

Draft Environmental Impact Report/ Environmental Assessment for the Wilshire Bus Rapid Transit Project

State Clearinghouse No. 2009091094



Metro

*Los Angeles County Metropolitan
Transportation Authority*



*Federal Transit
Administration*

June 2010

This page left intentionally blank.

Contents

	PAGE
Executive Summary/Summary of Findings.....	ES-1
ES.1 Introduction and Background.....	ES-1
ES.2 Project Location and Setting.....	ES-2
ES.3 Project Description	ES-2
ES.4 Project Goals and Objectives/Purpose and Need.....	ES-5
ES.5 Alternatives to the Proposed Project.....	ES-7
ES.5.1 No Project Alternative	ES-7
ES.5.2 Alternative A: Truncated Project Without Jut-Out Removal.....	ES-8
ES.5.3 Alternative B: Truncated Project.....	ES-8
ES.5.4 Alternative C: Mini-Bus Lanes.....	ES-10
ES.6 Areas of Controversy.....	ES-10
ES.7 Issues to Be Resolved.....	ES-12
ES.8 Summary of Impacts and Mitigation Measures	ES-12
1.0 Introduction	1-1
1.1 Purpose of the EIR/EA.....	1-1
1.2 Focus of the EIR/EA.....	1-3
1.3 Intended Uses of the EIR/EA	1-3
1.4 EIR Participants and Public Review	1-4
1.4.1 The CEQA/NEPA Environmental Review Process.....	1-4
1.5 Community/Public Outreach Efforts.....	1-7
1.5.1 Meeting Preparation	1-7
1.5.2 Stakeholder Database.....	1-8
1.5.3 Web Notice	1-9
1.5.4 Email Notification	1-10
1.6 Areas of Public Concern and Known Controversy	1-10
1.7 Organization of the EIR/EA.....	1-11
2.0 Project Description	2-1
2.1 Introduction	2-1
2.2 Project Location	2-1
2.3 Project History and Background	2-1
2.4 Project Goals and Objectives/Purpose and Need	2-3
2.5 Overview of Surrounding Land Uses and Environmental Setting.....	2-5
2.5.1 Project Corridor.....	2-5
2.6 Project Description	2-8
2.7 Estimated Construction Schedule	2-11
2.8 Approvals.....	2-12

3.0 Environmental Setting	3-1
3.1 Regional Setting.....	3-1
3.2 Local Setting.....	3-1
4.0 CEQA Environmental Analysis.....	4-1
4.1 Traffic, Circulation, and Parking.....	4.1-1
4.2 Air Quality.....	4.2-1
4.3 Cultural Resources.....	4.3-1
4.4 Noise.....	4.4-1
4.5 Land Use	4.5-1
4.6 Aesthetics	4-6.1
4.7 Biological Resources.....	4.7-1
5.0 Alternatives to the Proposed Project.....	5-1
5.1 Introduction	5-1
5.2 Alternatives Considered	5-2
5.2.1 No Project Alternative.....	5-2
5.2.2 Alternative A – Truncated Project Without Jut-out Removal	5-5
5.3 Alternatives Considered But Rejected.....	5-32
5.3.1 Alternative B – Truncated Project Alternative.....	5-32
5.3.2 Alternative C – Mini-Bus Lanes Alternative	5-32
5.4 Environmentally Superior Alternative	5-33
6.0 Other CEQA Considerations.....	6-1
6.1 Cumulative Impacts	6-1
6.1.1 Regulatory Setting.....	6-1
6.1.2 Study Area	6-1
6.1.3 Impact Assessment.....	6-1
6.1.4 Methodology	6-1
6.1.5 Traffic.....	6-3
6.1.6 Air Quality	6-4
6.1.7 Cultural Resources.....	6-5
6.1.8 Noise	6-7
6.1.9 Land Use.....	6-8
6.1.10 Aesthetics.....	6-8
6.1.11 Biology	6-9
6.2 Summary of Significant Unavoidable Impacts.....	6-10
6.3 Significant Irreversible Environmental Changes	6-11
6.4 Growth-Inducing Impacts.....	6-12
6.5 Effects Not Found to Be Significant	6-12
6.5.1 Aesthetics.....	6-12
6.5.2 Agriculture.....	6-13
6.5.3 Biological Resources	6-13
6.5.4 Geology/Soils	6-13
6.5.5 Hazards & Hazardous Materials.....	6-14
6.5.6 Hydrology/Water Quality	6-14
6.5.7 Mineral Resources	6-15
6.5.8 Population & Housing.....	6-15
6.5.9 Public Services	6-15

