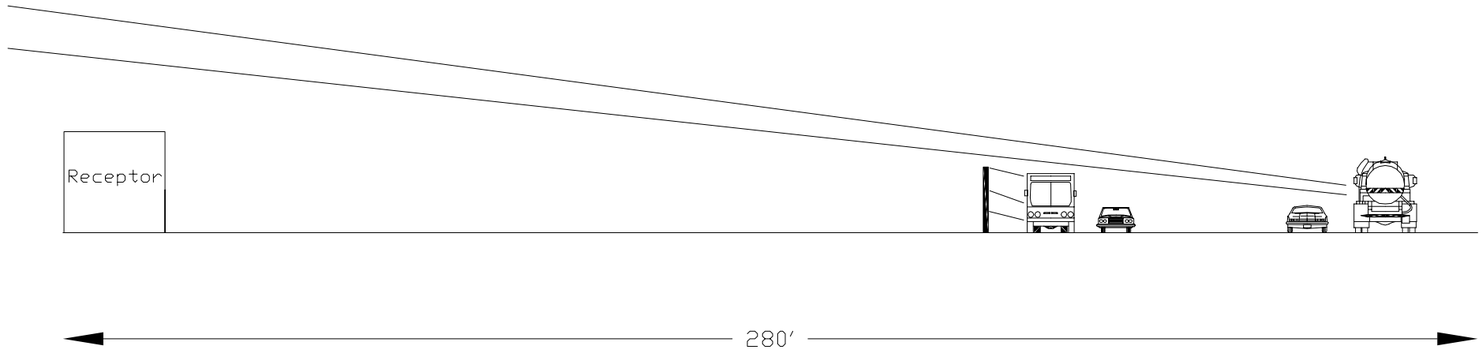
- **MM-N-10. Construction Scheduling (Alternatives A, B, C, and D).**

  The timing and/or sequence of the noisiest on-site construction activities shall avoid sensitive times of the day, as feasible (9 p.m. to 7 a.m. Monday - Friday; 8 p.m. to 6 a.m. Saturday; any time on Sunday or Holidays).

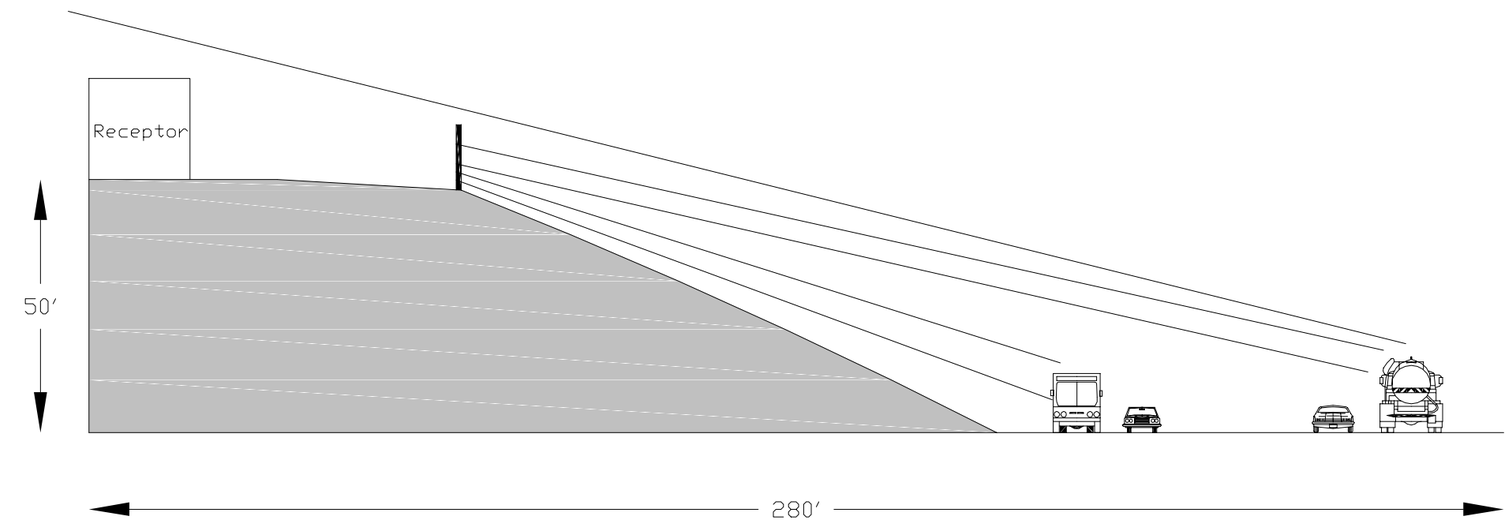
- **MM-N-11. Automated People Mover (APM) Noise Assessment and Control Plan (Alternative D).**

  In conjunction with detailed design and engineering of the proposed APM system, a noise control plan shall be prepared specifying noise attenuation measures to reduce APM noise levels at the two significantly impacted hotels to acceptable levels (i.e., less than 67 dBA CNEL for the Courtyard by Marriott and the Four Points Sheraton). Potential options for such noise control/reduction include, but are not limited to, the following:

  - Measures That Mitigate Noise At The Source
    - Stringent vehicle and equipment noise specifications
    - Operational restrictions
    - Vehicle skirts (i.e., steel/fiberglass panels that extend down to enclose wheel and undercarriage noise)
    - Undercar sound absorption
    - Limited turning radii
  - Measures That Mitigate Noise Along The Source-To-Receptor Propagation Path
    - Sound barriers close to vehicles
    - Sound barriers at Right-of-Way line
    - Alteration of horizontal and vertical alignments (i.e., altering the height or path of the APM alignment to reduce the exposure of noise sensitive receptors)
    - Acquisition of buffer zones
    - Resilient support on aerial guideway
  - Measures That Mitigate Noise At The Receptor
    - Construction of sound barriers within affected properties
    - Building noise insulation or insulation upgrades



Recommended Soundwall Location Equal Elevation



Recommended Soundwall Location on Varying Elevation

0 30 60

GRAPHIC SCALE IN FEET

Source: Landrum & Brown, March 2003

LAX Master Plan Addendum to the Final EIR	**Soundwall Mitigation Benefits Depending on Elevation**	Figure **AD5-1**

Land Use

- **MM-LU-1. Implement Revised Aircraft Noise Mitigation Program (Alternatives A, B, C, and D).**

  LAWA shall expand and revise the existing Aircraft Noise Mitigation Program (ANMP) in coordination with affected neighboring jurisdictions, the State, and the FAA. The expanded Program shall mitigate land uses that would be rendered incompatible by noise impacts associated with implementation of the LAX Master Plan, unless such uses are subject to an existing avigation easement and have been provided with noise mitigation funds. LAWA shall accelerate the ANMP's timetable for achieving full compatibility of all land uses within the existing noise impact area pursuant to the requirements of the California Airport Noise Standards (California Code of Regulations, Title 21, Subchapter 6) and current Noise Variance. With the exception of a possible new interior noise level standard for schools to be established through the study required by Mitigation Measure MM-LU-3, Conduct Study of the Relationship Between Aircraft Noise Levels and the Ability of Children to Learn, the relevant performance standard to achieve compatibility for land uses that are incompatible due to aircraft noise (i.e., residences, schools, hospitals and churches) is adequate acoustic performance (sound insulation) to ensure an interior noise level of 45 CNEL or less. As an alternative to sound insulation, incompatible property may also achieve compatibility if the incompatible use is converted to a noise-compatible use.

  LAWA shall revise the ANMP to incorporate new, or expand existing measures, including, but not necessarily limited to, the following:

  - Continued implementation of successful programs to convert existing incompatible land uses to compatible land uses through sound insulation of structures and the acquisition and conversion of incompatible land use to compatible land use.
  - Ongoing monitoring and provision of annual updates in support of the requirements of the current LAX Noise Variance pursuant to the California Airport Noise Standards, with the updates made available (upon request) to affected local jurisdictions, the Airport Land Use Commission of Los Angeles County, and other interested parties.
  - Continued pre- and post-insulation noise monitoring to ensure achievement of interior noise levels at or below 45 CNEL.
  - Accelerated rate of land use mitigation to eliminate noise impact areas in the most timely and efficient manner possible through:
    - Increased annual funding by LAWA for land use mitigation;
    - Reevaluating requirement for granting of avigation easements with sound insulation mitigation;
    - Provision by LAWA of additional technical assistance, where needed, to local jurisdictions to support more rapid and efficient implementation of their land use mitigation programs;
    - Reduction or elimination, to the extent feasible, of structural and building code compliance constraints to mitigation of sub-standard housing.
  - Revised criteria and procedures for selection and prioritization of properties to be sound insulated or acquired in consideration of the following:
    - Insulation or acquisition of properties within the highest CNEL measurement zone;
    - Acceleration of the fulfillment of existing commitments to owners wishing to participate within the current ANMP boundaries prior to proceeding with newly eligible properties;
    - Insulation or acquisition of incompatible properties with high concentrations of residents or other noise-sensitive occupants such as those housed in schools or hospitals.
  - Amend ANMP to include libraries as noise-sensitive uses eligible for aircraft noise mitigation.
  - Upon completion of acquisition and/or soundproofing commitment under the current Program, expand the boundaries of the ANMP as necessary over time. LAWA will continue preparing quarterly reports that monitor any expansion of the 65 CNEL noise contours beyond the current ANMP boundaries. Based upon these quarterly reports, LAWA will evaluate and adjust the ANMP boundaries, periodically as appropriate, so that as the 65 CNEL noise contours expand,

residential and noise sensitive uses newly impacted by 65 CNEL noise levels would be included within the Program.

- **MM-LU-2. Incorporate Residential Dwelling Units Exposed to Single Event Awakenings Threshold into Aircraft Noise Mitigation Program (Alternatives A, B, C, and D).**

  In addition to any restrictive measures that may be implemented resulting from completion of Mitigation Measure MM-N-5, Conduct Part 161 Study to Make Over-Ocean Procedures Mandatory, the boundaries of the ANMP will be expanded to include residential uses newly exposed to single event exterior nighttime noise levels of 94 dBA SEL, based on the Master Plan alternative that is ultimately approved and periodic reevaluation and adjustments by LAWA. Uses that are newly exposed would be identified based on annual average conditions as derived from the most current monitored data.

- **MM-LU-3. Conduct Study of the Relationship Between Aircraft Noise Levels and the Ability of Children to Learn (Alternatives A, B, C, and D).**

  Current studies of aircraft noise and the ability of children to learn have not resulted in the development of a statistically reliable predictive model of the relative effect of changes in aircraft noise levels on learning. Therefore, a comprehensive study shall be initiated by LAWA to determine what, if any, measurable relationship may be present between learning and the disruptions caused by aircraft noise at various levels. An element of the evaluation shall be the setting of an acceptable replacement threshold of significance for classroom disruption by both specific and sustained aircraft noise events.

- **MM-LU-4. Provide Additional Sound Insulation for Schools Shown by MM-LU-3 to be Significantly Impacted by Aircraft Noise (Alternatives A, B, C, and D).**

  Prior to completion of the study required by Mitigation Measure MM-LU-3, Conduct Study of the Relationship Between Aircraft Noise Levels and the Ability of Children to Learn, and within six months of the commissioning of any relocated runway associated with implementation of the LAX Master Plan, LAWA shall conduct interior noise measurements at schools that could be newly exposed to noise levels that exceed the interim LAX interior noise thresholds for classroom disruption of 55 dBA Lmax, 65 dBA Lmax, or 35 Leq(h), as presented in Section 4.1, *Noise,* of the Final EIS/EIR. All school classroom buildings (except those within schools subject to an avigation easement) that are found through the noise measurements to exceed the interim interior noise thresholds, as compared to the 1996 baseline conditions presented in the Final EIS/EIR, would become eligible for soundproofing under the ANMP.

  Upon completion of the study required by Mitigation Measure MM-LU-3 and acceptance of its results by peer review of industry experts, any schools found to exceed a newly established threshold of significance for classroom disruption, based on comparison with 1996 baseline conditions, due to implementation of the LAX Master Plan shall be eligible for participation in the ANMP administered by LAWA unless they are subject to an existing avigation easement. A determination of which schools become eligible will be made following application of the new threshold based on measured data.

- **MM-LU-5. Upgrade and Expand Noise Monitoring Program (Alternatives A, B, C, and D).**

  LAWA shall upgrade and expand its existing noise monitoring program in surrounding communities through new system procurement, noise monitor siting, and equipment installation. Permanent or portable monitors shall be located in surrounding communities to record noise data 24 hours per day, seven days per week for correlation with FAA radar data to cross-reference noise episodes with flight patterns. The upgraded system will support LAWA and other jurisdictional ANMP's when considering adjustments to airport noise mitigation boundaries.

On-Airport Surface Transportation

- **MM-ST-1. Require CTA Construction Vehicles to Use Designated Lanes (Alternative D).**

  Whenever feasible, construction vehicles shall be restricted to designated roadways or lanes of traffic on CTA roadways adjacent to the existing close-in parking, thus limiting the mix of construction vehicles and airport traffic.

- **MM-ST-2. Modify CTA Signage (Alternative D).**

  During construction, additional signage will be installed, as required, to separate construction traffic from non-construction traffic to the extent feasible.

- **MM-ST-3. Develop Designated Shuttle Stops for Labor Buses and ITC-CTA Buses (Alternative D).**

  Develop shuttle stops for labor buses (i.e., buses carrying construction workers) and the ITC-CTA shuttle buses at the CTA arrivals level. All ITC-CTA shuttle buses will be routed to these lower level (arrivals) curb areas. These buses will not circulate through the upper level (departures) curbfront.

Off-Airport Surface Transportation

The recommended mitigation plans for the build alternatives include improvements proposed for specific intersections. These improvements are listed in tables unique to each alternative as indicated below. These improvements fall into five general categories (MM-ST-6 through MM-ST-10). Several individual measures are also provided, including measures that are detailed within several tables provided below for off-airport surface transportation improvements.

Alternatives A, B, and C

- **MM-ST-4. Add Right-Turn Off-Ramp to Emerson Street (Alternatives A, B, and C)**.

  A westbound right-turn only off-ramp on the ring road connecting to a one-way northbound extension of Emerson Street near Westchester Parkway shall be added to provide access to the LAX Northside property (Westchester Southside) and reduce the number of northbound left turns at the intersection of Sepulveda Boulevard and La Tijera Boulevard.

- **MM-ST-5. Widen Arbor Vitae Street from Four to Six Lanes (Alternatives A, B, and C)**.

- **MM-ST-6. Add New Traffic Lanes (Alternatives A, B, and C)**.

  Traffic lanes shall be added to select intersections where necessary to the satisfaction of LADOT or other appropriate jurisdiction, sufficient to increase the capacity of the intersection without unnecessarily encroaching on adjacent sidewalks, on-street parking, or other land uses.

- **MM-ST-7. Restripe Existing Facilities (Alternatives A, B, and C)**.

  Existing traffic lanes shall be restriped to the satisfaction of LADOT or other appropriate jurisdiction, so that additional lane capacity will be provided without adding any new pavement to the intersection or road segment.

- **MM-ST-8. Add ATSAC[14] or Equivalent (Alternatives A, B, and C)**.

  Automated Traffic Surveillance and Control (ATSAC) capability shall be added to select intersections as needed, and to the satisfaction of LADOT or other appropriate jurisdiction. These intersections will add to the existing ATSAC system, resulting in more complete and effective ATSAC network.

- **MM-ST-9. Add ATCS[15] or Equivalent (Alternatives A, B, and C)**.

  Adaptive Traffic Control System (ATCS) capability shall be added to select intersections as needed, and to the satisfaction of LADOT or other appropriate jurisdiction. These intersections will add to the existing ATCS system, resulting in a more complete and effective ATCS network.

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[14] Automated Traffic Surveillance and Control (ATSAC) is a traffic signal control system that allows manual remote control of traffic signals. ATSAC provides manual monitoring of the conditions at traffic signals, with the option to remotely adjust signal timing at specific intersections based on current conditions.

[15] Adaptive Traffic Control System (ATCS) is a traffic signal control system that continuously and automatically monitors traffic conditions on a traffic signal grid system, and electronically adjusts signal-timing characteristics of signals based on real-time conditions.

- **MM-ST-10. Modify Signal Phasing (Alternatives A, B, and C)**.

  The traffic signal phasing of select intersections shall be modified to the satisfaction of LADOT or other appropriate jurisdiction, to allow more efficient use of the intersections, particularly those that will experience a notable change in traffic characteristics as a result of the project.

- **MM-ST-11. Provide A One-Way Southbound Extension of Airport Boulevard Connecting to a Right-Turn-Only On-Ramp to the Ring Road near Westchester Parkway (Alternative B)**.

Alternative D

- **MM-ST-6. Add New Traffic Lanes (Alternative D)**

  Traffic lanes shall be added to select intersections to the satisfaction of LADOT or other appropriate jurisdiction, sufficient to increase the capacity of the intersection without unnecessarily reducing sidewalk widths, removing on-street parking, or encroaching onto other land uses.

- **MM-ST-7. Restripe Existing Facilities (Alternative D)**.

  Existing traffic lanes shall be restriped to the satisfaction of LADOT or other appropriate jurisdiction, so that additional lane capacity will be provided without adding any new pavement to the intersection or road segment.

- **MM-ST-8. Add ATSAC, ATCS or Equivalent (Alternative D)**.

  Automated Traffic Surveillance and Control (ATSAC) or Adaptive Traffic Control System (ATCS) capability or equivalent shall be added to select intersections to the satisfaction of LADOT or other appropriate jurisdiction. The improved capability will result in a more effective traffic signal network.

- **MM-ST-10. Modify Signal Phasing (Alternative D)**.

  The traffic signal phasing of select intersections shall be modified to the satisfaction of LADOT or other appropriate jurisdiction, to allow more efficient use of the intersections, particularly those that will experience a notable change in traffic characteristics as a result of the project.

- **MM-ST-12. Provide New Ramps Connecting I-105 to LAX Between Aviation Boulevard and La Cienega Boulevard (Alternative D).**

  These ramps shall be provided to allow for direct access and egress to/from the ITC and GTC via I-105, between Aviation Boulevard and La Cienega Boulevard. A feasibility study is underway to determine the best design for these ramps.

  These ramps may cause additional construction impacts, but no other significant impacts are expected to result, as discussed in subsection 4.3.2.9, *Environmental Impacts of Off-Airport Surface Transportation Mitigation Measures*.

There may be an interim period in which the GTC is open but the full mitigation plan associated with the GTC is not yet available, due to delays in obtaining permits, etc. Should this occur, temporary mitigation may be necessary, including, but not limited to, temporary installation of changeable message signs, traffic signal phasing adjustments, increased use of Highway Advisory Radio, and others. Any temporary mitigation would be closely coordinated with impacted transportation departments, including LADOT and Caltrans. Also, at the discretion of LAWA and in consultation with the LADOT, some of the mitigation measures may be replaced by other comparable measures due to changes that occur in the area.

- **MM-ST-13. Create A New Interchange at I-405 and Lennox Boulevard (Alternative D).**

  This interchange shall provide grade-separated ramps from I-405 directly into airport property, and vice-versa. It shall be located approximately mid-way between Century Boulevard and Imperial Highway. A feasibility study is underway to determine the best design for the interchange. Should this proposed interchange not be constructed, suitable and alternate traffic mitigation measures shall be designed and implemented to the satisfaction of LADOT and the Bureau of Engineering.

  This interchange will likely cause both visual and road noise impacts, and will require the relocation of several residential and commercial properties, as discussed in subsection 4.3.2.9, *Environmental Impacts of Off-Airport Surface Transportation Mitigation Measures (Alternative D),* below.

- **MM-ST-15. Provide Fair-Share Contributions to Transit Improvements (Alternative D).**

  Provide fair-share contributions to benefit transit to and from LAX to the satisfaction of LADOT and/or other appropriate jurisdiction or agency.

- **MM-ST-16. Provide Fair-Share Contribution to LA County's Project to Extend the Marina Expressway (Alternative D).**

  Provide fair-share contribution to Los Angeles County's project to extend the Marina Expressway (Route 90) to Admiralty Way or complete alternative off-site improvements.

Cumulative Impacts - Alternatives A, B, C, and D

- **MM-ST-14. Ground Transportation/Construction Coordination Office Outreach Program (Alternatives A, B, C, and D).**

  The construction coordination office proposed in Master Plan Commitment C-1, Establishment of a Ground Transportation/Construction Coordination Office (Alternatives A, B, C, and D), shall establish appropriate mechanisms to involve and coordinate with other major airport-area development projects to the extent feasible, to ensure that the cumulative impacts of construction in the airport area are coordinated and minimized.

Specific Listing of Recommended Improvements

Whereas the mitigation measures presented above for MM-ST-6 through MM-ST-10 describe the general nature, location, and timing of the recommended improvements, the following tables provide a more detailed listing of those recommended improvements relative to the affected facility (i.e., intersection or roadway link).

The specific improvements recommended for Alternative A are shown in **Table AD5-2**, Year 2015 Alternative A Mitigation Plan (Adjusted Environmental Baseline Comparison).

Table AD5-2

Year 2015 Alternative A Mitigation Plan (Adjusted Environmental Baseline Comparison)

Facility Number	Facility Name	Peak Hour[1]	Direc.	Improvement	Final V/C	Final LOS
Intersection 4	Airport and Century	AM	N/A	Restripe SB approach to add second RT lane	0.598	A
		PM	N/A		0.616	B
		AP	N/A		0.539	A
Intersection 6	Airport and Manchester	AM	N/A	Add a RT lane on the EB approach	0.735	C
		PM	N/A		0.755	C
		AP	N/A		0.895	D
Intersection 8	Arbor Vitae and La Cienega	AM	N/A	Add a RT lane to EB approach; Add a second LT lane on NB approach, add a free-flow RT lane on SB approach;	0.967	E
		PM	N/A	Upgrade signal to ATCS or equivalent.	0.989	E
		AP	N/A	Intersection remains unmitigated.	0.814	D
Intersection 11	Aviation and Century	AM	N/A	Add right- turn lane to SB, EB, and WB approaches;	0.900	D
		PM	N/A	Upgrade signal to ATCS	0.994	E
		AP	N/A		1.099	F
Intersection 12	Aviation and El Segundo	AM	N/A	Add RT lane to SB approach;	0.963	E
		PM	N/A	Upgrade signal to ATCS or equivalent	0.982	E
		AP	N/A		1.029	F
Intersection 13	Aviation and Imperial Hwy	AM	N/A	Restripe NB approach to convert TH/RT to RT only;	0.923	E
		PM	N/A	Upgrade signal to ATCS or equivalent	0.990	E
		AP	N/A		1.232	F
Intersection 15	Aviation and Rosecrans	AM	N/A	Upgrade signal to ATSAC or equivalent	1.273	F
		PM	N/A		1.642	F
		AP	N/A		1.623	F
Intersection 22	Centinela and Sepulveda	AM	N/A	Upgrade signal to ATSAC or equivalent	1.378	F
		PM	N/A		1.243	F
		AP	N/A		0.946	E
Intersection 26	Century and La Cienega	AM	N/A	Add second LT lane on EB approach;	0.795	C
		PM	N/A	Convert 2 SB RT lanes into a free-flow RT lane.	0.831	D

Table AD5-2

Year 2015 Alternative A Mitigation Plan (Adjusted Environmental Baseline Comparison)

Facility Number	Facility Name	Peak Hour[1]	Direc.	Improvement	Final V/C	Final LOS
		AP	N/A	Intersection remains unmitigated.	0.553	A
Intersection 35	El Segundo and Sepulveda	AM	N/A	Upgrade signal to ATCS or equivalent	0.979	E
		PM	N/A		1.136	F
		AP	N/A		0.966	E
Intersection 40	Florence and La Cienega	AM	N/A	None	0.766	C
		PM	N/A		1.030	F
		AP	N/A		1.345	F
Intersection 44	Howard Hughes and Sepulveda	AM	N/A	Add 4th TH lane on NB approach	0.693	B
		PM	N/A		0.796	C
		AP	N/A		0.635	B
Intersection 45	I-105/Continental City and Imperial	AM	N/A	Upgrade signal to ATSAC	0.641	B
		PM	N/A		0.754	C
		AP	N/A		0.758	C
Intersection 46	I-105 NB Ramps at Imperial	AM	N/A	None	0.271	A
		PM	N/A		0.313	A
		AP	N/A		0.670	B
Intersection 50	Imperial and Sepulveda	AM	N/A	Add second LT lane on NB approach; change RT lane on	0.814	D
		PM	N/A	EB approach to a free-flow lane	1.041	F
		AP	N/A		0.713	C
Intersection 52	Imperial and La Cienega	AM	N/A	Restripe SB TH/RT lane as RT lane; Provide SB RT overlap	0.733	C
		PM	N/A	phasing; Upgrade signal to ATCS or equivalent	0.557	A
		AP	N/A		0.613	B
Intersection 57	Jefferson and Lincoln	AM	N/A	Convert NB RT lane to a free-flow lane;	1.051	F
		PM	N/A	Upgrade signal to ATCS or equivalent.	1.179	F
		AP	N/A	Intersection remains unmitigated.	0.831	D
Intersection 71	La Cienega and Lennox	AM	N/A	Restripe 1 WB LT lane to shared LT/RT lane	0.421	A
		PM	N/A		0.560	A
		AP	N/A		0.804	C
Intersection 72	La Cienega and Manchester	AM	N/A	Upgrade signal to ATSAC	0.661	B
		PM	N/A		0.723	C
		AP	N/A		1.015	F
Intersection 78	I-405 NB Ramps at La Tijera	AM	N/A	Add second LT lane on EB approach	0.818	D
		PM	N/A		0.705	C
		AP	N/A		0.365	A
Intersection 79	I-405 SB Ramps at La Tijera	AM	N/A	None	0.736	C
		PM	N/A		0.912	E
		AP	N/A		0.483	A
Intersection 81	La Tijera and Lincoln	AM	N/A	Add 2 TH lanes on SB approach, add 1 TH lane on NB approach; Modify signal phasing to provide E-W permissive LT and EB RT overlap;	0.557	A
		PM	N/A	Upgrade signal to ATCS or equivalent	0.736	C
		AP	N/A		0.696	B
Intersection 83	La Tijera and Sepulveda	AM	N/A	Add second LT lane on NB approach; add TH lane each on NB and SB approaches; Install NB LT phasing; Restripe WB approach to provide 2 LT, 1 LT/TH, 1 TH/RT; Change EB/WB to split phase;	0.835	D
		PM	N/A	Upgrade signal to ATCS.	0.915	E
		AP	N/A	Intersection remains unmitigated.	0.385	A
Intersection 87	Lincoln and 83rd	AM	N/A	Add second LT lane on SB approach;	1.137	F
		PM	N/A	Upgrade signal to ATCS	1.480	F
		AP	N/A		1.377	F
Intersection 88	Lincoln and Manchester	AM	N/A	Add second LT lane on EB and WB approaches; add LT phasing for E-W movement with WB RT overlap; Add a separate RT lane on NB approach; Add TH lane on EB & WB approaches; Upgrade signal to ATCS	0.800	C
		PM	N/A		1.377	F
		AP	N/A		0.954	E
Intersection 94	Lincoln and Teale	AM	N/A	Add second SB LT lane; Upgrade signal to ATCS	0.729	C
		PM	N/A	or equivalent. Intersection remains unmitigated.	0.594	A
		AP	N/A		0.425	A
Intersection 98	Manchester and Pershing	AM	N/A	Add second LT lane on SB approach; Convert E-W split phasing	0.367	A
		PM	N/A	to permissive; Upgrade signal to ATCS	0.727	C

Table AD5-2

Year 2015 Alternative A Mitigation Plan (Adjusted Environmental Baseline Comparison)

Facility Number	Facility Name	Peak Hour[1]	Direc.	Improvement	Final V/C	Final LOS
		AP	N/A		0.188	A
Intersection 99	Manchester and Sepulveda	AM	N/A	Restripe WB approach to add a separate RT lane	1.017	F
		PM	N/A		1.038	F
		AP	N/A		0.891	D
Intersection 100	Mariposa and Sepulveda	AM	N/A	Add second LT lane on NB approach; Add separate RT	0.765	C
		PM	N/A	lane on EB approach; Upgrade signal to ATSAC or equivalent	1.046	F
		AP	N/A		1.009	F
Intersection 103	Rosecrans and Sepulveda	AM	N/A	Upgrade signal to ATSAC or equivalent	1.563	F
		PM	N/A		1.647	F
		AP	N/A		1.873	F
Intersection 106	Sepulveda and 76th/77th	AM	N/A	Add a separate RT lane on WB approach;	0.790	C
		PM	N/A	Upgrade signal to ATCS	0.567	A
		AP	N/A		0.586	A
Intersection 111	La Cienega at I-405 SB Ramps N/O Century	AM	N/A	None	0.535	A
		PM	N/A		0.660	B
		AP	N/A		0.739	C
Intersection 307	La Cienega at I-405 NB Off-Ramp at Century	AM	N/A	Upgrade signal to ATCS or equivalent	0.738	C
		PM	N/A		0.585	A
		AP	N/A		0.361	A
Intersection 312	El Segundo and La Cienega	AM	N/A	None	0.677	B
		PM	N/A		0.690	B
		AP	N/A		0.500	A
Link 1	Lincoln s/o Venice	AM	NB/EB	None	0.765	C
			SB/WB		0.928	E
		PM	NB/EB		0.974	E
			SB/WB		0.932	E
		AP	NB/EB		0.784	C
			SB/WB		0.802	C
Link 2	Centinela s/o Venice	AM	NB/EB	None	0.946	E
			SB/WB		0.667	B
		PM	NB/EB		0.846	D
			SB/WB		0.932	E
		AP	NB/EB		0.774	C
			SB/WB		0.954	E
Link 4	Sepulveda s/o Venice	AM	NB/EB	Upgrade signal at Sepulveda Blvd & Venice Blvd to	0.849	D
			SB/WB	ATCS or equivalent; Upgrade signal at Sepulveda Blvd &	0.719	C
		PM	NB/EB	I-405 Freeway Ramps to ATCS or equivalent	1.053	F
			SB/WB		0.912	E
		AP	NB/EB		0.809	D
			SB/WB		1.040	F
Link 5	Overland s/o Venice	AM	NB/EB	Upgrade signals at Overland & Venice and at Overland &	0.888	D
			SB/WB	Washington to ATCS or equivalent	0.962	E
		PM	NB/EB		0.874	D
			SB/WB		1.161	F
		AP	NB/EB		0.856	D
			SB/WB		1.094	F
Link 14	Aviation n/o Rosecrans	AM	NB/EB	None	0.693	B
			SB/WB		0.263	A
		PM	NB/EB		0.474	A
			SB/WB		0.797	C
		AP	NB/EB		0.438	A
			SB/WB		0.346	A
Link 21	Lincoln s/o Jefferson	AM	NB/EB	Upgrade signals at Jefferson & Lincoln and at	0.998	E
			SB/WB	Lincoln & Teale to ATCS or equivalent	0.357	A
		PM	NB/EB		0.879	D
			SB/WB		0.675	B
		AP	NB/EB		0.616	B
			SB/WB		0.609	B
Link 26	Sepulveda s/o Slauson	AM	NB/EB	Upgrade signal at Sepulveda Blvd & Slauson Ave to	0.920	E
			SB/WB	ATSAC or equivalent	0.364	A
		PM	NB/EB		0.699	B
			SB/WB		0.806	D

Table AD5-2

Year 2015 Alternative A Mitigation Plan (Adjusted Environmental Baseline Comparison)

Facility Number	Facility Name	Peak Hour[1]	Direc.	Improvement	Final V/C	Final LOS
		AP	NB/EB		0.472	A
			SB/WB		0.437	A
Link	Centinela w/o	AM	NB/EB	Upgrade signal at Centinela Ave and Sepulveda Blvd to ATSAC or equivalent	0.423	A
27	Sepulveda		SB/WB		0.922	E
		PM	NB/EB		0.838	D
			SB/WB		0.745	C
		AP	NB/EB		0.571	A
			SB/WB		0.763	C
Link	El Segundo w/o	AM	NB/EB	Upgrade signal at El Segundo Blvd & Hawthorne	0.168	A
28	Hawthorne		SB/WB	Blvd to ATSAC or equivalent	0.489	A
		PM	NB/EB		0.781	C
			SB/WB		0.385	A
		AP	NB/EB		0.675	B
			SB/WB		0.880	D

N/A = Not Applicable.

[1] AP = Airport peak hour. Significant impacts occur in the airport peak hour only when total airport peak-hour traffic volumes exceed AM and PM peak-hour volumes and the criteria for significant impacts are met.

Source: Barton-Aschman Associates, Inc.

The specific improvements recommended for Alternative B are shown in **Table AD5-3**, Year 2015 Alternative B Mitigation Plan (Adjusted Environmental Baseline Comparison).

Table AD5-3

Year 2015 Alternative B Mitigation Plan (Adjusted Environmental Baseline Comparison)

Facility Number	Facility Name	Peak Hour[1]	Direc.	Improvements	Final V/C	Final LOS
Intersection	Arbor Vitae and	AM	N/A	Upgrade signal to ATCS	0.936	E
8	La Cienega	PM	N/A	Intersection remains unmitigated.	0.909	E
		AP	N/A		1.104	F
Intersection	Aviation and Century	AM	N/A	Add RT lane on EB, WB and NB approaches;	0.813	D
11		PM	N/A	Add second LT lane on WB approach;	1.008	F
		AP	N/A	Upgrade signal to ATCS or equivalent	1.237	F
Intersection	Aviation and	AM	N/A	None	1.041	F
12	El Segundo	PM	N/A		1.076	F
		AP	N/A		1.143	F
Intersection	Aviation at Imperial	AM	N/A	Restripe one WB TH lane as TH/RT lane;	1.039	F
13		PM	N/A	Restripe NB TH/RT lane for RT only lane;	1.186	F
		AP	N/A	Upgrade signal to ATCS	1.164	F
Intersection	Aviation and	AM	N/A	Upgrade signal to ATSAC or equivalent	0.863	D
14	Manchester	PM	N/A		1.007	F
		AP	N/A		1.423	F
Intersection	Aviation and	AM	N/A	Upgrade signal to ATSAC or equivalent	1.275	F
15	Rosecrans	PM	N/A		1.604	F
		AP	N/A		1.609	F
Intersection	Centinela and	AM	N/A	Upgrade signal to ATCS or equivalent	1.341	F
22	Sepulveda	PM	N/A		1.191	F
		AP	N/A		0.915	E
Intersection	Century and	AM	N/A	Provide second LT lane for EB and NB approaches;	0.776	C
26	La Cienega	PM	N/A	Upgrade signal to ATCS or equivalent	0.787	C
		AP	N/A	Intersection remains unmitigated.	0.519	A
Intersection	Florence and	AM	N/A	None	0.760	C
40	La Cienega	PM	N/A		1.060	F

Table AD5-3

Year 2015 Alternative B Mitigation Plan (Adjusted Environmental Baseline Comparison)

Facility Number	Facility Name	Peak Hour[1]	Direc.	Improvements	Final V/C	Final LOS
		AP	N/A		1.441	F
Intersection 44	Howard Hughes and Sepulveda	AM	N/A	Add TH lane on NB approach	0.676	B
		PM	N/A		0.764	C
		AP	N/A		0.585	A
Intersection 45	I-105/Continental City At Imperial	AM	N/A	Upgrade signal to ATSAC	0.774	C
		PM	N/A		0.658	B
		AP	N/A		0.491	A
Intersection 48	I-105 WB Off/Nash at Imperial	AM	N/A	Upgrade signal to ATCS or equivalent	1.273	F
		PM	N/A		0.585	A
		AP	N/A		0.401	A
Intersection 50	Imperial and Sepulveda	AM	N/A	Add second LT lane on NB approach; Convert EB	0.700	B
		PM	N/A	RT lane to a free-flow lane; Upgrade signal to ATCS	1.001	E
		AP	N/A		0.654	B
Intersection 52	Imperial and La Cienega	AM	N/A	Restripe SB TH/RT as second RT lane;	0.727	C
		PM	N/A	Upgrade signal to ATCS or equivalent	0.469	A
		AP	N/A		0.628	B
Intersection 54	I-405 NB Ramps at Jefferson	AM	N/A	None	0.843	D
		PM	N/A		0.886	D
		AP	N/A		0.698	B
Intersection 57	Jefferson and Lincoln	AM	N/A	Restripe one NB TH lane as TH/RT lane; Restripe one WB TH lane as LT/TH lane; Change E/W phasing to split phase.	1.115	F
		PM	N/A		1.195	F
		AP	N/A	Intersection remains unmitigated.	0.773	C
Intersection 72	La Cienega and Manchester	AM	N/A	None	0.684	B
		PM	N/A		0.769	C
		AP	N/A		1.092	F
Intersection 78	I-405 NB Ramps at La Tijera	AM	N/A	Restripe EB approach to provide second LT lane	0.806	D
		PM	N/A		0.673	B
		AP	N/A		0.416	A
Intersection 81	La Tijera and Lincoln	AM	N/A	Add TH lane on SB approach; Add third LT lane on NB approach; Add second RT lane on EB approach;	0.735	C
		PM	N/A	Modify SB, EB and WB LT phasing to permissive;	0.677	B
		AP	N/A	Upgrade signal to ATCS or equivalent	0.510	A
Intersection 82	La Tijera and Manchester	AM	N/A	None	0.539	A
		PM	N/A		0.726	C
		AP	N/A		0.563	A
Intersection 83	La Tijera and Sepulveda	AM	N/A	Add second LT lane and a RT lane on NB approach; Add second LT lane and restripe TH lane as LT/TH on WB approach;	0.897	D
		PM	N/A	Add TH/RT lane on EB approach; Split-phase EB and WB	0.845	D
		AP	N/A	Intersection remains unmitigated.	0.373	A
Intersection 87	Lincoln and 83rd	AM	N/A	Add second LT lane on SB approach;	1.135	F
		PM	N/A	Upgrade signal to ATCS	1.457	F
		AP	N/A		1.351	F
Intersection 88	Lincoln and Manchester	AM	N/A	Add RT lane on NB approach; Add TH lane	0.802	D
		PM	N/A	on WB approach; Add second LT lane on SB approach;	1.268	F
		AP	N/A	Convert WB RT lane to free-flow; Upgrade signal to ATCS	0.901	E
Intersection 94	Lincoln and Teale	AM	N/A	Upgrade signal to ATCS or equivalent	0.735	C
		PM	N/A	Intersection remains unmitigated.	0.619	B
		AP	N/A		0.456	A
Intersection 98	Manchester and Pershing	AM	N/A	Add second LT lane on SB approach	0.446	A
		PM	N/A		0.727	C
		AP	N/A		0.223	A
Intersection 99	Manchester and Sepulveda	AM	N/A	Restripe WB approach to install RT lane;	1.006	F
		PM	N/A	Add second LT lane on EB approach; Add third TH lane on	1.026	F
		AP	N/A	WB approach	0.835	D
Intersection 100	Mariposa and Sepulveda	AM	N/A	Add second LT lane on NB approach;	0.734	C
		PM	N/A	Add separate RT lane on EB approach;	1.067	F
		AP	N/A	Upgrade signal to ATSAC or equivalent	1.113	D
Intersection 101	Pershing and Westchester Pkwy	AM	N/A	None	0.547	A
		PM	N/A		0.623	B
		AP	N/A		0.415	A
Intersection	Sepulveda and	AM	N/A	Add separate RT lane on WB approach;	0.780	C

Table AD5-3

Year 2015 Alternative B Mitigation Plan (Adjusted Environmental Baseline Comparison)

Facility Number	Facility Name	Peak Hour[1]	Direc.	Improvements	Final V/C	Final LOS
106	76th/77th	PM	N/A	Upgrade signal to ATCS	0.544	A
		AP	N/A		0.610	B
Intersection	La Cienega at I-405	AM	N/A	Add second LT lane on SB approach;	0.663	B
111	SB ramps n/o Century	PM	N/A	Add RT lane on WB approach	0.669	B
		AP	N/A		0.706	C
Intersection	I-405 NB Off-ramp at	AM	N/A	Upgrade signal to ATSAC or equivalent	0.740	C
307	Century	PM	N/A		0.582	A
		AP	N/A		0.361	A
Link	Centinela s/o Venice	AM	NB/EB	None	0.946	E
2			SB/WB		0.663	B
		PM	NB/EB		0.839	D
			SB/WB		0.922	E
		AP	NB/EB		0.773	C
			SB/WB		0.935	E
Link	Sepulveda s/o Venice	AM	NB/EB	Upgrade signal at Sepulveda Blvd and Venice Blvd to	0.843	D
4			SB/WB	ATCS or equivalent; Upgrade signal at Sepulveda	0.714	C
		PM	NB/EB	Blvd and I-405 Freeway Ramps to ATCS or equivalent	1.046	F
			SB/WB		0.919	E
		AP	NB/EB		0.792	C
			SB/WB		1.032	F
Link	Overland s/o Venice	AM	NB/EB	Upgrade signal at Overland Blvd and Venice Blvd to	0.874	D
5			SB/WB	ATCS or equivalent; Upgrade signal at Overland	0.947	E
		PM	NB/EB	Ave and Washington Boulevard to ATCS or equivalent	0.868	D
			SB/WB		1.167	F
		AP	NB/EB		0.872	D
			SB/WB		1.064	F
Link	Lincoln s/o Jefferson	AM	NB/EB	Upgrade signal at Jefferson Blvd and Lincoln	0.990	E
21			SB/WB	Blvd to ATCS or equivalent; Upgrade signal at Lincoln	0.354	A
		PM	NB/EB	Blvd and Teale Street to ATCS or equivalent	0.871	D
			SB/WB		0.668	B
		AP	NB/EB		0.616	B
			SB/WB		0.605	B
Link	Sepulveda s/o Slauson	AM	NB/EB	Upgrade signal at Sepulveda Blvd and Slauson Ave to	0.913	E
26			SB/WB	ATSAC or equivalent	0.338	A
		PM	NB/EB		0.689	B
			SB/WB		0.809	D
		AP	NB/EB		0.461	A
			SB/WB		0.421	A
Link	El Segundo w/o	AM	NB/EB	None	0.194	A
28	Hawthorne		SB/WB		0.514	A
		PM	NB/EB		0.798	C
			SB/WB		0.408	A
		AP	NB/EB		0.702	C
			SB/WB		0.906	E

N/A = Not Applicable.

[1] AP = Airport peak hour. Significant impacts occur in the airport peak hour only when total traffic volumes in the airport peak hour exceeds AM and PM peak hour volumes and the criteria for significant impacts are met.

Source: Barton-Aschman Associates, Inc.

The specific improvements for Alternative C are shown in **Table AD5-4**, Mitigation Plan, Year 2015 Alternative C.