6.5.10 Recreation	6-16
6.5.11 Utilities	6-16
7.0 NEPA Environmental Assessment	7-1
7.1 Introduction	7-1
7.2 Environmental Assessment	7-1
7.2.1 Land Use and Zoning	7-1
7.2.2 Traffic and Parking	7-5
7.2.3 Air Quality	7-8
7.2.4 Metropolitan Planning and Air Quality Conformity	7-12
7.2.5 Carbon Monoxide Hot Spots	7-14
7.2.6 Greenhouse Gas Emissions	7-18
7.2.7 Historic, Archaeological, and Paleontological Resources	7-21
7.2.8 Visual Quality	7-27
7.2.9 Noise	7-31
7.2.10 Vibration	7-34
7.2.11 Land Acquisitions, Displacement, and Relocation	7-38
7.2.12 Hazardous Materials	7-40
7.2.13 Geology, Soils, and Seismicity	7-44
7.2.14 Community Disruption and Environmental Justice	7-48
7.2.15 Public Parkland and Recreation Areas	7-51
7.2.16 Wetlands and Floodplains	7-56
7.2.17 Water Quality, Navigable Waterways, and Coastal Zones	7-58
7.2.18 Ecologically Sensitive Areas and Endangered Species	7-61
7.2.19 Energy Resources	7-64
7.2.20 Safety and Security	7-66
7.2.21 Construction	7-69
7.3 Statutory Checklist	7-76
8.0 References, Organizations, and Persons Consulted	8-1
8.1 References	8-1
8.2 Organizations and Persons Consulted	8-6
9.0 List of Preparers	9-1
9.1 Public Agencies	9-1
9.2 Consultants	9-2

Appendices

- Appendix A – Notice of Preparation (NOP), and NOP Response Letters
- Appendix B – Traffic Study
- Appendix C – Air Quality Assessment Report
- Appendix D – Architectural Resource Technical Study
- Appendix E – Archaeological Resources Technical Study
- Appendix F – Noise Spreadsheets
- Appendix G – Community Impact Assessment
- Appendix H – Section 4(f) Technical Study
- Appendix I – Demonstration Program Report

List of Figures

	PAGE
ES-1	Proposed Project Plan.....ES-4
ES-2	Alternative A – Truncated Project Without Jut-Out Removal.....ES-9
2-1	Regional Location..... 2-2
2-2	Project Vicinity..... 2-6
2-3	Jurisdictional Boundaries of Community Planning Areas 2-7
2-4	Project Project Plan..... 2-10
4.1-1a	Existing Lane Configurations..... 4.1-7
4.1-1b	Existing Lane Configurations..... 4.1-8
4.1-2a	Year 2010 Without Project Volumes 4.1-21
4.1-2b	Year 2010 Without Project Volumes 4.1-22
4.1-3a	2012 With Project Peak Hour Volumes 4.1-23
4.1-3b	2012 With Project Peak Hour Volumes 4.1-24
4.1-4a	Proposed Project Lane Configurations..... 4.1-25
4.1-4b	Proposed Project Lane Configuration 4.1-26
4.1-5a	2020 Without-Project Peak-Hour Volumes..... 4.1-28
4.1-5b	2020 Without-Project Peak-Hour Volumes..... 4.1-29
4.1-6a	Year 2020 With Proposed Project Volumes 4.1-30
4.1-6b	Year 2020 With Proposed Project Volumes 4.1-31
4.4-1	Sound Levels of Typical Noise Sources 4.4-2
4.4-2	Typical Levels of Groundborne Vibration 4.4-4
4.4-3	Noise Measurement/Modeling Locations East..... 4.4-7
4.4-4	Noise Measurement/Modeling Locations West 4.4-8
4.5-1	Jurisdictional Boundaries of Community Planning Areas 4.5-2
4.6-1	Existing Jut-Out and Associated Landscaping Located Along the Wilshire Corridor 4.6-3

List of Figures (Continued)

	PAGE
4.7-1	CNDDDB Species Map 4.7-3
5-1	Alternative A – Truncated Project Without Jut-Out Removal..... 5-6
7-1	Flow Chart of Vibration Screening Process 7-38