Table AD5-4

Mitigation Plan, Year 2015 Alternative C

Intersection	No.[1]	Improvement
Arbor Vitae / La Cienega	8	Widen the west side of La Cienega Boulevard to add a second left-turn only lane in the NB direction and a right-turn only lane in the SB direction. Widen Arbor Vitae Street to provide one left-turn-only lane, three through lanes and one right-turn only lane in both the EB and the WB directions. Right-of-way acquisition required. Upgrade signal to ATSAC or equivalent. Impact remains in the AM and PM peak periods.
Aviation / Century	11	Remove the Southern Pacific Railroad bridge structure over Century Boulevard and modify the median on Century Boulevard west of Aviation Boulevard to provide dual left-turn lanes in the EB direction. Widen the north side of Century Boulevard east of Aviation Boulevard to provide for a right-turn only lane in the WB direction. Widen the east side of Aviation Boulevard to provide an addition through lane in the NB direction. Widen the west side of Aviation Boulevard to provide dual right-turn only lanes in the SB direction. Right-of-way acquisition required.
Aviation / El Segundo	12	Remove the Southern Pacific Railroad bridge structure over El Segundo Boulevard and modify the median on the west leg to provide dual left-turn-only lanes in the EB direction. Modify the median on the south leg to provide dual left-turn-only lanes in the NB direction. Upgrade the signal to ATSAC or equivalent. Right-of-way acquisition required.
Aviation / Imperial	13	Widen the north side of Imperial Highway east of Aviation Boulevard to install an additional right-turn only lane
Aviation / Manchester	14	Upgrade signal to ATSAC or equivalent
Aviation / Rosecrans	15	Upgrade the signal to ATSAC or equivalent
Centinela / Sepulveda	22	Remove the traffic island and modify the curb return on the SE corner and restripe to provide a triple left-turn only lane in the NB direction. Widen the south side of Centinela Avenue west of Sepulveda Boulevard to provide three departure lanes in the WB direction to accommodate the NB triple left-turn only lanes.
Century / La Cienega	26	Upgrade the signal to ATCS or equivalent. Restripe the WB approach to provide a left-turn only lane, two through lanes, a through/right lane, and a right-turn only lane. This intersection remains unmitigated.
El Segundo / Sepulveda	35	Provide a WB right-turn overlapping arrow. Upgrade the signal to ATSAC or equivalent.
Grand / Vista del Mar	36	Upgrade signal to ATCS or equivalent. Provide a SB left-turn arrow in conjunction with a WB right-turn overlapping arrow.
Howard Hughes / Sepulveda	44	Upgrade the signal to ATCS or equivalent. LAX Expressway will remove impact.
I-105 WB off - Nash / Imperial	48	Upgrade the signal to ATCS or equivalent.
Imperial / Sepulveda	50	Modify the median island on the NB approach to provide dual left-turn only lanes in the NB direction. Provide for a NB right-turn overlapping arrow. Upgrade signal to ATSAC or equivalent.
Imperial / Vista del Mar	51	Provide for a WB right-turn overlapping arrow. Upgrade signal to ATCS or equivalent.
Imperial / La Cienega	52	Upgrade the signal to ATCS or equivalent.
Jefferson / Lincoln	57	Intersection remains unmitigated.
La Cienega / Lennox	71	Upgrade the signal to ATCS or equivalent. Modify the median on the south leg of La Cienega Boulevard to provide a left-turn only lane in the NB direction. Widen the north side of Lennox Boulevard east of La Cienega Boulevard to install an additional right-turn only lane. Right-of-way acquisition required.
La Cienega / Manchester	72	Upgrade signal to ATSAC or equivalent.
La Tijera / I-405 NB Ramps	78	Provide a fair-share contribution towards the La Tijera Bridge Widening at I-405 Freeway project.
La Tijera / Lincoln	81	Restripe the EB approach to provide a shared left/through and dual right-turn only lanes. Change phasing to provide an overlapping right-turn arrow in the EB direction. Widen the east side of Lincoln Boulevard to provide a fourth NB through lane. Upgrade the signal to ATSAC or equivalent. Right-of-way acquisition required. Impact remains in the PM peak period.
La Tijera / Sepulveda	83	Provide a fair-share contribution towards the Sepulveda Boulevard HOV/Transit Priority Lane project. Impact remains in the PM peak period.
Lincoln / 83rd	87	Widen the north and south sides of 83rd Street west of Lincoln Boulevard to provide dual left-turn only lanes and a through/right lane in the EB direction.
Lincoln / Manchester	88	Modify the median island on the east leg of Manchester Avenue to provide dual left-turn only lanes in the EB and WB directions. Widen the east side of Lincoln Boulevard south of Manchester Avenue to provide a free NB right-turn only lane. Upgrade the signal to ATCS or equivalent. Right-of-way acquisition required. Impact remains in the AM peak period.
Lincoln / Teale	94	Intersection remains unmitigated.
Manchester / Pershing	98	Restripe the SB approach to provide a left-turn only lane, a left/through lane, and a through/right lane. Upgrade the signal to ATCS or equivalent.
Manchester / Sepulveda	99	Upgrade signal to ATCS or equivalent.
Mariposa / Sepulveda	100	Upgrade signal to ATSAC or equivalent.
Rosecrans / Sepulveda	103	Upgrade signal to ATSAC or equivalent.
Sepulveda / 76th/77th	106	Provide a fair-share contribution towards the Sepulveda Boulevard HOV/Transit Priority Lane project.

Table AD5-4

Mitigation Plan, Year 2015 Alternative C

Intersection	No.[1]	Improvement
La Cienega / I-405 SB ramps (N/O Century)	111	Upgrade signal to ATCS or equivalent.
Centinela / La Cienega	D	Widen the north side of Centinela Avenue east of La Cienega Boulevard to install a second left-turn only lane in the WB direction. Right-of-way acquisition required.
Bali / Lincoln	F	Provide a fair-share contribution toward LA County's Route 90 At-Grade Extension Project from Lincoln Boulevard to Admiralty Way.
Lincoln / Marina Expwy (SR-90)	H	Provide a fair-share contribution toward LA County's Route 90 At-Grade Extension Project from Lincoln Boulevard to Admiralty Way. Intersection remains unmitigated.
Lincoln / Maxella	I	Provide a fair-share contribution toward LA County's Route 90 At-Grade Extension Project from Lincoln Boulevard to Admiralty Way.
Lincoln / Venice	K	Widen the east side of Lincoln Boulevard south of Venice Boulevard to install a NB right-turn only lane.
Lincoln / Washington	L	Provide a fair-share contribution toward LA County's Route 90 At-Grade Extension Project from Lincoln Boulevard to Admiralty Way.
Sepulveda / 79th/80th	M	Provide a fair-share contribution towards the Sepulveda Boulevard HOV/Transit Priority Lane project.
Sepulveda / 83rd	N	Restripe the WB approach to provide a left-turn only lane, a through lane, and a right-turn only lane. Provide a fair-share contribution towards the Sepulveda Boulevard HOV/Transit Priority Lane project.
Sepulveda S/O Venice	4	Upgrade signal at Sepulveda Boulevard and Venice Boulevard from ATSAC to ATCS or equivalent; Upgrade signal at Sepulveda Boulevard and I-405 NB Ramps from ATSAC to ATCS or equivalent.
Overland S/O Venice	5	Upgrade signal at Overland Avenue and Venice Boulevard from ATSAC to ATCS or equivalent; Upgrade signal at Overland Avenue and Washington Boulevard from ATSAC to ATCS or equivalent.
Lincoln S/O Jefferson	21	Upgrade signal at Jefferson Boulevard and Lincoln Boulevard from ATSAC to ATCS or equivalent; Upgrade signal at Lincoln Boulevard and Teale Street from ATSAC to ATCS or equivalent.
Sepulveda S/O Slauson	26	Upgrade signal at Sepulveda Boulevard and Slauson Avenue from ATSAC to ATCS or equivalent; Upgrade signal at Sepulveda Boulevard and SR-90 EB Ramps from ATSAC to ATCS or equivalent; Provide a fair-share contribution to MTA's proposed Metro Rapid Program or other enhancements to benefit transit to and from LAX. To mitigate the intersection of Sepulveda Boulevard and Slauson Avenue, these enhancements would need to reduce NB through trips by 18 vehicles in the AM peak hour.

[1] Facility Number/Letter which corresponds to Figure F4.3.2-1.

The specific improvements recommended for Alternative D are shown in **Table AD5-5**, Year 2008 Alternative D Mitigation Plan (Adjusted Environmental Baseline Comparison) and **Table AD5-6**, Year 2015 Alternative D Mitigation Plan (Adjusted Environmental Baseline Comparison).

Table AD5-5

Year 2008 Alternative D Mitigation Plan (Adjusted Environmental Baseline Comparison)

Facility Number	Facility Name	Improvements
Intersection 3	Airport and Arbor Vitae	This intersection is impacted in 2008, but not in 2015. Mitigation for this temporary impact involves restriping to add a northbound right-turn lane, with the option of changing one of the two NB through lanes to a TH/RT lane.
Intersection 7	Arbor Vitae and Aviation	Project Component Improvements call for widening the east side of Aviation Boulevard south of Arbor Vitae Street and widening the south side of Arbor Vitae Street east of Aviation Boulevard to achieve standard City of LA street widths. The traffic mitigation involves additional widening to achieve the following lane configuration: NB - 1 LT, 2 TH, 1 RT; SB - 1 LT, 1 TH, 1 TH/RT; EB - 1 LT, 2 TH, 1 TH/RT; WB - 2 LT, 2 TH, 1 RT.
Intersection 8	Arbor Vitae and La Cienega	The Arbor Vitae Street bridge (east leg of intersection) is proposed to be widened by Caltrans to a width of 103 feet. Project Component Improvements call for widening the south side of Arbor Vitae Street west of La Cienega Blvd. and the west side of La Cienega Blvd. south of Arbor Vitae Street to achieve standard City of LA street widths. The traffic mitigation involves the addition of an eastbound right-turn lane and widening the east side of La Cienega Boulevard by construction of retaining walls in Caltrans right-of-way to provide an additional northbound through lane. Resulting lane configuration is: NB - 1 LT, 1 TH, 1 TH/RT; SB - 1 LT, 1 TH, 1 TH/RT; EB - 1 LT, 3 TH, 1 RT; WB - 1 LT, 2 TH, 1 TH/RT, 1 RT.
Intersection 10	Aviation and 111th	Project Component Improvements call for widening the east side of Aviation Boulevard north and south of 111th Street to achieve standard City of LA street widths. The traffic mitigation involves the addition of a second southbound left-turn lane and a second westbound right-turn lane. Resulting lane configuration is: NB - 1 LT, 3 TH, 1 RT; SB - 2 LT, 2 TH, 1 TH/RT; EB - 1 LT, 1 TH/RT; WB - 1 LT, 1 TH/RT, 2 RT
Intersection 12	Aviation and El Segundo	Intersectional analysis assumed proposed improvement by County of LA is completed as separate project. Mitigation for this impact involves 1) restriping the EB approach from 1 LT, 3 TH, 1 RT to 1 LT, 3 TH, 1 TH/RT, and 2) upgrading the signal to ATSAC[8]/ATCS[9] equivalent.
Intersection 13	Aviation and Imperial	Project Component Improvements calls for widening the east side of Aviation Boulevard north of Imperial Highway to achieve City of LA standard street widths. Mitigation for this impact involves restriping the NB approach from 2 LT, 2 TH, 1 RT to 2 LT, 3 TH, 1 RT.
Intersection 15	Aviation and Rosecrans	Intersectional analysis assumed proposed improvement by the City of Hawthorne is completed. Mitigation for this impact involves changing the NB RTOR[10] from Auto to OLA.
Intersection 18	Centinela and Jefferson	Mitigation for this impact involves changing the southbound RTOR from Auto to OLA.
Intersection 22	Centinela and Sepulveda	Mitigation for this impact involves 1) removing the median island on the east leg from the intersection to the underpass of the I-405 Freeway in order to restripe the WB approach from 2 LT, 1 TH, 1 TH/RT to 2 LT, 2 TH, 1 RT and 2) providing a fair-share contribution to MTA's Metro Rapid Program or other enhancements to benefit transit to and from LAX. These enhancements would need to reduce SB through trips by 36 vehicles during the AM peak hour.
Intersection 27	Century and Sepulveda	Mitigation for this impact involves reconfiguring the west leg of the intersection to allow for authorized vehicles only into the Central Terminal Area and trimming the median island on the north leg of the intersection in order to restripe the WB lanes from 1 LT, 1 LT/TH, 2 RT to 2 LT, 1 LT/TH, 1 RT.
Intersection 34	Douglas and Imperial	Mitigation for this impact involves changing the NB RTOR from Auto to Free. To accommodate this movement, one EB through lane would need to be removed from Imperial Highway between Nash Street and Douglas Street.
Intersection 35	El Segundo and Sepulveda	Mitigation for this impact involves 1) changing the EB RTOR from Auto to OLA[11] and 2) upgrading the signal to ATSAC/ATCS equivalent.
Intersection 40	Florence and La Cienega	Mitigation for this impact involves 1) changing the NB/SB phasing from Split to Prot-Var, 2) restriping the SB lanes from 1 LT, 1 LT/TH, 1 TH, 1 RT to 2 LT, 1 TH, 1 TH/RT and 3) upgrading the signal to ATSAC/ATCS equivalent.

Table AD5-5

Year 2008 Alternative D Mitigation Plan (Adjusted Environmental Baseline Comparison)

Facility Number	Facility Name	Improvements
Intersection 45	I-105 Fwy/Continental City at Imperial	Project Component Improvements call for the installation of a north leg of this at-grade intersection. The SB approach will be planned as 3 LT, and 2 RT. Project Component Improvements also call for widening the north side of Imperial Highway west of Continental City Drive in order to install a third WB through lane. The mitigation for this impact involves widening the north and south sides of Imperial Highway east of Continental City Drive in order to install two WB right-turn lanes. The WB lane configuration will be changed from 2 LT, 3 TH to 1 LT, 3 TH, 2 RT.
Intersection 46	I-405 Fwy NB Ramp and Imperial	Mitigation for this impact calls for 1) widening the off-ramp to change the northbound lane configuration from 1 LT, 1 RT to 2 LT, 1 LT/RT and 2) upgrading the signal to ATSAC/ATCS equivalent.
Intersection 50	Imperial and Sepulveda	Mitigation for this impact involves changing both the NB and WB RTOR from Auto to OLA. To mitigate the AP[12] period impact, provide fair-share contribution to MTA's[13] Metro Rapid Bus Program or other enhancements to benefit transit to and from LAX. These enhancements would need to reduce SB through trips by 246 vehicles during the airport peak hour.
Intersection 57	Jefferson and Lincoln	Intersectional analysis assumed full build out of the intersection per Playa Vista mitigation plans. Mitigation for this impact involves 1) restriping the NB approach from 1 LT, 3 TH, 1 TH/RT, 1 RT to 1 LT, 4 TH, 1 RT and 2) providing a fair-share contribution to MTA's proposed Metro Rapid Program or other enhancements to benefit transit traveling to and from LAX. This intersection remains partially unmitigated during the PM peak hour.
Intersection 67	La Cienega and 111th	Project Component Improvement calls for widening the south side of 111th Street west of La Cienega Blvd. and the removal of the median island on La Cienega Blvd. south of 111th Street. Resulting lane configuration is NB - 2 LT, 3 TH; SB - 3 TH, 1 RT; EB - 2 LT, 2 RT. Mitigation for this intersection involves 1) changing the EB signal phasing from Perm to Split and 2) changing the SB RTOR from Auto to OLA and 3) changing the NB phasing from Perm to Prot-Fix.
Intersection 72	La Cienega and Manchester	Mitigation for this impact involves 1) changing the NB/SB phasing from Split to Prot-Var and 2) restriping La Cienega Boulevard from north of Florence Avenue to south of Olive Street in order to change the SB approach from 1 LT, 1 LT/TH, 1 TH, 1 TH/RT to 2 LT, 1 TH, 1 TH/RT.
Intersection 81	La Tijera and Lincoln	This intersection is impacted in 2008, but not in 2015. The resulting short-term impact is temporary and less than significant.
Intersection 83	La Tijera and Sepulveda	Mitigation for this intersection involves restriping the WB approach from 1 LT, 1 TH, 1 TH/RT to 1 LT, 2 TH, 1 RT. This will require the removal of parking from the north side of La Tijera Boulevard east of Sepulveda Boulevard.
Intersection 87	Lincoln and 83rd	Mitigation for this impact involves 1) widening and restriping the EB approach from 1 LT, 1 TH/RT to 2 LT, 1 TH/RT and 2) changing the WB RTOR from Auto to OLA.
Intersection 94	Lincoln and Teale	Intersectional analysis assumed full build-out of the intersection by Playa Vista mitigation plans already in place. Mitigation for the impact involves 1) changing the NB RTOR from Auto to OLA and 2) providing a fair-share contribution to MTA's proposed Metro Rapid Program or other enhancements to benefit transit traveling to and from LAX. These enhancements would need to reduce NB through trips by 152 vehicles during the AM peak hour and reduce NB through trips by 340 vehicles during the PM peak hour.

Table AD5-5

Year 2008 Alternative D Mitigation Plan (Adjusted Environmental Baseline Comparison)

Facility Number	Facility Name	Improvements
Intersection 99	Manchester and Sepulveda	Mitigation for this impact involves 1) restricting parking on the north side of Manchester Avenue during the airport and PM peak periods to allow the WB approach to be restriped as 2 LT, 2 TH, 1 TH/RT during all three peak hours, 2) changing the WB RTOR from Auto to OLA, and 3) providing a fair-share contribution to MTA's proposed Metro Rapid Program or other enhancements to benefit transit traveling to and from LAX. These enhancements would need to reduce WB through trips by 58 vehicles during the AM peak hour and reduce EB through trips by 278 vehicles during the PM peak hour.
Intersection 100	Mariposa and Sepulveda	Mitigation for this impact involves 1) upgrading the signal to ATSAC/ATCS equivalent and 2) providing a fair-share contribution to MTA's proposed Metro Rapid Program or other enhancements to benefit transit traveling to and from LAX. These enhancements would need to reduce NB through trips by 204 vehicles during the AM peak hour.
Intersection 103	Rosecrans and Sepulveda	Mitigation for this impact involves a signal upgrade to ATSAC/ATCS equivalent.
Intersection 105	Sepulveda and I-105 Off Ramp N/O Imperial	Mitigation for this impact involves 1) upgrading the signal to ATSAC/ATCS equivalent, and 2) providing a fair-share contribution to MTA's proposed Metro Rapid Program or other enhancements to benefit transit traveling to and from LAX. These enhancements would need to reduce NB through trips by 81 vehicles during the PM peak hour.
Intersection 109	Sepulveda and Westchester	This intersection is impacted in 2008, but not in 2015. The resulting short-term impact is temporary and less than significant.
Intersection 20	Centinela and La Cienega	Mitigation for this impact involves the removal of the median islands on La Cienega Boulevard north and south of Centinela Avenue and restriping the NB & SB lane configurations from 1 LT, 2 TH, 1 TH/RT to 2 LT, 2 TH, 1 TH/RT. The WB lane configuration would be changed from 1 LT, 3 TH, 1 RT to 2 LT, 2 TH, 1 TH/RT.
Intersection 25	Hawthorne/La Brea and Century	Mitigation for this impact involves removal of the raised median islands on La Brea Ave/ Hawthorne Blvd. and installing additional left-turn lanes for NB and SB traffic. The NB lane configuration would change from 1 LT, 3 TH, 1 TH/RT to 2 LT, 3 TH, 1 TH/RT; the SB lane configuration would change from 1 LT, 3 TH, 1 RT to 2 LT, 3 TH, 1 RT.
Intersection 42	Hawthorne and Imperial	Mitigation for this impact involves 1) upgrading the signal to ATSAC/ATCS equivalent, and 2) changing the SB lane configuration from 1 LT, 2 TH, 1 TH/RT to 1 LT, 3 TH, 1 RT. The removal of a short stretch of parking on the west side of Hawthorne Blvd. north of Imperial Hwy is required.
Intersection 96	Lincoln and Washington	Mitigation for this impact involves providing a fair-share contribution to MTA's proposed Metro Rapid Program or other enhancements to benefit transit traveling to and from LAX. These enhancements would need to reduce NB through trips by 57 vehicles during the PM peak hour.
Intersection 503	Century and Inglewood	Upgrade traffic signal to ATSAC/ATCS equivalent.
Intersection 505	Imperial and Inglewood	Mitigation for this impact involves 1) restriping the SB lanes from 1 LT, 1LT/TH to 1 LT, 1 TH, 1 RT and 2) upgrading the signal to

Table AD5-5

Year 2008 Alternative D Mitigation Plan (Adjusted Environmental Baseline Comparison)

Facility Number	Facility Name	Improvements
Link 5	Overland s/o Venice	Integration of ATCS plus fair-share contributions to regional transit service will mitigate the impacts of this link.

[1] NB = Northbound.
[2] LT = Left turn.
[3] TH = Through.
[4] RT = Right turn.
[5] SB = Southbound.
[6] EB = Eastbound.
[7] WB = Westbound.
[8] ATAC = Automated Traffic Surveillance and Control.
[9] ATCS = Adaptive Traffic Control System.
[10] RTOR = Right turn on red.
[11] OLA = Overlap allowed.
[12] AP = Airport peak hour.
[13] MTA = Metropolitan Transportation Authority.

Source: Barton-Aschman Associates, Inc., 2002.

Table AD5-6

Year 2015 Alternative D Mitigation Plan (Adjusted Environmental Baseline Comparison)

					Conditions After Mitigation	
Facility Number	Facility Name	Peak Hour	Direction	Improvements	V/C[1]	LOS[2]
Intersection 6	Airport and Manchester	AM	N/A	Mitigation for this impact involves restriping the WB lane configuration from 1 LT[8], 2 TH, 1 RT to 1 LT, 3 TH, 1 RT.	0.691	B
		PM	N/A		0.730	C
		AP	N/A		0.893	D
Intersection 7	Arbor Vitae and Aviation	AM	N/A	Mitigation performed in 2008.	0.651	B
		PM	N/A		0.774	C
		AP	N/A		0.781	C
Intersection 8	Arbor Vitae and La Cienega	AM	N/A	Mitigation performed in 2008.	0.754	C
		PM	N/A		0.821	D
		AP	N/A		0.947	E
Intersection 10	Aviation and 111th St	AM	N/A	Mitigation performed in 2008.	0.585	A
		PM	N/A		0.582	A
		AP	N/A		0.742	C
Intersection 11	Aviation and Century	AM	N/A	The impact at this intersection is mitigated through the construction of the proposed Lennox Boulevard interchange.	0.643	A
		PM	N/A		0.739	C
		AP	N/A		0.986	E
Intersection 12	Aviation and El Segundo	AM	N/A	Mitigation performed in 2008.	0.923	E
		PM	N/A		0.941	E
		AP	N/A		0.959	E
Intersection 13	Aviation and Imperial	AM	N/A	Mitigation performed in 2008.	0.767	C
		PM	N/A		0.984	E
		AP	N/A		0.962	E

Table AD5-6

Year 2015 Alternative D Mitigation Plan (Adjusted Environmental Baseline Comparison)

Facility Number	Facility Name	Peak Hour	Direction	Improvements	Conditions After Mitigation V/C[1]	Conditions After Mitigation LOS[2]
Intersection 14	Aviation and Manchester	AM	N/A	Mitigation for this impact involves 1) restriping both EB[9] and WB lane configuration from 1 LT, 2 TH, 1 RT to 1 LT, 2 TH, 1 TH/RT, and 2) upgrading the traffic signal to ATSAC[10]/ATCS[11] equivalent. This proposal would require the elimination of parking on the south side of Manchester Blvd. east of Aviation Blvd. and on the north side of Manchester Blvd. west of Aviation Blvd. in order to provide appropriate merging distances.	0.888	D
		PM	N/A		0.893	D
		AP	N/A		1.180	F
Intersection 15	Aviation and Rosecrans	AM	N/A	Mitigation performed in 2008.	1.107	F
		PM	N/A		1.190	F
		AP	N/A		1.183	F
Intersection 18	Centinela and Jefferson	AM	N/A	Mitigation performed in 2008.	0.919	E
		PM	N/A		1.105	F
		AP	N/A		0.736	C
Intersection 22	Centinela and Sepulveda	AM	N/A	Mitigation performed in 2008.	1.227	F
		PM	N/A		1.205	F
		AP	N/A		0.904	E
Intersection 26	Century and La Cienega	AM	N/A	Project Component Improvements call for restriping the intersection to provide the following lane configuration: NB[12] - 1 LT, 2 TH, 1 TH/RT, 1 RT; SB - 1 LT, 3 TH, 1 RT; EB - 1 LT, 3 TH, 2 RT; WB - 1 LT, 3 TH, 1 TH/RT. This intersection is partially mitigated in all three time periods.	1.200	F
		PM	N/A		1.048	F
		AP	N/A		0.981	E
Intersection 27	Century and Sepulveda	AM	N/A	Mitigation performed in 2008.	0.768	C
		PM	N/A		0.755	C
		AP	N/A		0.568	A
Intersection 34	Douglas and Imperial	AM	N/A	Mitigation performed in 2008.	0.300	A
		PM	N/A		0.585	A
		AP	N/A		0.315	A
Intersection 35	Sepulveda and El Segundo	AM	N/A	Mitigation performed in 2008.	1.152	F
		PM	N/A		1.125	F
		AP	N/A		0.992	E
Intersection 36	Grand and Vista del Mar	AM	N/A	Mitigation for this impact involves restriping the WB approach from 1 LT, 1 LT/TH, 1 RT to 1 LT, 1 LTR, 1 RT.	0.819	D
		PM	N/A		0.431	A
		AP	N/A		0.430	A
Intersection 40	Florence and La Cienega	AM	N/A	Mitigation performed in 2008.	0.737	C
		PM	N/A		1.002	F
		AP	N/A		1.412	F
Intersection 43	Highland/Vista del Mar at Rosecrans	AM	N/A	Mitigation for this impact involves changing the WB RTOR[13] from Auto to OLA.[14]	1.145	F
		PM	N/A		1.297	F
		AP	N/A		0.771	C
Intersection 44	Howard Hughes Pkwy and Sepulveda	AM	N/A	Mitigation for this impact involves providing a fair-share contribution to MTA's[15] proposed Metro Rapid Program or other enhancements to benefit transit traveling to and from LAX. These enhancements would need to reduce the NB through trips by 164 vehicles in the PM peak hour.	0.574	A
		PM	N/A		0.908	E
		AP	N/A		0.574	A
Intersection 45	I-105 Fwy/Continental City Dr. and Imperial	AM	N/A	Mitigation performed in 2008.	0.451	A
		PM	N/A		0.534	A
		AP	N/A		0.652	B
Intersection 46	I-405 Fwy NB Ramps at Imperial	AM	N/A	Mitigation performed in 2008.	0.306	A
		PM	N/A		0.425	B
		AP	N/A		0.618	A

Table AD5-6

Year 2015 Alternative D Mitigation Plan (Adjusted Environmental Baseline Comparison)

Facility Number	Facility Name	Peak Hour	Direction	Improvements	Conditions After Mitigation V/C[1]	Conditions After Mitigation LOS[2]
Intersection 47	Imperial and Main	AM	N/A	Mitigation for this impact involves changing the WB approach from 1 LT, 2 TH to 2 LT, 2 TH. This will require reducing the width of the median island on the east leg of the intersection.	0.532	A
		PM	N/A		0.824	D
		AP	N/A		0.518	A
Intersection 49	Imperial and Pershing	AM	N/A	Mitigation for this impact involves widening the north side of Imperial Highway east of Pershing Drive to install either a second right-turn lane or a free right-turn for westbound traffic. Also, the median is to be narrowed to allow 3 receiving lanes for a SB triple left-turn movement. The SB[16] lane configuration is to be changed from 1 LT, 1 LTR, 1 RT to 2 LT, 1 LT/TH, 1 RT.	0.543	A
		PM	N/A		0.656	B
		AP	N/A		0.363	A
Intersection 50	Imperial and Sepulveda	AM	N/A	Mitigation performed in 2008.	0.854	D
		PM	N/A		1.098	F
		AP	N/A		0.888	D
Intersection 51	Imperial and Vista del Mar	AM	N/A	Mitigation for this impact involves 1) changing the WB phasing from Perm to Split, and 2) changing the NB RTOR from Auto to OLA.	0.906	E
		PM	N/A		0.619	B
		AP	N/A		0.587	A
Intersection 52	Imperial and La Cienega	AM	N/A	This intersection remains unmitigated.	0.662	B
		PM	N/A		0.714	C
		AP	N/A		0.853	D
Intersection 57	Jefferson and Lincoln	AM	N/A	Mitigation performed in 2008.	1.048	F
		PM	N/A		1.146	F
		AP	N/A		0.794	C
Intersection 67	La Cienega and 111th	AM	N/A	Mitigation performed in 2008.	0.316	A
		PM	N/A		0.229	A
		AP	N/A		0.667	B
Intersection 71	La Cienega and Lennox	AM	N/A	The impact of this intersection is mitigated through the construction of the proposed Lennox Boulevard interchange.	N/A	N/A
		PM	N/A		N/A	N/A
		AP	N/A		N/A	N/A
Intersection 72	La Cienega and Manchester	AM	N/A	Mitigation performed in 2008.	0.751	C
		PM	N/A		0.772	C
		AP	N/A		1.179	F
Intersection 82	La Tijera and Manchester	AM	N/A	Mitigation for this impact involves changing the eastbound RT lane to a TH/RT lane on Manchester Avenue. This may require the removal of parking on Manchester Avenue, east of La Tijera Boulevard during the PM peak hour.	0.615	B
		PM	N/A		0.737	C
		AP	N/A		0.565	A
Intersection 83	La Tijera and Sepulveda	AM	N/A	Mitigation performed in 2008.	0.828	D
		PM	N/A		0.828	D
		AP	N/A		0.400	A
Intersection 87	Lincoln and 83rd	AM	N/A	Mitigation performed in 2008.	0.867	D
		PM	N/A		1.057	F
		AP	N/A		0.765	C

Table AD5-6

Year 2015 Alternative D Mitigation Plan (Adjusted Environmental Baseline Comparison)

					Conditions After Mitigation	
Facility Number	**Facility Name**	**Peak Hour**	**Direction**	**Improvements**	**V/C[1]**	**LOS[2]**
Intersection 88	Lincoln and Manchester	AM	N/A	Intersectional analysis assumed Playa Vista development mitigation already in place. Mitigation for this impact involves 1) widening the north and south legs of the intersections to install a NB and SB right-turn only lanes, 2) removing the median island on the east leg of the intersection to install a second WB left-turn lane, and 3) providing a fair-share contribution to MTA's proposed Metro Rapid Program or other enhancements to benefit transit traveling to and from LAX. These enhancements would need to reduce SB through trips by 99 vehicles during the AM peak hour. The lane configurations would be as follows: NB - 1 LT, 4 TH, 1 RT; SB - 1 LT, 3 TH, 1 RT; WB - 2 LT, 2 TH, 1 RT; EB - 2 LT, 2 TH, 1 TH/RT	0.838	D
		PM	N/A		1.169	F
		AP	N/A		0.808	D
Intersection 94	Lincoln and Teale	AM	N/A	Mitigation performed in 2008.	0.798	C
		PM	N/A		0.976	E
		AP	N/A		0.649	B
Intersection 99	Manchester and Sepulveda	AM	N/A	Mitigation performed in 2008.	0.911	E
		PM	N/A		1.141	F
		AP	N/A		0.680	B
Intersection 100	Mariposa and Sepulveda	AM	N/A	Mitigation performed in 2008.	0.836	D
		PM	N/A		0.977	E
		AP	N/A		1.087	F
Intersection 103	Rosecrans and Sepulveda	AM	N/A	Mitigation performed in 2008.	1.211	F
		PM	N/A		1.564	F
		AP	N/A		1.156	F
Intersection 105	Sepulveda and I-105 ramp N/O[17] Imperial	AM	N/A	Mitigation performed in 2008.	1.151	F
		PM	N/A		1.048	F
		AP	N/A		0.841	D
Intersection 106	Sepulveda and 76th/77th	AM	N/A	Mitigation for this impact involves providing a fair-share contribution to MTA's proposed Metro Rapid Program or other enhancements to benefit transit traveling to and from LAX. These enhancements would need to reduce NB through trips by 30 vehicles during the PM peak hour.	0.671	B
			N/A		0.722	C
		PM				
		AP	N/A		0.663	B
Intersection 111	La Cienega and I-405 Ramps N/O Century	AM	N/A	The impact of this intersection is mitigated through the construction of the Lennox Boulevard interchange.	0.685	B
		PM	N/A		0.321	A
		AP	N/A		0.583	A
Intersection 312	El Segundo and La Cienega	AM	N/A	Mitigation for this impact involves an upgrade to the traffic signal to a ATSC/ATCS equivalent.	0.600	A
		PM	N/A		0.625	B
		AP	N/A		0.436	A
Intersection 16	Bali and Lincoln	AM	N/A	Mitigation for this impact involves providing a fair-share contribution to LA County's Route 90 At-Grade Extension Project from Lincoln Blvd. to Admiralty Way.[18]	0.559	A
		PM	N/A		0.726	C
		AP	N/A		0.657	B
Intersection 17	Centinela and Culver	AM	N/A	Mitigation for this impact involves changing the SB lane configuration from 1 LT, 1 TH, 1 TH/RT to 1 LT, 2 TH, 1 RT.	0.848	D
		PM	N/A		0.867	D
		AP	N/A		0.692	B
Intersection 20	Centinela and La Cienega	AM	N/A	Mitigation performed in 2008.	1.062	F
		PM	N/A		1.088	F
		AP	N/A		0.974	E
Intersection 25	Hawthorne/La Brea and Century			Mitigation performed in 2008.		
		AM	N/A		0.800	C
		PM	N/A		0.900	D
		AP	N/A		0.937	E

Table AD5-6

Year 2015 Alternative D Mitigation Plan (Adjusted Environmental Baseline Comparison)

Facility Number	Facility Name	Peak Hour	Direction	Improvements	Conditions After Mitigation V/C[1]	Conditions After Mitigation LOS[2]
Intersection 39	Fiji and Lincoln	AM	N/A	Mitigation for this impact involves providing a fair-share contribution to LA County's Route 90 At-Grade Extension Project from Lincoln Blvd. to Admiralty Way.[18]	0.678	B
		PM	N/A		0.732	C
		AP	N/A		0.457	A
Intersection 42	Hawthorne and Imperial	AM	N/A	Mitigation performed in 2008.	0.613	B
		PM	N/A		0.772	C
		AP	N/A		0.896	D
Intersection 89	Lincoln and Marina Expy.			Mitigation for this impact involves 1) providing a fair-share contribution to LA County's Route 90 At-Grade Extension Project from Lincoln Blvd. to Admiralty Way[18] and 2) providing a fair-share contribution to MTA's proposed Metro Rapid Program or other enhancements to benefit transit traveling to and from LAX. These enhancements would need to reduce NB through trips by 246 vehicles during the AM peak hour, 354 NB through trips in the airport peak hour, and 201 NB through vehicles in the PM peak hour.		
		AM	N/A		1.011	F
		PM	N/A		1.085	F
		AP	N/A		0.786	C
Intersection 90	Lincoln and Maxella	AM	N/A	Mitigation for this impact involves providing a fair-share contribution to LA County's Route 90 gAt-Grade Extension Project from Lincoln Blvd. to Admiralty Way.[18]	0.693	B
		PM	N/A		0.888	D
		AP	N/A		0.799	C
Intersection 91	Lincoln and Mindanao	AM	N/A	Mitigation for this impact involves providing a fair-share contribution to LA County's Route 90 At-Grade Extension Project from Lincoln Blvd. to Admiralty Way.[18]	0.901	E
		PM	N/A		0.969	E
		AP	N/A		0.814	D
Intersection 96	Lincoln and Washington	AM	N/A	In addition to the mitigation performed in 2008, mitigation for this 2015 impact involves providing a fair-share contribution to LA County's Route 90 At-Grade Extension Project from Lincoln Blvd. to Admiralty Way.[18]	1.054	F
		PM	N/A		0.963	E
		AP	N/A		0.669	B
Intersection 136	Sepulveda and 79th/80th	AM	N/A	Mitigation for this intersection involves 1) widening the north side of 79th/80th Street to allow the WB approach to be restriped with 1 LT, 1 TH, 1 TH/RT, and 2) providing a fair-share contribution to MTA's proposed Metro Rapid Program or other enhancements to benefit transit traveling to and from LAX. These enhancements would need to reduce NB through trips by 335 vehicles and SB through trips by 48 vehicles during the PM peak hour.	0.674	B
		PM	N/A		0.845	D
		AP	N/A		0.541	A
Intersection 137	Sepulveda and 83rd	AM	N/A	Mitigation for this intersection involves providing a fair-share contribution to MTA's proposed Metro Rapid Program or other enhancements to benefit transit traveling to and from LAX. These enhancements would need to reduce NB through trips by 264 vehicles during the PM peak hour.	0.727	C
		PM	N/A		0.911	E
		AP	N/A		0.395	A
Intersection 309	Hawthorne and Lennox	AM	N/A	The impact of this intersection is mitigated through the construction of the Lennox Boulevard interchange.	0.502	A
		PM	N/A		0.639	B
		AP	N/A		0.717	C
Intersection 310	Inglewood and Lennox	AM	N/A	The impact of this intersection is mitigated through the construction of the Lennox Boulevard interchange.	0.661	B
		PM	N/A		0.724	C
		AP	N/A		0.658	B

Table AD5-6

Year 2015 Alternative D Mitigation Plan (Adjusted Environmental Baseline Comparison)

Facility Number	Facility Name	Peak Hour	Direction	Improvements	Conditions After Mitigation V/C[1]	Conditions After Mitigation LOS[2]
Intersection 502	Arbor Vitae and Inglewood	AM	N/A	Mitigation for this impact involves restriping the SB lane configuration from 1 LTR to 1 LT, 1 TH, 1 RT. This would require the removal of parking on the west side of Inglewood Blvd, north of Arbor Vitae St.	0.703	C
		PM	N/A		0.727	C
		AP	N/A		0.783	C
Intersection 503	Century and Inglewood	AM	N/A	Mitigation performed in 2008.	0.715	C
		PM	N/A		0.729	C
		AP	N/A		0.829	D
Intersection 505	Imperial and Inglewood	AM	N/A	Mitigation performed in 2008.	0.785	C
		PM	N/A		1.016	F
		AP	N/A		0.901	E
Intersection 506	Arbor Vitae and La Brea	AM	N/A	Mitigation for this impact involves an upgrade of the traffic signal to ATSAC/ATCS equivalent.	0.614	B
		PM	N/A		0.650	B
		AP	N/A		0.819	D
Link 1	Lincoln S/O Venice	AM	NB/EB	Fair-share contributions to regional transit service will mitigate the impacts of this link.	0.775	N/A
			SB/WB		0.915	N/A
		PM	NB/EB		0.969	N/A
			SB/WB		0.910	N/A
		AP	NB/EB		0.773	N/A
			SB/WB		0.806	N/A
Link 2	Centinela S/O Venice	AM	NB/EB	Fair-share contributions to regional transit service will mitigate the impacts of this link.	0.933	N/A
			SB/WB		0.661	N/A
		PM	NB/EB		0.859	N/A
			SB/WB		0.901	N/A
		AP	NB/EB		0.762	N/A
			SB/WB		0.858	N/A
Link 3	Sawtelle S/O Venice	AM	NB/EB	Fair-share contributions to regional transit service will mitigate the impacts of this link.	0.561	N/A
			SB/WB		0.617	N/A
		PM	NB/EB		0.505	N/A
			SB/WB		0.824	N/A
		AP	NB/EB		0.603	N/A
			SB/WB		0.780	N/A
Link 4	Sepulveda S/O Venice	AM	NB/EB	Fair-share contributions to regional transit service will mitigate the impacts of this link.	0.909	N/A
			SB/WB		0.717	N/A
		PM	NB/EB		1.106	N/A
			SB/WB		0.933	N/A
		AP	NB/EB		0.896	N/A
			SB/WB		0.956	N/A
Link 5	Overland S/O Venice	AM	NB/EB	Fair-share contributions to regional transit service will mitigate the impacts of this link.	N/A	N/A
			SB/WB		N/A	N/A
		PM	NB/EB		N/A	N/A
			SB/WB		N/A	N/A
		AP	NB/EB		N/A	N/A
			SB/WB		N/A	N/A
Link 8	Centinela E/O La Brea	AM	NB/EB	Integration of an ATSAC-equivalent improvement will mitigate the impacts of this link.	0.394	N/A
			SB/WB		0.909	N/A
		PM	NB/EB		0.688	N/A
			SB/WB		1.148	N/A
		AP	NB/EB		0.719	N/A
			SB/WB		0.536	N/A
Link 13	Imperial W/O La Brea	AM	NB/EB	Integration of an ATSAC-equivalent improvement will mitigate the impacts of this link.	0.246	N/A
			SB/WB		0.342	N/A
		PM	NB/EB		0.563	N/A
			SB/WB		0.338	N/A
		AP	NB/EB		0.699	N/A
			SB/WB		0.717	N/A

Table AD5-6

Year 2015 Alternative D Mitigation Plan (Adjusted Environmental Baseline Comparison)

Facility Number	Facility Name	Peak Hour	Direction	Improvements	Conditions After Mitigation V/C[1]	Conditions After Mitigation LOS[2]
Link 20	Jefferson E/O Lincoln	AM	NB/EB	Fair-share contributions to regional transit service will mitigate the impacts of this link.	0.799	N/A
			SB/WB		0.508	N/A
		PM	NB/EB		0.539	N/A
			SB/WB		1.110	N/A
		AP	NB/EB		0.287	N/A
			SB/WB		0.440	N/A
Link 21	Lincoln S/O Jefferson	AM	NB/EB	Fair-share contributions to regional transit service will mitigate the impacts of this link.	0.802	N/A
			SB/WB		0.587	N/A
		PM	NB/EB		0.930	N/A
			SB/WB		0.709	N/A
		AP	NB/EB		0.617	N/A
			SB/WB		0.487	N/A
Link 22	Culver W/O Jefferson	AM	NB/EB	Fair-share contributions to regional transit service will mitigate the impacts of this link.	0.720	N/A
			SB/WB		0.309	N/A
		PM	NB/EB		0.555	N/A
			SB/WB		0.913	N/A
		AP	NB/EB		0.432	N/A
			SB/WB		0.505	N/A
Link 28	El Segundo W/O Hawthorne	AM	NB/EB	Integration of an ATSAC-equivalent improvement will mitigate the impacts of this link.	0.171	N/A
			SB/WB		0.484	N/A
		PM	NB/EB		0.778	N/A
			SB/WB		0.355	N/A
		AP	NB/EB		0.687	N/A
			SB/WB		0.872	N/A
Ramp 19	I-405 NB on-ramp and Century EB	AM	N/A	Addition of Lennox Interchange and I-105 ramps fully mitigate this impact.	0.599	N/A
		PM	N/A		0.933	N/A
		AP	N/A		0.571	N/A
Ramp 26	I-405 SB on-ramp and El Segundo	AM	N/A	Addition of Lennox Interchange and I-105 ramps fully mitigate this impact.	0.244	N/A
		PM	N/A		1.043	N/A
		AP	N/A		0.297	N/A
Ramp 35	I-105 WB off-ramp and Nash	AM	N/A	Addition of Lennox Interchange and I-105 ramps fully mitigate this impact.	1.155	N/A
		PM	N/A		0.238	N/A
		AP	N/A		0.631	N/A

[1] V/C = Volume to Capacity ratio.
[2] LOS = Level of Service.
[3] N/A = Not Applicable.
[4] WB = Westbound.
[5] TH = Through.
[6] RT = Right turn.
[7] AP = Airport peak hour.
[8] LT = Left turn.
[9] EB = Eastbound.
[10] ATSAC = Automated Traffic Surveillance and Control.
[11] ATCS = Adaptive Traffic Control System.
[12] NB = Northbound.
[13] RTOR = Right turn on red.
[14] OLA = Overlap allowed.
[15] MTA = Metropolitan Transportation Authority.
[16] SB = Southbound.
[17] N/O = North of.
[18] LA County's *Marina Expressway (SR-90) Connector Road to Admiralty Way* project is currently under environmental review and project funding has not been determined. Date of completion is targeted for 2011.
[19] S/O = South of

Source: Barton-Aschman Associates, Inc., 2002.

Further, a more detailed mitigation phasing plan that shows the mitigation measures needed prior to operating each specific Alternative D project is show in **Table AD5-7**, Off-Airport Surface Transportation Phasing Plan.