List of Tables

	PAGE
ES-1	Summary of Impacts and Mitigation Measures (Proposed Project and Alternative A) ES-13
4.1-1	Existing Intersection LOS..... 4.1-10
4.1-2	LOS Criteria for Intersections..... 4.1-13
4.1-3	Significant Impact Criteria for Local Residential Streets 4.1-13
4.1-4	Future Development Projects 4.1-15
4.1-5	2012 With Project AM Peak Hour Intersection LOS..... 4.1-17
4.1-6	2012 With Project PM Peak Hour Intersection LOS..... 4.1-19
4.1-7	2020 With Project AM Peak Hour Intersection LOS..... 4.1-32
4.1-8	2020 With Project PM Peak Hour Intersection LOS..... 4.1-34
4.1-9	Mitigated 2012 With Project AM Peak Hour Intersection LOS..... 4.1-42
4.1-10	Mitigated 2012 With Project PM Peak Hour Intersection LOS..... 4.1-43
4.1-11	Mitigated 2020 With Project AM Peak Hour Intersection LOS..... 4.1-44
4.1-12	Mitigated 2020 With Project PM Peak Hour Intersection LOS
4.2-1	Federal and State Ambient Air Quality Standards 4.2-7
4.2-2	Federal and State Attainment Status for South Coast Air Basin 4.2-8
4.2-3	Air Quality Data from Los Angeles – North Main Street Station (ARB 70087) 4.2-15
4.2-4	Worst-Case Construction Emissions (pounds per day)..... 4.2-21
4.2-5	Worst-Case Localized Construction Emissions (pounds per day) 4.2-22

List of Tables (Continued)

	PAGE
4.2-6	Project Buildout (Year 2012)—Local Area Carbon Monoxide Dispersion Analysis . 4.2-24
4.2-7	Project Horizon (Year 2020)—Local Area Carbon Monoxide Dispersion Analysis . 4.2-26
4.2-8	Estimate of Project-Related Greenhouse Gas Emissions (tons per year) 4.2-30
4.3-1	Archaeological Resources Recorded in the Survey Area 4.3-25
4.3-2	Historic Properties Identified within the Study Area..... 4.3-26
4.4-1	Short-Term Sound Level Measurement Results..... 4.4-9
4.4-2	Reaction of People and Damage to Buildings at Various Continuous Vibration Levels 4.4-12
4.4-3	City of Los Angeles Guidelines for Noise Compatible Land Use 4.4-14
4.4-4	County of Los Angeles Exterior Noise Standards 4.4-15
4.4-5	County of Los Angeles Maximum Noise Levels for Short-term Operation (less than 10 days) of Mobile Equipment 4.4-16
4.4-6	County of Los Angeles Maximum Noise Levels for Long-Term Operation (periods of 10 days or more) of Stationary Equipment..... 4.4-16
4.4-7	Construction Equipment Noise Ranges 4.4-21
4.4-8	Typical Noise Levels from Construction Activities for Public Works Roads and Highways, Sewers, and Trenches Projects in Typical Urban Areas 4.4-21
4.4-9	Predicted Traffic Noise Levels – Proposed Project 4.4-25
4.4-10	Vibration Velocities for Construction Equipment 4.4-27
4.5-1	Description of Land Uses, Activity Centers, and Community Facilities 4.5-5
4.5-2	Proposed Project Consistency with Applicable City of Los Angeles Community Plans... 4.5-18
4.5-3	Proposed Project Consistency with 2008 Regional Transportation Plan Goals..... 4.5-21
4.7-1	Sensitive Species with Potential to Occur in Project Area 4.7-2
4.7-2	Sensitive Species with Potential to Occur in Project Area 4.7-3
5-1	Year 2012 With Alternative A AM Peak Hour Intersection LOS..... 5-7
5-2	Year 2012 With Alternative A PM Peak Hour Intersection LOS 5-9
5-3	Year 2020 With Alternative A AM Peak Hour Intersection LOS..... 5-11

List of Tables (Continued)

	PAGE
5-4	Year 2020 With Alternative A PM Peak Hour Intersection LOS 5-13
5-5	Year 2012 With-Alternative A AM Peak-Hour Intersection LOS at Impacted Intersections with Mitigation..... 5-16
5-6	Year 2012 With-Alternative A PM Peak-Hour Intersection LOS at Impacted Intersections with Mitigation..... 5-17
5-7	Year 2020 With-Alternative A AM Peak-Hour Intersection LOS at Impacted Intersections with Mitigation..... 5-17
5-8	Year 2020 With-Alternative A PM Peak-Hour Intersection LOS at Impacted Intersections with Mitigation..... 5-18
5-9	Alternative A (Year 2012)—Local Area Carbon Monoxide Dispersion Analysis 5-21
5-10	Alternative A (Year 2020)—Local Area Carbon Monoxide Dispersion Analysis 5-24
5-11	Predicted Traffic Noise Levels – Alternative A..... 5-28
5-12	Comparison of Proposed Project, Alternative A, and No Project Alternative..... 5-33
6-1	Future Development Projects 6-3
7-1	Properties Listed in or Determined Eligible for Listing in the National Register of Historic Places 7-25
7-2	List of Leaking Underground Storage Tanks and Other Cleanup Sites within the Wilshire Corridor..... 7-43
7-3	Poverty Level..... 7-52
7-4	Public Parks Located along the Project Alignment 7-55
7-5	Vibration Source Levels for Construction Equipment (from measured data) 7-80
7-6	Statutory Checklist..... 7-83

Acronyms and Abbreviations

ACHP	Advisory Council on Historic Preservation
ADT	average daily traffic
amsl	above mean sea level
APE	Area of Potential Effect
ARTR	Architectural Resources Technical Report
ASR	Archaeological Survey Report
ATCS	Adaptive Traffic Control System
ATSAC	Automated Traffic Surveillance and Control System
Basin	South Coast Air Basin
BMPs	best management practices
BRT	Bus Rapid Transit
CAA	Clean Air Act
California Register	California Register of Historical Resources
Caltrans	California Department of Transportation
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CH ₄	methane
CIA	Community Impact Assessment
CMA	Critical Movement Analysis
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNG	compressed natural gas
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
Cortese List	Hazardous Waste and Substances Sites List
County	Los Angeles County
dB	decibels
dBA	A-weighted sound level
DNL or L _{dn}	Day-Night Average Sound Level

Acronyms and Abbreviations (Continued)

DOT	Department of Transportation
EA	Environmental Assessment
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FONSI	Finding of No Significant Impact
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GHG	greenhouse gas
HCM	Highway Capacity Manual
HOV	high occupancy vehicle
HPOZ	Historic Preservation Overlay Zone
HRA	health risk assessment
Hz	hertz
I-10	Interstate 10 (Santa Monica Freeway)
I-405	Interstate 405 (San Diego Freeway)
IPS	inches per second
IS	Initial Study
LABOE	Los Angeles Bureau of Engineering
LABOS	Los Angeles Bureau of Street Services
LACMTA	Los Angeles County Metropolitan Transportation Authority
LADOT	Los Angeles Department of Transportation
LAHCM	Los Angeles Historic-Cultural Monument
LAMC	Los Angeles Municipal Code
LAUSD	Los Angeles Unified School District
LAX	Los Angeles International Airport
L _{eq}	equivalent sound level
LOS	level of service
LST	Localized Significance Threshold
LUP	Land Use Plan
LUST	leaking underground storage tank

Acronyms and Abbreviations (Continued)

MBTA	Migratory Bird Treaty Act
N ₂ O	nitrous oxide
NAHC	Native American Heritage Commission
National Register	National Register of Historic Places
NCCP	Natural Community Conservation Planning
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOP	Notice of Preparation
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
O ₃	ozone
OHP	California Office of Historic Preservation
PCE	passenger car equivalent
PPV	peak particle velocity
PRC	Public Resources Code
proposed project	Wilshire Bus Rapid Transit Project
RCP	Regional Comprehensive Plan
RMS	root-mean square
ROG	reactive organic gases
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SEA	significant ecological area
SEAs	significant ecological areas
SHPO	State Historic Preservation Officer
SLM	sound level meter
SOC	Statement of Overriding Considerations
SRA	Source Receptor Area
Standards	Secretary of the Interior's Standards for Rehabilitation
SUSMP	Standard Urban Stormwater Mitigation Plan
SWPPP	Stormwater Pollution Prevention Plan

Acronyms and Abbreviations (Continued)

TDM	Transportation Demand Management
TIMP	Transportation Improvement and Mitigation Plan
TMP	Traffic Management Plan
TNM	Traffic Noise Model
TSM	Transportation System Management
V/C	volume to capacity
VA	Veterans Administration
VMT	vehicle miles traveled
WPA	Works Progress Administration

This page left intentionally blank.