Table AD5-7

Off-Airport Surface Transportation Phasing Plan

Phase	Facility	Mitigation Measures Needed

1A	West Employee Parking Garage	• Complete off-site intersectional improvements at:
		  ◦ Grand Avenue and Vista del Mar
		  ◦ Highland Avenue/Vista del Mar and Rosecrans Boulevard
		  ◦ Imperial Highway and Main Street
		  ◦ Imperial Highway and Pershing Drive
		  ◦ Imperial Highway and Sepulveda Boulevard
		  ◦ Imperial Highway and Vista del Mar
		  ◦ Jefferson Boulevard and Lincoln Boulevard
		  ◦ Lincoln Boulevard and Manchester Avenue
		  ◦ Lincoln Boulevard and Teale Street
		  ◦ Rosecrans Avenue and Sepulveda Boulevard
		  ◦ 83rd Street and Lincoln Boulevard;
		• Provide a fair-share contribution to LA County's "Marina Expressway to Admiralty Way" project OR complete alternative off-site intersectional improvements at the following intersections:
		  ◦ Bali Way and Lincoln Boulevard
		  ◦ Fiji Way and Lincoln Boulevard
		  ◦ Lincoln Boulevard and Marina Expressway
		  ◦ Lincoln Boulevard and Maxella Avenue
		  ◦ Lincoln Boulevard and Mindanao Way
		  ◦ Lincoln Boulevard and Washington Boulevard
		• Provide a fair-share contribution toward the LAC-MTA's Metro Rapid Bus Line Expansion Program (possible concepts include but are not limited to paying for larger or additional buses from those planned by the LAC-MTA or paying the cost of retrofitting some buses to better accommodate airline passengers and their baggage to and from LAX) OR other enhancements to benefit transit to and from LAX (possible concepts include but are not limited to traffic signal priority improvements for bus flow, transit marketing, airport employee and/or air passenger fare subsidies) to mitigate the following intersections:
		  ◦ Imperial Highway and Sepulveda Boulevard
		  ◦ Jefferson Boulevard and Lincoln Boulevard
		  ◦ Lincoln Boulevard and Manchester Avenue
		  ◦ Lincoln Boulevard and Marina Expressway
		  ◦ Lincoln Boulevard and Teale Street
		  ◦ Lincoln Boulevard and Washington Boulevard

Table AD5-7

Off-Airport Surface Transportation Phasing Plan

Phase	Facility	Mitigation Measures Needed
1B	Intermodal Transportation Center (ITC)	◆ Complete pedestrian connection between ITC and Green Line light rail station south of Imperial Highway; ◆ Complete the project-component widening of Aviation Boulevard between Century Boulevard and Imperial Highway. This includes the mitigation of adding a second SB left-turn lane at 111th Street; ◆ Complete the project-component roadway improvements (discontinuous widening) along 111th Street between Aviation Boulevard and La Cienega Boulevard. This includes the mitigation of adding a second WB right-turn lane at Aviation Boulevard; ◆ Widen northbound I-405 off-ramp at Imperial Highway; ◆ Provide a "fair-share" contribution toward the LAC-MTA's Metro Rapid Bus Line Expansion Program (possible concepts include but are not limited to paying for larger or additional buses from those planned by the LAC-MTA or paying the cost of retrofitting some buses to better accommodate airline passengers and their baggage to and from LAX) OR other enhancements to benefit transit to and from LAX (possible concepts include but are not limited to traffic signal priority improvements for bus flow, transit marketing, airport employee and/or air passenger fare subsidies) to mitigate the following intersections: ◆ Centinela Avenue and Sepulveda Boulevard ◆ Howard Hughes Parkway and Sepulveda Boulevard ◆ Manchester Avenue and Sepulveda Boulevard ◆ Mariposa Avenue and Sepulveda Boulevard ◆ 76th St/77th St and Sepulveda Boulevard ◆ 79th St/ 80th St and Sepulveda Boulevard ◆ 83rd Street and Sepulveda Boulevard ◆ I-105 Freeway Westbound off-ramp at Sepulveda Boulevard ◆ Complete off-site intersectional improvements at: ◆ I-105 Freeway ramps/Continental City Drive & Imperial Highway (at-grade intersectional improvement only) • I-405 northbound off-ramp at Imperial Highway ◆ Aviation Boulevard and El Segundo Boulevard ◆ Aviation Boulevard and Imperial Highway ◆ Aviation Boulevard and Rosecrans Boulevard ◆ ◆ ◆ Douglas Street and Imperial Highway ◆ El Segundo Boulevard and La Cienega Boulevard ◆ La Cienega Boulevard and 111th Street ◆ Manchester Avenue and Sepulveda Boulevard ◆ Mariposa Avenue and Sepulveda Boulevard ◆ 79th Street/80th Street and Sepulveda Boulevard
1C	Southeast Surface Parking	◆ Complete construction of the project-component internal north-south airport roadway that bisects the surface parking lot and terminates at 111th Street.
1D	Consolidated Rent-a-Car Center	◆ Complete off-site intersectional improvements at: ◆ Airport Boulevard and Arbor Vitae Street ◆ Airport Boulevard and Manchester Avenue ◆ Centinela Avenue and Jefferson Boulevard ◆ Centinela Avenue and Sepulveda Boulevard ◆ Century Boulevard and Sepulveda Boulevard ◆ La Tijera Boulevard and Manchester Avenue ◆ La Tijera Boulevard and Sepulveda Boulevard ◆ Sepulveda Boulevard and I-105 Freeway WB Off-Ramp north of Imperial Highway
1F	Ground Transportation Center (including Commercial Vehicle Holding Area)	◆ Complete project-component GTC/ITC Roadways and Century Bridge; ◆ Complete project-component realignment of 104th Street east of the internal airport roadways to connect to 102nd Street ◆ Complete project-component widening of Arbor Vitae Street between Aviation Boulevard and La Cienega Boulevard. This includes the mitigation of installing a second WB left-turn lane at Aviation Boulevard and an EB right-turn lane at La Cienega Boulevard; ◆ Complete project-component widening of Aviation Boulevard between Arbor Vitae Street and Century Boulevard;

Table AD5-7

Off-Airport Surface Transportation Phasing Plan

Phase	Facility	Mitigation Measures Needed
		◆ Complete project-component roadway improvements on La Cienega Boulevard between Arbor Vitae Street and Imperial Highway. This includes the mitigation of installing an additional through lane for NB traffic at Arbor Vitae Street; ◆ Complete project-component roadway improvements on Century Boulevard between Aviation Boulevard and Glasgow Place; ◆ Widen the off-ramp from southbound I-405 Freeway north of Century Boulevard at La Cienega Boulevard; ◆ Complete off-site intersectional improvements at: ◆ Arbor Vitae Street and Inglewood Avenue ◆ Arbor Vitae Street and La Brea Avenue ◆ ◆ Aviation Boulevard and Manchester Boulevard ◆ Centinela Avenue and Culver Boulevard ◆ Centinela Avenue and La Cienega Boulevard ◆ Century Boulevard and Hawthorne Blvd/La Brea Avenue ◆ Century Boulevard and Inglewood Avenue ◆ Century Boulevard and La Cienega Boulevard ◆ El Segundo Boulevard and Sepulveda Boulevard ◆ Florence Avenue and La Cienega Boulevard ◆ Hawthorne Boulevard and Imperial Highway ◆ Imperial Highway and Inglewood Avenue ◆ La Cienega Boulevard and Manchester Boulevard ◆ Begin construction of direct connection between I-105 Freeway ramps and internal airport roadways east of ITC (See Note 7); ◆ Begin construction of I-405 Interchange at Lennox Boulevard (See Note 7)

Notes:

1 For a detailed description of intersectional improvements, see Tables F4.3.2-28 and F4.3.2-29.

2 LADOT may recommend that temporary Certificates of Occupancy be granted in the event of any delay: 1) by Caltrans on encroachment permits, or 2) in obtaining required approvals from other City departments, government agencies or jurisdictions through no fault of Los Angeles World Airports, provided that LAWA has demonstrated reasonable efforts and due diligence to the satisfaction of LADOT.

3 In all cases, except as noted in (2) above, the required Traffic Mitigation or Project Component of each sub-phase for the corresponding land use sub-phase shall be guaranteed to the satisfaction of LADOT and City of Los Angeles Public Works prior to the issuance of any Building Permit and completed prior to the issuance of any Certificate of Occupancy permit.

4 Where appropriate, as determined by LAWA and LADOT, revisions may be made to this Phasing Plan.

5 Appropriate transit improvements to the LAC-MTA bus system to and from LAX and "fair-share" contributions to the LA County's "Marina Expressway to Admiralty Way" project must be agreed upon by LAWA, LADOT, FAA, and the respective outside agency. Depending on the outcome of the negotiations to determine LAWA's appropriate level and types of transit improvement or "fair-share" contribution, this phasing plan may be altered at the discretion of LADOT. FAA approval may still be required for substitute mitigations. Mitigation measures are applicable only to the extent that the use of airport revenue to funds such measures is permissible under federal law and policies.

6 In the event the applicant is unable to obtain necessary construction permits from the concerned agencies in a timely fashion, a temporary certificate of occupancy may be granted by the City provided the applicant has demonstrated reasonable efforts to complete the necessary designs and improvements to the satisfaction of LADOT. Should any improvement not receive required approval, the City may substitute an alternative measure of an equivalent effectiveness.

7 LAWA will strive for completion of both the direct freeway connections from the I-405 Freeway at Lennox Boulevard and from the I-105 Freeway onto the airport roadways east of the ITC. If these freeway improvements are not completed in time for the opening of the GTC, LAWA may be required to implement substitute mitigation improvements prior to opening the GTC, including, but not limited to, Changeable Message Signs to direct traffic and/or Closed Circuit Television Cameras to monitor traffic flow, to the satisfaction of LADOT.

8 For proposed LAX Master Plan facilities not listed, such as the CTA Landside Terminals, South CTA Concourse Rework, Satellite Concourse, Tom Bradley International Terminal Rework, North CTA Concourse, or LAX Northside, there are no traffic mitigations or project components to be specifically phased with the construction of those components.

9 Prior to the issuance of any final certificate of occupancy in the final phase of the Off-Airport Transportation Phasing Plan, all required improvements in the entire phasing plan shall be funded, completed, or resolved to the satisfaction of LADOT.

Source: Los Angeles World Airports (LAWA), 2002.

Relocation

- **MM-RBR-1. Phasing for Business Relocations (Alternatives A, B, C, and D).**

  To maximize opportunities for airport/airport-dependent businesses and other businesses being acquired to relocate in proximity to their current sites, LAWA shall, to the maximum degree feasible, reschedule acquisition phasing and/or development phasing to accommodate interested parties on airport property in a manner that would avoid delays to the overall construction and development schedule. First priority shall be given to airport/airport-dependent businesses, such as air freight forwarders and hotels, whose relocation off of the airport would present a unique hardship. Master Plan Commitment RBR-1, Residential and Business Relocation Program (Alternatives A, B, C, and D), can also serve to mitigate significant effects stemming from the acquisition program by using LAWA ANMP funds to redevelop noise impacted residential property for industrial uses.

The following mitigation measure is proposed to further address potential project-level and cumulative impacts associated with business relocation.

- **MM-RBR-2. Relocation Opportunities through Aircraft Noise Mitigation Program (Alternatives A, B, C, and D).**

  As a special project under the Aircraft Noise Mitigation Program (ANMP) for LAX, LAWA shall coordinate with the City of Inglewood and the County of Los Angeles to identify residential land uses that are subject to high levels of aircraft noise where land acquisition and conversion to compatible land uses is contemplated under applicable plans or is otherwise deemed appropriate. As residential uses are relocated outside of noise impacted areas under the ANMP, in compliance with the Uniform Relocation Assistance and Real Property Acquisition Policy Act of 1970, as amended, LAWA shall work with the jurisdictions to identify airport-related businesses interested in these sites. With support from the jurisdictions, as well as other businesses and organizations such as Gateway to L.A. that interact with LAWA. LAWA shall promote these sites for businesses subject to acquisition as part of the proposed LAX Relocation Plan business relocation assistance program. The multiple objectives of the effort shall be to mitigate noise impacted land uses, retain and promote local businesses dependent on airport proximity, and support local employment and economic growth. Areas under the City of Inglewood General Plan and redevelopment plan that are proposed for land use recycling along Century Boulevard shall be given high priority.

Air Quality

- **MM-AQ-1. LAX Master Plan - Mitigation Plan for Air Quality (Alternatives A, B, C, and D).**

  LAWA shall expand and revise the existing air quality mitigation programs at LAX through the development of an LAX Master Plan-Mitigation Plan for Air Quality (LAX MP-MPAQ). The LAX MP-MPAQ shall be developed in consultation with FAA, the U.S. Environmental Protection Agency (USEPA), the California Air Resources Board (CARB), and the South Coast Air Quality Management District (SCAQMD), as appropriate, and shall include all feasible methods to reduce air pollutant emissions from aircraft, ground support equipment (GSE), traffic, and construction equipment both on and off the airport. The goal of the LAX MP-MPAQ shall be to reduce potential air pollutant emissions associated with implementation of the LAX Master Plan to levels equal to, or less than, the thresholds of significance identified in the Final EIS/EIR for the project. At a minimum, air pollutant emissions associated with implementation of the LAX Master Plan will be reduced to levels equal to those identified in **Table AD5-8**, Total Operational and Construction Emissions - Mitigated (tons per year).

Table AD5-8

Total Operational and Construction Emissions - Mitigated (tons per year)

	Interim Year					Horizon Year 2015				
Pollutant and Source	**NA/NP[1, 2]**	**A**	**B**	**C**	**D**	**NA/NP[1]**	**A**	**B**	**C**	**D**
VOC - On-Airport	1,652	1,385	1,330	1,384	1,513	1,513	1,497	1.578	1,534	1,473
VOC - Off-Airport	2,795	2,286	2,261	2,163	1,365	1,606	1,282	1,271	1,270	1,091
VOC - Construction	909	170	148	155	86	-	44	39	40	-
VOC - Total	5,356	3,841	3,739	3,702	2,964	3,119	2,823	2,888	2,844	2,564
CO - On-Airport	11,842	9,555	9,459	9,578	9,077	9,451	9,053	9,553	9,412	8,266
CO - Off-Airport	31,114	29,405	29,385	28,691	16,719	15,188	16,368	16,227	16,336	13,166
CO - Construction	667	1,094	955	995	556	-	352	307	320	-
CO - Total	43,623	40,054	39,799	39,264	26,352	24,639	25,773	26,087	26,068	21,432
NO_X- On-Airport	6,356	5,504	5,503	5,543	5,760	5,729	6,357	6,440	5,999	5,474
NO_X- Off-Airport	4,665	4,420	4,514	4,463	2,628	2,368	2,723	2,718	2,741	2,102
NO_X- Construction	405	2,237	1,952	2,034	1141	-	494	431	449	-
NO_X- Total	11,426	12,161	11,969	12,040	9,529	8,097	9,574	9,589	9,189	7,576
SO_2 - On-Airport	405	382	382	382	436	449	494	513	489	436
SO_2 - Off-Airport	52	50	51	50	24	27	30	30	30	24
SO_2 - Construction	3	7	7	7	3	-	2	2	2	-
SO_2 - Total	460	439	440	439	463	476	526	545	521	460
PM_{10} - On-Airport	181	128	126	132	182	167	165	168	158	177
PM_{10} - Off-Airport	1,617	1,833	1,603	1,572	1,752	1,780	2,089	2,078	2,060	1,658
PM_{10} - Construction	68	531	463	482	335	-	137	119	124	-
PM_{10} - Total	1,866	2,492	2,192	2,186	2,269	1,947	2,391	2,365	2,342	1,835

[1] NA/NP=No Action/No Project Alternative.

[2] As described in the introduction to Chapter 4, the evaluation of mitigation measures is not a part of the No Action/No Project Alternative analysis. Emissions provided in this table for the No Action/No Project Alternative are the same as those reported in **Table F4.6-11a** and have been included here for comparative purposes.

[3] Interim year is 2005 for NA/NP and Alternatives A, B, and C and 2013 for Alternative D.

Source: Camp Dresser & McKee Inc., 2004.

The LAX MP-MPAQ shall include feasible mitigation measures that are grouped into the following three categories:

- Construction-Related Measure;
- Transportation-Related Measure; and
- Operations-Related Measure.

The LAX MP-MPAQ will, initially, present the basic framework of the overall air quality mitigation program (basic LAX MP-MPAQ), and will, ultimately, define the specific measures to be implemented within the context of three (3) individual components specific to the categories of emissions indicated above (full LAX MP-MPAQ). Implementation of Mitigation Measure MM-AQ-2, Construction-Related Mitigation Measure, will define the specific measures to be included in the construction-related component; Mitigation Measure MM-AQ-3, Transportation-Related Mitigation Measure, will define the specific measures to be included in the surface transportation-related component; and Mitigation Measure MM-AQ-4, Operations-Related Mitigation Measure, will define the specific measures to be included in the operations-related component. The basic framework of the LAX MP-MPAQ and the Construction-Related component will be developed prior to initiation of construction activities for the first project to be developed under the LAX Master Plan, and the development of the other two components will occur in conjunction with implementation of the Master Plan components that materially affect surface transportation emissions and operations emissions.

- **MM-AQ-2. Construction-Related Measure (Alternatives A, B, C, and D).**

The required components of the construction-related air quality mitigation measure are itemized below. These components include numerous specific actions to reduce emissions of fugitive dust and of exhaust emissions from on-road and nonroad mobile sources and stationary engines. All of these components must be in place prior to commencement of the first Master Plan construction project and must remain in place through build out of the Master Plan. An implementation plan will be developed, which provides available details as to how each of the elements of this construction-related mitigation measure will be implemented and monitored. Each construction subcontractor will be responsible to implement all measures that apply to the equipment and activities under his/her control, an obligation which will be formalized in the contractual documents, with financial penalties for noncompliance. LAWA will assign one or more environmental coordinators whose responsibility it will be to ensure compliance with the construction-related measure by use of direct inspections, records reviews, and investigation of complaints with reporting to LAWA management for follow-up action. The estimated ranges of emissions reductions quantified for this mitigation measure for Alternatives A, B, C, and D are shown in **Table AD5-9,** Estimated Ranges of Emissions Reductions for Construction-Related Air Quality Mitigation Measures. Reliable emissions reductions were not able to be quantified for all of these components.

Table AD5-9

Estimated Ranges of Emissions Reductions for Construction-Related Air Quality Mitigation Measures

Pollutant	Alternatives A, B, C, and D[1] (tons)
ROG	1 - 10
NO_X	300 - 1,100
CO	10 - 30
PM_{10}	140 - 400
SO_X	1 - 10

[1] In the year of peak construction emissions.

Source: Camp Dresser & McKee Inc., 2004.

The specific components of this construction-related air quality mitigation measure include:

1. Fugitive Dust Source Controls

- Apply non-toxic soil stabilizer to all inactive construction areas (i.e., areas with disturbed soil).
  - Following the addition of materials to, or removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing non-toxic soil stabilizer.
  - Post a publicly visible sign with the telephone number and person to contact regarding dust complaints; this person shall respond and take corrective action within 24 hours.
  - Prior to final occupancy, the applicant demonstrates that all ground surfaces are covered or treated sufficiently to minimize fugitive dust emissions.
  - All roadways, driveways, sidewalks, etc. being installed as part of project should be completed as soon as possible; in addition, building pads should be laid as soon as possible after grading.
  - Pave all construction access roads at least 100 feet on to the site from the main road.

2. On-Road Mobile Source Controls

  - To the extent feasible, have construction employees work/commute during off-peak hours.
  - Make available on-site lunch trucks during construction to minimize off-site worker vehicle trips.

3. Nonroad Mobile Source Controls

   - Prohibit staging or parking of construction vehicles (including workers' vehicles) on streets adjacent to sensitive receptors such as schools, daycare centers, and hospitals.
   - Prohibit construction vehicle idling in excess of ten minutes.
   - Utilize on-site rock crushing facility, when feasible, during construction to reuse rock/concrete and minimize off-site truck haul trips.

4. Stationary Point Source Controls

   - Specify combination of electricity from power poles and portable diesel- or gasoline-fueled generators using "cleaner burning diesel" fuel and exhaust emission controls.

5. Mobile and Stationary Source Controls

   - Specify combination of construction equipment using "cleaner burning diesel" fuel and exhaust emission controls.
   - Suspend use of all construction equipment during a second-stage smog alert in the vicinity of LAX.
   - Utilize construction equipment having the minimum practical engine size (i.e., lowest appropriate horsepower rating for intended job).
   - Require that all construction equipment working on site is properly maintained (including engine tuning) at all times in accordance with manufacturers' specifications and schedules.
   - Prohibit tampering with construction equipment to increase horsepower or to defeat emission control devices.

6. Administrative Controls

   - The contractor or builder shall designate a person or persons to ensure the implementation of all components of the construction-related measure through direct inspections, records reviews, and investigations of complaints.

- **MM-AQ-3. Transportation-Related Measure (Alternatives A, B, C, and D).**

  The primary feature of the transportation-related air quality mitigation measure is the development and construction of at least eight (8) additional sites with FlyAway service similar to the service provided by the Van Nuys FlyAway currently operated by LAWA. The intent of these FlyAway sites is to reduce the quantity of traffic going to and from LAX by providing regional locations where LAX employees and passengers can pick up an LAX-dedicated, clean-fueled bus that will transport them from a FlyAway closer to their home or office into LAX and back. The reduction in vehicle miles traveled (VMT) translates directly into reduced air emissions, as well as a reduction in traffic congestion in the vicinity of the airport. An implementation plan will be developed which provides available details as to how each of the elements of this transportation-related mitigation measure will be implemented and monitored. The estimated emissions reductions associated with this component of the transportation-related air quality mitigation measure are shown in **Table AD5-10,** Estimated Emissions Reductions (Tons) for Eight New FlyAway Terminals - 2015.

Table AD5-10

Estimated Emissions Reductions (Tons) for Eight New FlyAway Terminals - 2015

Pollutant[1]	Alternative A	Alternative B	Alternative C	Alternative D
ROG	56.0	56.0	56.0	56.0
NO_X	82.9	82.9	82.9	82.9
CO	1064.5	1064.5	1064.5	1064.5
PM_{10}	152.6	152.6	152.6	152.6
SO_X	1.7	1.7	1.7	1.7

Note: Reductions are the combined totals from all new FlyAway capacity, and may include expansion of the existing FlyAway.

[1] Based on EMFAC2002 Emission Factors for Calendar Year 2015.

Source: Camp Dresser & McKee Inc., 2004.

The required two (2) elements of this transportation-related air quality mitigation measure include:

1. Development of New FlyAway Capacity:

Additional service capacity from at least eight (8) FlyAway service terminals are required under this measure, and all eight must be operational by 2015. LAWA has already begun analyzing potential FlyAway locations. Selection of the eight general locations should be made and included in the overarching air quality mitigation program plan discussed in Mitigation Measure MM-AQ-1, LAX Master Plan Mitigation Plan for Air Quality, as well as in the implementation plan for the transportation-related measures noted above. Final selection of the sites must be completed on a schedule that allows for property acquisition or leasing, terminal design, construction, and implementation of all sites by 2015.

The sites may include, but are not limited to the following:

- West San Fernando Valley/Eastern Ventura County
- Santa Monica/Pacific Palisades
- Central Los Angeles
- Long Beach/South Bay/San Pedro
- East San Fernando Valley
- San Gabriel Valley
- Southeast Los Angeles County
- North Los Angeles County

2. Public Outreach Program for FlyAway Service:

This measure also requires a public outreach program to inform potential users of the terminals about their existence and their locations. The outreach program would be geared towards encouraging the use of the FlyAways with convenience and low cost being the primary selling points.

Other feasible mitigation elements may be developed to ensure that the emission reductions for this transportation-related measure are achieved. These may include, for example:

Transit Ridership measures such as:

- Constructing on-site or off-site bus turnouts, passenger benches, or shelters to encourage transit system use.
- Constructing on-site or off-site pedestrian improvements/including showers for pedestrian employees to encourage walking/bicycling to work by LAX employees.

Highway and Roadway Improvements measures such as:

- Linking ITS with off-airport parking facilities with ability to divert/direct trips to these facilities to reduce traffic/parking congestion and associate air emissions in the immediate vicinity of the airport.
- Expanding ITS/ATCS systems, concentrating on I-405 and I-105 corridors, extending into South Bay and Westside surface street corridors to reduce traffic/parking congestion and associate air emissions in the immediate vicinity of the airport.
- Linking LAX traffic management system with airport cargo facilities, with ability to reroute cargo trips to/from these facilities to reduce traffic/parking congestion and associate air emissions in the immediate vicinity of the airport.
- Developing a program to minimize the use of conventional-fueled fleet vehicles during smog alerts to reduce air emissions from vehicles at the airport.

Parking measures such as:

- Providing free parking and preferential parking locations for ULEV/SULEV/ZEV in all (including employee) LAX lots; providing free charging stations for ZEV; including public outreach to reduce air emissions from automobiles accessing airport parking.
- Measures to reduce air emissions of vehicles in line to exit parking lots such as pay-on-foot (before getting into car) to minimize idle time at parking check out, including public outreach.
- Implementing on-site circulation plan in parking lots to reduce time and associated air emissions from vehicles circulating through lots looking for parking.
- Encouraging video conferencing and providing video conferencing capabilities at various locations on the airport to reduce VMT in associated air emissions in the vicinity of the airport.

Additional Ridesharing measures such as:

- Expanding the airport's ridesharing program to include all airport tenants.

Clean Vehicle Fleets measure such as:

- Promoting commercial vehicles/trucks/vans using terminal areas (LAX and regional intermodal) to install SULEV/ZEV engines to reduce vehicle air emissions.
- Promoting "best-engine" technology (SULEV/ZEV) for rental cars using on-airport RAC facilities to reduce vehicle air emissions.
- Consolidating nonrental car shuttles using SULEV/ZEV engines to reduce vehicle air emissions.

Energy Conservation measures such as:

- Covering, if feasible, any parking structures that receive direct sunlight, to reduce volatile emissions from vehicle gasoline tanks; and installing solar panels on these roofs where feasible to supply electricity or hot water to reduce power production demand and associated air emissions at utility plants.

These other components may require the approval of other federal, state, regional, and/or local government agencies. It should be noted that no air quality benefit (i.e., pollutant reduction) was estimated in the Final EIS/EIR for these additional components; hence, implementation of any of these other components would, in conjunction with the FlyAway terminals described above, provide for additional air quality benefits over and above amount of transportation-related pollutant reductions accounted for in the Final EIS/EIR.

- **MM-AQ-4. Operations-Related Measure (Alternatives A, B, C, and D).**

The primary component of the operations-related air quality mitigation measure consists of one airside item, the conversion of ground support equipment (GSE) to extremely low emission technology, (such as electric power, fuel cells, or future technological developments). Due to the magnitude of the effort to convert GSE, it must be a phased program and must be completed at build

out of the Master Plan in 2015. An implementation plan will be developed which provides available details as to how each of the elements of this operations-related mitigation measure will be implemented and monitored. Because this effort will apply to all GSE in use at LAX, both LAWA-owned equipment and tenant-owned equipment, the effort must begin upon City approval of the LAX Plan with a detailed inventory of the number, types, sizes, and usage history of all GSE at LAX. Because some of the tenant organizations (mainly the major domestic commercial airlines) have signed a memorandum of understanding (MOU) with the California Air Resources Board (CARB) that requires the signatories to replace a proportion of their GSE fleet with clean-fuel alternatives (including zero-emission equipment), it will be necessary for LAWA to evaluate the level of its commitment within the framework of the MOU. Because LAWA anticipates facilitating this component by providing incentives or tenant lease requirements, early negotiations with tenant organizations may allow LAWA to accommodate cost-sharing agreements to implement the GSE conversions in a timely manner, to make LAWA's financial commitment as cost effective as possible. LAWA will assign a GSE coordinator whose responsibility it will be to ensure the successful conversion of GSE in a timely manner. This coordinator must have adequate authority to negotiate on behalf of the city and have sufficient technical support to evaluate technical issues that arise during implementation of this measure. The estimated ranges of emissions reductions quantified for this component of the operations-related measure for Alternatives A, B, C, and D are shown in **Table AD5-11,** Estimated Ranges of Emissions Reductions for GSE Conversion.

Table AD5-11

Estimated Ranges of Emissions Reductions for GSE Conversion

Pollutant	Alternatives A, B, C, and D[1] (tons)
ROG	10 - 100
NO_X	300 - 400
CO	500 - 1000
PM_{10}	1 - 5
SO_X	1 - 5

[1] In the build-out year, 2015.

Source: Camp Dresser & McKee Inc., 2004.

The successful conversion of all GSE at LAX to zero emission or extremely low emission equipment by 2015 is the required component of this mitigation measure.

Consideration of other operations-related measures may include components such as contracting with commercial landscapers who operate lowest emitting equipment. Reliable emissions reductions have not been quantified for these other components.

An extensive list of potential mitigation measures was developed by the LAX Master Plan Team during preparation of the Draft EIS/EIR; that list was provided in Attachment X of Technical Report 4, *Air Quality Technical Report*. Based on the list of potential mitigation measures from the Draft EIS/EIR and public comments received on the Draft EIS/EIR, the LAX Master Plan Team refined the list of potential mitigation measures, which was discussed in Section 2.3 of Appendix S-E, *Supplemental Air Quality Impact Analysis*. Taking into account the air quality mitigation measure components recommended in the Supplement to the Draft EIS/EIR and public comments received on the Supplement to the Draft EIS/EIR, the Final EIS/EIR lists above the most "technologically/legally feasible and economically reasonable methods" as selected mitigation measures.

The required elements of the air quality mitigation measures include those components that have readily quantifiable air quality benefits. Those components of the air quality mitigation measures that may also be considered for implementation have air quality benefits that cannot easily be quantified. Air quality modeling was conducted for each of the build alternatives to identify the range of emission reductions associated with the readily quantifiable mitigation components.

With respect to the elements of the air quality mitigation measures that have air quality benefits that cannot readily be quantified, no emission reduction has been calculated for these components in reducing the project's significant air quality impacts and no credit has been accounted for these components in the dispersion modeling. Nonetheless, LAWA may consider implementing these elements. This approach represents a conservative quantitative analysis of air quality impacts following mitigation. For this reason, expected air quality impacts should in fact be less than those predicted in the mitigated analyses presented in the Final EIS/EIR.

Hydrology and Water Quality

The following mitigation measure is recommended to reduce cumulative drainage impacts within the Argo, Imperial, and Dominguez Channel sub-basins.

- **MM-HWQ-1. Upgrade Regional Drainage Facilities (Alternatives A, B, C, and D).**

  Regional drainage facilities should be upgraded, as necessary, in order to accommodate current and projected future flows within the watershed of each storm water outfall resulting from cumulative development. This could include upgrading the existing outfalls, or building new ones. The responsibility for implementing this mitigation measure lies with the Los Angeles County Department of Public Works and/or the City of Los Angeles Department of Public Works, Bureau of Engineering. A portion of the increased costs for the upgraded flood control and drainage facilities would be paid by LAX tenants and users in accordance with the possessory interest tax laws and other legal assessments, consistent with federal airport revenue diversion laws and regulations and in compliance with state, county and City laws. The new or upgraded facilities should be designed in accordance with the drainage design standards of each agency.

Historic/Architectural and Archaeological/Cultural Resources

- **MM-HA-1. Historic American Buildings Survey (HABS) Document (Alternatives A, B, C, and D).**

  For historic properties eligible at the federal, state, or local levels that are proposed for demolition or partial demolition (i.e., the Intermediate Terminal Complex under Alternatives A, B, and C; the International Airport Industrial District under Alternatives A, B, C, and D; and the Merle Norman Headquarters Complex under Alternative B), a Historic American Buildings Survey (HABS) document shall be prepared by LAWA in accordance with the Secretary of the Interior's Guidelines for Architectural and Engineering Documentation Standards. The level of documentation (I, II, or III) shall be determined by the National Park Service (NPS). Documentation shall adequately explicate and illustrate what is significant or valuable about each of the historic resources. Documentation data shall be collected prior to commencement of demolition of the buildings. Archival copies of the recordation document shall be submitted to the National Park Service, Library of Congress, and the California Office of Historic Preservation. Non-archival copies of the document shall be distributed to the City of Los Angeles Planning Department, City of Los Angeles Cultural Affairs Department, Los Angeles Public Library (main branch), Los Angeles Conservancy, and LAWA's Public Relations Division.

- **MM-HA-2. Historic Educational Materials (Alternatives A, B, C, and D).**

  For the significant historic resource proposed for demolition or partial demolition, educational materials suitable for the general public, secondary school use, and/or aviation historians and enthusiasts shall be designed with the assistance of a qualified historic preservation professional and implemented by LAWA. The purpose of these materials shall be to present in two- or three-dimensional format, the history of the airport and surrounding area. Such materials shall include, but not be limited to, a video/film documentary, curriculum program and teacher's guide, architectural models, and a historical brochure or pamphlet. These materials shall be made available via LAWA's public relations department to the general public, local community school history programs, and related interest groups.

- **MM-HA-3. Hangar One Relocation (Alternative B).**

  The relocation of Hangar One shall avoid demolition of the structure. Upon SHPO approval, the hangar shall be relocated to an appropriate site within the original Mines Field boundary. Maintaining the building's National Register listing and the majority of its aspects of integrity after relocation is the

primary objective of the FAA, LAWA, SHPO, and the ACHP. Therefore, the relocation site selected shall have a similar setting, location, feeling, and association. The building's design, materials, and workmanship shall be retained. Prior to the relocation of the building, a relocation document shall be prepared by LAWA in accordance with the guidelines outlined in the Department of the Interior's Regulations 36 CFR 60.14(b): National Register of Historic Places, Relocating Properties Listed in the National Register. The physical relocation process of this building shall follow state and federal relocation recommendations and standards approved and utilized by SHPO and NPS. Because of its construction, this two-story, rectangular shaped brick and concrete structure is a good candidate for relocation. Rehabilitation of this building after relocation shall conform to the Secretary of the Interior's Standards and Guidelines for Rehabilitation of Historic Structures.

Prior to relocation, a HABS document shall be prepared by LAWA in accordance with the Secretary of the Interior's Guidelines for Architectural and Engineering Documentation Standards. The level of documentation (I, II, or III) shall be determined by the National Park Service. Documentation shall adequately explicate and illustrate what is significant or valuable about the historic resource being documented.

- **MM-HA-4. Discovery (Alternatives A, B, C, and D).**

  The FAA shall prepare an archaeological treatment plan (ATP), in consultation with SHPO, that ensures the long-term protection and proper treatment of those unexpected archaeological discoveries of federal, state, and/or local significance found within the APE of the selected alternative. The ATP shall include a monitoring plan, research design, and data recovery plan. The ATP shall be consistent with the Secretary of the Interior's Standards and Guidelines for Archaeological Documentation;[16] California Office of Historic Preservation's (OHP) *Archaeological Resources Management Report*, Recommended Contents and Format (1989), and the *Guidelines for Archaeological Research Design* (1991); and shall also take into account the ACHP's publication *Treatment of Archaeological Properties: A Handbook*. The ATP shall also be consistent with the Department of the Interior's Guidelines for Federal Agency Responsibility under Section 110 of the NHPA. In addition, those steps outlined in Section 21083.2(i) of CEQA and Section 15064.5(f) of the CEQA Guidelines shall be implemented, as necessary.

- **MM-HA-5. Monitoring (Alternatives A, B, C, and D).**

  Any grading and excavation activities within LAX proper or the acquisition areas that have not been identified as containing redeposited fill material or as having been previously disturbed shall be monitored by a qualified archaeologist. The archaeologist shall be retained by LAWA and shall meet the Secretary of the Interior's Professional Qualifications Standards.[17] The project archaeologist shall be empowered to halt construction activities in the immediate area if potentially significant resources are identified. Test excavations may be necessary to reveal whether such findings are significant or insignificant. In the event of notification by the project archaeologist that a potentially significant or unique archaeological/cultural find has been unearthed, LAWA shall be notified and grading operations shall cease immediately in the affected area until the geographic extent and scientific value of the resource can be reasonably verified. Upon discovery of an archaeological resource or Native American remains, LAWA shall retain a Native American monitor from a list of suitable candidates obtained from the Native American Heritage Commission.

- **MM-HA-6. Excavation and Recovery (Alternatives A, B, C, and D).**

  Any excavation and recovery of identified resources (features) shall be performed using standard archaeological techniques and the requirements stipulated in the ATP. Any excavations, testing, and/or recovery of resources shall be conducted by a qualified[18] archaeologist selected by LAWA.

- **MM-HA-7. Administration (Alternatives A, B, C, and D).**

  Where known resources are present, all grading and construction plans shall be clearly imprinted with all of the archaeological/cultural mitigation measures. All site workers shall be informed in writing by

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16 48 FR 44634-37.

17 48 FR 22716, September 1983.

18 The Secretary of the Interior's Professional Qualifications Standards (48 FR 22716, September 1983).

the on-site archaeologist of the restrictions regarding disturbance and removal as well as procedures to follow should a resource deposit be detected.

- **MM-HA-8. Archaeological/Cultural Monitor Report (Alternatives A, B, C, and D).**

  Upon completion of grading and excavation activities in the vicinity of known archaeological resources, the Archaeological/Cultural monitor shall prepare a written report. The report shall include the results of the fieldwork and all appropriate laboratory and analytical studies that were performed in conjunction with the excavation. The report shall be submitted in draft form to the FAA, LAWA, and City of Los Angeles-Cultural Affairs Department. City representatives shall have 30 days to comment on the report. All comments and concerns shall be addressed in a final report issued within 30 days of receipt of city comments.

- **MM-HA-9. Artifact Curation (Alternatives A, B, C, and D).**

  All artifacts, notes, photographs, and other project-related materials recovered during the monitoring program shall be curated at a facility meeting federal and state standards.

- **MM-HA-10. Archaeological Notification (Alternatives A, B, C, and D).**

  If human remains are found, all grading and excavation activities in the vicinity shall cease immediately and the appropriate LAWA authority shall be notified; compliance with those procedures outlined in Section 7050.5(b) and (c) of the State Health and Safety Code, Section 5097.94(k) and (i) and Section 5097.98(a) and (b) of the Public Resources Code shall be required. In addition, those steps outlined in Section 15064.5(e) of the CEQA Guidelines shall be implemented.

Paleontological Resources

- **MM-PA-1. Paleontological Qualification and Treatment Plan (Alternatives A, B, C, and D).**

  A qualified paleontologist shall be retained by LAWA to develop an acceptable monitoring and fossil remains treatment plan (that is, a Paleontological Management Treatment Plan - PMTP) for construction-related activities that could disturb potential unique paleontological resources within the project area. This plan shall be implemented and enforced by the project proponent during the initial phase and full phase of construction development. The selection of the paleontologist and the development of the monitoring and treatment plan shall be subject to approval by the Vertebrate Paleontology Section of the Natural History Museum of Los Angeles County to comply with paleontological requirements, as appropriate.

- **MM-PA-2. Paleontological Authorization (Alternatives A, B, C, and D).**

  The paleontologist shall be authorized by LAWA to halt, temporarily divert, or redirect grading in the area of an exposed fossil to facilitate evaluation and, if necessary, salvage. No known or discovered fossils shall be destroyed without the written consent of the project paleontologist.

- **MM-PA-3. Paleontological Monitoring Specifications (Alternatives A, B, C, and D).**

  Specifications for paleontological monitoring shall be included in construction contracts for all LAX projects involving excavation activities deeper than six feet.

- **MM-PA-4. Paleontological Resources Collection (Alternatives A, B, C, and D).**

  Because some fossils are small, it will be necessary to collect sediment samples of promising horizons discovered during grading or excavation monitoring for processing through fine mesh screens. Once the samples have been screened, they shall be examined microscopically for small fossils.

- **MM-PA-5. Fossil Preparation (Alternatives A, B, C, and D).**

  Fossils shall be prepared to the point of identification and catalogued before they are donated to their final repository.

- **MM-PA-6. Fossil Donation (Alternatives A, B, C, and D).**

  All fossils collected shall be donated to a public, nonprofit institution with a research interest in the materials, such as the Los Angeles County Museum of Natural History.

- **MM-PA-7. Paleontological Reporting (Alternatives A, B, C, and D).**

  A report detailing the results of these efforts, listing the fossils collected, and naming the repository shall be submitted to the lead agency at the completion of the project.

Biotic Communities

- **MM-BC-1. Conservation of State-Designated Sensitive Habitat Within and Adjacent to the El Segundo Blue Butterfly Habitat Restoration Area (Alternatives A, B, C, and D).**

  LAWA or its designee shall take all necessary steps to ensure that the state-designated sensitive habitats within and adjacent to the Habitat Restoration Area are conserved and protected during construction, operation, and maintenance. These steps shall, at a minimum, include the following:

  Implementation of construction avoidance measures in areas where construction or staging are adjacent to the Habitat Restoration Area. Prior to the initiation of construction of LAX Master Plan components to be located adjacent to the Habitat Restoration Area, LAWA or its designee shall conduct a pre-construction evaluation to identify and flag specific areas of state-designated sensitive habitats located within 100 feet of construction areas. Subsequent to the pre-construction evaluation, LAWA or its designee shall conduct a pre-construction meeting and provide written construction avoidance measures to be implemented in areas adjacent to state-designated sensitive habitats. Construction avoidance measures include erecting a 10-foot-high tarped chain-link fence where the construction or staging area is adjacent to state-designated sensitive habitats to reduce the transport of fugitive dust particles related to construction activities. Soil stabilization, watering, or other dust control measures, as feasible and appropriate, shall be implemented to reduce fugitive dust emissions during construction activities within 2,000 feet of the El Segundo Blue Butterfly Habitat Restoration Area, with a goal to reduce fugitive dust emissions by 90 to 95 percent**.** In addition, to the extent feasible, no grading or stockpiling for construction activities should take place within 100 feet of a state-designated sensitive habitat. LAWA or its designee shall incorporate provisions for the identification of additional construction avoidance measures to be implemented adjacent to state-designated sensitive areas. All construction avoidance measures that address Best Management Practices shall be clearly stated within construction bid documents. In addition, LAWA shall include a provision in all construction bid documents requiring the presence of a qualified environmental monitor. Construction drawings shall indicate vegetated areas within the Habitat Restoration Area as "Off-Limits Zone."

  Ongoing maintenance and management efforts for the El Segundo Blue Butterfly Habitat Restoration Area. LAWA or its designee shall ensure that maintenance and management efforts prescribed in the Habitat Management Plan (HMP) for the Habitat Restoration Area shall continue to be carried out as prescribed.

  Pre-Construction Surveys to determine presence/absence of California spineflower. Under Alternative A, only, pre-construction surveys will be undertaken during the optimum time of year to determine the presence/absence of individuals of California spineflower within the proposed area of impact within the Habitat Restoration Area. The California spineflower is known to be sparsely distributed in subsite 3 within the Habitat Restoration Area. Should the species be determined present, individuals will be salvaged and relocated to a suitable location within the Habitat Restoration Area. Prior to construction, LAWA or its designee shall develop and implement a relocation plan to avoid the potential loss of individuals from the installation of navigational aids and associated service roads. Relocation efforts shall be undertaken by a qualified biologist, in coordination with CDFG.

- **MM-BC-2. Conservation of Floral Resources: Lewis' Evening Primrose (Alternatives A, B, C, and D).**

  LAWA or its designee shall prepare and implement a plan to compensate for the loss of individuals of the sensitive Lewis' evening primrose, currently located at the westerly end of the north runway and within the Habitat Restoration Area. LAWA or its designee shall collect seed from those plants to be removed, and properly clean and store the collected seed until used. If possible, seeds shall be collected in multiple years to ensure an adequate seed supply for planting. A mitigation site of suitable habitat equal to the area of impact shall be delineated within areas of the Los Angeles/El Segundo Dunes as described in MM-BC-10. Collected seed shall be broadcast (distributed) after the first wetting rain. LAWA or its designee shall implement a monitoring plan to monitor the

establishment of individuals of Lewis' evening primrose for a period of not more than five years. Performance criteria shall include the establishment of an equal number of plants as that impacted in the first year following the distribution of seed within the mitigation site. Performance criteria shall also include confirmation of recruitment for two years following the first year flowering is observed and establishment of individuals throughout the mitigation area within three years following the first year flowering is observed. Monitoring shall be undertaken in the manner set forth in MM-BC-5.

- **MM-BC-3. Conservation of Floral Resources: Mature Tree Replacement (Alternatives A, B, C, and D).**

  LAWA or its designee shall prepare and implement a plan to compensate at a ratio of 2:1 for the loss of approximately 300 mature trees, which would occur as a result of implementation of the LAX Northside/Westchester Southside project. The plan shall include provisions to census and map all mature trees with a diameter of at least 8 inches at breast height, which may be removed due to implementation of the Westchester Southside Plan. This information shall be gathered prior to initiation of construction. The plan shall include a program by which replacement (at a ratio of 2:1) of all impacted mature trees shall be included in plans prepared for landscape treatments within the Master Plan boundaries, which would then be implemented by LAWA. The species of newly planted replacement trees shall be local native tree species to the greatest extent feasible. Each mitigation tree shall be at least a 15-gallon or larger specimen.

- **MM-BC-4. Conservation of Faunal Resources (Alternatives A, B, and C).**

  LAWA or its designee shall develop and implement a relocation and monitoring plan to compensate for the loss of 1.34 habitat units (0.3 habitat units + 1.04 habitat units) of occupied western spadefoot toad habitat and for the loss of western spadefoot toad individuals currently in the southwestern portion of the AOA. LAWA or its designee shall identify possible relocation sites in consultation with the CDFG and USFWS and shall develop and implement a monitoring plan to monitor the success of the relocated tadpoles for a period of not more than five years. LAWA or its designee shall relocate the western spadefoot toad population currently inhabiting three locations on the AOA. One potential site is the Madrona Marsh Nature Center in Torrance, 20 miles south of LAX, which supports several vernal pools and one large pond capable of supporting western spadefoot toads.[19] Spadefoot toad experts suggest the best approach to accomplish relocation is to transport tadpoles and metamorphs only, as adults return to their birth site.[20] Site preparation shall include confirmation by a permitted biologist that no predators, such as mosquitofish or bullfrogs, are present within the proposed relocation site or in waterways surrounding the relocation site. The CDFG has suggested that if the first relocation effort is not successful, another attempt should be made the following year.[21] Therefore, western spadefoot toads shall be collected two consecutive years prior to construction activities taking place in existing occupied spadefoot toad habitat. In addition, since the western spadefoot toad is known to become reproductively mature within three years, an additional performance criterion shall be the identification of tadpoles at the relocation site between years three and four. The success criteria should be 50 percent survival of all tadpoles and metamorphs for the first, second, and third years following the last relocation. This shall be accomplished through a five-year monitoring plan, with bi-monthly monitoring between January 31 and June 1, to document the success of this relocation effort.

  LAWA or its designee shall develop and implement a relocation and monitoring plan to compensate for the loss of 14.91 habitat units (5.82 habitat units + 9.09 habitat units) of occupied San Diego black-tailed jackrabbit habitat located within the AOA. LAWA or its designee shall relocate the San Diego black-tailed jackrabbit population currently inhabiting the AOA. Relocation efforts shall be coordinated with CDFG. The San Diego black-tailed jackrabbit shall be captured on the AOA using live traps and shall be released into the Habitat Restoration Area. Compensation for the loss of 14.91 habitat units shall be the utilization of at least 14.91 habitat units within the Los Angeles/El Segundo Dunes by the San Diego black-tailed jackrabbit individuals relocated to the site. Black-tailed

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19 Wright, Walt, Madrona Marsh Nature Center, Personal Communication, April 28, 1998.

20 Fisher, Dr. Robert, California State University San Diego, Frank Hovore, Hovore and Associates, Dr. Steve Moray, U.S. Fish and Wildlife Service, Personal Communication, April 28, 1998.

21 Maxwell, Dwayne, California Department of Fish and Game, Letter to Dr. Brad Blood, Sapphos Environmental, Inc., April 29, 1998.

jackrabbit is currently absent from the Los Angeles/El Segundo Dunes. Opportunities for compensation for the loss of 14.91 habitat units are described in MM-BC-5 and include 13.52 habitat units from restoration of Non-Native Grassland/Ruderal habitat to a Valley Needlegrass Grassland; 14.4 habitat units from removal and restoration of 50 percent of the existing roadways to Southern Foredune; and 59.68 habitat units from restoration of Disturbed Dune Scrub/Foredune to Southern Foredune. LAWA or its designee shall implement a monitoring plan to monitor the success of the relocated individuals for a period of not more than five years. Performance criteria shall include confirmed success of survival for three years of the San Diego black-tailed jackrabbit within the Habitat Restoration Area. This shall be accomplished through a quarterly monitoring plan to document the success or failure of this relocation effort.

LAWA or its designee shall compensate for the loss of areas utilized by loggerhead shrike currently located on the western airfield and composed of 22.88 habitat units (17.06 habitat units + 5.82 habitat units). Compensation for the loss of 22.88 habitat units of habitat utilized by the loggerhead shrike shall be the utilization of at least 22.88 habitat units within the Los Angeles/El Segundo Dunes. Opportunities for compensation for the loss of 22.88 habitat units are described in MM-BC-5 and include 13.52 habitat units from restoration of Non-Native Grassland/Ruderal habitat to a Valley Needlegrass Grassland; 14.4 habitat units from removal and restoration of 50 percent of the existing roadways to Southern Foredune; and 59.68 habitat units from restoration of Disturbed Dune Scrub/Foredune to Southern Foredune. Compensation for the loss of at least 22.88 habitat units shall take place prior to construction. LAWA or its designee shall implement a monitoring program for a period of not more than five years. Performance criteria shall include the use of at least 22.8 habitat units by the loggerhead shrike for foraging and nesting. Monitoring shall take place quarterly for the first three years and biannually thereafter. Monitoring shall be timed appropriately to include monitoring during the breeding period, which is between February and June.

As a means of minimizing incidental take of active nests of loggerhead shrike, LAWA or its designee shall have all areas to be graded surveyed by a qualified biologist at least 14 days before construction activities begin to ensure maximum avoidance to active nests for loggerhead shrike. Construction avoidance measures shall include flagging of all active nests for loggerhead shrike and a 300 feet wide buffer area shall be designated around the active nests. A biological monitor shall be present to ensure that the buffer area is not infringed upon during the active nesting season, March 15 to August 15. In addition, LAWA or its designee shall require that vegetation clearing within the designated 300 feet buffer be undertaken after August 15 and before March 15.

LAWA or its designee shall conduct pre-construction surveys to determine the presence of individuals of sensitive arthropod species, the silvery legless lizard, the San Diego horned lizard, and the burrowing owl within the proposed area of impact within the Los Angeles/El Segundo Dunes. Surveys will be conducted at the optimum time to observe these species. Should an individual be observed, they will be relocated to suitable habitat for that species within the Habitat Restoration Area. Prior to construction, LAWA or its designee shall develop and implement a relocation plan to avoid the potential loss of individuals from the installation of navigational aids and associated service roads. Relocation efforts shall be undertaken by a qualified biologist, in coordination with CDFG.

- **MM-BC-5. Replacement of Habitat Units (Alternative A).**

  LAWA or its designee shall undertake mitigation for the loss of habitat units resulting from implementation of Alternative A. Implementation of Alternative A would result in the loss of 61.27 habitat units. These habitat units shall be replaced at a ratio of 1:1 within the Los Angeles/El Segundo Dunes. Opportunities for compensation for the loss of 61.27 habitat units include 13.52 habitat units (16.9 acres x 0.8 Habitat Value) from restoration of Non-Native Grassland/Ruderal habitat to a Valley Needlegrass Grassland; 14.4 habitat units from removal and restoration of 50 percent of the existing roadways to Southern Foredune (36.11 acres of streets within the Los Angeles/El Segundo Dunes x 0.5 x 0.8 Habitat Value); and 59.68 habitat units from restoration of Disturbed Dune Scrub/Foredune to Southern Foredune (74.6 acres x 0.8 Habitat Value). A habitat value of 0.8 is considered to be the maximum feasible target value for restoration and enhancement of biotic communities. The restoration and enhancement of biotic communities as related to the establishment or enhancement of wildlife habitat shall consider and comply with the provisions of the FAA Advisory Circular 150/5200-33 regarding hazardous wildlife attractants on or near airports. Additionally, such restoration and enhancement shall take into account, as appropriate, the

Memorandum of Agreement between FAA and other federal agencies, including the USFWS, pertaining to environmental conditions that could contribute to aircraft-wildlife strikes.

Valley Needlegrass Grassland restoration efforts consist of site preparation, propagation and planting of species characteristic of the Valley Needlegrass Grassland community at the Los Angeles/El Segundo Dunes, and maintenance and monitoring of the restoration site. The species to be planted include native perennials as described in the Long-Term Habitat Management Plan for Los Angeles Airport/El Segundo Dunes.[22] The characteristic species include nodding needlegrass (*Nasella cernua*): 1,500 plants/habitat unit; white everlasting (*Gnaphlium microcephalum*): 40 plants/habitat unit; doveweed (*Eremocarpus setigerus*): 40 plants/habitat unit; California croton (*Croton californica*): 45 plants/habitat unit; and dune primrose (*Camissonia chieranthifolia*): 70 plants/habitat unit.[23] Site preparation includes physical demarcation of the site, mapping of the restoration site onto a one inch equals 40 feet aerial photograph, and removal of all non-native species (weed abatement). Removal of non-native herbaceous species shall take place by mowing prior to seed set, raking to remove cut material, and hand-pulling the remainder. Removal of non-native shrubs shall be undertaken by cutting and daubing with herbicide. Propagation and planting of nodding needlegrass shall be accomplished by propagation from seed collected on-site during late spring/early summer. Seed shall be properly cleaned, dried, and stored until used. In late summer, nodding needlegrass seed shall be propagated at an on-site nursery in two-inch thimble pots and properly maintained. Nodding needlegrass shall be planted at a rate of 1,500 plants per habitat unit within Non-Native Grassland/Ruderal community, within the Los Angeles/El Segundo Dunes, which has undergone site preparation as described above. Planting shall take place in the fall or after the first wetting rain. Maintenance of restoration plantings shall consist of adequate irrigation and weed abatement. Given the irregularity of rainfall in southern California, supplemental irrigation shall be provided for two years to ensure the successful establishment of mitigation plantings. Irrigation of the site shall be adjusted to adequately provide for the establishment of the out-plantings. Weed abatement shall take place on a quarterly basis for a period of five years. Monitoring shall be undertaken on a quarterly basis for the first three years following planting, and twice a year thereafter. Monitoring shall consist of qualitative and quantitative monitoring; quantitative monitoring shall take place once a year. Performance criteria to be met include the attainment of at least a 10 percent cover of native cover in the first year and 20, 30, 40, and 45 percent cover of native species over a five-year period as determined by the point-intercept transect method (the CDFG has adopted a 10 percent threshold of native cover as its criteria for significance of native grasslands).[24] This plan assumes the performance criteria outlined above shall be met. If monitoring discerns any failure in performance goals, remedial plantings shall be undertaken. Habitat restoration shall be conducted by a qualified habitat restoration specialist.

Southern Foredune restoration efforts consist of site preparation, propagation, and planting of the species characteristic of the Southern Foredune community at the Los Angeles/El Segundo Dunes, and maintenance and monitoring of the restoration site. The species to be planted include primary and secondary perennial plants as described in the Long-Term Habitat Management Plan for Los Angeles Airport/El Segundo Dunes.[25] Site preparation, propagation and planting, and maintenance and monitoring shall take place as described above. Performance criteria to be met include the attainment of 10, 20, 30, 40, and 45 percent cover of native species over a five-year period as determined by the point-intercept method. The Long-Term Habitat Management Plan for Los Angeles Airport/El Segundo Dunes assumes the performance criteria stated above shall be met. If monitoring discerns any failure in performance goals, remedial plantings shall be undertaken. Habitat restoration shall be conducted by a qualified habitat restoration specialist.

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22 Environmental Science Associates in Association with Sapphos Environmental, Inc. and Rudolf H. T. Mattoni, Ph. D. Long-term Habitat Management Plan for Los Angeles Airport/El Segundo Dunes. Prepared for City of Los Angeles, Environmental Affairs Department, July 23, 1992.

23 Mattoni, R., El Segundo Sand Dunes Revegetation at LAX, Report, Contract C-86086, City of Los Angeles, Environmental Affairs Department, November 16, 1994.

24 Keeley, Jon E., "The California Valley Grassland," in Allan A. Schoenherr (ed.). Endangered Plant Communities of Southern California, Southern California Botanists Special Publication, No. 3, 1990, p. 17.

25 Environmental Science Associates in Association with Sapphos Environmental, Inc. and Rudolf H. T. Mattoni, Ph. D., Long-term Habitat Management Plan for Los Angeles Airport/El Segundo Dunes, prepared for City of Los Angeles, Environmental Affairs Department, July 23, 1992, pp. B-1.

Any combination of habitat replacement completed by LAWA or its designee drawn from the above-listed opportunities that equals at least 61.27 habitat units shall be considered sufficient replacement for the loss of habitat units resulting from implementation of Alternative A.

- **MM-BC-6. Replacement of Habitat Units (Alternative B).**

  LAWA or its designee shall undertake mitigation for the loss of habitat units resulting from implementation of Alternative B. Implementation of Alternative B would result in the loss of 67.81 habitat units. These habitat units shall be replaced at a ratio of 1:1 within the Los Angeles/El Segundo Dunes. Opportunities for compensation for the loss of 67.81 habitat units include 13.52 habitat units (16.9 acres x 0.8 Habitat Value) from restoration of Non-Native Grassland/Ruderal habitat to a Valley Needlegrass Grassland; 14.4 habitat units from removal and restoration of 50 percent of the existing roadways to Southern Foredune (36.11 acres of streets within the Los Angeles/El Segundo Dunes x 0.5 x 0.8 Habitat Value); and 59.68 habitat units from restoration of Disturbed Dune Scrub/Foredune to Southern Foredune (74.6 acres x 0.8 Habitat Value). A habitat value of 0.8 is considered to be the maximum feasible target value for restoration and enhancement of biotic communities. The restoration and enhancement of biotic communities as related to the establishment or enhancement of wildlife habitat shall consider and comply with the provisions of the FAA Advisory Circular 150/5200-33 regarding hazardous wildlife attractants on or near airports. Additionally, such restoration and enhancement shall take into account, as appropriate, the Memorandum of Agreement between FAA and other federal agencies, including the USFWS, pertaining to environmental conditions that could contribute to aircraft-wildlife strikes.

  Valley Needlegrass Grassland and Southern Foredune restoration efforts shall be the same as described under Alternative A.

  Any combination of habitat replacement completed by LAWA or its designee drawn from the opportunities listed under Alternative A that equals at least 67.81 habitat units shall be considered sufficient replacement for the loss of habitat units resulting from implementation of Alternative B.

- **MM-BC-7. Replacement of Habitat Units (Alternative C).**

  LAWA or its designee shall undertake mitigation for the loss of habitat units resulting from implementation of Alternative C. Implementation of Alternative C would result in the loss of 49.87 habitat units. These habitat units shall be replaced at a 1:1 ratio within the Los Angeles/El Segundo Dunes. Opportunities for compensation for the loss of 49.87 habitat units include: 13.52 habitat units (16.9 acres x 0.8 Habitat Value) from restoration of Non-Native Grassland/Ruderal habitat to a Valley Needlegrass Grassland; 14.4 habitat units from removal and restoration of 50 percent of the existing roadways to Southern Foredune (36.11 acres of streets within the Los Angeles/El Segundo Dunes x 0.5 x 0.8 Habitat Value); and 59.68 habitat units from restoration of Disturbed Dune Scrub/Foredune to Southern Foredune (74.6 acres x 0.8 Habitat Value). A habitat value of 0.8 is considered to be the maximum feasible target value for restoration and enhancement of biotic communities. The restoration and enhancement of biotic communities as related to the establishment or enhancement of wildlife habitat shall consider and comply with the provisions of the FAA Advisory Circular 150/5200-33 regarding hazardous wildlife attractants on or near airports. Additionally, such restoration and enhancement shall take into account, as appropriate, the Memorandum of Agreement between FAA and other federal agencies, including the USFWS, pertaining to environmental conditions that could contribute to aircraft-wildlife strikes.

  Valley Needlegrass Grassland and Southern Foredune restoration efforts shall be the same as described under Alternative A.

  Any combination of habitat replacement completed by LAWA or its designee drawn from the opportunities listed under Alternative A that equals at least 49.87 habitat units shall be considered sufficient replacement for the loss of habitat units resulting from implementation of Alternative C.

- **MM-BC-8. Replacement of Habitat Units (Alternative D).**

  LAWA or its designee shall undertake mitigation for the loss of habitat units resulting from implementation of Alternative D. Implementation of Alternative D would result in the loss of 45.43 habitat units. These habitat units shall be replaced at a 1:1 ratio within the Los Angeles/El Segundo Dunes. Opportunities for compensation for the loss of 45.43 habitat units include 13.52 habitat units

(16.9 acres x 0.8 Habitat Value) from restoration of Non-Native Grassland/Ruderal habitat to a Valley Needlegrass Grassland; 14.4 habitat units from removal and restoration of 50 percent of the existing roadways to Southern Foredune (36.11 acres of streets within the Los Angeles/El Segundo Dunes x 0.5 x 0.8 Habitat Value); and 59.68 habitat units from restoration of Disturbed Dune Scrub/Foredune to Southern Foredune (74.6 acres x 0.8 Habitat Value). A habitat value of 0.8 is considered to be the maximum feasible target value for restoration and enhancement of biotic communities. The restoration and enhancement of biotic communities as related to the establishment or enhancement of wildlife habitat shall consider and comply with the provisions of the FAA Advisory Circular 150/5200-33 regarding hazardous wildlife attractants on or near airports. Additionally, such restoration and enhancement shall take into account, as appropriate, the Memorandum of Agreement between FAA and other federal agencies, including the USFWS, pertaining to environmental conditions that could contribute to aircraft-wildlife strikes.

Valley Needlegrass Grassland and Southern Foredune restoration efforts shall be the same as described under Alternative A.

Any combination of habitat replacement completed by LAWA or its designee drawn from the opportunities listed under Alternative D that equals at least 45.43 habitat units shall be considered sufficient replacement for the loss of habitat units resulting from implementation of Alternative D.

- **MM-BC-9. Conservation of Faunal Resources (Alternative D).**

  LAWA or its designee shall develop and implement a relocation and monitoring plan to compensate for the loss of 1.34 habitat units (0.3 habitat units + 1.04 habitat units) of occupied western spadefoot toad habitat and for the loss of western spadefoot toad individuals currently in the southwestern portion of the AOA. LAWA or its designee shall identify possible relocation sites in consultation with the CDFG and USFWS and shall develop and implement a monitoring plan to monitor the success of the relocated tadpoles for a period of not more than five years. LAWA or its designee shall relocate the western spadefoot toad population currently inhabiting three locations on the AOA. One potential site is the Madrona Marsh Nature Center in Torrance, 20 miles south of LAX, which supports several vernal pools and one large pond capable of supporting western spadefoot toads.[26] Spadefoot toad experts suggest the best approach to accomplish relocation is to transport tadpoles and metamorphs only, as adults return to their birth site.[27] Site preparation shall include confirmation by a permitted biologist that no predators, such as mosquitofish or bullfrogs, are present within the proposed relocation site or in waterways surrounding the relocation site. The CDFG has suggested that if the first relocation effort is not successful, another attempt should be made the following year.[28] Therefore, western spadefoot toads shall be collected two consecutive years prior to construction activities taking place in existing occupied spadefoot toad habitat. In addition, since the western spadefoot toad is known to become reproductively mature within three years, an additional performance criterion shall be the identification of tadpoles at the relocation site between years three and four. The success criteria should be 50 percent survival of all tadpoles and metamorphs for the first, second, and third years following the last relocation. This shall be accomplished through a five-year monitoring plan, with bi-monthly monitoring between January 31 and June 1, to document the success of this relocation effort.

  LAWA or its designee shall develop and implement a relocation and monitoring plan to compensate for the loss of 2.38 habitat units of occupied San Diego black-tailed jackrabbit habitat located within the AOA. LAWA or its designee shall relocate the San Diego black-tailed jackrabbit population currently inhabiting the AOA. Relocation efforts shall be coordinated with CDFG. The San Diego black-tailed jackrabbit shall be captured on the AOA using live traps and shall be released into the Habitat Restoration Area. Compensation for the loss of 2.38 habitat units shall be the utilization of at least 2.38 habitat units within the Los Angeles/El Segundo Dunes by the San Diego black-tailed jackrabbit individuals relocated to the site. Black-tailed jackrabbit is currently absent for the Los Angeles/El Segundo Dunes. Opportunities for compensation for the loss of 2.38 habitat units include

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[26] Wright, Walt, Madrona Marsh Nature Center, Personal Communication, April 28, 1998.

[27] Fisher, Dr. Robert, California State University San Diego, Frank Hovore, Hovore and Associates, Dr. Steve Moray, U.S. Fish and Wildlife Service, Personal Communication, April 28, 1998.

[28] Maxwell, Dwayne, California Department of Fish and Game, Letter to Dr. Brad Blood, Sapphos Environmental, Inc., April 29, 1998.

13.52 habitat units from restoration of Non-Native Grassland/Ruderal habitat to a Valley Needlegrass Grassland; 14.4 habitat units from removal and restoration of 50 percent of the existing roadways to Southern Foredune; and 59.68 habitat units from restoration of Disturbed Dune Scrub/Foredune to Southern Foredune. LAWA or its designee shall implement a monitoring plan to monitor the success of the relocated individuals for a period of not more than five years. Performance criteria shall include confirmed success of survival for three years of the San Diego black-tailed jackrabbit within the Habitat Restoration Area. This shall be accomplished through a quarterly monitoring plan to document the success or failure of this relocation effort.

LAWA or its designee shall compensate for the loss of areas utilized by loggerhead shrike currently located on the western airfield and composed of 10.83 habitat units (equivalent to 83.25 acres). Compensation for the loss of 10.83 habitat units of habitat utilized by the loggerhead shrike shall be the utilization of at least 10.83 habitat units within the Los Angeles/El Segundo Dunes. Opportunities for compensation for the loss of 10.83 habitat units include 13.52 habitat units from restoration of Non-Native Grassland/Ruderal habitat to a Valley Needlegrass Grassland; 14.4 habitat units from removal and restoration of 50 percent of the existing roadways to Southern Foredune; and 59.68 habitat units from restoration of Disturbed Dune Scrub/Foredune to Southern Foredune. Compensation for the loss of at least 10.83 habitat units shall take place prior to construction. LAWA or its designee shall implement a monitoring program for a period of not more than five years. Performance criteria shall include the use of at least 10.83 habitat units of improved habitat by the loggerhead shrike for foraging and nesting. Monitoring shall take place quarterly for the first three years and biannually thereafter. Monitoring shall be timed appropriately to include monitoring during the breeding period, which is between February and June.

As a means of minimizing incidental take of active nests of loggerhead shrike, LAWA or its designee shall have all areas to be graded surveyed by a qualified biologist at least 14 days before construction activities begin to ensure maximum avoidance to active nests for loggerhead shrike. Construction avoidance measures shall include flagging of all active nests for loggerhead shrike and a 300 feet wide buffer area shall be designated around the active nests. A biological monitor shall be present to ensure that the buffer area is not infringed upon during the active nesting season, March 15 to August 15. In addition, LAWA or its designee shall require that vegetation clearing within the designated 300 feet buffer be undertaken after August 15 and before March 15.

LAWA or its designee shall conduct pre-construction surveys to determine the presence of individuals of sensitive arthropod species, the silvery legless lizard, the San Diego horned lizard, and the burrowing owl within the proposed area of impact within the Los Angeles/El Segundo Dunes. Surveys will be conducted at the optimum time to observe these species. Should an individual be observed, they will be relocated to suitable habitat for that species within the Habitat Restoration Area. Prior to construction, LAWA or its designee shall develop and implement a relocation plan to avoid the potential loss of individuals from the installation of navigational aids and associated service roads. Relocation efforts shall be undertaken by a qualified biologist, in coordination with CDFG.

- **MM-BC-10. Replacement of State-Designated Sensitive Habitat (Alternative A).**

LAWA or its designee shall undertake mitigation for the loss of State-designated sensitive habitat within the Los Angeles/El Segundo Dunes, including the Habitat Restoration Area. Installation of navigational aids and associated service roads under Alternative A would result in impacts to 58,476 square feet (1.34 acre) of State-designated sensitive habitat within the Los Angeles/El Segundo Dunes, including 30,261 square feet (0.70 acre) within the Habitat Restoration Area (of which 8,514 square feet (0.20 acre) are within habitat occupied by the El Segundo blue butterfly). These square feet shall be replaced at a no net loss ratio of 1:1 within the Los Angeles/El Segundo Dunes, including the Habitat Restoration Area. The replacement of 58,476 square feet (1.34 acres) of State-designated sensitive habitat shall be undertaken through restoration of 58,476 square feet (1.34 acres). Opportunities for restoration include: 16.9 acres of Non-Native Grassland/Ruderal habitat to a Valley Needlegrass Grassland; 36.11 acres from removal and restoration of 50 percent of the existing roadways to Southern Foredune; and 74.6 acres of Disturbed Dune Scrub/Foredune to Southern Foredune. The restoration and enhancement of biotic communities as related to the establishment or enhancement of wildlife habitat shall consider and comply with the provisions of the FAA Advisory Circular 150/5200-33 regarding hazardous wildlife attractants on or near airports. Additionally, such restoration and enhancement shall take into account, as appropriate, the Memorandum of Agreement

between FAA and other federal agencies, including the USFWS, pertaining to environmental conditions that could contribute to aircraft-wildlife strikes.

Valley Needlegrass Grassland restoration efforts consist of site preparation, propagation and planting of Valley Needlegrass Grassland species, and maintenance and monitoring of the restoration site as described in MM-BC-5, Replacement of Habitat Units (Alternative A).

Southern Foredune restoration efforts consist of site preparation, propagation, and planting of the species characteristic of the Southern Foredune community at the Los Angeles/El Segundo Dunes, and maintenance and monitoring of the restoration site as described in MM-BC-5, Replacement of Habitat Units (Alternative A).

Replacement of the 8,514 square feet (0.20 acre) of habitat occupied by the El Segundo blue butterfly shall be undertaken as described in MM-ET-2, El Segundo Blue Butterfly Conservation: Habitat Restoration (Alternatives A and B).

- **MM-BC-11. Replacement of State-Designated Sensitive Habitat (Alternative B).**

  LAWA or its designee shall undertake mitigation for the loss of State-designated sensitive habitat within the Los Angeles/El Segundo Dunes, including the Habitat Restoration Area. Installation of navigational aids and associated service roads under Alternative B would result in impacts to 50,492 square feet (1.16 acres) of State-designated sensitive habitat within the Los Angeles/El Segundo Dunes, including 16,811 square feet (0.39) within the Habitat Restoration Area (of which 2,316 square feet (0.05 acre) are within habitat occupied by the El Segundo blue butterfly). These square feet shall be replaced at a no net loss ratio of 1:1 within the Los Angeles/El Segundo Dunes, including the Habitat Restoration Area. The replacement of 50,492 square feet (1.16 acres) of State-designated sensitive habitat shall be undertaken through restoration of 50,492 square feet (1.16 acres). Opportunities for restoration include: 16.9 acres of Non-Native Grassland/Ruderal habitat to a Valley Needlegrass Grassland; 36.11 acres from removal and restoration of 50 percent of the existing roadways to Southern Foredune; and 74.6 acres of Disturbed Dune Scrub/Foredune to Southern Foredune. The restoration and enhancement of biotic communities as related to the establishment or enhancement of wildlife habitat shall consider and comply with the provisions of the FAA Advisory Circular 150/5200-33 regarding hazardous wildlife attractants on or near airports. Additionally, such restoration and enhancement shall take into account, as appropriate, the Memorandum of Agreement between FAA and other federal agencies, including the USFWS, pertaining to environmental conditions that could contribute to aircraft-wildlife strikes.

  Valley Needlegrass Grassland and Southern Foredune restoration efforts shall be implemented the same as described under Alternative A.

  Replacement of the 2,316 square feet (0.05 acre) of habitat occupied by the El Segundo blue butterfly shall be undertaken as described in MM-ET-2, El Segundo Blue Butterfly Conservation: Habitat Restoration (Alternatives A and B).

- **MM-BC-12. Replacement of State-Designated Sensitive Habitat (Alternative C).**

  LAWA or its designee shall undertake mitigation for the loss of State-designated sensitive habitat within the Los Angeles/El Segundo Dunes, not including the Habitat Restoration Area. Installation of navigational aids and associated service roads under Alternative C would result in impacts to 30,210 square feet (0.69 acre) of State-designated sensitive habitat within the Los Angeles/El Segundo Dunes, not including the Habitat Restoration Area. These square feet shall be replaced at a no net loss ratio of 1:1 within the Los Angeles/El Segundo Dunes, not including the Habitat Restoration Area. The replacement of 30,210 square feet (0.69 acres) of State-designated sensitive habitat shall be undertaken through restoration of 30,210 square feet (0.69 acres). Opportunities for restoration include: 16.9 acres of Non-Native Grassland/Ruderal habitat to a Valley Needlegrass Grassland; 36.11 acres from removal and restoration of 50 percent of the existing roadways to Southern Foredune; and 74.6 acres of Disturbed Dune Scrub/Foredune to Southern Foredune. The restoration and enhancement of biotic communities as related to the establishment or enhancement of wildlife habitat shall consider and comply with the provisions of the FAA Advisory Circular 150/5200-33 regarding hazardous wildlife attractants on or near airports. Additionally, such restoration and enhancement shall take into account, as appropriate, the Memorandum of Agreement between FAA

and other federal agencies, including the USFWS, pertaining to environmental conditions that could contribute to aircraft-wildlife strikes.

Valley Needlegrass Grassland and Southern Foredune restoration efforts shall be implemented the same as described under Alternative A.

- **MM-BC-13. Replacement of State-Designated Sensitive Habitat (Alternative D).**

LAWA or its designee shall undertake mitigation for the loss of State-designated sensitive habitat within the Los Angeles/El Segundo Dunes, including the Habitat Restoration Area. Installation of navigational aids and associated service roads under Alternative D would result in impacts to 66,675 square feet (1.53 acres) of State-designated sensitive habitat within the Los Angeles/El Segundo Dunes, including 33,334 square feet (0.77 acre) within the Habitat Restoration Area (of which 10,597 square feet (0.24 acre) are within habitat occupied by the El Segundo blue butterfly. These square feet shall be replaced at a no net loss ratio of 1:1 ratio within the Los Angeles/El Segundo Dunes. The replacement of 66,675 square feet (1.53 acres) of State-designated sensitive habitat shall be undertaken through restoration of 66,675 square feet (1.53 acres). Opportunities for restoration include: 16.9 acres of Non-Native Grassland/Ruderal habitat to a Valley Needlegrass Grassland; 36.11 acres from removal and restoration of 50 percent of the existing roadways to Southern Foredune; and 74.6 acres of Disturbed Dune Scrub/Foredune to Southern Foredune. The restoration and enhancement of biotic communities as related to the establishment or enhancement of wildlife habitat shall consider and comply with the provisions of the FAA Advisory Circular 150/5200-33 regarding hazardous wildlife attractants on or near airports. Additionally, such restoration and enhancement shall take into account, as appropriate, the Memorandum of Agreement between FAA and other federal agencies, including the USFWS, pertaining to environmental conditions that could contribute to aircraft-wildlife strikes.

Valley Needlegrass Grassland restoration efforts consist of site preparation, propagation and planting of Valley Needlegrass Grassland species, and maintenance and monitoring of the restoration site as described in MM-BC-5, Replacement of Habitat Units (Alternative A).

Southern Foredune restoration efforts consist of site preparation, propagation, and planting of the species characteristic of the Southern Foredune community at the Los Angeles/El Segundo Dunes, and maintenance and monitoring of the restoration site as described in MM-BC-5, Replacement of Habitat Units (Alternative A).

Replacement of the 10,597 square feet (0.24 acre) of habitat occupied by the El Segundo blue butterfly shall be undertaken as described in MM-ET-4, El Segundo Blue Butterfly Conservation: Habitat Restoration (Alternative D).

Endangered and Threatened Species of Flora and Fauna

- **MM-ET-1. Riverside Fairy Shrimp Habitat Restoration (Alternatives A, B, C, and D).**

LAWA or its designee shall undertake mitigation for impacts to 1.3 acres of degraded wetland habitat containing embedded cysts of Riverside fairy shrimp under Alternatives A, B, and C. Mitigation shall include the creation of vernal pool habitat at a mitigation ratio of not more than 3:1 at a suitable alternate location(s).

Under Alternative D, LAWA or its designee shall undertake mitigation for direct impacts to 0.04 acre (1,853 square feet) of degraded wetland habitat containing embedded cysts of the Riverside fairy shrimp and potential indirect impacts to 1.26 acres of degraded wetland habitat containing embedded cysts of the Riverside fairy shrimp. As specified in the Biological Opinion, soils containing embedded cysts of the Riverside fairy shrimp in 0.04 acres (1,853 square feet) shall be salvaged and relocated to property owned by the FAA and designated a habitat preserve at the former Marine Corps Air Station at El Toro, or comparable site(s) approved by the USFWS at a ratio of not more than 3:1. The 1.26 acres of degraded wetland habitat containing embedded cysts of the Riverside fairy shrimp retained on the LAX airfield shall be avoided through the implementation of construction avoidance measures, including Best Management Practices (BMPs), and the creation of a buffer area around the occupied, degraded areas. The FAA shall oversee the development of a Vernal Pool Creation, Maintenance, and Monitoring Plan for the embedded cysts to ensure that Alternative D would be consistent with the recommendations provided in the *Recovery Plan for Vernal Pools of Southern*

California[29] and with the conservation measures provided in the Biological Opinion. As specified in the Biological Opinion, LAWA shall be responsible for all costs identified in the Vernal Pool Creation, Maintenance, and Monitoring Plan related to off-site relocation of soils containing cysts of the Riverside fairy shrimp, including entitlement for use and designation for long-term conservation, site preparation, monitoring, and maintenance.

Ongoing Section 7 consultation among LAWA, FAA, and USFWS has been necessary to identify suitable mitigation sites pursuant to Section 7 of the Endangered Species Act. As a result, extensive research has been conducted to identify sites that historically or currently support vernal pools or vernal pool- associated species in southern California. Information was gathered from the *Recovery Plan for Vernal Pools of Southern California*, the California Natural Diversity Database (CNDDB), and coordination with recognized experts in the field. This information was augmented through a review of geologic maps of the coastal portions of Los Angeles and topographic quadrangles for locations known to have historically supported vernal pools. A total of 35 potential relocation sites were identified for further site characterization (**Figure AD5-2**, Vernal Pool Restoration Opportunities Considered).

Each of the 35 sites was visited and inspected by teams of biologists and environmental analysts. Analysis of site topography, historic or extant vernal pools, historic or extant vernal pool species, drainage features, climate, and parent material (from regional geologic maps) was conducted. Hazardous materials databases were consulted for information on known potential sources of contamination for those sites. In-field soil texture analysis was conducted, followed by laboratory analysis of collected soil samples. Land use at the site and surrounding the site was characterized, plant communities were characterized, and the presence or absence of suitable hydrology was determined.

Prioritization of the potential sites for the relocation of soils containing cysts of the Riverside fairy shrimp was based solely on the presence of physical and biological characteristics provided in the *Recovery Plan for Vernal Pools of Southern California* and did not reflect planning constraints indicated by current land uses. LAWA and FAA, in consultation with the USFWS, recommended the relocation of cysts to alternate locations within the Los Angeles County portion of the Los Angeles Basin-Orange Management Area for vernal pools (**Figure AD5-2)**. The use of these sites within Los Angeles County was determined infeasible and LAWA undertook evaluation of the feasibility of vernal pools or vernal pool complexes located in the Orange County portion of the Los Angeles Basin-Orange Management Area and the Ventura County portion of the Transverse Management Area. As a result of consultation with the USFWS, property owned by the FAA and designated a habitat preserve at the former Marine Corps Air Station at El Toro was identified as a mitigation site for the receipt of soils containing embedded cysts of the Riverside fairy shrimp, or an alternate comparable site(s).

Once a suitable mitigation site(s) is secured, vernal pool creation shall be undertaken by LAWA or its designee, in consultation with the USFWS. Methods of vernal pool creation may vary depending on the physical and biological characteristics of the selected sites. LAWA or its designee, in conjunction with the USFWS and a qualified wildlife biologist, shall develop a program to monitor the progress of vernal pool creation. LAWA or its designee shall undertake the relocation of soils containing embedded cysts of Riverside fairy shrimp from the western portion of the airfield to the vernal pool mitigation sites. Soils containing embedded cysts of the Riverside fairy shrimp shall not be salvaged and translocated until the created vernal pool(s) is established and has met certain success criteria as described in detail below and included in the 12 conservation measures within the Biological Opinion.

Under Alternative D, soils containing embedded cysts of the Riverside fairy shrimp from EW001 and EW002 (**Figure AD5-3**, North Area Ephemerally Wetted Pools and Buffer Areas) shall be salvaged and translocated to created vernal pool habitat on property owned by the FAA and designated as a habitat preserve at the former Marine Corps Air Station at El Toro (El Toro), or another site as approved by Carlsbad Fish and Wildlife Office (CFWO). The created vernal pool(s) shall contain a minimum of 5,559 square feet of vernal pool surface area (as determined by a 3:1 mitigation ratio).

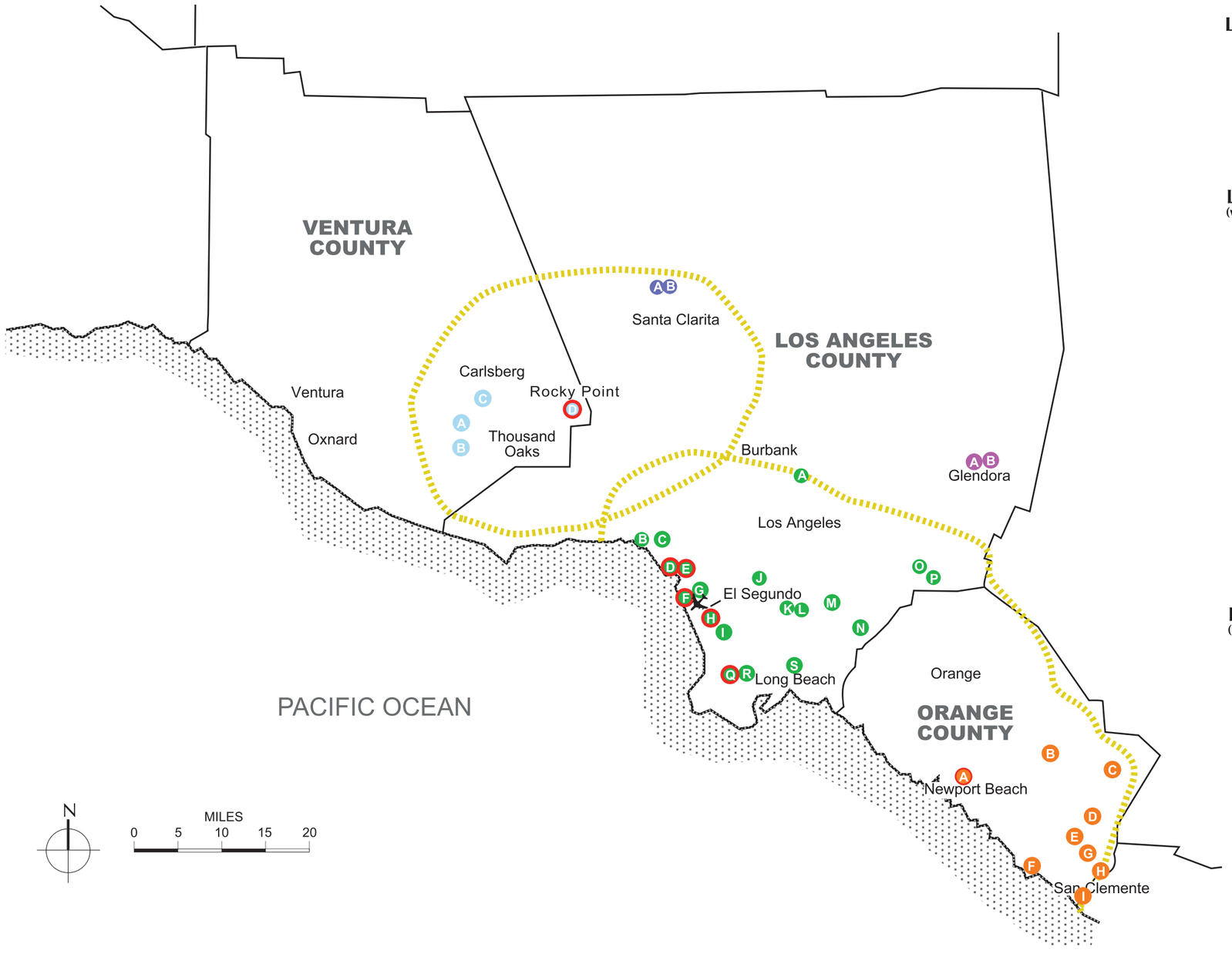
[29] U.S. Fish and Wildlife Service, Vernal Pools of Southern California Recovery Plan, U.S. Department of the Interior, Fish and Wildlife Service, Region One, Portland, Oregon, 1998.

Soils containing embedded cysts of the Riverside fairy shrimp from EW001 and EW002 will not be salvaged and translocated from LAX until the created vernal pool(s) is established and has met certain success criteria specified in the Biological Opinion. As a contingency measure, if the specified success criteria for the created vernal pools have not been attained within six years of project authorization, in spite of a good faith effort on the part of LAWA, soils containing embedded cysts of the Riverside fairy shrimp will be salvaged from EW001 and EW002 and placed in appropriate storage at the San Diego Zoological Society's Center for the Reproduction of Endangered Species. Soils containing embedded cysts of the Riverside fairy shrimp from EW006 (**Figure AD5-4**, South Area Ephemerally Wetted Pools and Buffer Areas) shall be salvaged and stored prior to implementation of Alternative D and shall be translocated to the created vernal pool(s) with EW001 and EW002 once the success criteria are met. Soils containing embedded cysts of the Riverside fairy shrimp from EW006 shall be placed in appropriate storage at the San Diego Zoological Society's Center for the Reproduction of Endangered Species. Until soils bearing embedded cysts of the Riverside fairy shrimp have been appropriately salvaged and stored, or vernal pool creation has been completed and embedded cysts have been appropriately salvaged and translocated to the created vernal pool(s), habitat-altering activities associated with Alternative D in these areas shall be avoided.

Under Alternative D, LAWA shall be responsible for implementing construction avoidance measures for the six areas (EW009, EW012, EW013, EW014, EW015, and EW016) that would not be directly affected, as indicated in the Biological Opinion. Construction avoidance measures shall include implementation of construction avoidance measures, including BMPs required pursuant to the Standard Urban Stormwater Mitigation Plan and the LAX Stormwater Pollution Prevention Plan, and establishment of a buffer area around the six occupied areas retained on the LAX airfield **(Figure AD5-4)**. In addition, LAX operations personnel with vehicular access to the airfield operations area shall be apprised of these off-limit buffer areas annually. The construction avoidance measures shall be periodically inspected by LAWA, or its designee throughout construction to ensure the efficacy of the BMPs, and corrective action shall be undertaken as necessary to ensure that construction and operation of airport facilities do not result in adverse impacts to surface water quality.

Soils containing embedded cysts of the Riverside fairy shrimp will not be translocated to the created vernal pool(s) until the vernal pool(s) is established and has met certain success criteria specified in the Biological Opinion. Success criteria for the created vernal pool(s) includes holding water for a minimum of 60 days, having less than 10 percent absolute cover exotic herbaceous species in the pool(s), having less than 20 percent absolute cover of exotic herbaceous species within 300 feet of the area from limits of the pool, removal of all non-herbaceous plant species within the pool and 300 feet from the pool annually, and provide suitable water quality for Riverside fairy shrimp. Duration of inundation, exotic species removal, and water quality analyses may be undertaken within the first year after vernal pool creation. The performance criteria for percent absolute cover of exotic herbaceous species within 300 feet of the area from limits of the pool may be redesignated by mutual agreement of FAA, LAWA, and USFWS.

Upon meeting success criteria and approval from the USFWS, soils containing embedded cysts of the Riverside fairy shrimp may be brought to the pool(s). LAWA shall make every effort to collect all cyst-bearing soils from the entire surface area of EW001, EW002, and EW006, however it is expected that some small number of undetected individual cysts will remain in the soil. Soil containing the cysts shall be salvaged and translocated during the dry season to minimize damage to the cysts during transport. The soil shall be collected using a hand trowel, removed in chucks, and kept out of direct sunlight to ensure viability. Soil shall be stored in properly labeled boxes or bags with adequate ventilation. The soils shall then be deposited and spread out in small basins or pool-like areas of similar size without active mechanical compaction to minimize potential damage to the cysts. Any potential indirect environmental impacts resulting from vernal pool construction activities shall be compliant with BMPs and terms and conditions stipulated by the permitting agencies.



LEGEND

- County Boundary
- Vernal Pool Management Areas
- Los Angeles International Airport

Los Angeles Basin-Orange (within Los Angeles County)

- A Burbank
- B Santa Monica
- C Soliders House
- D Ballona Marsh
- E Ballona Bluff
- F El Segundo Dunes
- G Airfield Operations Area
- H El Segundo
- I Redondo Beach
- J Hyde Park
- K Gardena
- L Rosecrans
- M Downey
- N Lakewood
- O Whittier
- P La Habra
- Q Madrona Marsh
- R Henrietta Basin
- S Bixby Knolls

Los Angeles Basin-Orange (within Orange County)

- A Fairview Park
- B Irvine
- C Saddleback Meadows
- D Chiquita Ridge
- E Laguna Lakes
- F Dana Point
- G San Mateo
- H Lomas Ridge
- I San Clemente

Transverse (within Los Angeles County)

- A Cruzan Mesa
- B Southern Cruzan Mesa

Transverse (within Ventura County)

- A Thousand Oaks(a)
- B Thousand Oaks(b)
- C Carlsberg
- D Rocky Point

Other Los Angeles County Locations

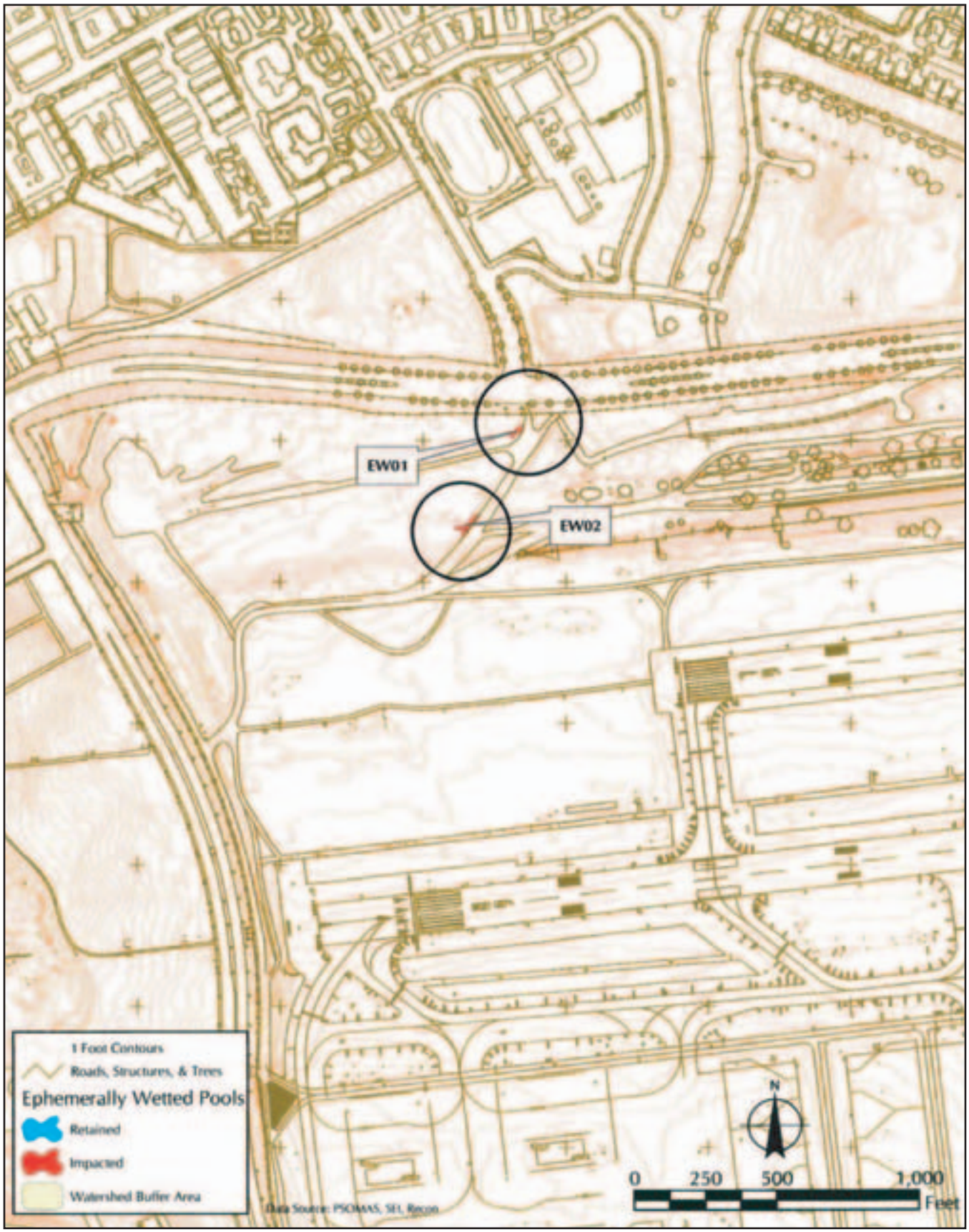
- A Glendora
- B San Dimas

Sites Considered in Feasibility Assessment for Conservation of Riverside Fairy Shrimp

- D Ballona Marsh
- E Ballona Bluff
- F El Segundo Dunes
- H El Segundo
- Q Madrona Marsh
- D Rocky Point
- A Fairview Park

Vernal Pool Restoration Opportunities Considered

Figure



	North Area Ephemerally Wetted Pools and Buffer Areas	Figure

	South Area Ephemerally Wetted Pools and Buffer Areas	Figure

LAWA or its designee, in conjunction with the USFWS and a qualified wildlife biologist, shall also develop a program to monitor created habitat for the presence of Riverside fairy shrimp as described in the Vernal Pool Creation, Maintenance, and Monitoring Plan. As specified in the Biological Opinion, LAWA shall be responsible for implementing a monitoring and reporting program to demonstrate successful achievement of the performance standards for off-site relocation over a 25-year period:

- Monthly during the first year, following relocation of soils containing embedded cysts of the Riverside fairy shrimp
- Quarterly in the second, third, and fourth years, following relocation of soils containing embedded cysts of the Riverside fairy shrimp
- Biannually in the fifth, seventh, and ninth years, following relocation of soils containing embedded cysts of the Riverside fairy shrimp
- Annually in the tenth, fifteenth, twentieth, and twenty-fifth years, following relocation of soils containing embedded cysts of the Riverside fairy shrimp

LAWA shall provide the USFWS with annual monitoring reports as specified in the Vernal Pool Creation, Maintenance, and Monitoring Plan. The monitoring report, due on September 1 of each specified monitoring year, shall provide information regarding the implementation of the vernal pool creation, restoration, and maintenance activities. The yearly report shall also discuss the effectiveness of the project as it pertains to the existing condition of the created vernal pool(s) and Riverside fairy shrimp population. To measure the effectiveness of the created vernal pool(s), the FAA and LAWA shall work with the USFWS to develop long-term goals and objectives as part of their habitat creation plan.

Lastly, LAWA shall coordinate with the USFWS to create educational materials on the Riverside fairy shrimp for integration into LAWA's public outreach program. Educational opportunities regarding federally endangered Riverside fairy shrimp include public outreach in the form of an educational brochure made available through the LAWA Public Affairs Department, information provided on LAWA's Web site describing the ephemeral habitat required to support the species, and LAWA's outreach to local schools.

Implementation of Mitigation Measure MM-ET-1 would provide for replacement of 0.04 acres (1,853 square feet) of degraded wetland habitat containing embedded cysts of the Riverside fairy shrimp, with estimated habitat value of 0.15; with 0.12 acres (5,559 square feet) of created vernal pool habitat with an estimated habitat value of 0.75 (see **Table AD5-12**, Mitigation Land Evaluation Procedure for the Mitigation Site). By relocating embedded cysts to habitat restoration sites that are managed for the existence of the species, the opportunity for embedded cysts to complete the adult phase of their life cycle would be enhanced.

Table AD5-12

Mitigation Land Evaluation Procedure for the Mitigation Site

	Habitat Reference Sites	Riverside Fairy Shrimp Wetland Habitat Mitigation Site
Topography/Hydrology	**0.20**	**0.20**
Mound-Depression Microrelief	0.05	0.05
Native Soils w/Slope <10%	0.05	0.05
Areas w/Period of Inundation ≥30 days	0.05	0.05
Summer Desiccation	0.05	0.05
Flora	**0.20**	**0.20**
>10% Vegetative Cover	0.05	0.05
Native Grasses >10%	0.05	0.05
Vernal Pool Associated Species	0.05	0.05
Listed Vernal Pool Associated Species	0.05	0.05
Fauna	**0.20**	**0.15**
Dominated by Native Fauna (reproducing)	0.05	0.05
Grassland-Associated Species (reproducing)	0.05	0.05
Sensitive Vernal Pool-Associated Species (reproducing)	0.05	0.05
Listed Vernal Pool-Associated Species (reproducing)	0.05	0.00
Ecosystem Functional Integrity	**0.40**	**0.20**
Contiguous w/Wetland and State-designated Sensitive Terrestrial Habitat	0.10	0.00
Under Regulatory Conservation	0.10	0.10
Variety of Pollinator/Dispersal Mechanisms Present (Wind, Wildlife)	0.10	0.10
Contiguous Native Habitat >40 acres	0.10	0.00
Total Habitat Value (HV)	**1.00**	**0.75**

Source: Sapphos Environmental, Inc. 2003.

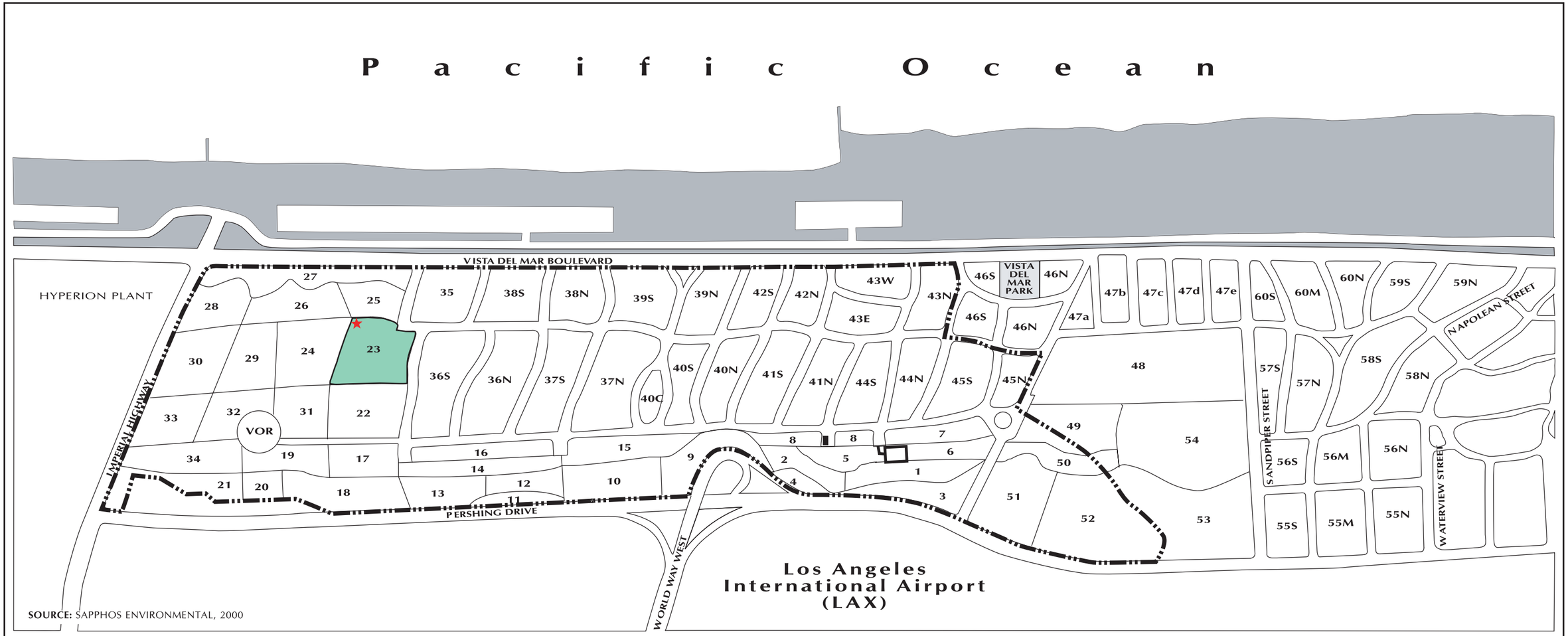
- **MM-ET-2. El Segundo Blue Butterfly Conservation: Habitat Restoration (Alternatives A and B).**

  LAWA or its designee shall take all necessary steps to avoid the flight season of the El Segundo blue butterfly (June 14 - September 30) when undertaking installation of navigational aids and associated service roads proposed under Master Plan Alternatives A and B within habitat occupied by the El Segundo blue butterfly. Installation of navigational aids within the Habitat Restoration Area should be required to take place between October 1 and May 31. The number of coast buckwheat plants impacted shall be mitigated at a ratio of 1:1, or as otherwise determined through Section 7 consultation with the USFWS. Coast buckwheat shall be planted a minimum of three years prior to the impact, not only to allow for establishment of the plants, but also to ensure that the plants are mature enough to bloom.[30] The plantings of coast buckwheat shall be located within the southwest corner of subsite 23 of the Habitat Restoration Area, as depicted in **Figure AD5-5**, Mitigation Site for El Segundo Blue Butterfly Relocation. Mitigation plantings for Alternative A shall encompass 8,514 square feet (0.20 acre). Mitigation plantings for Alternative B shall encompass 2,316 square feet (0.05 acre). This area shall be the designated mitigation site for planting coast buckwheat and the site to which El Segundo blue butterfly pupae shall be relocated. Prior to navigational aid installation, a permitted and qualified biologist shall salvage El Segundo blue butterfly larvae in coordination with the USFWS to minimize impacts to the butterfly. Based on LAWA's restoration experience within the Habitat Restoration Area, occupation of restored habitat can occur within two to three years of restoration efforts. Therefore, there would be no net loss in acres or value of occupied habitat.

- **MM-ET-3. El Segundo Blue Butterfly Conservation: Dust Control (Alternatives A, B, C, and D).**

  To reduce the transport of fugitive dust particles related to construction activities, soil stabilization watering or other dust control measures, as feasible and appropriate, shall be implemented with a goal to reduce fugitive dust emissions 90 to 95 percent during construction activities within 2,000 feet of the El Segundo Blue Butterfly Habitat Restoration Area. In addition, to the extent feasible, no grading or stockpiling for construction activities should take place within 100 feet of occupied habitat of the El Segundo blue butterfly.

[30] The time period of three years was determined from coast buckwheat restoration efforts previously undertaken by LAWA within the Habitat Restoration Area of the Los Angeles/El Segundo Dunes.



LEGEND

- Habitat Restoration Area Boundary
- Remote Communications Site
- Very High Omni Range Navigation Beacon
- Trailer
- Subsite 23
- Mitigation site

Scale: 1" = 750'

0' 375' 750' 1500'

Mitigation Site for El Segundo Blue Butterfly Relocation

Figure **F5-3**

fig 4.11-8.ai

- **MM-ET-4. El Segundo Blue Butterfly Conservation: Habitat Restoration (Alternative D).**

  LAWA or its designee shall take all necessary steps to avoid the flight season of the El Segundo blue butterfly (June 14 - September 30) when undertaking installation of navigational aids and associated service roads proposed under Master Plan Alternative D within habitat occupied by the El Segundo blue butterfly. Installation of navigational aids within the Habitat Restoration Area should be required to take place between October 1st and May 31st. In conformance with the Biological Opinion, activities associated with navigational aid development shall be limited to the existing roads and proposed impacts areas as depicted in the Final EIS/EIR. Coast buckwheat shall be planted a minimum of three years prior to the impact, not only to allow for establishment of the plants, but also to ensure that the plants are mature enough to bloom.[31] The plantings of coast buckwheat shall be located within the southwest corner of subsite 23 of the Habitat Restoration Area, as depicted in **Figure AD5-5,** and shall encompass 1.25 acres in conformance with the Biological Opinion. Coast buckwheat plants will be planted at an initial density of 200 plants per acre to ensure the long-term planting density target (130 plants per acre). Coast buckwheat plants will be placed in clusters or groupings based on microtopographic features present within subsite 23 to better support the ESB, which is known to prefer large clusters of plants for nectaring and shelter. As possible, depending on the location and condition of individual plants, FAA and LAWA shall salvage existing coast buckwheat plants and any larvae on the plant or pupae in the soil below the plant that would be removed to accommodate the replacement navigational aids to further conserve this species. These plants shall be salvaged immediately prior to the installation of the replacement navigational aids outside of the butterfly flight season. These salvaged plants shall be transported in a suitable container and replanted after the onset of winter rains in subsite 23 near the area restored as described in MM-BC-13. This area shall be the designated mitigation site for planting coast buckwheat and the site to which El Segundo blue butterfly pupae shall be relocated. Gathering of coast buckwheat seed shall take place from September 15 through June 1. Propagation and planting methodologies successfully employed by LAWA during 1984 through 1994 restoration efforts shall be employed for propagation of additional coast buckwheat plants. An existing irrigation system proximal to subsite 23 will be used to increase the success of the restoration effort. Prior to navigational aid installation, a permitted and qualified biologist shall salvage El Segundo blue butterfly larvae in coordination with the USFWS in order to minimize impacts to the butterfly. Based on LAWA's restoration experience within the Habitat Restoration Area, occupation of restored habitat can occur within two to three years of restoration efforts. Therefore, there would be no net loss in acres or value of occupied habitat. Additionally, after the navigational aid system is in place and during the first subsequent flight season of the El Segundo blue butterfly, LAWA shall document El Segundo blue butterfly behavior with respect to the lighting system and submit a monitoring report to the USFWS.

  Lastly, LAWA shall coordinate with the USFWS to create educational materials on the El Segundo blue butterfly for integration into LAWA's public outreach program.

Light Emissions

- **MM-LI-1. LAX Expressway Lighting Assessment (Alternatives A, B, and C).**

  As part of final design for the LAX Expressway, LAWA shall undertake an assessment of potential adverse lighting effects based on detailed plans. The documentation shall include baseline ambient lighting measurements along the portions of the LAX Expressway adjacent to sensitive uses. The baseline data shall be used to estimate potential change in ambient lighting conditions with development of the Expressway. If it is determined that adverse effects would occur on residential uses, then landscaped buffer areas, setbacks, lighting specifications and placement, or other techniques shall be required to ensure that lighting intensity over baseline conditions for residential uses does not increase by more than 2 footcandles.

[31] The time period of three years was determined from coast buckwheat restoration efforts previously undertaken by LAWA within the Habitat Restoration Area of the Los Angeles/El Segundo Dunes.

Solid Waste

- **MM-SW-1. Provide Landfill Capacity to Accommodate Cumulative Solid Waste (Alternatives A, B, and C).**

  Additional landfill capacity in the Los Angeles region should be provided through the siting of new landfills, the expansion of existing landfills, or the extension of permits for existing facilities to address the projected landfill capacity shortfall resulting from cumulative development. As an alternative, or to augment regional landfill capacity, landfill capacity outside the region could be accessed by developing the necessary rail haul infrastructure. The responsibility for implementing this mitigation measure lies with state, county, and local solid waste planning authorities. The costs for implementing this mitigation measure will be passed on to LAX and other solid waste generators through increased solid waste disposal costs.

Design, Art and Architectural Application/Aesthetics

- **MM-DA-1. Construction Fencing (Alternatives A, B, C, and D).**

  Construction fencing and pedestrian canopies shall be installed by LAWA to the degree feasible to ensure maximum screening of areas under construction along major public approach and perimeter roadways, including Sepulveda Boulevard, Century Boulevard, Westchester Parkway, Pershing Drive, and Imperial Highway west of Sepulveda Boulevard. Along Century Boulevard, Sepulveda Boulevard, and in other areas where the quality of public views are a high priority, provisions shall be made by LAWA for treatment of the fencing to reduce temporary visual impacts.

- **MM-DA-2. LAX Expressway View Analysis (Alternatives A, B, and C).**

  As part of final design for the LAX Expressway, a view analysis shall be undertaken by LAWA to address aesthetic impacts on residential and other view sensitive properties. The view analysis shall document proposed roadway elevations, setbacks, and landscaped buffer areas, determining the extent to which existing views from residential and other view sensitive properties would be degraded. As a performance standard, project design features or conditions of approval shall ensure that the LAX Expressway is attractively screened from the view of significantly impacted properties to an equivalent or greater level than provided by existing landscaping or other intervening structures that screen views to the I-405. Screening shall be achieved through measures that may include, but shall not be limited to, decorative block walls and landscaped greenbelts.

- **MM-DA-3(a). Scattergood Visual Effects (Alternative B).**

  Prior to approval of fuel farm plans for the Scattergood site and based on more detailed development and grading plans, LAWA shall complete a visual survey to determine the following:

  - Existing views of the ocean and of the tank site from residences on Loma Vista Avenue.
  - The effects of the planned development on existing views from residences on Loma Vista including staking of maximum tank heights.
  - The line-of-sight and exposed tank surface area (including the 50-foot fire water tank) of the existing and proposed facility, from east- and west-bound Grand Avenue, south-bound Vista del Mar, west-bound Franklin Avenue (City of El Segundo), Dockweiler State Beach, and the South Bay Bicycle Trail located west of Vista del Mar.
  - The changes to the site topography and tank exposure affected by the removal of the existing berm.

- **MM-DA-3(b). Scattergood Visual Effects (Alternative B).**

  The visual survey shall specify measures to be implemented by LAWA which shall maintain or enhance the visual quality of the site and reduce to a less-than significant level visual impacts on views from Vista del Mar, Dockweiler State Beach, the regional bike path, Franklin Street, Grand Avenue, and affected residential uses on Loma Vista. Performance standards include:

  - Avoiding view blockage from primary windows and viewing areas of adjacent homes; or, if not feasible, achieving a less than 10 percent diminishment of existing ocean views.

- Ensuring no net increase in surface tank exposure to views from Vista del Mar, Dockweiler State Beach, the regional bike path, Franklin Street, and Grand Avenue.
- Achieving an equivalent or greater level of aesthetic quality than currently exists on the site as viewed from public vantage points.

To achieve these performance standards, LAWA actions shall include but not necessarily be limited to the following:

- Placement of the proposed facilities to prevent incursion into existing ocean views.
- The use of contour grading to enhance the dune natural appearance of the site.
- Development of site topography to reduce the visual exposure of the fuel tanks and facilities from key vantage points.
- Reduction in the proposed height of individual fuel tanks to reduce visual exposure from key vantage points and avoid screening of existing ocean views.
- Provision of setbacks from Grand Avenue and from the northern property line equivalent to, or greater than, what exists.
- Installation of dense landscaped buffers along Grand Avenue and in other areas of the site to screen the industrial facilities from key vantage points along Vista del Mar and to the west.
- Development of walls or berms combined with landscaping for screening.
- Subtle coloring of the tanks and on-site structures consistent with earth tones.
- Verification of achievement of the performance standards prior to initiation of facility operations.

Wastewater

- **MM-WW-1. Provide Additional Wastewater Treatment Capacity to Accommodate Cumulative Flows (Alternatives A, B, C, and D).**

  Additional wastewater capacity within the City of Los Angeles should be provided by the expansion/upgrade of the City's wastewater treatment systems via a combination of improvements to address the projected wastewater shortfall resulting from cumulative development. Such improvements could include increasing capacity at HTP, building new reclamation capacity upstream of HTP, conservation of potable water, and infiltration/inflow reduction. Implementation of this mitigation measure is the responsibility of the City of Los Angeles Department of Public Works, Bureau of Sanitation. Specific improvements will be identified in the City's IPWP and Wastewater Facilities Plan component of the City's Integrated Resources Plan. The cost for implementing this mitigation measure would be passed on to LAX and other wastewater generators through increased wastewater fees.

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Appendix
LAX Master Plan Addendum to the Final EIR

AD-A. Additional Comments on the Draft EIS/EIR and Responses (PC03587 through PC03616)

August 2004

The following provides responses to public testimony provided at a Town Hall meeting on the Los Angeles International Airport Environmental Impact Report which was held by former Councilmember Ruth Galanter on April 4, 2001. A transcript of the Town Hall meeting was submitted by Councilmember Ruth Galanter as comments on the Draft EIS/EIR (refer to comment letter PC02430 in Part II, Volume 14 of the Final EIR). While a copy of the Town Hall meeting transcript was included in Part II of the Final EIR in comment letter PC02430 and also separated into individual speaker's testimony in comment letters PC03587 through PC03616 (refer to Part II, Volume 15 of the Final EIR) the responses to the comments contained in the Town Hall meeting transcript were inadvertently not included in Part II of the Final EIR. Responses to the comments contained in the Town Hall meeting public testimony are provided below.

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PC03587 Weir, Alexander None Provided 4/4/2001

PC03587-1

Comment:

My name is Alexander Weir, III. I live at 8180 Manitoba Street, Playa Del Rey, California, 90293, unit 125.

I am concerned about the airport expansion. I live approximately two miles from the airport now, I think, and I am hearing airport noise after 11:00 o'clock at night when airplanes fly over my house outside of the expected flight paths.

I think the expansion would be unnecessary and would increase the noise that I hear now,

Response:

Comment noted. Noise impacts were addressed in Section 4.1, Noise, and Section 4.2, Land Use, of the Draft EIS/EIR and Supplement to the Draft EIS/EIR. Supporting technical data and analyses are provided in Appendix D and Technical Report 1 of the Draft EIS/EIR and Appendix S-C and Technical Report S-1 of the Supplement to the Draft EIS/EIR. In addition please see Topical Response TR-N-3 regarding aircraft flight procedures, Topical Response TR-N-5 regarding nighttime aircraft operations, and Topical Response TR-N-6 regarding noise increase. It should be noted that Alternative D has been added to provide a build alternative designed to serve a level of future (2015) airport activity comparable to that of the No Action/No Project Alternative.

PC03587-2

Comment:

plus, I understand that the proposed expansion is going to disrupt traffic on Pershing Drive, which I use to drive to work and to pick up my daughter, who is handicapped, at a downtown school -- she goes to a downtown school. And it will also destroy the heart of Westchester, where I shop sometimes.

I see no need for this plan when the airport itself isn't going to handle a substantial number of passengers but simply accommodate cargo planes that could go to other airports as easily -- more easily. Plus, I have seen exceedingly increased traffic through the airport on Sepulveda Boulevard that backs up, making it impossible for me to drive south of the airport. Or, if I am south of the airport, to go home going north.

Response:

Please see Response to Comment AL00018-30 regarding changes to Pershing Drive associated with Alternatives A, B, and C. Under Alternative D, Pershing Drive would not be affected. In addition, please see Topical Response TR-ST-4 regarding airport area traffic concerns, Topical Response TR-LU-2 regarding impacts to the community of Westchester, and Topical Response TR-RC-1 regarding the LAX Master Plan role in the regional approach to meeting demand.

PC03587-3

Comment:

I also think it's a bad idea to place a car rental facility at the back end of the airport, as the plan now proposes, next to the sewage treatment plant for the entire city of Los Angeles and next to the butterfly wilderness area.

That's about all I can think of for now. I live with my wife and daughter in a condominium. I grew up in Playa Del Rey. It so happens that I spent time in Washington, D.C., but I am now living approximately half a mile from the elementary school I graduated from. And I have seen a number of changes in the area, but I can't think of any improvements to this area or to the city of Los Angeles that would come from an expansion of the airport. I see only detriment.

Response:

Comment noted. Under Alternative D, the LAWA staff-preferred alternative, a consolidated rental car facility would be located on the east side of the airport.

PC03588 Parsons, Dorris None Provided 4/4/2001

PC03588-1

Comment:

Dorris, D-O-R-R-I-S, Parsons, P-A-R-S-O-N-S, 6305 West 77th Place, Los Angeles, California, 90045.

I've lived in Westchester for 50 years. I've seen a lot of changes. Some I like, some I don't like. Most of them I don't like, but this is the coup de gras. I'm very unhappy about it because now I'm retired and the airport has become more noisy. When I clean my windows on my house, there is a film that's oil and I have to work really hard to get it off. And the only thing I can think of, it must be from the airport.

I'm very unhappy because when my grandchildren come, I think it's an unhealthy environment, and I have 10 grandchildren. I'm worried about all the noise. Where I live, I have helicopters over my house. I live near Sepulveda Boulevard, and they follow the west side of Sepulveda Boulevard to the airport. And I have constant helicopters, but I do have noise. And some of the planes are so big, they make even more noise. I don't know which ones they are, but they are very awful. And I'd like to have peace and quiet in my retirement.

I've been a good citizen. I raised four good citizens. They are all people who have contributed to the community. They are political, they are doctors, and I really think that you have a -- you really have an obligation for families who have been good citizens of America. I love our country and I think we should have a good place for families to live, which has been ruined by this airport. And I don't want it to grow. I've seen it grow, and I've seen them come with bulldozers and bulldoze down hundreds of homes, beautiful rose bushes, swimming pools. And it's all destroyed for the airport, and I want it to stop, please.

Response:

Comment noted. Please see Topical Response TR-AQ-1 regarding air pollutant deposition and Topical Response TR-HRA-3 regarding human health impacts.

Noise impacts were addressed in Section 4.1, Noise, and Section 4.2, Land Use, of the Draft EIS/EIR and Supplement to the Draft EIS/EIR. Supporting technical data and analyses are provided in Appendix D and Technical Report 1 of the Draft EIS/EIR and Appendix S-C and Technical Report S-1 of the Supplement to the Draft EIS/EIR. In addition, please see Topical Response TR-N-3 regarding aircraft flight procedures and Topical Response TR-N-6 regarding noise increase.

PC03589 Starr, Randall None Provided 4/4/2001

PC03589-1

Comment:

Randall Starr, address is 7813 Cowen Avenue, Los Angeles, California, 90045. Phone, (310) 645-1068.

So I'm opposed to this for the following reasons: As a homeowner, I need to repaint my house due to pollution that I feel is more than any other neighborhood. And the expansion of this airport would only increase that. In addition, I need to replace landscaping due to pollutants that fall on these plants. And I think it's unfair to expand the airport. I had to install double-paned windows throughout my house for noise pollution. And that was an added cost that I think is unfair.

At night my children are kept up and woken past 11:00 o'clock as large cargo planes come up and dump off their cargo.

And most specifically is traffic. There has been an increase in traffic already, and to go to 98 million passengers would only increase that.

that's why I'm opposed.

Response:

Comment noted. It should be noted that Alternative D has been added to provide a build alternative designed to serve a level of future (2015) airport activity comparable to that of the No Action/No Project Alternative. Please see Topical Response TR-AQ-1 regarding air pollutant deposition.

Noise impacts were addressed in Section 4.1, Noise, and Section 4.2, Land Use, of the Draft EIS/EIR and Supplement to the Draft EIS/EIR. Supporting technical data and analyses are provided in Appendix D and Technical Report 1 of the Draft EIS/EIR and Appendix S-C and Technical Report S-1 of the Supplement to the Draft EIS/EIR. In addition, please see Topical Response TR-LU-3 regarding the Aircraft Noise Mitigation Program.

The Supplement to the Draft EIS/EIR addressed the effects of single event aircraft noise relevant to nighttime awakening in homes in Section 4.1, Noise, and Section 4.2, Land Use, with supporting technical data and analyses provided in Appendix S-C and Technical Report S-1. In addition, please see Topical Response TR-N-5 regarding nighttime aircraft operations.

PC03589-2

Comment:

I would like to have a response for the following questions: Why does this EIR claim a baseline of 78 million passengers versus 68 million passengers that seems to be the capacity of the airport? Where did 10 million passengers go? Does the EIR give an impact in case the MAP goes beyond 98 million passengers?

I'm concerned that there will be more than 98 million passengers that will be the actual capacity of the airport. I think 98 million is not a right number.

And lastly, I don't believe that there are very good alternatives presented in the EIR that proposed something less than 98 million passengers.

Response:

Please see Topical Response TR-GEN-1 regarding baseline issues and Topical Response TR-GEN-3 regarding actual versus projected activity levels. Also, please see Topical Response TR-ALT-1 regarding range of alternatives analyzed in the Draft EIS/EIR and Supplement to the Draft EIS/EIR.

PC03590 Wilson, Harry None Provided 4/4/2001

PC03590-1

Comment:

Harry Wilson, 7728 Toland Avenue, Westchester, 90045.

The airplanes dump fuel when they land, they -- I get fuel on the windshields of my cars. And the noise at night wakes me up, wakes my wife up.

And I live near Midfield, and they want to put a ramp there which would -- Midfield. And my sister lives across the freeway, so the ramp leaving the new airport area may destroy her house. They may have to buy her house and destroy it. She's concerned about that. She can't make it today.

That's what we're concerned with: The ramp -- the on-ramps and off-ramps that they would need to build. And just -- the pollution. I have kids and I don't want them breathing the exhaust from the planes.

Response:

Comment noted. Please see Topical Response TR-AQ-1 regarding air pollutant deposition, soot, and fuel dumping. In addition, the Supplement to the Draft EIS/EIR addressed the effects of single event aircraft noise relevant to nighttime awakening in homes in Section 4.1, Noise, and Section 4.2, Land Use, with supporting technical data and analyses provided in Appendix S-C and Technical Report S-1.

Please see Responses to Comments PC01087-2, AL00018-17, AL00018-72, and AL00018-73 regarding properties that would be potentially impacted by the proposed LAX Expressway alternatives. Please note that Alternative D, the LAWA staff-preferred alternative, does not include the proposed LAX Expressway as a project component.

The Draft EIS/EIR and Supplement to the Draft EIS/EIR addressed human health and safety in Section 4.24, Human Health and Safety, and air quality in Section 4.6, Air Quality. Supporting technical data and analyses are provided in Appendix G and Technical Reports 4, 14a, and 14c of the Draft EIS/EIR and Appendix S-C and S-E and Technical Reports S-4, S-9a, and S-9b of the Supplement to the Draft EIS/EIR. In addition, please see Topical Response TR-HRA-3 regarding human health impacts.

PC03591 Clark, Lisa None Provided 4/4/2001

PC03591-1

Comment:

Lisa Clark, 1851 Holmby Avenue, Los Angeles, 90025, and I've written down some things.

I have several questions regarding this expansion. How will L.A.X. handle, specifically, the energy needs of this expansion? Have there been any studies conducted on this question? Who paid for the studies and how could this be manageable when the state of California is already in a long-term energy crisis?

Response:

The availability of energy resources to accommodate projected demand associated with the Master Plan was addressed in Section 4.17.1, Energy Supply, of the Draft EIS/EIR and Supplement to the Draft EIS/EIR. In addition, please see Response to Comment AL00033-188 regarding energy supply.

PC03591-2

Comment:

Two: What studies have been done in regard to environmental impact of large capacity airplanes who would then come into the airport? Has there been public discussion on this subject? How many runways would have to be moved solely for the purpose of these large capacity airplanes?

Response:

The introduction and integration of New Large Aircraft (NLA) into commercial aviation service has been accounted for in the fleet mix assumptions for future operations at LAX under each of the five alternatives (the No Action/No Project Alternative and Alternatives A, B, C, and D), as addressed in the Draft EIS/EIR and the Supplement to the Draft EIS/EIR. As such, the impacts of these type aircraft are accounted for in the environmental analyses presented in these two documents, both of which were circulated for public review and comment, in accordance with the requirements of NEPA and CEQA. The relocation of runways under each of the build alternatives (Alternatives A, B, C, and D) is proposed to improve the existing and future operating efficiency of the airfield, particularly with respect to attaining a better balance of activities between the north runway complex and the south runway complex, and to address the existing runway incursion safety hazard. It is not necessary to relocate runways solely for the purpose of accommodating NLA.

PC03591-3

Comment:

L.A. has a shortage of open spaces, parklands, and green areas, and is full of concrete and asphalt. How many feet of new roads will need to be built for the expansion? Has there been any public discussion in regards to this?

Number four: In the last several years, by national newspapers, the 405 and the I-10 intersection has been rated as one of -- as the worst intersection in the nation. Playa Vista has now been allowed to go forward, increasing the number of automobiles on these freeways. How many more additional cars,

both minimum and maximum, will be added, one, to the 405; and, two, to the I-10. I would like -- I would ask to see these studies and full disclosure of who paid for these studies.

Response:

Comment noted. Surface transportation impacts were addressed in Section 4.3, Surface Transportation, of the Draft EIS/EIR and Supplement to the Draft EIS/EIR, with supporting technical data and analyses provided in Technical Reports 2 and 3 of the Draft EIS/EIR and Technical Reports S-2a and S-2b of the Supplement to the Draft EIS/EIR. In addition, please see Topical Response TR-ST-4 regarding airport area traffic concerns.

PC03591-4

Comment:

Number five: How will quality of life be affected by this expansion? How has this been studied?

Response:

Please see Topical Response TR-LU-1 regarding impacts on quality of life.

PC03591-5

Comment:

Number six: How many schools are in the vicinity of the airport and how will they be affected, both the health of the children as well as their ability to learn under increased noise and stress in the area?

Number seven: What are the health ramifications of the increased expansion to people living within a 20-mile radius? What are the ramifications to the children and what are the ramifications to adults in regards to stress levels and their short-term and long-term health? Have there been studies done on this? How long was the study conducted and how was the study shaped? I would like a copy of this study.

Response:

The Draft EIS/EIR and Supplement to the Draft EIS/EIR addressed noise impacts in Section 4.1, Noise, and Section 4.2, Land Use, air quality in Section 4.6, Air Quality, and human health impacts in Section 4.24.1, Human Health Risk Assessment. Supporting technical data and analyses are provided in Appendix D, Appendix G, and Technical Reports 1, 4, and 14 of the Draft EIS/EIR and Appendix S-C, Appendix S-E and Technical Reports S-1, S-4, and S-9 of the Supplement to the Draft EIS/EIR. Regarding noise impacts on schools, see the summary provided in Section 4.27, Schools (subsection 4.27.9), and note that aircraft noise mitigation for schools, would only apply to those significantly impacted schools not covered by a 1980 Settlement Agreement as further described in Topical Response TR-LU-3. Please see Topical Responses TR-AQ-3 regarding air pollution, TR-HRA-2 regarding airport emissions and link with adverse health effects, and TR-HRA-3 regarding human health risk.

The Supplement to the Draft EIS/EIR addressed the effects of single event aircraft noise relative to school disruption associated with the No Action/No Project Alternative and all four build alternatives in Section 4.1, Noise, and Section 4.2, Land Use, with supporting technical data and analyses provided in Appendix S-C1 and Technical Report S-1. In addition, please see Response to Comment AL00017-52 regarding the health effects of aircraft noise.

PC03591-6

Comment:

Number eight: What is the effect on property values of people living in the L.A.X. expansion area? How many families will be displaced or need to move? How many historically registered homes will be affected by this?

Response:

Please see Topical Response TR-ES-1 regarding impacts to residential property values and Topical Response TR-RBR-1 regarding residential acquisition and relocation.

Historic resources were addressed in Section 4.9.1, Historic/Architectural and Archaeological/ Cultural Resources, of the Draft EIS/EIR and the Supplement to the Draft EIS/EIR. As discussed in Section 4.9.1, under each of the Master Plan build alternatives, a portion of the Morningside Park neighborhood, a state and locally-eligible historic district, would experience noise levels above 65 dB CNEL and would therefore qualify for noise mitigation. If sound insulation of these residences within the district was undertaken, it could result in the loss or alteration of significant character-defining elements such as windows and doors. Implementation of Master Plan Commitment HR-1, Preservation of Historic Resources (Alternatives A, B, C, and D), would prevent sound insulation for noise mitigation from having a significant impact on contributing properties within the Morningside Park neighborhood historic district. No other listed or eligible historic residential properties would be affected by implementation of the LAX Master Plan.

PC03591-7

Comment:

And, number nine: How will the currently congested skies and bottlenecked air control traffic towers be able to now handle even higher capacity flights? What will the effect be of on-time arrival? Will there be an increased risk of mid-air crashes?

And then I guess I would end by just saying, you know, these are serious questions said with heartfelt thought, and that I hope that for their families' sakes and for the sakes of their communities, they will reconsider this airport expansion.

Response:

Comment noted. Please see Topical Response TR-SAF-1 regarding aviation safety. It should be noted that Alternative D has been added to provide a build alternative designed to serve a level of future (2015) airport activity comparable to that of the No Action/No Project Alternative.

PC03592 Preyer, Marie None Provided 4/4/2001

PC03592-1

Comment:

My name is Marie Preyer. My address is 7525 Manchester Avenue, apartment 522.

I am a college student in this area, and I also attended elementary school and had all of my primary schooling in the area of Westchester. As a resident of Westchester, I'd like to ask you a question for the children who are still in school, and that is: How will the expansion of the L.A. airport negatively impact the local schools here? Those schools being Westchester High School, St. Bernard's school, Westchester Lutheran School, and St. Anastasia.

Will the expansion contribute negatively to the air pollution and noise pollution? If it will, how are those schools going to be financially compensated for the negative impact of the expansion upon the students?

In the wake of the recent school violence across America, many people are asking what can be done to help our children? Perhaps the greatest thing we can do for our children is a simple one: To honor them enough to give them a safe, non-polluted place where they can study and learn.

Please respond to my questions.

Response:

The schools referenced in the comment are located north of LAX, within an area generally bound by Lincoln Boulevard, Westchester Parkway, Falmouth Avenue, and Manchester Avenue. The noise impacts associated with each of the Master Plan alternatives (i.e., No Action/No Project Alternative and Alternatives A, B, C, and D) were addressed in Section 4.1, Noise, and 4.2, Land Use, of the Draft EIS/EIR and the Supplement to the Draft EIS/EIR, which provide the primary basis of those sections of the Final EIS/EIR. Changes in noise levels (i.e., noise impacts) within the subject area resulting from each of the Master Plan alternatives can be ascertained by reviewing the various 65 Community Noise Equivalent Level (CNEL) noise contour figures presented in Section 4.2, Land Use, of the Final EIS/EIR. As illustrated therein, the future (2015) noise levels in the subject area would, under the No

Action/No Project Alternative, be less than those of 1996 baseline conditions. This is due primarily to the phase-out of the noisier Stage 2 commercial aircraft, as required by law. Under Alternative A, the future (2015) noise levels in the subject area would also be less than 1996 conditions, and would be generally comparable to those of the No Action/No Project Alternative. Under Alternative B, the future (2015) noise levels in the eastern portion of the subject area would be slightly higher than 1996 conditions and would be higher than under the No Action/No Project Alternative. This would also be generally the case under Alternative C. Under Alternative D, the future (2015) noise levels in the subject area would be less than 1996 conditions and less than under the No Action/No Project Alternative. Based on the information presented in that section of the Final EIS/EIR and in the supporting technical reports (i.e., Technical Report S-C1, Supplemental Aircraft Noise Technical Report), the schools within the subject area are not anticipated to be significantly impacted by changes in aircraft noise due to any of the Master Plan alternatives. Portions of the subject area may, however, be temporarily impacted by construction noise. Mitigation measures for such impacts are presented in Section 4.1 of the Final EIS/EIR.

With respect to air quality impacts, as well as human health impacts associated with toxic air pollutants, the subject area would likely experience either no substantial change from existing conditions or possibly improved conditions under certain alternatives. Air quality impacts are addressed in Section 4.6, Air Quality, and human health impacts are addressed in Section 4.24.1, Human Health Risk Assessment, of the Draft EIS/EIR and the Supplement to the Draft EIS/EIR, which provide the primary basis for those sections of the Final EIS/EIR. The most notable existing source of LAX-related air pollutant emissions in proximity to the subject area is aircraft operations on the airfield. In particular, pollutant emissions from aircraft operating in the taxi/idle mode are a key contributor to the airport's overall emissions. This is especially true relative to inefficiencies associated with the existing design of the airfield that cause aircraft to operate in the taxi/idle mode. Under each of the four build alternatives, the proposed airfield improvements would serve to substantially reduce the time that aircraft typically operate in the taxi/idle mode, which, in turn, would reduce the amount of criteria air pollutant and toxic air pollutant emissions associated with LAX. These airfield improvements, along with other design aspects of each build alternative, combined with the air quality mitigation measures proposed under the build alternative, contribute to certain air quality benefits that would not otherwise occur in the future (2015) under the No Action/No Project Alternative. These benefits, as represented by the human health impacts, are illustrated in the figures presented in Section 4.24.1 of the Final EIS/EIR. As shown therein, the future (2015) post-mitigation conditions for incremental cancer risks would be, under all build alternatives, improved in area north of the airport where the subject schools are located. Relative to incremental non-cancer health hazards, the subject area would experience a less-than-significant impact under Alternatives A, B, and C, and a beneficial impact under Alternative D for future (2015) post-mitigation conditions.

While long-term air quality and human health impacts to the subject area would be less than significant or beneficial under each of the build alternatives, there would be significant construction-related impacts associated with each of the four build alternatives. Such impacts would occur in general, affecting overall ambient air quality, and are not unique to the subject area. Mitigation measures for construction-related emissions are presented in Section 4.6 of the Final EIS/EIR.

Other impacts related to schools were addressed in Section 4.27, Schools, of the Draft EIS/EIR and the Supplement to the Draft EIS/EIR, which provided the primary basis for that section of the Final EIS/EIR.

PC03593 Stefanski, Andrew None Provided 4/4/2001

PC03593-1

Comment:

My name is Andrew Stefanski, S-T-E-F-A-N-S-K-I, 7296 West 85th Street, Westchester.

I am a licensed civil engineer and Realtor. By training and experience, I am qualified to talk about housing. It is a bad idea to build a major airport in a densely populated area, and it is even worse to keep expanding it.

Some 30 years ago, the airport condemned approximately 3,000 homes and displaced 9,000 people in Westchester and Playa Del Rey. We were told this was the end. By year 2000, we are going to have Palmdale International Airport and all big jets are going to land there. Now, in 2000, the airport is taking some 2,500 homes and apartment units. It is not direct condemnation. People came to them saying we

had enough, take us. This is not the end. To deliver people to San Diego Freeway is not enough to make them move further.

The 405 Freeway has to be widened by an additional two lanes each way, as recently proposed by CalTrans. This means thousands more properties taken. If the master plan for airport expansion is implemented, many more people may come to the airport and ask to be taken from an untenable situation.

In addition to direct taking, there are thousands of homes in airport approaches up to the Harbor freeway and beyond which are depressed by airport operations. People do not want to build units, maintain their homes. Vacant lots remain idle as there are no volunteers to develop them. This costs the city millions in lost taxes.

It is a bad idea to build an airport in a densely populated area, and it is even worse to keep expanding it.

Response:

Comment noted. Please see Topical Response TR-RC-5 regarding transferring LAX operations to Palmdale and Topical Response TR-RBR-1 regarding residential acquisition and relocation. It should be noted that Alternative D has been added to provide a build alternative designed to serve a level of future (2015) airport activity comparable to that of the No Action/No Project Alternative.

PC03594 Sofen, Howard None Provided 4/4/2001

PC03594-1

Comment:

My name is Dr. Howard Sofen, and my address is 8930 Sepulveda Boulevard, Westchester, California, and I have two comments -- actually, two questions.

Number one: Is there any possible way to realign the new Westchester Parkway so as not to disrupt the 8900 block of Sepulveda? There are numerous businesses that would be disrupted, including my own, and it seems that for the minimal extra block they take there is an incredible amount of disruption.

Point number two: Is there any possible way that the Board of Airports can offer assurances that new office buildings could be built in the new L.A.X. Office Park North at -- in north L.A.X. area prior to the destruction of the buildings on Sepulveda?

Response:

As was discussed in Section 4.2, Land Use, of the Draft EIS/EIR, Alternatives A, B, and C would involve acquisition within the Westchester Business District along Sepulveda Boulevard. Please see Response to Comment PC00013-5 for additional information regarding the need to relocate businesses under Alternatives A, B, and C, and Responses to Comments AL00033-122 and AL00033-123 regarding the opportunities to relocate businesses to the proposed Westchester Southside development under those alternatives. It should be noted that, in contrast to the other build alternatives, Alternative D would not involve acquisition within the Westchester Business District.

PC03595 McCutcheon, James None Provided 4/4/2001

PC03595-1

Comment:

My name is James T. McCutcheon. I live at 7732 Midfield Avenue, Los Angeles, California, 90045, right next to the Centinela Adobe which is being proposed to be taken for a connector road to take care of the influx of people and the growth of the airport as it's expanding.

The proposed connector road will run north and south on both sides of the freeway, 20 feet or more in the air from the Howard Hughes Parkway past the interchange of Arbor Vitae. Due to the 20 foot plus elevation above the freeway, this will cause the taking of some 300 feet of residential and business properties on both sides of the connector road, including the big donut at the intersection of La Cienega and Manchester.

The Centinela Adobe is a national monument and will be taken. That's the place where Inglewood was founded. So nothing seems to be sacred.

I do not want to move. I will lose my property. My family does not want to move. We want to stay in Westchester. I'm an engineer. I was in the Army Corps of Engineers. I know the freeway is wide enough now to handle the existing traffic and future traffic if the airport is not expanded.

So it's necessary that the freeway not be expanded so that -- I mean, the airport not be expanded so the freeways won't have to be expanded. And there is -- other than that, I join the group in all the other objections, but I personally am involved in this objection.

Response:

Comment noted. Please see Topical Response TR-HA-1 regarding impacts to the Centinela Adobe and Randy's Donuts. Please see Responses to Comments PC01087-2, AL00018-17, AL00018-72, and AL00018-73 regarding properties that would be potentially impacted by the proposed LAX Expressway alternatives. Please note that Alternative D, the LAWA staff-preferred alternative, does not include the proposed LAX Expressway as a project component.

PC03596 Rezzo, Jean None Provided 4/4/2001

PC03596-1

Comment:

My name is Jean Rezzo, and I live in Playa Del Rey.

Just for this record, I'm going to limit my comments to the pollution, not noise, air quality. I have a son that's 10 that was born at this address right bordering the airport. And myself and my two sons, the one that is 10 and the one that is 17, when we do get a common cold, virus, it takes us weeks to get rid of it. The bronchitis lasts and lasts until we end up on antibiotics or the virus has turned from viral to bacterial. And it's because of the soot and dirt and pollution that is constantly at our house, which happens to be white that turns black within -- you know, dark color -- within a year or two. Has to be repainted. My car is white. Within two days after washing, it's got a gray color to it. It's just not healthy. And I can prove it by our health: We don't smoke, but you would think we did. And dirt. And I can -- I'm a scientist, I can get -- prove it. So anybody that needs it, I'll do samples. I'll show you what it looks like. I have a pool that gets dirtier than it should be, that needs more chlorine than it should be, even times of the year that we're not in the water. The water is cold. It shouldn't be getting dirty. So the main issue for me is the pollution coming down from the exhaust from the airplanes, you know.

And I guess -- I estimate there is a couple hundred an hour going over our home. So that's it.

Response:

Comment noted. Please see Topical Response TR-AQ-1 regarding air pollutant deposition and Topical Response TR-HRA-3 regarding human health impacts.

PC03597 Maloutos, Paul None Provided 4/4/2001

PC03597-1

Comment:

Paul Maloutos, M-A-L-O-U-T-O-S, 7502 Midfield, M-I-D-I-F-I-E-L-D, Avenue, Westchester, 90045.

Okay. So the main thing is -- very appropriate at this point -- my comment is that Mrs. Ruth Galanter is doing an excellent work and we have to focus how to protect the Manchester Square rezoning to be OS so we will prevail and not become a PF, which is public facilities.

A good way will be if possibly something nice -- it's been built there, with the cost of few millions, so it will be very difficult to change -- and become a nice park for the area.

Response:

Comment noted. Please see Subtopical Response TR-MP-3.6 regarding changes to General Plan and zoning designation of Manchester Square related to the LAX Master Plan alternatives. Former Councilwoman Galanter presented a proposal to make Manchester Square a park; however, there was no action taken by the Los Angeles City Council to approve and implement the proposal.

PC03597-2

Comment:

Secondly, the Westchester area, it is a residential area with a lot of children and there is about seven schools in the area. Did they ever think about the pollution, the effect it will have in the schools? Two schools are public, and the rest -- five schools -- the private schools. So the children, they need to be in a good environment, not in a polluted environment. So we should be concerned over those things.

Response:

The Draft EIS/EIR and Supplement to the Draft EIS/EIR addressed noise impacts in Section 4.1, Noise, and Section 4.2, Land Use, and air quality in Section 4.6, Air Quality. Supporting technical data and analyses are provided in Appendix D, Appendix G, and Technical Reports 1 and 4 of the Draft EIS/EIR and Appendix S-C, Appendix S-E and Technical Reports S-1 and S-4 of the Supplement to the Draft EIS/EIR. Regarding noise impacts on schools, see the summary provided in Section 4.27, Schools (subsection 4.27.9), and note that aircraft noise mitigation for schools would only apply to those significantly impacted schools without existing avigation easements as further described in Topical Response TR-LU-3. Please see Topical Responses TR-AQ-3 regarding air pollution, TR-HRA-2 regarding airport emissions and link with adverse health effects, TR-HRA-3 regarding human health risk, and TR-LU-1 regarding impacts on quality of life.

PC03598 Hammer, Lisa None Provided 4/4/2001

PC03598-1

Comment:

My name is Lisa Hammer. My address is 6136 West 85th Place, and I own a business at 6216 West Manchester Avenue.

So I am a resident and a business owner in this area. I've lived here all my life. I'm 38. And therefore in 1970 whatever, I watched my friends move away because their houses were taken by the airport. At the time I was young, I didn't understand it. I, you know, grew up and it was done. But then I watched our business district deteriorate into what it is today, finally rebounding to almost something presentable, maybe, and then this comes.

Another example is a friend of mine whose house was taken and actually moved to another house in Westchester -- so we still remained friends for, you know, all 30 years -- recently came to visit from Ventura County. And it took her, on the 405 from the Valley, almost an hour to get to my house, because of the traffic on a Saturday night, to get to Westchester. That's it.

Response:

Comment noted. Please see Topical Response TR-LU-2 regarding impacts to the community of Westchester. The Supplement to the Draft EIS/EIR provided additional discussion beyond that presented in the Draft EIS/EIR of potential acquisition effects on the Westchester Business District. As described in Section 4.2, Land Use (subsections 4.2.6.2 through 4.2.6.4), acquisition within the Westchester Business District would be approximately 16 acres or 31 percent of the district under Alternative A, approximately 11 acres or 21 percent under Alternative B, and approximately 13 acres or 26 percent of the District under Alternative C. Under Alternatives A though C, relocation opportunities would be available for some uses nearby within Westchester Southside. Also, many of the uses that would be acquired are airport related and a number of the community related uses that would be acquired (a bank, an office supply store, a bar and beauty shop) would still remain available through similar businesses that are located in close proximity within the Westchester Business District.

It should be noted that, as described in Section 4.2, Land Use (subsection 4.2.6.5), of the Supplement to the Draft EIS/EIR, in contrast to the other build alternatives, Alternative D (the LAWA staff-preferred alternative), does not include any acquisition within the Westchester Business District.

Surface transportation impacts were addressed in Section 4.3, Surface Transportation, of the Draft EIS/EIR and Supplement to the Draft EIS/EIR, with supporting technical data and analyses provided in Technical Reports 2 and 3 of the Draft EIS/EIR and Technical Reports S-2a and S-2b of the Supplement to the Draft EIS/EIR.

PC03599 Kirksey, Diane None Provided 4/4/2001

PC03599-1

Comment:

I'm Diane Kirksey, 8243 Billowvista Drive, Playa Del Rey, California, 90293.

Expanding L.A.X. to 98 million passengers and expanding cargo will create unsafe conditions for the airport, its passengers, and the residents surrounding the airport. Alternatives: Regional airports such as Palmdale, Ontario, and March Air Force should be expanded to handle increased passengers and cargo.

If L.A. insists on expanding L.A.X. to a hundred million passengers per year, then they need to go ahead and purchase all of the residential homes in Playa Del Rey, Inglewood, El Segundo, and other severely impacted areas at full market value because these areas should not bear the full burden of noise, pollution, traffic, danger of mid-air collision, or other impacts, which an expanded L.A.X. would bring.

Response:

Comment noted. It should be noted that Alternative D has been added to provide a build alternative designed to serve a level of future (2015) airport activity comparable to that of the No Action/No Project Alternative. Please see Topical Response TR-SAF-1 regarding aviation safety, Topical Response TR-RC-1 regarding the LAX Master Plan role in the regional approach to meeting demand, and Topical Response TR-RC-5 regarding transferring LAX operations to Palmdale. In addition, please see Topical Response TR-LU-3 regarding the Aircraft Noise Mitigation Program.

The Draft EIS/EIR and Supplement to the Draft EIS/EIR addressed noise impacts in Section 4.1, Noise, and Section 4.2, Land Use; air quality in Section 4.6, Air Quality; traffic impacts in Section 4.3, Surface Transportation; and safety impacts were addressed in Section 4.24.3, Safety. Supporting technical data and analyses are provided in Appendix D, Appendix G, and Technical Reports 1, 2, 3, 4, and 14c of the Draft EIS/EIR and Appendix S-C, Appendix S-E, and Technical Reports S-1, S-2a, S-2b, S-4, and S-9b of the Supplement to the Draft EIS/EIR.

PC03600 Roozen, Lee None Provided 4/4/2001

PC03600-1

Comment:

My name is Lee, L-E-E, Roozen, R-O-O-Z-E-N. Address is 7420 Dunfield Avenue, that's D-U-N-F-I-E-L-D, Avenue, Los Angeles, 90045.

Now, what do you want to know? I have several health problems, as many others do in my neighborhood. One is I have sleep apnea, which is greatly exacerbated by all the noise from increased air traffic, especially night traffic. I cannot leave my windows open, and in summertime, that is very, very discomforting.

And I also have chronic pulmonary disease with severe allergies which have only increased over the years as the air traffic has increased and air pollution has increased, and not only from the airplanes, but also from all the increased traffic that has come into the Westchester area.

Another -- this is in the form of a question. I would like to know where all the comments regarding studies that have been -- regarding health studies that have been made as a result of the airport pollution and increased cancer -- greatly increased cancer incidences for those that live within a four, five-mile radius of the airport, and also increased respiratory diseases.

This is a health consideration as much as it is anything else. Traffic is, of course, horribly worse, and there have been people killed -- more people killed along the Sepulveda corridor there on the way to the airport by far than there used to be. More traffic accidents.

Response:

Comment noted. The Draft EIS/EIR and Supplement to the Draft EIS/EIR addressed human health and safety in Section 4.24, Human Health and Safety, traffic in Section 4.3, Surface Transportation, air quality in Section 4.6, Air Quality, and noise in Section 4.1, Noise, and 4.2, Land Use. Supporting technical data and analyses are provided in Appendix D, Appendix G, and Technical Reports 1, 2, 3, 4, 14a, and 14c of the Draft EIS/EIR and Appendix S-C, Appendix S-E, and Technical Reports S-1, S-2a, S-2b, S-4, S-9a and S-9b of the Supplement to the Draft EIS/EIR.

The Supplement to the Draft EIS/EIR addressed the effects of single event aircraft noise relevant to nighttime awakening in homes in Section 4.1, Noise, and Section 4.2, Land Use, with supporting technical data and analyses provided in Appendix S-C and Technical Report S-1. In addition, please see Topical Response TR-HRA-2 regarding airport emissions and link with adverse health effects and Topical Response TR-HRA-3 regarding human health impacts.

PC03601 Huff, Marcus None Provided 4/4/2001

PC03601-1

Comment:

My name is Marcus Huff. My address is 10820 South Burl Avenue. It's in the city of Lennox, California, 90039-0304.

In Lennox, we suffer from a lot of air pollution from the airport, which includes the trucks that go to the airport. Our roads are very torn up by those big trucks, as well as our kids are in grave danger of being hit by those big trucks. The trucks come and park on our small streets in Lennox, which means there is less room for all of our residents to park. The planes fly over our homes until 1:00, 2:00 o'clock in the morning sometimes, and they start up again at roughly 5:00 A.M. in the morning. L.A.X. is not making my life very livable in Lennox because I both work and live in Lennox. That's all.

Response:

Comment noted. The Draft EIS/EIR and Supplement to the Draft EIS/EIR addressed air quality in Section 4.6, Air Quality, and traffic impacts in Section 4.3, Surface Transportation. Supporting technical data and analyses are provided in Appendix G and Technical Reports 2, 3, and 4 of the Draft EIS/EIR and Appendix S-E and Technical Reports S-2a, S-2b, and S-4 of the Supplement to the Draft EIS/EIR. In addition, please see Topical Response TR-ST-1 regarding cargo truck traffic, Topical Response TR-ST-4 regarding airport area traffic concerns, and Topical Response TR-ST-6 regarding neighborhood traffic impacts.

Please see Topical Response TR-N-5 regarding nighttime aircraft operations. The Supplement to the Draft EIS/EIR addressed the effects of single event aircraft noise relevant to nighttime awakening in homes in Section 4.1, Noise, and Section 4.2, Land Use, with supporting technical data and analyses provided in Appendix S-C and Technical Report S-1.

PC03602 Acherman, Anton None Provided 4/4/2001

PC03602-1

Comment:

My name is Anton Acherman. I live at 6055 West 75th Place in Los Angeles, 90045. My phone number is (310) 645-8528.

My comment is about time. Last year during the summer it was already impossible to find parking space on or around L.A. So people, even my own family members, went to the hotels and rented -- and went to park the cars in the parking lots in the hotels. If the traffic increases a little more, then all those

hotel parking lots are full also. Where do we then put our cars so that we can maybe walk? We may have to go on the bike.

Response:

Comment noted. Surface transportation impacts, including impacts assoicated with public and employee parking, were addressed in Section 4.3, Surface Transportation, of the Draft EIS/EIR and Supplement to the Draft EIS/EIR, with supporting technical data and analyses provided in Technical Reports 2 and 3 of the Draft EIS/EIR and Technical Reports S-2a and S-2b of the Supplement to the Draft EIS/EIR. In addition, please see Topical Response TR-ST-4 regarding airport area traffic concerns.

PC03602-2

Comment:

The traffic has been increasing in the last four, five years in a tremendous rate, especially in the 405. The airport has been growing very fast. All the mediation that goes on right now may take another five years before it's resolved. In the meantime, the airport keeps on expanding uncontrolled, and we have reached a hundred million passengers MAP, and what are we going to do then? They even cannot limit them anymore to what they talk about now, the 76 million, and they are not going to turn them back either.

So in other words, we are completely stuck and we have not managed to try to do what we really wanted to do. The traffic will have to be taken away from the airport, and the only way to do that is the regional approach. If we start bringing the passengers and the freight to, like, Ontario and Palmdale, then a lot of traffic will go that way instead of going to L.A. That will relieve L.A. tremendously.

A major construction job, if that would start here at L.A., will create a complete choke up because it will bring in an awful lot of trucks and additional traffic and all the work has to be done while the airport is in full operation. And that may not be disturbed. So they have to -- they have to work around all those activities, that makes it extremely expensive.

And one example I can give to you is that for 30 million new people going through the airport, they want to spend $12 billion. That is an equivalent of $400 per person. If they will go to Palmdale, for example, and build a hundred million passenger airport there, they can do that for $4 billion, and it will bring the price per person down to $40. This shows very clearly that they really start wasting the money at L.A.X. and they should think twice before they do that.

What they can do is start immediately expanding in Ontario and refer as much freight as possible to Ontario. Ontario is fully equipped to handle that. There have been transport companies around in place in Ontario who would love to have the business. So that is one thing that can be done immediately to relieve the pressure on L.A.X. An airport in Palmdale can be built in a matter of possibly two years. So we may have problems for another two years, and then they can start gradually taking over and take the pressure off here at L.A.X.

So I hope that people will use common sense, especially city council will use common sense, and start reading the reality and start doing the right thing.

Response:

Please see Topical Response TR-GEN-3 regarding actual versus projected activity levels, Topical Response TR-RC-1 regarding the LAX Master Plan role in the regional approach to meeting demand, Topical Response TR-RC-5 regarding transferring LAX operations to Palmdale, and Topical Response TR-ST-3 regarding construction traffic. It should be noted that Alternative D has been added to provide a build alternative designed to serve a level of future (2015) airport activity comparable to that of the No Action/No Project Alternative.

PC03603 Renfro, Virginia None Provided 4/4/2001

PC03603-1

Comment:

My name is Virginia Renfro. I live at 8443 Truxton Avenue, Los Angeles, 90045.

My comments are I'm a resident of Westchester and I work as a school teacher in Van Nuys, and so I make the 20-mile trip every day from L.A. to Van Nuys. Five years ago -- as recently as five years ago -- it took me 25 minutes to drive that 20 miles. Now, in year 2001, it takes me 45 minutes to drive 20 miles, and twice a week it's about an hour and a half to drive. The traffic is horrendous on the 405, and Sepulveda is no better.

Expanding the airport would increase traffic on the 405 and Sepulveda. Those are the entry points to the airport. And the 405 as well as Sepulveda cannot support any more traffic. About last year, over Dockweiler Beach in Playa Del Rey, debris from an airplane -- pieces from the airplane fell on the beach. Luckily, the beach was deserted and all the debris missed the nearby houses, but it could have been a tragedy if stuff from an airplane fell and hit people in the communities around the airport.

Without my glasses, at night I have counted 13 airplanes up in the sky waiting to land. Any more air traffic would make more airplanes in the sky much greater danger for the safety of the people in the air as well as the people on the land.

The proposed ring road will not reduce traffic because people from outlying areas who have to come to the airport will still have to come via the 405 or Sepulveda. So the ring road is nonsense. It will not decrease traffic. Thank you for your attention.

Response:

Comment noted. It should be noted that Alternative D has been added to provide a build alternative designed to serve a level of future (2015) airport activity comparable to that of the No Action/No Project Alternative.

Surface transportation impacts were addressed in Section 4.3, Surface Transportation, of the Draft EIS/EIR and Supplement to the Draft EIS/EIR, with supporting technical data and analyses provided in Technical Reports 2 and 3 of the Draft EIS/EIR and Technical Reports S-2a and S-2b of the Supplement to the Draft EIS/EIR. In addition, please see Topical Response TR-ST-4 regarding airport area traffic concerns. Further, it should be noted that Alternative D does not include a ring road.

Please see Topical Response TR-SAF-1 regarding aviation safety. The potential for debris to dislodge from an aircraft is greatest during departure. Under each of the Master Plan build alternatives, all new and/or redesigned runways would have an associated Runway Protection Zone (RPZ) that would meet FAA airport design requirements to protect persons and property on the ground.

PC03604 Brown, David None Provided 4/4/2001

PC03604-1

Comment:

My name is David Brown. My address is 8021 Campion Drive, Los Angeles.

My comment has to do with visitor parking at the airport. The master plans that -- all three concepts of the master plan do not provide adequate parking for visitors. Under the current approved master plan adopted in 1980, the plan provides for one parking space for every 750 visitors. Currently they are operating at approximately one parking space for every 1,750 visitors. And under the master plan concept C, they are going from approximately 35,000 parking spaces to 39,000 parking spaces, which is equivalent to about one parking space for every 2,500 visitors. That's not adequate.

Response:

The parking forecasts and impacts for each of the Master Plan alternatives were discussed in Sections 4.3.1.6 of the Draft EIS/EIR and Supplement to the Draft EIS/EIR. In addition, please see Response to Comment PC00381-17.

PC03605 Hoebink, John None Provided 4/4/2001

PC03605-1

Comment:

My name is John, J-O-H-N, and I live at 8727 Lilienthal, L-I-L-I-E-N-T-H-A-L.

I am for the expansion of the south runways for the already acquired airport property and for the cargo -- for south side runways, but we want a third north side runway for commuter planes. Don't expand, I guess, over 1,000 feet. I mean, that's limited commuters, I guess. We want -- I want -- our family, I'm speaking for my family -- the connection from Arbor Vitae to the parkway only through airport parking, the parking lots -- I think it's C and B. We're for the west side terminal. That's about all for the expansion, and that's all.

Response:

Comment noted.

PC03606 Donaldson, James None Provided 4/4/2001

PC03606-1

Comment:

James Donaldson, 2666 Barry, B-A-R-R-Y, Avenue, that's West Los Angeles, California, 90064.

And what I'd like for -- what I'd like for them to do is build as many fix-based operators at L.A.X. to service all of the small business jets and non-commercial small jet traffic rather than force them out of the airport and make way for the large cargo jets. Currently they only have one fixed-base operator, it's Garrett Corporation. And from the meetings I've been to at the FAA, whoever is doing the L.A.X. expansion, they have made comments that they are going to force the small jet traffic out on the smaller airports and bring in large jets. But what we need to have them do is to build more small fixed-base operators to handle the commercial jets and business jets.

Response:

Please see Responses to Comments AL00005-11, AL00005-12, PC01496-1, and SPHF00022-2.

PC03607 Backes, Anne None Provided 4/4/2001

PC03607-1

Comment:

My name is Anne Backes. My address that I'm speaking for is 7034 Vista Del Mar Lane, Playa Del Rey, 90293.

And I have the following comments: One, regarding the website. The access to the Environmental Impact Report document should have been more easy to find. There should have been a shortcut leading directly to it. That way people who are not as comfortable on the web could find it more easily.

After finding that and looking through it, I don't understand why the mitigation monitoring plan is not included. I was told that it will be included in the final EIR. I used to write EIR's in 1998, and at that time we had to include it in the draft. I'd like -- I find it interesting that Palmdale and the -- or the regional approach was not included as an alternative. I don't think that's correct.

And also, I'd like to know why there are no standards for airplane emissions or jet aircraft emission.

Response:

Comment noted please Response to Comment AL00033-255 regarding the availability of the Draft EIS/EIR and the Supplement to the Draft EIS/EIR for public review. Please see Response to Comment

AR00003-63 regarding the mitigation monitoring and report program. In addition, please see Topical Response TR-RC-1 regarding the LAX Master Plan role in the regional approach to meeting demand and Topical Response TR-RC-5 regarding transferring LAX operations to Palmdale.

Emissions thresholds that pertain to the LAX Master Plan project are identified in Table 4.6-7 of the Draft EIS/EIR. These thresholds apply to all emission sources, including, airplane and jet aircraft emissions. Similarly, state and federal ambient air quality standards (AAQS) apply to all sources, including airplanes and jet aircraft. These standards are identified in Table 4.6-3 of the Draft EIS/EIR.

PC03608 Gauthier, Wendy None Provided 4/4/2001

PC03608-1

Comment:

Wendy Gauthier, 8812 Glider Avenue, Westchester.

I'm extremely concerned about the harmful effects of jet fuel, fumes in our area. It's already so hard to breathe during the day. And it's been this way for the last several years. And I'm extremely concerned that any further expansion will only make it worse, although I'm even more concerned we're going to lose our community that is so important to ourselves and our friends and our children.

Response:

Comment noted. Please see Topical Response TR-HRA-3 regarding human health impacts and Topical Response TR-LU-2 regarding impacts to the community of Westchester.

PC03609 Ludwig, Mary Jane None Provided 4/4/2001

PC03609-1

Comment:

I'm Mary Jane Ludwig, and I live in Westchester at 6373 Riggs Place, and I've been a resident over 20 years.

And basically comments that I have relate to the fact that traffic is going to increase beyond anything that we can possibly imagine. The roads today are so congested, people are frustrated as it is, and they are -- literally there are no mitigations that would really alleviate the traffic.

Approximately 15 years ago, as a solution to the congested arteries into L.A.X., the airlines had developed a contractual agreement with a helicopter charter service from Burbank to L.A.X. so that passengers could drive into Burbank, park in Burbank, and the airlines subsidized their helicopter flight bringing them into L.A.X. So the businessman who was short on time and short on patience could drive into Burbank with the intention of flying out of L.A.X. and pay $3 to be taken by helicopter over our homes in Westchester. Flights were coming and going every five, ten minutes. It was unbearable.

Through a long, protracted process, the community was able to work with -- with the councilwoman, who was Pat Russell at the time, and with the FAA, and with the airport commissioners, and eventually the charter service did go out of business. However, helicopter flights have increased over the last several -- I'd say over the last year, and I've noticed that they continue to increase.

And I've read recently that a new charter service has been established at the airport. I don't know what the arrangements are as to whether or not the airlines are subsidizing them, but it is a great concern to me because if -- they have already increased what is going to happen when -- if the airport is going to expand beyond its present capacity.

Response:

Comment noted. Surface transportation impacts were addressed in Section 4.3, Surface Transportation, of the Draft EIS/EIR and Supplement to the Draft EIS/EIR, with supporting technical data and analyses provided in Technical Reports 2 and 3 of the Draft EIS/EIR and Technical Reports S-2a and S-2b of the Supplement to the Draft EIS/EIR. In addition, please see Response to Comment AL00043-3 regarding proposed traffic improvements for off-airport roadways and Topical Response TR-

ST-4 regarding airport area traffic concerns. Please see Responses to Comments PC00240-6, SPC00053-3, and SPHSP00020-2 regarding helicopter traffic at LAX.

PC03609-2

Comment:

The other comment I have is that my understanding is that the noisy planes that were typically retired by the airlines were sold to the cargo carriers. So while the public was led to believe that planes were getting quieter, what they neglected to let the public in on was that the planes were still being flown. And what the attorney said was that the cargo carriers basically put a retrofit on the planes similar to -- what do they call it? -- similar to like a muffler, but all that was muffled was the sound to a small degree, just so that it would be in acceptable levels, meaning that the planes are still noisy.

Response:

The required phase-out of noisier (Stage 2) aircraft is based on the weight of aircraft and not on the type of use. If an aircraft used for commercial passenger operations is later sold to a cargo carrier that operates in the United States, it would still have to meet the currently applicable Stage 3 noise limit requirements, which, again, are based on the weight of the aircraft (i.e., more than 75,000 lbs certified gross takeoff weight) and not by use type. The use of "hush-kits" to reduce the noise levels of Stage 2 aircraft in order to meet Stage 3 noise requirements occurs in the older fleets of both commercial passenger operations and cargo operations.

PC03609-3

Comment:

That was basically it. I also had commented about what the Costal Commission's role would be and was told that unfortunately the airport was gerrymandered out of the Costal Commission's boundaries. So that's it.

Response:

As indicated in Section 4.14, Coastal Zone Management and Coastal Barriers, of the Draft EIS/EIR and Supplement to the Draft EIS/EIR, LAX is not located within the coastal zone. However improvements to Pershing Drive associated with Alternatives A, B, or C, would be located in the coastal zone. In addition, under all Master Plan build alternatives, changes to navigational aides within the Los Angeles/El Segundo Dunes, which is located within the coastal zone, would occur. The regulatory provisions concerning the coastal zone were discussed on page 4-753 in Section 4.14, Coastal Zone Management and Coastal Barriers, of the Draft EIS/EIR. Included in this discussion was a description of the California Coastal Commission's (CCC) authority over the project and the need to obtain a Coastal Development Permit when modifying land use or water use in a coastal zone. For the purposes of this EIS/EIR, a consistency finding from the CCC is necessary before a decision can be made to implement the proposed action. If appropriate, LAWA will apply to the CCC for a Coastal Development Permit for any development or change in intensity of use within the coastal zone.

PC03610 Brown, Stacy None Provided 4/4/2001

PC03610-1

Comment:

My name is Stacy, S-T-A-C-Y, Brown, B-R-O-W-N, 2727 Butler, B-U-T-L-E-R, Avenue, Los Angeles, California, 90064.

My comments are that the notification to the mailing list of EIR availability was inadequate. The mailing had no identification on the outside. It looked like joke mail. And the price for the EIR information is too expensive for individuals. This sent a clear message that public input is not welcome.

Response:

Comment noted. Please see Response to Comment AL00033-255 regarding availability of the Draft EIS/EIR and Supplement to the Draft EIS/EIR for public review.

PC03611 Rubin, Martin None Provided 4/4/2001

PC03611-1

Comment:

Martin Rubin, 2822 Barry Avenue, Los Angeles, 90064.

I'm very concerned, as are a lot of people around where I live, about the air pollution that is coming from Santa Monica's airport, which indirectly correlates with Los Angeles Airport in that the jets that take off from Santa Monica airport wait for clearance from L.A.X.

And the number of corporate jets at Santa Monica Airport have doubled in three years. And if there are more jets taking off from L.A.X. and more jets coming into Santa Monica, they will be waiting there, idling to take off, more and more in the air. It's unbelievable. And no one is looking into it at this time. There is no EIR that goes on around jets because they are exempt from the pollution standards of the governmental agencies.

And this cannot go on this way. It's bad for -- for local and world air situation. And I could go on and on about individual instances, but it's just intolerable and it needs to be cut back. And the expansion of L.A.X. I'm against for this reason and other reasons that go around that -- the traffic, which also needs to be looked into.

Response:

Comment noted. Please see Topical Response TR-GEN-4 regarding potential environmental impacts at surrounding other airports as a result of the LAX Master Plan.

As indicated in Section 4.6 of the Draft EIS/EIR and the Supplement to the Draft EIS/EIR, aircraft are not exempt from air quality standards promulgated by regional, state, and federal agencies. Air quality standards that apply to the LAX Master Plan are identified in Table 4.6-3 of the Draft EIS/EIR. These standards apply to all emission sources, including aircraft.

Surface transportation impacts were addressed in Section 4.3, Surface Transportation, of the Draft EIS/EIR and Supplement to the Draft EIS/EIR, with supporting technical data and analyses provided in Technical Reports 2 and 3 of the Draft EIS/EIR and Technical Reports S-2a and S-2b of the Supplement to the Draft EIS/EIR.

It should be noted that Alternative D has been added to provide a build alternative designed to serve a level of future (2015) airport activity comparable to that of the No Action/No Project Alternative.

PC03612 Ostgard, John None Provided 4/4/2001

PC03612-1

Comment:

John T. Ostgard, 7855 Vicksburg Avenue, Los Angeles, 90045.

Number one, I'm opposed to the master plan, but I am also proposing that -- a new master plan that includes Palmdale as a hub with the rest of Southern California as distribution centers, similar to what several European airports have done. And for example, in Goldenberg, Sweden, they are now talking about electric distribution of all cargo from the airport throughout the city. In the little country of Norway, they have moved the airport from Oslo to about 60 miles outside and installed a bullet train. Why can we not do that in Los Angeles? Simple.

A good master plan with that as a hub and distribution both of cargo and personnel or passenger is what I would propose. Innovative.

Response:

Comment noted. Please see Topical Response TR-RC-5 regarding transferring LAX operations to Palmdale and Topical Response TR-RC-3 regarding high-speed rail as a solution to airport capacity and demand.

PC03613 Acherman, Robert None Provided 4/4/2001

PC03613-1

Comment:

Robert Acherman, last name A-C-H-E-R-M-A-N, at 6055 West 75th Place, Westchester, 90045. And my comments are that 30 years ago the Department of Airports made a promise to the people of Westchester during the last major expansion that they would go out to Palmdale. They bought 17,000 acres of land out there, and all they are using it for now is to grow pistachios.

For the same 8- to $12 million that they want to spend on expanding L.A.X., they could very well build three new airports in Palmdale. The former executive director of the airport, John Driscoll, he even admitted that after 2015, which is what the L.A.X. expansion is supposed to cover up through, then they go out to Palmdale. So it begs the question: Why wait?

And when I ran for State Assembly in 1998 in this area I posed that question. It's like the longer we wait, the more difficult, the more expensive it will be to build Palmdale and other outlying airports and to accommodate all the incoming traffic and also make it more difficult to connect them with high speed rail and freeways in order to make them work.

The Department of Airports is trying to buck history in that almost every other city in the world, when they wanted to build the larger airport, that they had to build it outside the center of town. And what happens with airport development is true, after L.A.X. was opened, when L.A.X. was opened in 1946 as it was designated as L.A.'s official airport, there was nothing out there but bean fields and a couple homes. Now there is development completely encircling the airport, which prevents further expansion.

The opportunity that Palmdale offers is that a whole new facility can be built, and there can be a buffer around it. And the ring road that they are proposing around L.A.X. would be well-suited to be around Palmdale airport as a barrier road to prevent further encroachment around the airport. So when they want to expand in the future, they can do so in the future without being too disturbing to the neighbors because they already staked out enough land to have enough of a cushion between the airport facility and the surrounding community.

Another point is that all of the major cities of the world -- like London and Paris and Tokyo and New York and Chicago -- all have more than one major airport -- in some cases, more than one international airport. And why not Los Angeles? The city of Los Angeles is really in the driver's seat for resolving these -- this current air capacity crises that we're having. And they can't rely on El Toro and they can't rely on other airports. They don't control -- they can rely on the airports that they do have and that they can build up because then it can be completed.

With regard to Palmdale, also there is a population base there to support the airport. A number of companies that need to fly their employees to Seattle and the Bay area, Las Vegas, Phoenix, Washington, D.C., New York, Chicago, Dayton, and that was all published in a report that the Los Angeles County Board of Supervisors had paid for just last month.

I am fully opposed to the expansion efforts as proposed, and I fully support a regional solution to meeting Southern California's airport capacity needs.

Response:

Comment noted. Please see Topical Response TR-RC-1 regarding the LAX Master Plan role in the regional approach to meeting demand, Topical Response TR-RC-3 regarding high-speed rail as a solution to airport capacity and demand, and Topical Response TR-RC-5 regarding transferring LAX operations to Palmdale. It should be noted that Alternative D has been added to provide a build alternative designed to serve a level of future (2015) airport activity comparable to that of the No Action/No Project Alternative.

PC03614 Fisher, Arlene None Provided 4/4/2001

PC03614-1

Comment:

Arlene Fisher, 7030 Vista Del Mar Lane, Playa Del Rey, 90293.

Questions, comments, both together. My question is they at one point said that the capacity that had been reached was 68 million, I believe, then they are bandying about a number of 78 million about a year later. Which is it? And of course, if they actually, quote, hold things to any of those numbers, are they really going to be holding things? Years past, back in John Wayne, they exceeded beyond the capacity, but that was okay. They just allowed that to happen. Where do we know for sure that they are not going to do that? In other words, who is going to show up in court with their toothbrush ready to go to jail when this -- when that does occur, if it does occur?

Response:

Please see Topical Response TR-GEN-3 regarding actual versus projected activity levels.

PC03614-2

Comment:

My other, I guess, comment would be to say we are -- I am for a regional solution. My husband, who is not here, is for a regional solution. Every neighbor that I have spoken to is for a regional solution. I would hope that all this information gets to every political person around that is involved with this to know that at least I do not plan on voting for anyone that says that they are for the expansion of the airport. Soboroff, I don't believe you.

Let's make this a regional solution for real: Palmdale, Ontario, John Wayne, El Toro, and anything else I've left out.

Response:

Comment noted. Please see Topical Response TR-RC-1 regarding the LAX Master Plan role in the regional approach to meeting demand, Topical Response TR-RC-4 regarding Orange County air transportation demand, and Topical Response TR-RC-5 regarding transferring LAX operations to Palmdale. It should be noted that Alternative D has been added to provide a build alternative designed to serve a level of future (2015) airport activity comparable to that of the No Action/No Project Alternative.

PC03615 Weiss, Barry None Provided 4/4/2001

PC03615-1

Comment:

Okay. I'm Barry Weiss at 241 Rees, R-E-E-S, Street, Playa Del Rey, 90293.

I was concerned about reports I'd heard of about documents being drafted that would allow the Westchester Square to be declared public facility land, and another document -- which Ruth says is not true -- that would allow airport use of that land. So that -- and what Mark Stevens was saying at this meeting a few weeks ago was that they intend to take Westchester Square, and then the values of adjacent property will go down. They will condemn those and take those at reduced prices and work the airport expansion, which is what I think they intend to do all the way out to 405.

Response:

Comment noted. Please see Subtopical Response TR-MP-3.6 regarding changes to General Plan and zoning designations of Manchester Square related to the LAX Master Plan alternatives. In addition, please see Topical Response TR-ES-1 regarding impacts to residential property values.

PC03615-2

Comment:

Now, the big factor is in none of the studies that I've seen do they show an environmental impact report that takes into account, let's say, traffic congestion and ties it together. Because there is the airport expansion, there is Playa Vista, there is the -- what they are going to do with the Ballona Wetlands, which hopefully will attract people for recreational use and not as big a draw for traffic congestion.

And there is also the expansion that is going on in the Marina with these large apartment complexes and a number of hotels that they are trying to arrange to get built that couldn't be built in the past because -- I know there was a fellow, I forgot his name, who went bankrupt holding land because he couldn't do anything with it and the costs were eating him up.

So when you add the impact of the traffic from just all of those, and of course the associated exhaust pollution, you have really a real untenable situation which needs to be addressed overall so that we don't look at just this part and just that part and say, well, it's not so bad and go willy-nilly ahead for profit reasons when we should be taking into account people's needs.

Response:

Surface transportation impacts, including cumulative traffic impacts, were addressed in Section 4.3, Surface Transportation, of the Draft EIS/EIR and Supplement to the Draft EIS/EIR, with supporting technical data and analyses provided in Technical Reports 2 and 3 of the Draft EIS/EIR and Technical Reports S-2a and S-2b of the Supplement to the Draft EIS/EIR. Air quality impacts including cumulative impacts were addressed in Section 4.6, Air Quality, of the Draft EIS/EIR and Supplement to the Draft EIS/EIR, with supporting technical data and analyses provided in Appendix G and Technical Report 4 of the Draft EIS/EIR and Appendix S-E and Technical Report S-4 of the Supplement to the Draft EIS/EIR. Please see Response to Comment AL00018-19 regarding the evaluation of cumulative impacts in the Draft EIS/EIR and the Supplement to the Draft EIS/EIR.

PC03616 Corliss, Eileen None Provided 4/4/2001

PC03616-1

Comment:

My name is Eileen Corliss. I live at 6931 West 85th Street, 90045.

And I am concerned that we just considered tonight one environmental impact report and not the seven that are currently impinging on one small four-mile geographic area. We have environmental impacts for the Howard Hughes Spectrum, the Vista Del Mar, the new marina, Playa Vista, L.A.X., and for the Culver Boulevard-Lincoln expansion. We cannot tolerate any more expansion in our neighborhood. Because we are the last piece of coastal available space does not give them the right to build every last inch.

Limiting the number of individuals that can land at L.A.X. is only part of the problem, because there are other roadway extensions that we need to consider such as the Culver Boulevard-Lincoln expansion. It is unconscionable to me that in the next five to ten years we're going to increase not only our passenger traffic to L.A.X., but we're going to add to that 29,000 new residents, 2 million square feet of office space, 13,000 condominiums and mixed retail office use space -- all of that concrete built on a sand-silt base.

I cannot in good conscience say that we need any more development in Westchester other than improving what we currently have. That means no L.A.X. expansion, no Playa Vista, no Vista Del Mar, no new marina.

Response:

Comment noted. Please see Response to Comment AL00018-19 regarding the evaluation of cumulative impacts in the Draft EIS/EIR and Supplement to the Draft EIS/EIR. It should be noted that Alternative D has been added to provide a build alternative designed to serve a level of future (2015) airport activity comparable to that of the No Action/No Project Alternative.

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Appendix
LAX Master Plan Addendum to the Final EIR

AD-B. Errata to the Final EIR

August 2004

Table of Contents

Attachments

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INTRODUCTION

As a result of clarifications to, and comments received on, the LAX Master Plan Draft EIS/EIR, Supplement to the Draft EIS/EIR, and Final EIR, revisions have been made to the text, figures, appendices, and technical reports associated with the Final EIR. A compilation of the revisions to all text, appendices, and technical reports is provided below. Changes in text are signified by strikeouts where text is removed and by italics where text is added.

Revisions to Final EIR Text

Executive Summary

1. The first full paragraph, fourth sentence, on page ES-35 is revised as follows:

> The location-specific mitigation measures *and Master Plan commitments* include added traffic lanes, provisions for turn lanes, street widening and other improvements *(including landscaping and signage),* as well as modified timings for traffic signals.

2 The second paragraph, fourth sentence, on page ES-36 is revised as follows:

> The location-specific mitigation measures *and Master Plan commitments* include street widening and/or restriping to accommodate additional traffic lanes, *other landscaping and signage improvements*, traffic signal equipment upgrades, traffic signal phasing improvements, and transit enhancements.

3. The second paragraph, on page ES-39 is revised as follows:

> Alternative D would necessitate the acquisition of approximately 7~~7~~*8* acres of light industrial, air freight, office, and retail uses occupied by a total of 3~~8~~*4* businesses, most of which could be accommodated either on the airport or in airport-owned developments, including LAX Northside. The effects of acquisition activities on affected businesses would be less than significant, with the exception of impacts on air freight uses. With implementation of the proposed mitigation measures, however, impacts on air freight businesses would be reduced to less than significant levels. Impacts relative to acquisition-related employment, annual property taxes, and business tax revenues would also be less than significant. Proposed mitigation would reduce cumulative impacts affecting industrial uses, including air freight businesses, to a less than significant level under Alternative D.

4. Table ES-12, on page ES-40 is revised as follows:

Impact Comparison ES-12

Acquisition and Relocation Overview Comparing the Alternatives

	A	B	C	D
Acres of Land	273	345	216	~~77~~*78*
Businesses	330	323	239	~~58~~*34*
Developed Business Space (square feet)	5,164,540	6,468,930	2,850,123	~~605,913~~*630,813*
Hotel Rooms	1,929	2,083	729	154
Jobs to be Relocated	9,568	11,272	3,681	~~5,907~~*657*[1]
Dwelling units	84	84	84	0
% Increase Over Existing Residential Noise Mitigation Acquisition	3.27%	3.27%	3.27%	0%
Residents to be Relocated	172	172	172	0

Note: Based on preliminary engineering plans for the LAX Expressway and improvements to State Route 1, it is possible that additional land acquisition may occur under Alternatives A, B, and C. The environmental consequences of these proposed transportation improvements are discussed in Appendix K, *Supplemental Environmental Evaluation for LAX Expressway and State Route Improvements*. Under Alternative D, approval and implementation of Mitigation Measure MM-ST-13 could necessitate the acquisition of 9 to 12 residences.

[1] *This figure has been revised since publication of the Final EIR to correct a typographical error (5,907 jobs is actually 597 jobs) and to include jobs that would be relocated associated with the additional office and air freight use square footage that would be potentially acquired under Alternative D as discussed in the Addendum to the Final EIR.*

5. The first paragraph, under the heading Environmental Justice, on page ES-40 and continuing onto page ES-41 is revised as follows:

> "Environmental Justice" refers to the concept that minority or low-income populations should not be disproportionately exposed to environmental impacts. To prevent this outcome, federal Executive Order 12898 directs each federal agency "*to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.*" In addition, the State of California enacted legislation establishing environmental justice as an aspect of state law. Although there is no requirement or specific guidance for addressing environmental justice under CEQA, the analysis provided in this Final ~~EIS/~~EIR has been prepared in recognition of applicable state law and the principles of environmental justice. It should be noted that conclusions summarized herein regarding environmental justice impacts and recommended mitigation measures and ~~benefits~~*Master Plan commitments* have been determined by the City of Los Angeles for purposes of the Final EIR to be used in the City's decision-making process. The Final EIS to be approved by the FAA subsequent to completion of the City's decision-making process will present the environmental justice conclusions reached by the FAA~~, in accordance with the requirements of NEPA and other~~ *under* federal law~~s~~.

6. The paragraph with the subheading of Key Conclusions, on page ES-41 is revised as follows:

> **Key Conclusions:** The findings of the environmental justice analysis are based on detailed analysis available in relevant sections of the Draft EIS/EIR and Supplement to the Draft EIS/EIR. From those sections, the significant environmental impacts and recommended mitigation measures associated with the CEQA analysis ~~and the adverse impacts identified in the NEPA evaluation~~ are re-evaluated for purposes of environmental justice, to determine if they disproportionately affect minority and low-income communities.

7. The first paragraph, on page ES-42 is revised as follows:

> Surface Transportation - Surface transportation impacts do not appear to disproportionately fall on minority and low-income populations under Alternatives A, B, C, or D. However, LAWA will take into consideration the special needs of minority and low-income individuals who rely heavily on public transportation in implementing traffic mitigation measures *and Master Plan commitments*. Project design features and air quality and traffic mitigation measures that enhance the convenience and affordability of public transportation to encourage decreased use of private automobiles could also benefit minority and low-income individuals who rely on public transportation.

8. The fourth paragraph, on page ES-42 and continuing onto page ES-43 is revised as follows:

> All potential mitigation measures recommended during the environmental justice community outreach process conducted in association with the Draft EIS/EIR and Supplement to the Draft EIS/EIR were reviewed and consolidated into a list of recommendations that was instrumental in defining the ~~benefit~~ *Master Plan commitments* and mitigation proposals presented in ~~this~~ *the* Final ~~EIS/~~EIR that will be used in the City of Los Angeles' decision-making process on the project.
>
> The Environmental Justice Program includes mitigation measures and ~~certain benefits~~ *Master Plan commitments* tailored to meet the specific needs of low-income and minority communities, as defined through the public involvement program.
>
> In addition to the mitigation measures *and Master Plan commitments* outlined in ~~this~~*the* Final ~~EIS/~~EIR that address noise, land use, air quality, air toxics, *surface transportation* and relocation impacts, ~~benefits~~*Master Plan commitments* are also proposed to address environmental justice concerns. These ~~benefits~~ *Master Plan commitments* are intended to go beyond the comprehensive ~~mitigation~~ measures provided throughout ~~this~~ *the* Final ~~EIS/~~EIR to reduce or offset disproportionately high and adverse effects on minority and low-income communities associated with the proposed LAX Master Plan *as identified through the CEQA analysis*, particularly those that would remain significant after implementation of mitigation measures. Although adoption of the these programs may be influenced by funding constraints, such as legal limitations placed on the use of airport revenue, LAWA will investigate, pursue, and implement environmental justice *related Master Plan commitments* ~~benefits~~ as feasible and allowable by law. The programs proposed for implementation include the following:
>
> - Expand existing programs at the Jobs Outreach Center including, but not limited to the following:
>   - ~~DBE Loan Assistance Program to provide assistance to DBEs in identifying a wide range of available commercial and governmental loans and contacts for securing loans.~~
>   - ~~Construction Job Placement to provide assistance to local residents and/or DBEs to find construction-related jobs resulting from the LAX Master Plan.~~
>   - ~~Small Business and Job Opportunities Program to match job, procurement, and vending opportunities arising from the LAX Master Plan with local applicants and DBEs.~~
>   - *Construction and Other LAX-Related Job Outreach to provided assistance to historically underrepresented and at-risk local residents to train for and find construction and other jobs with LAWA and surrounding airport-related businesses.*
>   - *Community Job Database to provide data gathering, outreach, and counseling focused on matching potential jobs and specialties needed per Master Plan phase, with the capabilities of the local workforce and MBE/DBE firms.*

- *MBE/DBE Business Outreach to implement measures, such as good faith effort outreach training and encouraging the use of MBE/DBE local subcontractors, to ensure meaningful contract participation of local and MBE/DBE firms.*
- *Small Business Outreach to establish measures, loan assistance and training/apprenticeship programs, to ensure meaningful contract participation of small businesses.*

- Expand Gateway LAX Improvements/Greening of Impacted Communities to the east *through transportation improvements* along Century Boulevard through the City of Inglewood.
- Aviation Curriculum to provide education to local *elementary school, middle school,* high school*, and college* students in low-income and minority communities near LAX with regard to aviation-related topics.
- Aviation Academy to provide ~~an~~*comprehensive* educational *and trade training for aviation-related careers, targeting students in the affected communities to provide them with increased career opportunities.*~~facility at LAX or on LAWA property for high school or college age students interested in pursuing careers in the aviation industry~~.
- ~~Nature Center to provide an environment for conducting research and educating the public about the coastal dune habitat, the endangered El Segundo blue butterfly, and local plant and animal species.~~
- Air ~~Toxics~~ *Quality Source Apportionment* Study to ~~monitor runway emissions and compare such emissions with levels determined to be present in local neighborhoods~~ *evaluate the contribution of on-airport aircraft emissions to off-airport air pollutant concentrations*.
- ~~Health Risk Assessments to compare collected data from the Air Toxics Study against existing toxics data from SCAQMD in order to calculate theoretical excess cancer cases as well as other chronic diseases and/or ailments near LAX.~~
- School Air Filters ~~may be required~~*funding will be provided* at *qualifying* ~~existing~~ *public* schools ~~and public buildings~~ *with air conditioning systems in place, based on the conclusions of the Air Quality Source Apportionment Study.* ~~in the immediate vicinity of LAX.~~
- Mobile Health ~~Clinic~~ *Research Lab* to ~~ensure that residents in the communities surrounding LAX have access to proper health care~~ *research and study upper respiratory and hearing impacts that may be directly related to the operation of LAX*.
- Community Mitigation Monitoring through ~~an Agency/Community cooperative~~*community participation* to ensure agency compliance~~,~~ *and* accountability~~, and community involvement~~ in implementation of ~~all~~ *the* final Mitigation Measures *and* Master Plan Commitments ~~and Benefits~~.

9. The following is added before the first full paragraph, on page ES-44:

   LAWA has proposed Master Plan commitments that would also provide for an air quality source apportionment study, school air filters, and a mobile health research lab as determined feasible and allowable by law.

10. The first full paragraph, first sentence, on page ES-44 is revised as follows:

    In addition to the design features associated with the Master Plan *and Master Plan commitments*, LAWA has prepared an extensive list of mitigation measure components that it proposes to implement.

11. Items 1 through 4 under the heading 4.3.2, Off-Airport, in Table ES-3 on page ES-69 are revised as shown on the following page.

12. Item 1 under the heading 4.4.3, Environmental Justice, in Table ES-3 on page ES-70 is revised as shown on the following page.

Table ES-3
Summary Comparison of Environmental Impacts from Alternatives A, B, C, and D and CEQA Conclusions Regarding Significance

Impacts by Discipline[1]	Alternative A - Added Runway North			Alternative B - Added Runway South			Alternative C - No Additional Runway			Alternative D - Enhanced Safety and Security Plan		
	Master Plan Commitments	Mitigation Measures	Level of Significance After Mitigation	Master Plan Commitments	Mitigation Measures	Level of Significance After Mitigation	Master Plan Commitments	Mitigation Measures	Level of Significance After Mitigation	Master Plan Commitments	Mitigation Measures	Level of Significance After Mitigation
4.3 Surface Transportation												
4.3.2 Off-Airport												
1. Vehicle demand through various street links would change.	~~None applicable.~~ *ST-23. Expanded Gateway LAX Improvements/ Greening of Impacted Communities.*	**MM-ST-4 through MM-ST-10** Street and Intersection Improvements.	**Less than significant with mitigation.**	~~None applicable.~~ *ST-23. Expanded Gateway LAX Improvements/ Greening of Impacted Communities.*	**MM-ST-4 through MM-ST-11** Street and Intersection Improvements.	**Less than significant with mitigation.**	~~None applicable~~. *ST-23. Expanded Gateway LAX Improvements/ Greening of Impacted Communities.*	**MM-ST-4 through MM-ST-10** Street and Intersection Improvements.	**Less than significant with mitigation.**	~~None applicable.~~ *ST-23. Expanded Gateway LAX Improvements/ Greening of Impacted Communities.ST-24. Fair-Share Contribution to CMP Improvements.*[4]	**MM-ST-6 through MM-ST-8, MM-ST-10, MM-ST-12, MM-ST-13, MM-ST-15, and MM-ST-16.** Street, ~~and~~ Intersection*, and Freeway* Improvements.	**Less than significant with mitigation.**
2. Change in demand through various intersections.	None applicable.	**MM-ST-4 through MM-ST-10** Street and Intersection Improvements.	**Significant and unavoidable.**	None applicable.	**MM-ST-4 through MM-ST-11** Street and Intersection Improvements.	**Significant and unavoidable.**	None applicable.	**MM-ST-4 through MM-ST-10** Street and Intersection Improvements.	**Significant and unavoidable.**	None applicable.	**MM-ST-6 through MM-ST-8, MM-ST-10, MM-ST-12, MM-ST-13, MM-ST-15, and MM-ST-16.** Street, and Intersection*, and Freeway* Improvements.	**Significant and unavoidable.**
3. Change in vehicle demand through various freeway segments.	None applicable.	None required.[4]	**Less than significant.**	None applicable.	None required.[4]	**Less than significant.**	None applicable.	None required.[4]	**Less than significant.**	None applicable.[4]	**~~MM-ST-6 through MM-ST-8, MM-ST-10,~~ MM-ST-12, MM-ST-13, ~~MM-ST-15, and MM-ST-16.~~** ~~Street and Intersection~~ *Freeway* Improvements.	**Less than significant.**
4. Change in demand on various freeway ramps.	None applicable.	None required.[4]	**Less than significant.**	None applicable.	None required.[4]	**Less than significant.**	None applicable.	None required.[4]	**Less than significant.**	None applicable.[4]	**~~MM-ST-6 through MM-ST-8, MM-ST-10,~~ MM-ST-12, MM-ST-13, ~~MM-ST-15, and MM-ST-16.~~** ~~Street and Intersection~~ *Freeway* Improvements.	**Less than significant.**

Table ES-3
Summary Comparison of Environmental Impacts from Alternatives A, B, C, and D and CEQA Conclusions Regarding Significance

Impacts by Discipline[1]	Alternative A - Added Runway North			Alternative B - Added Runway South			Alternative C - No Additional Runway			Alternative D - Enhanced Safety and Security Plan		
	Master Plan Commitments	**Mitigation Measures**	**Level of Significance After Mitigation**	**Master Plan Commitments**	**Mitigation Measures**	**Level of Significance After Mitigation**	**Master Plan Commitments**	**Mitigation Measures**	**Level of Significance After Mitigation**	**Master Plan Commitments**	**Mitigation Measures**	**Level of Significance After Mitigation**
4.4 Social Impacts												
4.4.3 *Environmental Justice*												
1. Disproportionately high and significant adverse human health and environmental impacts on minority and low-income communities due to aircraft noise. Potential disproportionate*ly high and adverse* impacts associated with air quality and health effects. *Although no significant employment impacts on minority and/or low-income communities have been identified, educational and job-related Master Plan commitments would help ensure that such communities are not denied access to benefits flowing from the LAX Master Plan. Additionally, provisions for roadway improvements, special landscaping, and street signage within such communities are proposed as a Master plan commitment in light of traffic-related impacts in those communities; notwithstanding that such impacts would not be disproportionally high and adverse*.	***EJ-1.*** *Aviation Curriculum.* ***EJ-2****. Aviation Academy.* ***EJ-3.*** *Job Outreach Center.* ***EJ-4.*** *Community Mitigation Monitoring.* **RBR-1.** Residential and Business Relocation Program. ***AQ-1.*** *Air Quality Source Apportionment Study.* ***AQ-2.*** *School Air Filters.* ***AQ-3.*** *Mobile Health Research Lab.* ***ST-23****. Expanded Gateway LAX Improvements/ Greening of Impacted Communities.*	See Sections 4.1.8, 4.2.8, 4.4.8 and 4.6.8.	**Disproportionately High and Adverse Significant and Unavoidable.**	***EJ-1.*** *Aviation Curriculum.* ***EJ-2****. Aviation Academy.* ***EJ-3.*** *Job Outreach Center.* ***EJ-4.*** *Community Mitigation Monitoring.* **RBR-1.** Residential and Business Relocation Program. ***AQ-1.*** *Air Quality Source Apportionment Study.* ***AQ-2.*** *School Air Filters.* ***AQ-3.*** *Mobile Health Research Lab.* ***ST-23****. Expanded Gateway LAX Improvements/ Greening of Impacted Communities.*	See Sections 4.1.8, 4.2.8, 4.4.8, and 4.6.8.	**Disproportionately High and Adverse Significant and Unavoidable.**	***EJ-1.*** *Aviation Curriculum.* ***EJ-2****. Aviation Academy.* ***EJ-3.*** *Job Outreach Center.* ***EJ-4.*** *Community Mitigation Monitoring.* **RBR-1**. Residential and Business Relocation Program. ***AQ-1.*** *Air Quality Source Apportionment Study.* ***AQ-2.*** *School Air Filters.* ***AQ-3****. Mobile Health Research Lab.* ***ST-23.*** *Expanded Gateway LAX Improvements/ Greening of Impacted Communities.*	See Sections 4.1.8, 4.2.8, 4.4.8, and 4.6.8.	**Disproportionately High and Adverse Significant and Unavoidable.**	***EJ-1.*** *Aviation Curriculum.* ***EJ-2****. Aviation Academy.* ***EJ-3.*** *Job Outreach Center.* ***EJ-4.*** *Community Mitigation Monitoring.* **RBR-1**. Residential and Business Relocation Program. ***AQ-1.*** *Air Quality Source Apportionment Study.* ***AQ-2.*** *School Air Filters.* ***AQ-3****. Mobile Health Research Lab.* ***ST-23****. Expanded Gateway LAX Improvements/ Greening of Impacted Communities.*	See Sections 4.1.8, 4.2.8, 4.4.8 and 4.6.8.	**Disproportionately High and Adverse Significant and Unavoidable.**
4.6 Air Quality												
3. Changes in airport operational activity and construction-related activities, combined, would affect ambient air quality pollutant concentrations.	~~None applicable.~~ ***AQ-1.*** *Air Quality Source Apportionment Study.* ***AQ-2.*** *School Air Filters.* ***AQ-3.*** *Mobile Health Research Lab.*	**MM-AQ-1.** LAX Master Plan-Mitigation Plan for Air Quality. **MM-AQ-2.** Construction-Related Measure. **MM-AQ-4.** Operations-Related Measure.	**Significant and unavoidable.**	~~None applicable.~~ ***AQ-1.*** *Air Quality Source Apportionment Study.* ***AQ-2.*** *School Air Filters.* ***AQ-3.*** *Mobile Health Research Lab.*	**MM-AQ-1.** LAX Master Plan-Mitigation Plan for Air Quality. **MM-AQ-2.** Construction-Related Measure. **MM-AQ-4.** Operations-Related Measure.	**Significant and unavoidable.**	~~None applicable.~~***AQ-1.*** *Air Quality Source Apportionment Study.* ***AQ-2.*** *School Air Filters.* ***AQ-3****. Mobile Health Research Lab.*	**MM-AQ-1.** LAX Master Plan-Mitigation Plan for Air Quality. **MM-AQ-2.** Construction-Related Measure. **MM-AQ-4.** Operations-Related Measure.	**Significant and unavoidable.**	~~None applicable.~~ ***AQ-1.*** *Air Quality Source Apportionment Study.* ***AQ-2.*** *School Air Filters.* ***AQ-3.*** *Mobile Health Research Lab.*	**MM-AQ-1.** LAX Master Plan-Mitigation Plan for Air Quality. **MM-AQ-2.** Construction-Related Measure. **MM-AQ-4.** Operations-Related Measure.	**Significant and unavoidable.**

[1] See Appendix K for additional details regarding the significance summary of the LAX Expressway and State Route 1 Improvements.
[2] An increase of 3.0 CNEL within the 60-65 CNEL contour does not imply that there is a significant impact under federal or state definitions. The FAA will use this information during its consideration of potential mitigation.
[3] As described in Section 4.4.1, *Employment/Socio Economics* (subsection 4.4.1.4.1), "economic or social effects shall not be treated as significant effects on the environment" under CEQA.
[4] Based on the CMP analyses contained in Technical Reports 3b and S-2b, the application of CMP "credits" would serve to mitigate impacts to freeway segments and ramps. As such, no additional mitigation would be required. *Nevertheless, under Alternative D, LAWA would make a fair-share contribution to CMP improvements per Master Plan Commitment ST-24.*
[5] Compliance with existing laws, regulations, codes, and policies will serve to reduce or avoid potential impacts.
[6] Implementation of the mitigation measure proposed to address this potential cumulative impact is the responsibility of another agency (or agencies). If the mitigation measure is not fully implemented, cumulative impacts could remain significant.

Note: "--" designates that the impact is not relevant to the particular alternative.

13. Item 3 in Table ES-3 at top of page ES-72 is revised as shown on the following page.

14. Footnote 4 in Table ES-3 on page ES-89 is revised as follows:

> Based on the CMP analyses contained in Technical Reports 3b and S-2b, the application of CMP "credits" would serve to mitigate impacts to freeway segments and ramps. As such, no additional mitigation would be required. *Nevertheless, under Alternative D, LAWA would make a fair-share contribution to CMP improvements per Master Plan Commitment ST-24.*

Chapter 2, Purpose and Need for the Proposed Action

1. The first paragraph under the heading Consequences of Not Improving LAX, on page 2-8 is revised as follows:

> As referred to in Chapter 1, *Regional Context*, and detailed in Chapter I of the Draft LAX Master Plan, a consequence of not improving LAX would be the loss of potential air service and the resulting economic benefits to other regions in the nation. ~~Section 4.4.1, *Employment/Socio-Economics*, indicates that the difference between fully improving LAX and not improving LAX would be the annual loss to the Los Angeles region of $20 billion in economic activity and 98,000 jobs.~~ Detailed accounting of the economic impacts is contained in Section 4.4.1, *Employment/Socio-Economics*.

Section 4.2, Land Use

1. The second paragraph under the subheading Changes to General Plan and Zoning, on page 4-295 is revised as follows:

> A proposed land use plan for Alternative D has been prepared to replace some of the land uses previously designated in the Interim Plan. These land uses are shown on **Figure F4.2-27**, Alternative D 2015 - LAX Plan Proposed Land Use. Land use designations contemplated in conjunction with the LAX Plan include Airport Airside, Airport Landside, Airport Buffer (LAX Northside), Open Space, Medium *Residential* ~~Multiple Family~~, and Regional Center Commercial. The latter three of these designations (i.e., Open Space, Medium *Residential* ~~Multiple Family~~, and Regional Center Commercial) are existing land use designations that, with approval of the proposed LAX Plan, would not change. These land use designations are as described under Alternative A, with the following exceptions. The Airport Landside designation would include the GTC, APM, and ITC facilities. *The Airport Airside designation would include the Imperial Terminal Area. However, within the Imperial Terminal Area aircraft under power and helicopter operations would be prohibited.* Under Alternative D, the southwest boundary of the Airport Buffer Area extends just south of Westchester Parkway. The Airport Buffer Area is similar to the boundaries shown for the Airport Buffer designation in the Interim Plan and coincides with the boundaries of LAX Northside. The Airport Buffer Area would include features of the LAX Northside project to impose use restrictions, limit building height, and provide landscaped setback requirements.

2. The second full paragraph under the subheading Changes to General Plan and Zoning, on page 4-296 is revised as follows:

> Alternative D also includes the existing land use designations of Medium *Residential* ~~Multiple Family~~ and Regional Center Commercial for the Belford area, as described below. Although this area is contemplated for removal from the Westchester - Playa del Rey Community Plan boundaries, no change is proposed to the land use designations, and no development is proposed for Belford under this alternative. Therefore this area is designated as a Special Study Area and further evaluation would be required prior to development.
>
> - **Medium *Residential* ~~Multiple Family~~.** The *Medium Residential* ~~medium Multiple Family~~ use allows multi-family dwelling units at 30-55 dwelling units per net acre, and supporting uses.

- **Regional Center Commercial.** The Regional Center Commercial use allows offices, retail (including shopping malls), professional services, restaurants, and mixed use facilities (including multi-family residential).

3. Figure F4.2-27, Alternative D 2015 LAX Plan Proposed Land Use, on pages 4-297 and 4-298 of the Final EIR has been revised. Please see the following revised figure.

Section 4.3.2, Off-Airport Surface Transportation

1. MM-ST-13, on page 4-501 is revised as follows:

- **MM-ST-13. Create A New Interchange at I-405 and Lennox Boulevard (Alternative D).**

This interchange shall provide grade-separated ramps from I-405 directly into airport property, and vice-versa. It shall be located approximately mid-way between Century Boulevard and Imperial Highway. A feasibility study is underway to determine the best design for the interchange. *Should this proposed interchange not be constructed, suitable and alternate traffic mitigation measures shall be designed and implemented to the satisfaction of LADOT and the Bureau of Engineering.*

This interchange will likely cause both visual and road noise impacts, and will require the relocation of several residential and commercial properties, as discussed in subsection 4.3.2.9, *Environmental Impacts of Off-Airport Surface Transportation Mitigation Measures (Alternative D),* below.

2. The following is added after the first full paragraph, on page 4-427:

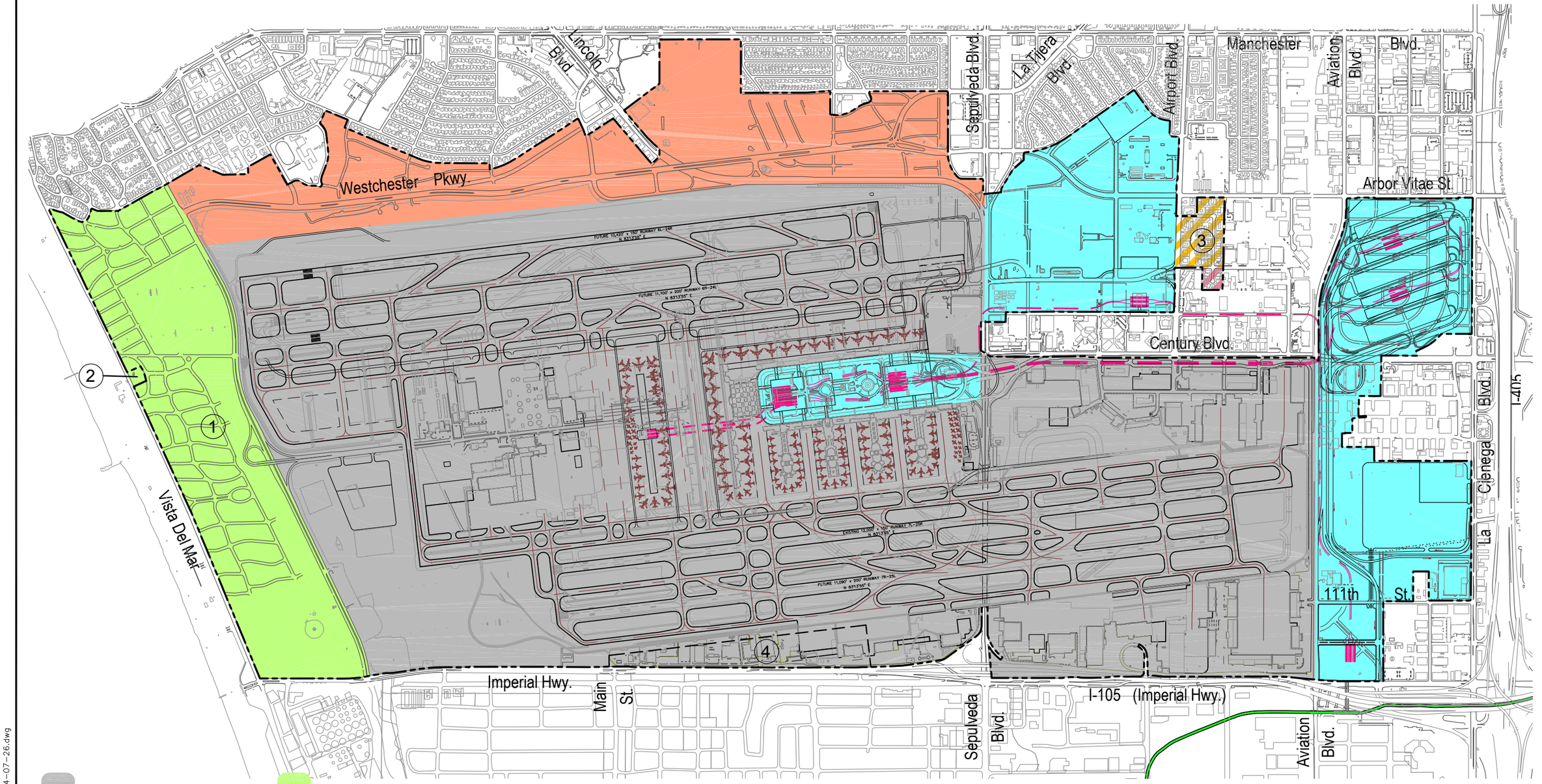
- ***ST-23. Expanded Gateway LAX Improvements/Greening of Impacted Communities (Alternatives A, B, C, and D).***

Gateway LAX improvements will be enabled through transportation improvements along Century Boulevard to the east as they are proposed to extend into low-income and minority communities in the City of Inglewood. LAWA anticipates making financial contribution, on a fair-share basis up to a maximum of 10 million dollars, to various off-airport surface transportation related components which may include:

- *Roadway* Improvements - *Construct roadway improvements on streets heavily trafficked for LAX.*
- *Special Landscaping - Extend the Century Boulevard Traffic Corridor Mitigation Program and LAX Beautification Enhancements Program to include landscaping requirements along Century Boulevard in the City of Inglewood.*
- *Street Signage - Install aesthetically pleasing, branding signage and wayfinding in impacted communities to improve airport-related circulation and to help direct airport users to services in those areas.*

- ***ST-24. Fair-Share Contribution to CMP Improvements (Alternative D).***

At the time of substantial completion of the LAX Master Plan, LAWA will contribute funding on a fair-share basis to future transportation improvements identified through the Congestion Management Plan (CMP) analysis completed for Alternative D. Potential future improvements are identified below.



Land Use: Airport Airside

Land Use: Airport Landside

Land Use: Airport Buffer

Land Use: Open Space (Existing) *

Land Use: Medium Residential (Existing) *
No Proposed Development

Land Use: Regional Center Commercial (Existing) *
No Proposed Development

* Existing Land Use to Remain

Airport Property Boundary Line

Existing Light Rail Transit

Proposed People Mover

1. Los Angeles Airport/El Segundo Dunes Specific Plan
2. Vista del Mar Park (Not Under LAWA Ownership)
3. Special Study Area
4. Imperial Terminal Area

400' 800' 2,400'
800' 0 1,600'

Prepared by: Psomas, February 2004

DWG: p1-Prop_LU-alt-d_2004-07-26.dwg

LAX Master Plan Final EIS/EIR

Alternative D 2015
LAX Plan Proposed Land Use

Figure
F4.2-27

Jurisdiction	Impacted Facility	Potential Future Improvement	Estimate of LAWA's Fair-Share Contribution
Manhattan Beach	*Sepulveda, Marine to Manhattan Beach Bl.*	*Signal Synchronization*	*$12,400*
	Sepulveda, Manhattan Beach Bl. to Artesia	*Signal Synchronization*	*$33,200*
Culver City	*Venice, I-405 to Overland*	*Signal Synchronization*	*$26,550*
Los Angeles	*La Cienega, Fairfax to Jefferson*	*Contribution to Transit*	*$10,950*
	La Cienega, Jefferson to Rodeo	*Contribution to Transit*	*$28,500*
	Manchester, Sepulveda to La Tijera	*Contribution to Transit*	*$6,900*
LA County	*La Cienega, Rodeo to Stocker*	*Signal Synchronization*	*$125,650*
	La Cienega, Stocker to Slauson	*Signal Synchronization*	*$31,400*
Inglewood	*La Cienega, Slauson to Centinela*	*Signal Synchronization*	*$87,000*
Caltrans	*I-405 at Santa Fe Ave.*	*Future Freeway Improvements*	*$308,000*
	I-405 s/o I-110 at Carson Scales	*Future Freeway Improvements*	*$670,000*
	I-405 n/o Inglewood Ave.	*Future Freeway Improvements*	*$4,050,000*

LAWA's financial contribution will be based upon, and coordinated with, traffic impacts attributable to implementation of the LAX Master Plan, and will occur at the time the individual future improvements at the locations listed above are implemented, subject to federal approval regarding airport revenue diversion.

Section 4.4.2, Relocation of Residences or Businesses

The following revisions reflect changes to the office and air freight use square footage figures that would be potentially acquired under Alternative D, as discussed in the Addendum to the Final EIR, as well as associated changes in employment figures under Alternative D.

1. The fifth paragraph, on page 4-554 is revised as follows:

A complete description of the project features associated with Alternative D is provided in Chapter 3, *Alternatives*. The features of Alternative D that are relevant to the analysis of relocation of residences or businesses are summarized herein. Under Alternative D, approximately 7~~7~~*8* acres of land to the north and east of the airport would be acquired to accommodate new airfield, ground transportation, passenger processing, rental car, people mover, parking, and ancillary facilities, and to meet minimum safety requirements. The acquisition area represents a decrease of 19~~6~~*5* acres relative to Alternative A, 26~~8~~*7* acres compared to Alternative B, and 13~~9~~*8* acres in relation to Alternative C. The acquisition area includes 3~~8~~*4* businesses and no residential units. All properties are located in the City of Los Angeles. Summary statistics are provided below in **Table F4.4.2-18**, Alternative D Land Acquisition Summary Statistics. The acquisition area itself is shown in Chapter 3, *Alternatives*, on Figure F3-19, 2015 Alternative D Proposed Property Acquisition Areas, and described in Table F3-2, Summary of Facilities by Alternative - 2015.

2. Table F4.4.2-18, on page 4-555 is revised as follows:

Table F4.4.2-18

Alternative D Land Acquisition Summary Statistics

Land Use[1]	Total Businesses	Acres	Square Feet (Developed)	Dwelling Units	Population
Light Industrial	6	15.49	96,901		
Air Freight	~~4~~*5*	~~9.88~~*10.84*	~~146,867~~*166,893*		
Office	~~1~~*8*~~9~~*9*	41.64	~~240,607~~*245,481*		
Retail	~~1~~*0*~~1~~*4*	7.73	121,538		
Residential					
Single-Family		0	0	0	0
Multi-Family		0	0	0	0
Right-of-Way/Other[2]		2.12			
Total	~~3~~*8*~~3~~*4*	~~76.86~~*77.82*	~~605,913~~*630,813*	0	0

[1] Reflects parcel data updated as of ~~October 2002~~*February 2004*.
[2] Includes properties indicated as vacant, public service, building frontage, and utilities.

Source: ~~Draft LAX Master Plan Addendum, Chapter 2, May 2003;~~ *LAX Master Plan Program Draft Relocation Plan, April 2004*.

3. The third paragraph, on page 4-555 and continuing onto page 4-556 is revised as follows:

> Alternative D would necessitate the acquisition of approximately 7~~7~~*8* acres of light industrial, air freight, office, and retail uses occupied by a total of 3~~8~~*4* businesses.[203] Acquisition activities are expected to occur during Phase I of the Master Plan. The ~~Preliminary~~ *LAX Master Plan Program Draft* Relocation Plan provides as many businesses as possible the opportunity to relocate onto the airport or into airport-owned developments. All RAC uses and remote parking lots proposed for acquisition would be accommodated on the airport. As a result, impacts on these businesses would be considered less than significant. A number of the other acquired uses would be able to relocate to the LAX Northside development or within surrounding communities within the City of Los Angeles.

203 The land acquisition data for Alternative D reflects parcel data updated as of *February 2004*~~October 2002~~. Any land use changes that have occurred since development of comparable data for Alternatives A, B, and C, as addressed in the Draft EIS/EIR, do not represent a material difference relative to the overall uses in the acquisition areas analyzed under all build alternatives.

4. The first full paragraph, on page 4-556 is revised as follows:

> As shown in **Table F4.4.2-19**, Alternative D On-Airport Relocation Opportunities in 2015, most of the acquired uses could be accommodated either on the airport or in airport-owned developments.[204] However, at the point at which acquisition would occur, sufficient relocation space would not yet be available for all of the displaced uses. As such, while specific businesses have been targeted to relocate to LAX Northside, a number of affected businesses are expected to be absorbed by the local market. A total of approximately *298,400*~~273,500~~ SF of office, retail, and light industrial uses are expected to be relocated within available space in the surrounding areas. Such uses could also potentially relocate to future development at LAX Northside upon buildout of that site. It should be noted that, in contrast to the other build alternatives, Alternative D would not involve acquisition within the Westchester Business District.

5. Table F4.4.2-19, on page 4-556 is revised as follows:

Table F4.4.2-19

Alternative D On-Airport Relocation Opportunities in 2015

	Acquired Properties[1]	On-Airport Relocation Opportunities[1,2]	Unaccommodated[1,3]
Office	~~240,607~~*245,481*	1,730,000	~~50,026~~*54,900*
Retail (non-hotel) [4]	57,943	130,000	8,129
Hotel	63,595	870,000	63,595
	(154 rooms)	(1,400 rooms)	(154 rooms)
Light Industrial [5]	96,901	1,290,000	4,865
Air Freight [6]	~~146,867~~*166,893*	750,000	~~146,867~~*166,893*

1 Floor Area (SF).
2 Includes proposed floor area at LAX Northside, the consolidated RAC facility, and other on-airport facilities.
3 Unaccommodated uses are targeted for relocation within space available in the local market. Although the on-airport relocation opportunities listed for 2015 may appear sufficient for acquired properties, the indicated uses could not be accommodated due to conflicts between the timing of acquisition activities and that associated with completion of new on-airport development.
4 Land use category referred to as Retail/Restaurant for the LAX Northside Development.
5 Land use category referred to as R/D Business Park for the LAX Northside Development.
6 Land use category referred to as Airport-Related for the LAX Northside Development.

Source: Draft LAX Master Plan Addendum, Chapter 2, May 2003~~.~~*; LAX Master Plan Program Draft Relocation Plan, April 2004*.

6. The second full paragraph, fist sentence, on page 4-556 is revised as follows:

> An estimated ~~50,000~~*54,900* SF of office space would not be accommodated on LAWA property, but could be easily absorbed into the nearly 3 million square feet (MSF) of office space that is available in the surrounding areas.

7. The first paragraph, on page 4-557 is revised as follows:

> An estimated ~~146,867~~*166,893* SF of air freight uses are targeted for relocation within the local market. Taking into account an anticipated 38 percent increase in efficiency associated with updated facilities, this existing floor area would be equivalent to ~~106,425~~*120,937* SF of new air freight processing space. As further described in

~~204 In addition to the 38 businesses located on property to be acquired, a number of businesses currently leasing property from LAWA would be affected by Master Plan implementation. Such businesses would be relocated to other airport property. Lease terminations began in January 2004 and will continue through January 2005, with "good faith" moving expenses paid by LAWA in excess of legally required relocation expenses.~~

subsection 4.4.2.3, *Affected Environmental/Environmental Baseline,* opportunities for relocation to off-airport industrial property in proximity to LAX is extremely limited for these uses, in part due to a lack of interest on the part of some jurisdictions to entitle freight/warehousing uses. Impacts on air freight operations would be significant.

8. The third paragraph, on page 4-557 is revised as follows:

While there is potential for a loss in jobs due to displacement of employees during the initial years of the Master Plan, newly created jobs in the first phase of the project would more than compensate for those lost due to property acquisition.[205, 206] **Table F4.4.2-20**, Alternative D Acquisition Area Estimate of Current Employment, and **Table F4.4.2-21**, Alternative D Acquisition Area Potential Loss of Employment (Phase I), use employment factors and square footage of land use type to estimate the number of jobs and the potential loss of jobs due to relocation. There are an estimated total of ~~1,671~~*1,731* jobs in the businesses to be acquired. Based on the floor area of uses not expected to be accommodated within airport developments, there is potential for a loss of ~~597~~*657* jobs if these businesses cannot find a suitable relocation site. For those jobs that would be displaced, it is not possible to accurately determine if they would be lost to the City of Los Angeles or the region. Overall, impacts would be less than significant.

9. Table F4.4.2-20, on page 4-557 is revised as follows:

Table F4.4.2-20

Alternative D Acquisition Area Estimate of Current Employment

	Floor Area (SF)	Employment Factor	Jobs
Office	~~240,607~~*245,481*	240	~~1,003~~*1,023*
Hotel (154 rooms)	63,595	890	71
Retail[1]	57,943	530	109
Light Industrial (incl. freight)	~~243,768~~*263,794*	500	~~488~~*528*
Total	***~~605,913~~630,813***		***~~1,671~~1,731***

[1] Assumes street front retail employment factor.

Source: Employment density factors from HR&A's Phase III Technical Memo (January 15, 1998).

[205] Similar to the No Action/No Project Alternative and Alternatives A, B, and C, Alternative D would support an estimated 424,968 jobs in the Los Angeles region in Phase I, compared to baseline (1996) employment of 407,670. Of the new jobs expected during Phase I, an estimated 1,156 jobs would be located on the airport. Refer to Technical Report 5, *Economic Impacts Technical Report,* and Technical Report S-3, *Supplemental Economic Impacts Technical Report*, for further discussion.

[206] Separate from any potential loss in acquisition-related employment, a net decrease in total jobs would occur under Alternative D over the entire planning period (2015) due to productivity increases in airport-related manufacturing sectors over time. Please refer to Section 4.4.1, *Employment/Socio-Economics* (subsection 4.4.1.6), for further discussion.

10. Table F4.4.2-21, on page 4-558 is revised as follows:

Table F4.4.2-21

Alternative D Acquisition Area Potential Loss of Employment (Phase I)

	Un-Accommodated Floor Area (SF)	Employment Factor	Jobs
Office	~~50,026~~*54,900*	240	~~208~~*228*
Hotel (154 rooms)	63,595	890	71
Retail[1]	8,129	530	15
Light Industrial (incl. freight)	~~151,732~~*171,758*	500	~~303~~*343*
Total	***~~273,482~~298,382***		***~~597~~657***

[1] Assumes street front retail employment factor.

Source: Employment density factors from HR&A's Phase III Technical Memo, January 15, 1998.

11. The last paragraph, second sentence, on page 4-563 is revised as follows:

> Significant impacts associated with air freight uses is limited to ~~146,867~~*166,893* SF of space that cannot be accommodated on the airport based on proposed acquisition and development phasing.

Section 4.4.3, Environmental Justice

1. The first paragraph in subsection 4.4.3.1, *Introduction*, on page 4-565 is revised as follows:

> This section addresses the degree to which the Master Plan alternatives would comply with ~~federal and state~~ regulations and policies pertaining to environmental justice. *Because the State of California has not adopted specific requirements or guidance for addressing environmental justice under CEQA, and to maintain a degree of consistency with the FAA's approach to the issue under NEPA, guidance provided in*~~, specifically~~ Executive Order 12898, U.S. Department of Transportation (DOT) Order 5610.~~1~~*2*, *is used in this analysis. The analysis is also prepared in recognition of* California Public Resources Code Section 72000-72001, and California Environmental Protection Agency policy.[~~1~~] *Conclusions presented herein regarding environmental justice effects, recommended mitigation measures, and Master Plan commitments, have been determined by the City of Los Angeles for purposes of CEQA and the Final EIR to be used in the City's decision-making process. The Final EIS to be approved by the FAA subsequent to completion of the City's decision-making process will present the environmental justice conclusions reached by the FAA, for purposes of NEPA and in accordance with federal law.* Supporting information is provided in Appendix F, Environmental Justice Technical Report, Appendix S-D, *Supplemental Environmental Justice Technical Report*, and Appendix F-A, *Environmental Justice Materials*, of the~~is~~ Final EIS/EIR.

2. The second paragraph under the subheading Federal Environmental Justice Requirements, on page 4-565 is revised as follows:

> By way of DOT Order 5610.2, the U.S. Department of Transportation (DOT) has adopted a policy to incorporate environmental justice principles into existing agency programs, policies, and activities. It is DOT's policy to promote the principles of environmental justice by fully considering them throughout the planning and decision-making processes. *In addition to presenting LAWA's findings for purposes of CEQA*, ~~T~~the analysis in this section is *also* intended to *support the DOT's* ~~carry out that~~ policy *regarding environmental justice by providing available information regarding impacts of the*

proposal so that FAA can reach a conclusion regarding the nature of those impacts for Federal purposes as outlined in Executive Order 12898 and DOT Order 5610.2. The FAA will use this information to complete the environmental justice analysis for the purpose of the Final EIS and the Record of Decision, in accordance with federal requirements and procedures. ~~by identifying potential disproportionately high and adverse human health or environmental effects on minority and low-income communities, by identifying past efforts and future opportunities to involve affected communities in the planning and decision-making process for the LAX Master Plan, which is the subject of the proposed FAA action, and by recommending measures or processes to avoid, eliminate, reduce, or offset disproportionately high and adverse human health or environmental effects to minority and low-income populations. For federal purposes, disproportionately high and adverse human health or environmental effects consist of only those impacts attributable to implementation of the proposed action, and do not include future impacts which would result absent implementation of the proposed federal action.~~

3. The second full paragraph, last sentence, on page 4-566 is revised as follows:

This input helped form the Environmental Justice Program that was presented in the Draft EIS/EIR, carried forward during its circulation, as well as during the subsequent preparation and distribution of the Supplement to the Draft EIS/EIR, and reflected in this Final ~~EIS/~~EIR.

4. The fourth full paragraph, on page 4-566 has been deleted as shown:

~~In addition to providing the analysis required to fulfill the requirements of federal law, this section describes how LAWA is addressing environmental justice concerns in the context of the LAX Master Plan.~~

5. The fourth paragraph in subsection 4.4.3.2, *General Approach and Methodology*, on page 4-569 is revised as follows:

Although a No Action*/No Project benchmark* ~~baseline~~ is ~~ordinarily used~~ *being used by the FAA in the Final EIS* for ~~impact~~ *the* assessment *of environmental justice effects* under NEPA, *the* ~~certain~~ analyses within this section~~, such as noise,~~ use a 1996 environmental baseline for identifying environmental justice impacts*, consistent with the CEQA impact assessment methodology used throughout this Final EIR. For disclosure purposes, this section also includes a comparison of the No Action/No Project Alternative*. ~~For the purposes of the environmental justice evaluation of noise impacts, the environmental baseline is being used herein to support a uniform approach that is more conservative and is also consistent with the approach being taken in this EIS/EIR to identify areas that would qualify for participation in LAWA's Aircraft Noise Mitigation Program.~~

6. The first paragraph, on page 4-570 is revised as follows:

As discussed below, the environmental justice mitigation program was developed in conjunction with the affected communities based on response to these analyses and other public input. Where adverse impacts are identified and fall disproportionately on minority and low-income populations, general approaches to addressing environmental justice concerns ~~through mitigation (e.g., enhancements, and other offsetting benefits)~~ are described. ~~FAA and~~ LAWA *has* ~~have~~ worked with the affected communities in developing mitigation programs *and Master Plan commitments* tailored to the needs of these communities. *CEQA* ~~F~~*f*indings regarding disproportionately high and adverse human health or environmental effects on minority and low-income populations as a result of the LAX Master Plan are presented in subsection 4.4.3.6 below. These findings account for the mitigation measures and *Master Plan commitments* ~~off-setting benefits~~ developed through the Environmental Justice Program.

7. Footnote 219, on page 4-576 is revised as follows:

> See Appendix F, Environmental Justice Technical Report, Table 3~~-2~~, Minority and Low-Income Census Tracts *Within Study Area*, identifying the 1990 census tracts within the study area, the total tract population, the minority and non-minority populations residing in the census tract, and the percentage of the population in the tract that was classified as a minority population. For comparison purposes, Table 3~~-2~~ also presents the minority status of the United States, California and Los Angeles County.

8. Section 4.4.3.4, *Master Plan Commitments,* on page 4-577, including Master Plan Commitment RBR-1, has been relocated to page 4-620 as described below. Subsections following 4.4.3.4 are renumbered accordingly:

> ### *4.4.3.4 Environmental Consequences*
>
> ~~No Master Plan commitments for environmental justice are proposed. However, the following Master Plan commitment from another environmental discipline is relevant to this analysis.~~
>
> - ~~**RBR-1. Residential and Business Relocation Program (Alternatives A, B, C, and D).**~~
>
> ~~The above commitment is provided in its entirety in Chapter 5, *Environmental Action Plan*.~~
>
> ### *4.4.3.5 Findings*
>
> ### *4.4.3.6 Environmental Justice Program*

9. The first paragraph, in subsection 4.4.3.5, *Environmental Consequences*, on page 4-577 is revised as follows:

> The following analysis covers those environmental impact areas that have the potential for disproportionate effects on minority and/or low-income populations. Other environmental impact areas that either do not involve significant impacts or that do not have the potential for differential effects on minority or low-income populations are discussed in their respective sections of this Final ~~EIS/~~EIR. The extent of discussion and analysis varies by topic based on the level of analysis required to determine where there are disproportionate effects on minority and/or low-income communities. Conclusions presented herein regarding environmental justice impacts and recommended mitigation measures and *Master Plan commitments* ~~benefits~~ have been determined by the City of Los Angeles for purposes of the Final EIR to be used in the City's decision-making process. The Final EIS to be approved by the FAA subsequent to completion of the City's decision-making process will present the environmental justice conclusions reached by the FAA, in accordance with the requirements of NEPA and other federal laws.

10. Table F4.4.3-4 and the first sentence of the second paragraph, on page 4-587 are revised as follows:

Table F4.4.3-4

Aircraft Noise Effects on Minority and Low-Income Communities 2015 No Action/No Project and Alternatives A, B, C, and D (Compared to 1996 Baseline)

	Alternative				
	NA/NP	**A**	**B**	**C**	**D**
Exposure to 65+ CNEL					
Percent of Overall Exposure in Minority/Low-Income areas	76 percent	80 percent	~~75~~ *80* percent	~~80~~ *75* percent	~~74~~ *82* percent
Change in Overall Population Exposed in Minority/Low-income areas	-3,069	525	10,816	771	-4,907
Percent of Newly Exposed population in Minority/Low-Income areas	91 percent	90 percent	90 percent	83 percent	87 percent
Population Newly Exposed in Minority/Low-Income areas	4,300	9,280	21,930	5,940	4,430
Total Parks Newly Exposed	1	6	6	4	0
Parks Newly Exposed in Minority/Low-income areas	1	5	5	3	0
Total Public Schools Newly Exposed	3	4	10	3	3
Public Schools Newly Exposed in Minority/Low-income areas	3	4	9	3	3
Libraries	0	1	1	1	0
Exposure to 94+ SEL					
Percent of Newly Exposed population in Minority/Low-income areas	87 percent	88 percent	88 percent	86 percent	85 percent
Population Newly Exposed in Minority/Low-Income areas	15,760	19,270	21,000	16,540	15,340

Source: PCR Services Corporation, 2003.

Of the overall area exposed to 65 CNEL and higher noise levels by 2015, approximately 75 percent (Alternative ~~B~~*C*) to 80 percent (Alternatives A and *B*~~C~~) would fall on minority and low-income communities.

11. The first paragraph, first sentence, on page 4-597 is revised as follows:

This Final ~~EIS/~~EIR provides an assessment of the potential for single event aircraft noise to result in nighttime awakenings.

12. The first paragraph, under the subheading Alternative D – Enhanced Safety and Security Plan, on page 4-598 is revised as follows:

As shown in **Figure F4.4.3-10**, Alternative D 2015 vs. 1996 Baseline 65 CNEL Noise Contours (1990 Census), exposure to high levels of aircraft noise by 2015 would fall predominantly on minority and low-income communities. Of the overall area exposed to 65 CNEL and higher noise levels by 2015, approximately *82* ~~74~~ percent would fall on minority and low-income communities. Most of the residential area encompassed by the 65 CNEL noise contour is also minority and/or low-income, and the entire residential area subjected to noise levels of 70 CNEL or higher is classified as minority. Compared to 1996 noise levels, the estimated minority and/or low-income percentage of the overall noise-impacted population would *increase* ~~decrease~~ by *6* ~~2~~ percent.

13. The second paragraph, second sentence under the subheading Construction Impacts, on page 4-612 is revised as follows:

Although most construction impacts would be intermittent and temporary, and would be reduced to less than significant levels through mitigation measures presented throughout the Final ~~EIS/~~EIR, there would be significant unavoidable noise and air quality impacts from construction.

14. The fourth paragraph, fourth sentence, under the subheading Construction Impacts, on page 4-612 is revised as follows:

> Within this area, two churches and the following schools would also be affected: Saint Bernard High School, Visitation ~~Center Catholic~~ *Elementary* School, Westchester High School, Westchester-Emerson Community Adult School, Paseo del Rey Magnet School, Escuela de Montessori, *and* Imperial Avenue Special Education Facility~~, and one private school~~.

15. The first paragraph, third full sentence, on page 4-613 is revised as follows:

> In addition, the two churches and the five schools (Saint Bernard High School, Visitation ~~Center Catholic~~ *Elementary* School, Westchester High School, Paseo del Rey Magnet School, and Westchester-Emerson Community Adult School) that would be affected are not located within minority or low-income areas.

16. The fourth paragraph, first sentence, on page 4-617 is revised as follows:

> After accounting for the mitigation measures and ~~off-setting benefits~~ *Master Plan commitments* provided below, and in recognition of the DOT Order and applicable state law, LAWA finds that the disproportionately high aircraft noise impacts and potentially disproportionate air quality impacts of Alternative D would remain adverse.

17. The third paragraph, fifth sentence, on page 4-618 is revised as follows:

> The public input received throughout the environmental justice community outreach process was instrumental in defining the ~~benefits and~~ mitigation *and Master Plan commitment* proposals presented below. With community input received, the Environmental Justice Program is still continuing, and coordination with representatives in the affected communities will proceed as these proposals are implemented.

18. The subheading Benefits, on page 4-620 is revised as follows:

> ### ~~Benefits~~ *Master Plan Commitments*

19. The following paragraphs under the subheading Benefits, on pages 4-620 through 4-623 are revised as follows to incorporate applicable Master Plan commitments presented in other sections of the Final EIR and Addendum to the Final EIR and to present Master Plan commitments from the Environmental Justice section:

> In assessing whether a project has disproportionately high and adverse human health or environmental effects on minority and low-income populations, certain benefits of the project may be taken into account. In some respects, the design and operation of each build alternative (Alternatives A, B, C, and D) would offer certain environmental benefits to minority and low-income populations compared to what would otherwise occur under the No Action/No Project Alternative. In particular, improved aircraft operations, such as reduced taxi/idle times for aircraft on the ground, and improved surface transportation characteristics at and around the airport, resulting in reduced local vehicle traffic congestion, would occur with implementation of the build alternatives. As summarized above and described in detail within Sections 4.6, *Air Quality*, and 4.24.1, *Human Health Risk Assessment*, these types of improvements provide for reductions in air pollutant and air toxic emissions at LAX, *that* ~~than~~ would *not* otherwise occur in the future (2015) under the No Action/No Project Alternative (i.e., without the proposed improvements, existing congestion and delays for aircraft and vehicles would only worsen and result in increased air pollution and air toxics emissions). Given that the prevailing winds at LAX are towards the east, which includes many areas with minority and low-income populations, the ability of the build alternatives to reduce future emissions at LAX, compared to emissions under the No Action/No Project Alternative, can be considered to be a benefit within the context of environmental justice. This is particularly true relative to Alternative D, whereby the mitigated operational emissions from on-airport and off-airport sources in 2015 would be less than those of the No Action/No Project Alternative, with the exception of PM_{10} for on-

airport sources (see Tables F4.6-21 and F4.6-22 of this Final ~~EIS/~~EIR). ~~This would also be the case for~~ *When comparing* the combined operational and construction air pollutant concentrations *of Alternative D with the No Action/No Project Alternative* in 2015 *all concentrations would be the same or lower under Alternative D with the exception of 1-hour NO_2* (see Table F4.6-24).

Other specific benefits *in the form of Master Plan commitments* are proposed and intended to go beyond the comprehensive mitigation measures provided throughout this Final ~~EIS/~~EIR to address the *CEQA conclusions regarding* disproportionately high and adverse effects on minority and low-income communities associated with the proposed LAX Master Plan, particularly those that would remain significant after implementation of mitigation measures. In addition, it is part of LAWA's policy to ensure that no portion of the population and no community is denied access to benefits flowing from the LAX Master Plan. In furthering this policy, LAWA has undertaken to identify impediments to enjoying the economic benefits generated by LAX that are faced by minorities and low-income individuals, and has committed to removing or reducing these impediments wherever possible.

Jobs are one of the economic benefits directly and indirectly attributable to LAX. Airport-related employment is expected to generate large concentrations of jobs within manufacturing, restaurant, and hotel sectors under all of the Master Plan build alternatives. As further described in Section 4.5, *Induced Socio-Economic Impacts (Growth Inducement)* (subsection 4.5.6), for Alternatives A, B, and C, an estimated 7,000 to 16,000 new jobs would be created within a ten-mile radius of LAX by 2015. As indicated in Section 4.5, *Induced Socio-Economic Impacts (Growth Inducement)*, Alternative D would result in a net decrease of approximately 23,000 jobs within a ten-mile radius of LAX by 2015. Currently, a relatively small proportion of LAX jobs are held by residents of neighboring minority and low-income communities.[240] In order to ensure that minority and low-income individuals would benefit from these employment opportunities, LAWA is working with airport tenants, airport related employers and local businesses to create programs that will enable local youths, adults and local businesses to more easily access job and business opportunities available at and around LAX now and in the future. LAWA efforts will include, but not be limited to, job recruitment, job training, job placement, small business assistance, and small business development. LAWA will also explore airport procurement and vending opportunities for Disadvantaged Business Enterprises (DBEs). In addition, LAWA will make every effort to recruit DBEs for construction opportunities associated with airport modernization. LAWA will also recruit local high school and community college students for internships associated with airport operations.

In order to reach these goals, LAWA ~~will develop and~~ *proposes Master Plan commitments* ~~administer benefit programs~~ that go beyond implementation of proposed mitigation measures, to improve conditions in minority or low-income communities that have experienced disproportionately high and adverse effects from LAX operations. Although adoption of ~~the~~ these *Master Plan commitments* ~~programs~~ may be influenced by funding constraints, such as legal limitations placed on the use of airport revenue, LAWA will investigate, pursue, and implement *Master Plan commitments that relate to* environmental justice ~~benefits~~ as feasible and allowable by law.

The *following Master Plan commitments that address impacts from other environmental disciplines are relevant to this analysis* ~~se programs proposed for implementation include the following~~:

[240] For example, of 59,000 badged employees at LAX, only 2,304 reside in Inglewood.

Relocation of Residences or Businesses

- ***RBR-1. Residential and Business Relocation Program (Alternatives A, B, C, and D).***

Air Quality

- ***AQ-1. Air Quality Source Apportionment Study (Alternatives A, B, C, and D).***
- ***AQ-2. School Air Filters (Alternatives A, B, C, and D).***
- ***AQ-3. Mobile Health Research Lab (Alternatives A, B, C, and D).***

Off-Airport Surface Transportation

- ***ST-23. Expanded Gateway LAX Improvements/Greening of Impacted Communities (Alternatives A, B, C, and D).***

The above commitments are provided in their entirety in Chapter 5, Environmental Action Plan.

The Master Plan commitments in this section that are presented in full below do not directly address or mitigate the environmental impacts associated with implementation of the LAX Master Plan as described throughout Chapter 4, Affected Environment, Consequences, and Mitigation Measures, of this Final EIR. They are intended to address the conclusion under CEQA that disproportionately high and adverse effects on minority and low-income communities will be associated with the proposed LAX Master Plan, and to ensure that no portion of the population and no community is denied access to benefits flowing from the LAX Master Plan. A number of these Master Plan commitments build on LAWA's existing programs and other programs that are in the process of being implemented, with specific focus placed on minority and low-income communities subject to disproportionately high and adverse effects from LAX operations.

EJ-1. Aviation Curriculum *(Alternatives A, B, C, and D).*

~~This~~measure ~~involves~~*LAWA will work with local school districts to* offer~~ing~~ aviation-related curriculum at *elementary schools, middle schools,* high schools *and colleges in affected communities* near the Los Angeles International Airport. Potential pilot schools *could* include: *Beulah Payne Elementary School, Lennox Middle School, Hillcrest Continuation School,* Inglewood *High School*, Morningside *High School*, and *Los Angeles Southwest College* ~~Washington High Schools~~.

EJ-2. Aviation Academy *(Alternatives A, B, C, and D).*

~~The purpose of this measure is~~*LAWA will work with local school districts* to provide comprehensive educational and trade training for ~~a multitude of~~ aviation-related careers, targeting students in the affected communities to provide them *with* increased ~~exposure and~~ career opportunities.

EJ-3. Job Outreach Center *(Alternatives A, B, C, and D).*

- **Construction and Other LAX-Related Job Outreach** - ~~With a goal to~~*LAWA will* create *or utilize an existing* ~~a~~ resource *center* to assist historically underrepresented and at-risk local residents to find construction and other substantive jobs with LAWA and surrounding airport-related businesses through training and comprehensive outreach. Written materials regarding job training and placements should be compiled and disseminated from the existing LAWA Job Outreach Center. *The Job Outreach Center will accomplish the following:*
  - Fund ~~sufficient~~ outreach ~~and advertising~~ efforts*;*
  - *Encourage*~~Set-aside a substantive percentage of contracts for~~ minority firms~~, with specific set-asides for businesses~~ within the affected communities *to participate in* ~~for~~ each phase of the plan*,* ~~and to~~ includ*eing the* design phase*;*
  - Coordinate~~ion~~ with local organizations~~'~~ (including*, among others,* The Urban League, *National Association for the Advancement of Colored People (*NAACP*)*, *Southern Christian Leadership Conference (*SCLC*)*, *Watts Labor Community Action Committee (*WLCAC*)*, Brotherhood Crusade, *First African Methodist Episcopal (*FAME*)* Renaissance, ~~CRP, *Concerned Citizens of South Central Los Angeles (*CCSCLA*)*, *Black Business Association (*BBA*)*, ~~and *Greater Los Angeles African American Chamber of Commerce (*GLAAACC), *and LAX Coalition for Economic, Environmental and Educational Justice)* ~~existing~~*regarding* job training, outreach and incubator programs to ensure ~~most~~ expansive outreach*:*
  - Establish ~~a~~ specific outreach and/or training program*s* for *special targeted populations such as* local ex-offenders, *welfare recipients, homeless persons, and low-income area residents:*
  - Hold workshops and training classes for professional development across disciplines that may provide service to LAX – pre- and post- employment*;*
  - Establish educational/training/internship programs for local students*;*
  - *Provide referrals and linkages to* ~~The creation of~~ manufacturing (assembly line) *job* opportunities in impacted communities, especially South Los Angeles, ~~to~~ *that* produce materials and/or devices used by the airport. This would help to revitalize the community through the provision of long-term work for existing industrial businesses.
- **Community Job Database –** ~~This measure is for~~ *LAWA will coordinate* data gathering, outreach and counseling ~~purposes.~~*through the following:*
  - Research and assess existing specialties and current capabilities of local work force to assist with targeted training and outreach efforts*;*
  - Develop~~ment~~ and manage~~ment of~~ a complete database of minority contractors*;*
  - Produce a database of potential jobs and specialties needed, per Master Plan phase, and disseminate the information throughout the communities and to local Minority Business Enterprises/Disadvantaged Business Enterprises (MBE/DBE) companies
- **MBE/DBE Business Outreach –** ~~This measure is designed to further State and local by~~*LAWA will* implement~~ing~~ proactive measures that *further State and local initiatives to* ensure meaningful contract participation of DBE/MBE firms~~.~~*as follows:*
  - Research and assess existing specialties and current capabilities of local MBE/DBE firms to assist with targeted training and outreach efforts*;*
  - Good Faith Effort (GFE) Outreach Training - assist prime contractors with their outreach to local and MBE/DBE firms~~. by p~~Provid*eing* them use of relevant databases and refer*ring* them to other local organizations that may be able to assist them in their efforts*;*

- *Encourage use of* MBE*/DBE local subcontractors;*
- *LAWA shall* adopt *policies to promote the use of MBE/WBE/DBE subcontractors by requiring Prime Contractors to document outreach to MBE/WBE/DBEs; dividing projects into smaller component parts, or tasks to permit maximum participation by smaller entities; placing qualified MBE/WBE/DBEs on solicitation lists available to Prime Contractors; and advertising the availability of services of the Small Business Administration and the Minority Business Development Agency of the Department of Commerce to Prime Contractors.*
- ~~Establish MBE/DBE and local subcontractor percentage goals;~~
- ~~Institute incentives to prime contractors that meet or exceed MBE/DBE and local hiring goals;~~
- Monitor and ~~enforce~~*implement* specific ~~Good Faith Effort (~~GFE~~)~~ guidelines for outreach to MBE/DBE firms.

- **Small Business Outreach -** *LAWA will establish the below-listed proactive measures to ensure meaningful contract participation of small businesses.* The resources obtained ~~herein~~*through small business outreach* ~~should~~*will* be compiled in a user-friendly brochure or report and disseminated from the existing LAWA job outreach center. Contacts and loan conditions will be included where available. Counselors will be available to provide one-on-one assistance.
  - Fund and institute sub-contractor training/apprentice programs to be instituted pre-construction and during construction*;*
  - *Establish s*~~S~~ensitivity *t*~~T~~raining - educate prime contractors of the concerns and needs of the local business owners and MBE/DBE contractors*;*
  - Develop special work packages to provide small businesses prime contracting opportunities*:*
  - *Establish l*~~L~~oan assistance information programs that would provide counseling to small businesses in need of loans and, through potential partnerships with local banks, facilitate relationships with lenders~~.~~*:*
  - Establish incentives to large businesses for mentorship of, or partnering with local~~,~~ small businesses*;*
  - Provide bonding assistance*:*
  - Provide ~~various~~ licensing assistance*:*
  - Ensure prime and sub-contracting opportunities for local small businesses.

EJ-4. Community Mitigation Monitoring *(Alternatives A, B, C, and D).*

~~This measure involves the creation of an Agency/Community cooperative~~that *LAWA will include community participation in* monitor*sing* the implementation of ~~all~~*the* final Mitigation Measures~~,~~ *and* Master Plan Commitments ~~and Benefits,~~ *in order* to ensure ~~A~~*a*gency complianc*ye* and accountability~~, as well as *to* encourage community involvement in the program management~~. The ~~"board"~~*community participation* will include a diverse group of residents, stakeholders, environmental specialists and community leaders that will convene on a regular basis ~~and be empowered to submit recommendations of program modifications~~.

Section 4.6, Air Quality

1. The text under subsection 4.6.5, Master Plan Commitments, on page 4-680 is revised as follows:

~~No Master Plan commitments for air quality impacts are proposed.~~

- ***AQ-1. Air Quality Source Apportionment Study (Alternatives A, B, C, and D).***

In cooperation with FAA, the U.S. Environmental Protection Agency (USEPA), the California Air Resources Board (CARB), and the South Coast Air Quality Management District (SCAQMD), LAWA will conduct an air quality source apportionment study to evaluate the contribution of on-airport aircraft emissions to off-airport air pollutant concentrations. For the study, LAWA will monitor aircraft emissions at the eastern end of the runways at LAX and will monitor air pollutant concentrations in nearby surrounding communities. On-airport emissions will be compared to the monitored concentrations in the communities to determine the contribution of these emissions to local air pollution.

- ***AQ-2. School Air Filters (Alternatives A, B, C, and D).***

LAWA will provide funding for air filtration at qualifying public schools with air conditioning systems in place. The qualifying schools will be determined based upon review of the conclusions and recommendations of the Air Quality Source Apportionment Study to be conducted in Master Plan Commitment AQ-1.

- ***AQ-3. Mobile Health Research Lab (Alternatives A, B, C, and D).***

LAWA will explore the ability to fund/co-fund, to the extent feasible and permissible by federal and local regulations, or seek funding sources to support the goal of a Mobile Health Research Lab. The goal of the Mobile Health Research Lab will be to research and study, not diagnose or treat, upper respiratory and hearing impacts that may be directly related to the operation of LAX.

2. The paragraph with the subheading of Combined Concentrations - 2015, starting on page 4-708 is revised as follows:

Combined Concentrations - 2015

The combined, peak concentrations of CO, NO_2, SO_2, and PM_{10} for operational and construction sources under Alternative A, when added to the 2015 future background concentrations, as presented in **Table F4.6-12**, are not predicted to exceed the SO_2 CAAQS for all averaging periods, the 1-hour and 8-hour CO CAAQS, the 1-hour NO_2 CAAQS.[327] The maximum PM_{10} concentrations for Alternative A, when added to the 2015 or future background concentrations, are predicted to exceed the 24-hour and annual PM_{10} CAAQS in 2015. The combined, peak concentrations of CO, NO_2, SO_2, and PM_{10} for operational and construction sources, when added to the 2015 future background concentrations, as presented in **Table F4.6-12**, are not predicted to exceed the SO_2 NAAQS for all averaging periods, the 1-hour and 8-hour CO NAAQS, the annual NO_2 NAAQS, or the annual and 24-hour PM_{10} NAAQS. In comparing the combined, peak concentrations for operations and construction sources, when added to the 2015 future background concentrations, under Alternative A for 2015 to those under the No Action/No Project Alternative, the maximum 1-hour CO, annual NO_2, ~~and~~ the annual, 24-hour, and 3-hour SO_2, *and the annual and 24-hour PM_{10}* concentrations under Alternative A are predicted to be greater than those under the No Action/No Project Alternative, while the maximum 8-hour CO ~~and annual and 24-hour PM_{10}~~ concentrations under Alternative A are predicted to be ~~lower than~~ *equal to* those under the No Action/No Project Alternative.

[327] See Attachment P to Technical Report S-4, *Supplemental Air Quality Technical Report*, for supplemental 1-hour NO_2 dispersion analysis.

3. The paragraph with the subheading of Combined Concentrations - 2015, on page 4-712 is revised as follows:

Combined Concentrations - 2015

The combined, peak concentrations of CO, NO_2, SO_2, and PM_{10} for operational and construction sources, when added to the 2015 future background concentrations, as presented in **Table F4.6-12**, are not predicted to exceed the SO_2 CAAQS for all averaging periods, the 1-hour and 8-hour CO CAAQS, or the 1-hour NO_2 CAAQS.[328] The maximum PM_{10} concentrations for Alternative B, when added to future background concentrations, are predicted to exceed the 24-hour and annual PM_{10} CAAQS in 2015. The combined, peak concentrations of CO, NO_2, SO_2, and PM_{10} for operational and construction sources, when added to the 2015 future background concentrations, as presented in **Table F4.6-12**, are not predicted to exceed the SO_2 NAAQS for all averaging periods, the 1-hour and 8-hour CO NAAQS, the annual NO_2 NAAQS, and the 24-hour and annual PM_{10} NAAQS. In comparing the combined, peak concentrations for operations and construction sources, when added to the 2015 future background concentrations, under Alternative B for 2015 to those under the No Action/No Project Alternative, the maximum 1-hour CO, annual NO_2, and the *annual,* 24-hour*,* and 3-hour SO_2, concentrations under Alternative B are predicted to be greater than those under the No Action/No Project Alternative, while the maximum 8-hour CO, ~~the annual SO_2,~~ and the 24-hour and annual PM_{10} concentrations under Alternative B are predicted to be lower than *or equal to* those under the No Action/No Project Alternative.

4. The paragraph with the subheading of Combined Concentrations - 2015, on page 4-715 is revised as follows:

Combined Concentrations - 2015

The combined, peak concentrations of CO, NO_2, SO_2, and PM_{10} for operational and construction sources, when added to the 2015 future background concentrations, as presented in **Table F4.6-12**, are not predicted to exceed the SO_2 CAAQS for all averaging periods, the 8-hour CO CAAQS, the 1-hour NO_2 CAAQS,[331] or the environmental baseline PM_{10} concentrations. The maximum concentrations for Alternative C are predicted to exceed the 1-hour CO CAAQS, the annual PM_{10} CAAQS and 24-hour PM_{10} CAAQS. The combined, peak concentrations of CO, NO_2, SO_2, and PM_{10} for operational and construction sources, when added to the 2015 future background concentrations, as presented in **Table F4.6-12**, are not predicted to exceed the SO_2 NAAQS for all averaging periods, the 1-hour and 8-hour CO NAAQS, the annual NO_2 NAAQS, or the 24-hour and annual PM_{10} NAAQS for Alternative C in 2015.[332] In comparing the combined, peak concentrations for operations and construction sources, when added to the 2015 future background concentrations, under Alternative C for 2015 to those under the No Action/No Project Alternative, the maximum 1-hour and 8-hour CO, annual NO_2, the annual, 24-hour and 3-hour SO_2, and the annual ~~and 24-hour~~ PM_{10} concentrations under Alternative C are predicted to be greater than those under the No Action/No Project Alternative, while the maximum ~~8-hour CO, annual SO_2,~~ *24-hour PM_{10}* concentrations under Alternative C are predicted to be lower than those under the No Action/No Project Alternative.

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[328] See Attachment P to Technical Report S-4, *Supplemental Air Quality Technical Report*, for supplemental 1-hour NO_2 dispersion analysis.

[3318] See Attachment P to Technical Report S-4, *Supplemental Air Quality Technical Report*, for supplemental 1-hour NO_2 dispersion analysis.

[332] See Attachment P to Technical Report S-4, *Supplemental Air Quality Technical Report*, for supplemental 1-hour NO_2 dispersion analysis.

5. MM-AQ-1, beginning on page 4-723 and continuing onto page 4-724 is revised as follows:

- **MM-AQ-1. LAX Master Plan - Mitigation Plan for Air Quality.**

LAWA shall expand and revise the existing air quality mitigation programs at LAX through the development of an LAX Master Plan-Mitigation Plan for Air Quality (LAX MP-MPAQ). The LAX MP-MPAQ shall be developed in consultation with FAA, *the U.S. Environmental Protection Agency (*USEPA*)*, *the California Air Resources Board (*CARB*)*, and *the South Coast Air Quality Management District (*SCAQMD*)*, as appropriate, and shall include ~~technologically/legally~~*all* feasible ~~and economically reasonable~~ methods to reduce air pollutant emissions from aircraft, *ground support equipment (*GSE*)*, traffic, and construction equipment both on and off the airport. The *goal*~~overall effect, and minimum requirement,~~ of the LAX MP-MPAQ shall be *to* reduce~~d~~ potential air pollutant emissions associated with implementation of the LAX Master Plan to levels equal to, ~~if not~~*or* less than, the *thresholds of significance*~~post-mitigation levels~~ identified in ~~this~~*the* Final EIS/EIR for the project. *At a minimum, air pollutant emissions associated with implementation of the LAX Master Plan will be reduced to levels equal to those identified in Table AD5-8, Total Operational and Construction Emissions – Mitigated.*

Table AD5.8

Total Operational and Construction Emissions - Mitigated (tons per year)

	Interim Year					Horizon Year 2015				
Pollutant and Source	**NA/NP[1, 2]**	**A**	**B**	**C**	**D**	**NA/NP[1]**	**A**	**B**	**C**	**D**
VOC - On-Airport	*1,652*	*1,385*	*1,330*	*1,384*	*1,513*	*1,513*	*1,497*	*1.578*	*1,534*	*1,473*
VOC - Off-Airport	*2,795*	*2,286*	*2,261*	*2,163*	*1,365*	*1,606*	*1,282*	*1,271*	*1,270*	*1,091*
VOC - Construction	*909*	*170*	*148*	*155*	*86*	*-*	*44*	*39*	*40*	*-*
VOC - Total	*5,356*	*3,841*	*3,739*	*3,702*	*2,964*	*3,119*	*2,823*	*2,888*	*2,844*	*2,564*
CO - On-Airport	*11,842*	*9,555*	*9,459*	*9,578*	*9,077*	*9,451*	*9,053*	*9,553*	*9,412*	*8,266*
CO - Off-Airport	*31,114*	*29,405*	*29,385*	*28,691*	*16,719*	*15,188*	*16,368*	*16,227*	*16,336*	*13,166*
CO - Construction	*667*	*1,094*	*955*	*995*	*556*	*-*	*352*	*307*	*320*	*-*
CO - Total	*43,623*	*40,054*	*39,799*	*39,264*	*26,352*	*24,639*	*25,773*	*26,087*	*26,068*	*21,432*
NO_X- On-Airport	*6,356*	*5,504*	*5,503*	*5,543*	*5,760*	*5,729*	*6,357*	*6,440*	*5,999*	*5,474*
NO_X- Off-Airport	*4,665*	*4,420*	*4,514*	*4,463*	*2,628*	*2,368*	*2,723*	*2,718*	*2,741*	*2,102*
NO_X- Construction	*405*	*2,237*	*1,952*	*2,034*	*1141*	*-*	*494*	*431*	*449*	*-*
NO_X- Total	*11,426*	*12,161*	*11,969*	*12,040*	*9,529*	*8,097*	*9,574*	*9,589*	*9,189*	*7,576*
SO_2 - On-Airport	*405*	*382*	*382*	*382*	*436*	*449*	*494*	*513*	*489*	*436*
SO_2 - Off-Airport	*52*	*50*	*51*	*50*	*24*	*27*	*30*	*30*	*30*	*24*
SO_2 - Construction	*3*	*7*	*7*	*7*	*3*	*-*	*2*	*2*	*2*	*-*
SO_2 - Total	*460*	*439*	*440*	*439*	*463*	*476*	*526*	*545*	*521*	*460*
PM_{10} - On-Airport	*181*	*128*	*126*	*132*	*182*	*167*	*165*	*168*	*158*	*177*
PM_{10} - Off-Airport	*1,617*	*1,833*	*1,603*	*1,572*	*1,752*	*1,780*	*2,089*	*2,078*	*2,060*	*1,658*
PM_{10} - Construction	*68*	*531*	*463*	*482*	*335*	*-*	*137*	*119*	*124*	*-*
PM_{10} - Total	*1,866*	*2,492*	*2,192*	*2,186*	*2,269*	*1,947*	*2,391*	*2,365*	*2,342*	*1,835*

[1] NA/NP=No Action/No Project Alternative.

*[2] As described in the introduction to Chapter 4, the evaluation of mitigation measures is not a part of the No Action/No Project Alternative analysis. Emissions provided in this table for the No Action/No Project Alternative are the same as those reported in **Table F4.6-11a** and have been included here for comparative purposes.*

[3] Interim year is 2005 for NA/NP and Alternatives A, B, and C and 2013 for Alternative D.

Source: Camp Dresser & McKee Inc., 2004.

The LAX MP-MPAQ shall include feasible mitigation measures that are grouped into the following three categories:

- Construction-Related Measure;
- Transportation-Related Measure; and
- Operations-Related Measure.

The LAX MP-MPAQ will, initially, present the basic framework of the overall air quality mitigation program (basic LAX MP-MPAQ), and will, ultimately, define the specific measures to be implemented within the context of three (3) individual components specific to the categories of emissions indicated above (full LAX MP-MPAQ). Implementation of Mitigation Measure MM-AQ-2, Construction-Related Mitigation Measure, will define the specific measures to be included in the construction-related component; Mitigation Measure MM-AQ-3, Transportation-Related Mitigation Measure, will define the specific measures to be included in the surface transportation-related component; and Mitigation Measure MM-AQ-4, Operations-Related Mitigation Measure, will define the specific measures to be included in the operations-related component. The basic framework of the LAX MP-MPAQ and the Construction-Related component will be developed prior to initiation of construction activities for the first project to be developed under the LAX Master Plan, and the development of the other two components will occur in conjunction with implementation of the Master Plan components that materially affect surface transportation emissions and operations emissions.

6. Item 3. of Mitigation Measure MM-AQ-2, on page 4-725 is revised as follows:

3. Nonroad Mobile Source Controls

- Prohibit staging or parking of construction vehicles (including workers' vehicles) on streets adjacent to sensitive receptors such as schools, daycare centers, and hospitals.
- Prohibit construction vehicle idling in excess of ten minutes.
- Utilize on-site rock crushing facility*, when feasible*, during construction to reuse rock/concrete and minimize off-site truck haul trips.

7. Item 5. of Mitigation Measure MM-AQ-2, on page 4-725 is revised as follows:

5. Mobile and Stationary Source Controls

- Specify combination of construction equipment using "cleaner burning diesel" fuel and exhaust emission controls.
- Suspend use of all construction equipment during a second-stage smog alert *in the vicinity of LAX*.
- Utilize construction equipment having the minimum practical engine size (i.e., lowest appropriate horsepower rating for intended job).
- Require that all construction equipment working on site is properly maintained (including engine tuning) at all times in accordance with manufacturers' specifications and schedules.
- Prohibit tampering with construction equipment to increase horsepower or to defeat emission control devices.

8. The paragraph with the subheading of Combined Concentrations - 2015, starting on page 4-740 is revised as follows:

Combined Concentrations - 2015

The combined, peak concentrations of CO, NO_2, SO_2, and PM_{10} for operational and construction sources, when added to the 2015 future background concentrations, as

presented in **Table F4.6-24**, are not predicted to exceed the SO_2 CAAQS for all averaging periods, the 1-hour and 8-hour CO, CAAQS, or the 1-hour NO_2 CAAQS.[338] The maximum PM_{10} concentrations for Alternative A, when added to future background concentrations, are predicted to exceed the 24-hour and annual PM_{10} CAAQS in 2015. The combined, peak concentrations of CO, NO_2, SO_2, and PM_{10} for operational and construction sources, when added to the 2015 future background concentrations, as presented in **Table F4.6-24**, are not predicted to exceed the SO_2 NAAQS for all averaging periods, the 1-hour and 8-hour CO NAAQS, the annual NO_2 NAAQS, or the annual and 24-hour PM_{10} NAAQS. In comparing the combined, peak concentrations for operations and construction sources, when added to the 2015 future background concentrations, under Alternative A for 2015 to those under the No Action/No Project Alternative, the maximum annual NO_2, 1-hour CO, annual*, 24-hour, and 3-hour* SO_2, and annual and 24-hour PM_{10} concentrations under Alternative A ~~is~~ *are* predicted to be greater than ~~that~~ *those* under the No Action/No Project Alternative; and the maximum 8-hour CO ~~and 24 hour and 3 hour SO_2~~ concentration~~s~~ under Alternative A ~~are~~ *is* predicted to be the same as ~~those~~ *that* under the No Action/No Project Alternative.

9. The last paragraph, on page 4-746 is revised as follows:

As indicated in **Table F4.6-22**, the differences in mitigated regional traffic emissions of CO, VOC, NO_X, and PM_{10} between Alternative D and the adjusted environmental baselines would be higher than the operations emissions thresholds presented in **Table F4.6-8**. Therefore, the Alternative D regional emissions of CO, VOC, NO_X, and PM_{10} would remain significant under CEQA in 2013. In comparing the mitigated regional traffic emissions under Alternative D for 2013 to emissions under the No Action/No Project Alternative, emissions of CO, VOC, NO_X, and SO_2 under Alternative D are estimated to be lower than emissions under the No Action/No Project Alternative, and emissions of PM_{10} under Alternative D are estimated to be ~~lower~~ *greater* than emissions under the No Action/No Project Alternative.

10. The paragraph with the subheading of Combined Concentrations - 2013, on page 4-747 is revised as follows:

Combined Concentrations - 2013

The combined, peak concentrations of CO and NO_2 for operational and construction-related sources in **Table F4.6-24** are predicted to meet the 1-hour and 8-hour CO*,* ~~and~~ 1-hour NO_2,[343]*, and 24-hour and 1-hour* SO_2 CAAQS. The maximum concentrations ~~are predicted to exceed the environmental baseline PM_{10} concentrations and~~ are predicted to exceed the PM_{10} CAAQS. Therefore, PM_{10} concentrations for Alternative D would be significant in 2013. It should be noted that for Alternative D, 1-hour and 8-hour CO concentrations are all predicted to be below the environmental baseline concentrations. The combined, peak concentrations of CO, NO_2, and SO_2 for construction and operation sources under Alternative D, when added to the 2013 future background concentrations, as presented in **Table F4.6-24,** are predicted to meet the 1-hour and 8-hour CO NAAQS, the SO_2 NAAQS for all averaging periods, the annual NO_2[344] NAAQS, and the 24-hour and annual PM_{10} NAAQS. In comparing the combined, peak concentrations for operations and construction sources, when added to the 2013 future background concentrations, under Alternative D for 2013 to those under the No Action/No Project Alternative, the maximum 1-hour and 8-hour CO, annual, 24-hour, and 3-hour SO_2, and annual and 24-hour PM_{10} concentrations under Alternative D are predicted to be lower than those under the No Action/No Project Alternative, while the maximum annual NO_2

[338] See Attachment P to Technical Report S-4, *Supplemental Air Quality Technical Report*, for supplemental 1-hour NO_2 dispersion analysis.

[343] See Attachment P to Technical Report S-4, *Supplemental Air Quality Technical Report*, for supplemental 1-hour NO_2 dispersion analysis.

[344] See Attachment P to Technical Report S-4, *Supplemental Air Quality Technical Report*, for supplemental 1-hour NO_2 dispersion analysis.

concentration under Alternative D is predicted to be greater than that under the No Action/No Project Alternative.

11. The paragraph with the subheading of Combined Concentrations - 2015, starting on page 4-747 is revised as follows:

Combined Concentrations - 2015

The mitigated combined, peak concentrations of CO, NO_2, SO_2, and PM_{10} for operational and construction sources, when added to the 2015 future background concentrations, are not predicted to exceed the SO_2 CAAQS for all averaging periods, the 1-hour and 8-hour CO CAAQS, or the 1-hour ~~and annual~~ NO_2 CAAQS.[345] The maximum PM_{10} concentrations for Alternative D, when added to future background concentrations, are predicted to exceed the 24-hour and annual PM_{10} CAAQS in 2015. Therefore, PM_{10} concentration impacts from Alternative D would be significant in 2015. It should be noted that for Alternative D, 1-hour and 8-hour CO, and 24-hour and annual PM_{10} concentrations are all predicted to be below the environmental baseline concentrations. The combined, peak concentrations of CO, NO_2, SO_2, and PM_{10} for operational and construction sources, when added to the 2015 future background concentrations, as presented in **Table F4.6-24**, are not predicted to exceed the SO_2 NAAQS for all averaging periods, the 1-hour and 8-hour CO NAAQS, the annual NO_2 NAAQS, or the annual and 24-hour PM_{10} NAAQS. In comparing the combined, peak concentrations for operations and construction sources, when added to the 2015 future background concentrations, under Alternative D for 2015 to those under the No Action/No Project Alternative, the maximum 1-hour and 8-hour CO, annual NO_2, annual, 24-hour, and 3-hour SO_2, and *annual and* 24-hour PM_{10} concentrations under Alternative D are predicted to be lower than *or equal to* those under the No Action/No Project Alternative~~, while the maximum annual PM_{10} concentration under Alternative D is predicted to be greater than that under the No Action/No Project Alternative~~.

Revisions to Appendices

Appendix A: Scoping and Agency Coordination

1. A copy of the City of Culver City's Master Plan EIR/EIS scoping comments has been added to Appendix A, *Scoping and Agency Coordination*. The subject comments are provided in Attachment 1, City of Culver City's Master Plan EIR/EIS Scoping Comments, of this appendix.

[345] See Attachment P to Technical Report S-4, *Supplemental Air Quality Technical Report*, for supplemental 1-hour NO_2 dispersion analysis.

Revisions to Technical Report Text

Technical Report S-2b: Off-Airport Surface Transportation

1. Table S5, Anticipated Expansions of Transit Services for Year 2015 for the LAX Study Area, in Section 2.4, *Future Transportation System Improvements*, on page 18 is revised as follows:

Table S5

Anticipated Expansions of Transit Services for Year 2015 for the LAX Study Area

Metrorail Capacity Increases and Route Extensions

Line	Added Capacity – Year 2015	Line Extensions
MTA Green Line	30%	Station Transfer Line to LAX ITC
MTA Blue Line	50%	None Planned

Bus Service Expansion and Modifications

Operator	Improved Headway	Recent or Planned Service & Route Extensions	Improve Weekend Service	Span of Service
LACMTA	♦ Selectively ♦ In peak to meet demand	♦ LACMTA will add new Metro Rapid Bus Lines	No Improvement Planned	None Planned
SMMBL	♦ System wide as dictated by ridership growth	♦ SMMBL may extend routes or take over LACMTA routes if warranted ♦ LACMTA routes may be truncated and taken over by other operations	Selectively to meet demand	Selectively to meet demand
~~Culver City Transit~~	~~♦ Line 6~~ ~~♦ Selectively on other Lines~~	~~♦ Extend Route 3 to Playa Vista and ultimately to LAX~~	~~Selectively to meet demand~~	~~Selectively to meet demand~~
Torrance Transit	♦ System wide improvements	♦ Extend Line 8 to Aviation/I-105 Green Line Station	Selectively to meet demand	Selectively to meet demand

Source: Barton-Aschman Associates, Inc. – PTG, 1998.

2. The bulleted text included in Section 2.4, *Future Transportation System Improvements,* beginning on page 18 and continuing onto page 19 is revised as follows:

> ♦ **Culver City Transit (CCMBL)** – CCMBL nearly doubled its ridership over a 9-year period from 2.4 million boardings in 1998 to 4.4 million in 1997. With a very productive system average of 47 passenger boardings per vehicle service hour (VSH), CCMBL has only limited unused capacity to meet future growth demand and therefore has a plan to increase its fleet size to 65 vehicles by year 2015. ~~In terms of service expansion, CCMBL is taking over certain LACMTA routes in Marina Del Rey and has extended its cross-town Route (#3) from Fox Hills Mall to Playa Vista and LAX.~~ CCMBL also has plans to improve headways on its Route #6 and envisions the development of new routes to serve the LAX study area.

3. The first paragraph under the heading Transit Corridor Capacities, on page 50 is revised as follows:

> An analysis was conducted to determine transit corridor capacities within the study area. Based upon the headways of all the transit bus lines serving the corridors, the total number of buses in service during the 1-hour a.m. peak hour (during the 3 to 6 a.m. period) and the p.m. peak hour (during the 3 to 6 p.m. period) was estimated for each line. The passenger capacities of the corridors were estimated assuming 47-seat buses for all lines. The year 2015 capacities were estimated using a growth rate of 15 percent and 45 percent, respectively. Detailed calculations are shown in Attachment G of ~~this report.~~ *Technical Report 3b, Off-Airport Ground Access Impacts and Mitigation Measures, of the Draft EIS/EIR*.

Attachment 1

City of Culver City's Master Plan EIR/EIS Scoping Comments

PLANNING DIVISION

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MASTER PLAN EIR/EIS SCOPING COMMENTS

The City of Culver City appreciates the opportunity to provide scoping comments to focus the contents of the EIR/EIS for the Los Angeles World Airport (LAWA) Master Plan. The City requests that the following issues be analyzed in the environmental review document:

Airport Access -- The primary issue of concern to the City of Culver City is traffic accessing LAWA on already congested roadways serving the Westside. Pass-through traffic from Downtown, Century City and other areas north and east of Culver City on its way to LAWA creates impacts on Culver City residents and businesses now. The increase in vehicular traffic required to support the increasing operations anticipated in the Master Plan plus the addition of trips from large already-approved projects, such as Playa Vista and Hughes Center, will result in significant congestion.

Specific studies to determine the existing proportional traffic on roadways should be part of the traffic analysis included in the environmental document. In-road surveys during drive time were conducted on roadways such as Sepulveda Boulevard at Imperial Highway within the last few years. This type of survey should be conducted along La Cienega, Sepulveda and Jefferson Boulevards if it has not been already. The traffic analysis should specifically analyze the components of LAWA and related airport complex traffic along the major access corridors.

The addition of terminals at the western end will redistribute traffic to the benefit of some roadways and the detriment of others. The traffic analysis should evaluate in detail all roads leading to the expanded airport complex.

Regional Context -- In order the understand the growth in demand for air cargo and passenger travel at LAWA, the relative growth within the region and in an international context needs to be provided. Specifically, the potential for future airport capacity to be provided at existing or future airports (e.g., John Wayne, Palmdale, El Toro) within the region, and the competitive advantage of the Southern California region compared to other West Coast metropolitan areas has to be defined to provide a clear understanding of the actual needs at LAWA within the master plan timeframe

The actual existing and anticipated regional context of the airport and supporting facilities, including transportation (freight and passenger) by road-based vehicles and fixed-guideway trains and mass transit, need to be documented in the environmental analysis to establish the effective activity zone of the project site. The project site has to be defined to include at a minimum all dedicated facilities that serve the airport complex and should include other reasonably related facilities that do or are expected to primarily serve the airport under each of the four development scenarios

Air Quality -- The airport complex is already one of the largest contributor of air emissions in the South Coast Air Basin Airborne particulates are getting increasing recognition as a major source of health impacts. The regional impact of particulates and other potentially symbiotic emissions from overflights and the localized air quality impacts from increased traffic at congested intersections should be analyzed in the environmental document.

Changes in Approach Volume or Routing -- The City of Culver City is concerned that approaches over Culver City will increase in frequency with an increase in operations at LAWA. Increasing complaints from the public farther north and south of the airport indicate that this trend has already begun. Residents of the South Bay and Westside are experiencing increasing overflights This trend should be explored in the environmental analysis With additional runways dedicated to commuter and other small aircraft proposed for the outer edges of the airport, it is not hard to imagine concentric approaches for flights approaching each runway, with more of the flights coming from north and east using the airspace over Culver City

The environmental document must clearly describe how the additional flights anticipated in the Master Plan will approach LAWA, how the airspace will be shared with and may impact general aviation facilities such as Santa Monica Airport, and whether additional connections via helicopter or other means between LAWA and other airfields might be required to support the increase operations at LAWA.

Air Traffic Safety -- The additional of one to two runways on an admittedly undersized airfield will create very tight spacing. The environmental document should discuss air and ground traffic safety issues related to wake turbulence separations, taxiways, ground vehicle circulation and fueling. The relationship of the CNG/LNG fueling station recently proposed for Taxiway 75 appears to be very near the location of the proposed western terminal. This seems to be an avoidable land use and safety conflict that should be resolved in the master plan.

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Economic Analysis -- Either as part of the environmental document, or available separately at the time the project is considered, an analysis of the regional and local economic benefits and costs of the project and its alternatives should be provided.

Please continue to provide notices as the project progresses. The City remains available for ongoing discussions on the methodology and results of the impact analysis. Please call me at 310/253-5738 with any questions or to set up additional discussions.

Sincerely,

Steven L. Gerhardt, AICP
Environmental Coordinator

SLG:jrs

Copy: Mrs. Jody Hall-Esser, Chief Administrative Officer
Norman Herring, City Attorney
James Davis, Public Works Director/City Engineer
Mark Winogrond, Community Development Director
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Roy Hefner, Los Angeles International Airport Area Advisory Committee

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