Executive Summary/Summary of Findings

ES.1 Introduction and Background

In March 2004, the Los Angeles Department of Transportation (LADOT) and the Los Angeles County Metropolitan Transportation Authority (LACMTA) implemented peak period bus lanes along a one-mile segment of Wilshire Boulevard between Centinela Avenue and Federal Avenue in West Los Angeles, as part of a Bus Lane Demonstration Project. The purpose of this demonstration project was to test whether curbside, exclusive bus lanes operating in the a.m. and p.m. peak periods would significantly improve bus travel speeds and service on Wilshire Boulevard. This demonstration project resulted in improvements in bus speeds and reliability through the one-mile segment. Before and after data analysis indicated that this demonstration project resulted in a 14 percent bus speed improvement and up to a 32 percent improvement in bus schedule reliability.

In November 2006, LACMTA and LADOT began studying the feasibility of implementing end-to-end bus lanes on Wilshire Boulevard between downtown Los Angeles and the City of Santa Monica. The City of Los Angeles and LACMTA began the Wilshire Bus Speed Improvement Study. Three options were developed by LADOT, which are as follows:

- Peak period end-to-end bus lanes, which consists of the conversion of Wilshire Boulevard curb lanes from mixed flow to bus and right-turn only, and implementation of a number of engineering enhancements, including increased bus signal priority, bus stop relocations, pavement repair, and minor on-street parking space removal to improve bus speeds, schedule reliability, and overall bus travel times.
- All day mini bus lanes, which consist of implementation of “mini” bus lanes in selected segments, construction of a number of minor street improvements, and implementation of the engineering enhancements identified above.
- Implementation of engineering enhancements (e.g., traffic signal modifications/Transit Priority System) only.

In May 2007, the Los Angeles City Council was presented with the above options and made a decision to pursue the first option of constructing peak period end-to-end bus lanes, which clearly met the corridor objectives to reduce bus congestion, improve passenger travel times and average bus speeds, minimize parking space removal, and improve the mode shift from automobile to bus.

In August 2007, the demonstration project was temporarily suspended by the Los Angeles City Council until the one-mile segment could be integrated into a larger bus lane project.

In September 2007, LACMTA and the City of Los Angeles submitted a “Very Small Starts” funding application to the Federal Transit Administration (FTA) for the Wilshire Bus Rapid Transit (BRT) Project. Subsequently, in December 2007, FTA approved LACMTA’s request to initiate project development activities for the proposed project.

LACMTA, City of Los Angeles, and Los Angeles County began evaluating the proposed Wilshire BRT Project in November 2008 as part of preparing an Initial Study/Environmental Assessment (IS/EA). Between November 12, 2008 and November 19, 2008, four community meetings were held to view a presentation regarding the Wilshire BRT Project and submit questions and/or comments for the technical team to incorporate. These meetings were attended by well over 300 residents and stakeholders.

As a consequence of input received at the community meetings held in November 2008, an Environmental Impact Report/Environmental Assessment (EIR/EA) is now being prepared. Another set of four project scoping meetings were held between October 5, 2009 and October-13, 2009, to provide the public the opportunity to comment on the project and the potential effects of the project that should be considered in the Draft EIR/EA.

ES.2 Project Location and Setting

The project is proposed along a corridor of Wilshire Boulevard between Valencia Street to the east (west of the Harbor Freeway) and Centinela Avenue to the west, excluding the portion of Wilshire Boulevard within the City of Beverly Hills. A majority of the project falls within the mid-western area of the City of Los Angeles and includes 9.7 miles of peak period curbside bus lanes. A small portion of the project, between Veteran Avenue and Federal Avenue (approximately 0.8 mile) near the Veterans Administration facilities, is within Los Angeles County jurisdiction. The Wilshire corridor is a densely populated, highly developed inner urban region with extensive commercial and nearby residential uses. Regional access to the Wilshire corridor is provided by a large number of intersecting streets, including Alvarado Street, Hoover Street, Vermont Avenue, Western Avenue, Crenshaw Boulevard, Highland Avenue, La Brea Avenue, Fairfax Avenue, San Vicente Boulevard, La Cienega Boulevard, Robertson Boulevard, Santa Monica Boulevard, Beverly Glen Boulevard, Westwood Boulevard, Sepulveda Boulevard, the San Diego Freeway (Interstate 405), Barrington Avenue, Bundy Avenue, and Centinela Avenue.

ES.3 Project Description

Implementation of the proposed project would require a number of general improvements. These general improvements include restriping of traffic lanes, as necessary; conversion of existing curb lanes to bus lanes in each direction during peak periods; upgrade of the existing transit signal priority system; selective street widening; reconstruction/resurfacing of curb lanes in select areas; and installation of traffic/transit signage and pavement markings, as necessary, to implement dedicated peak period bus lanes.

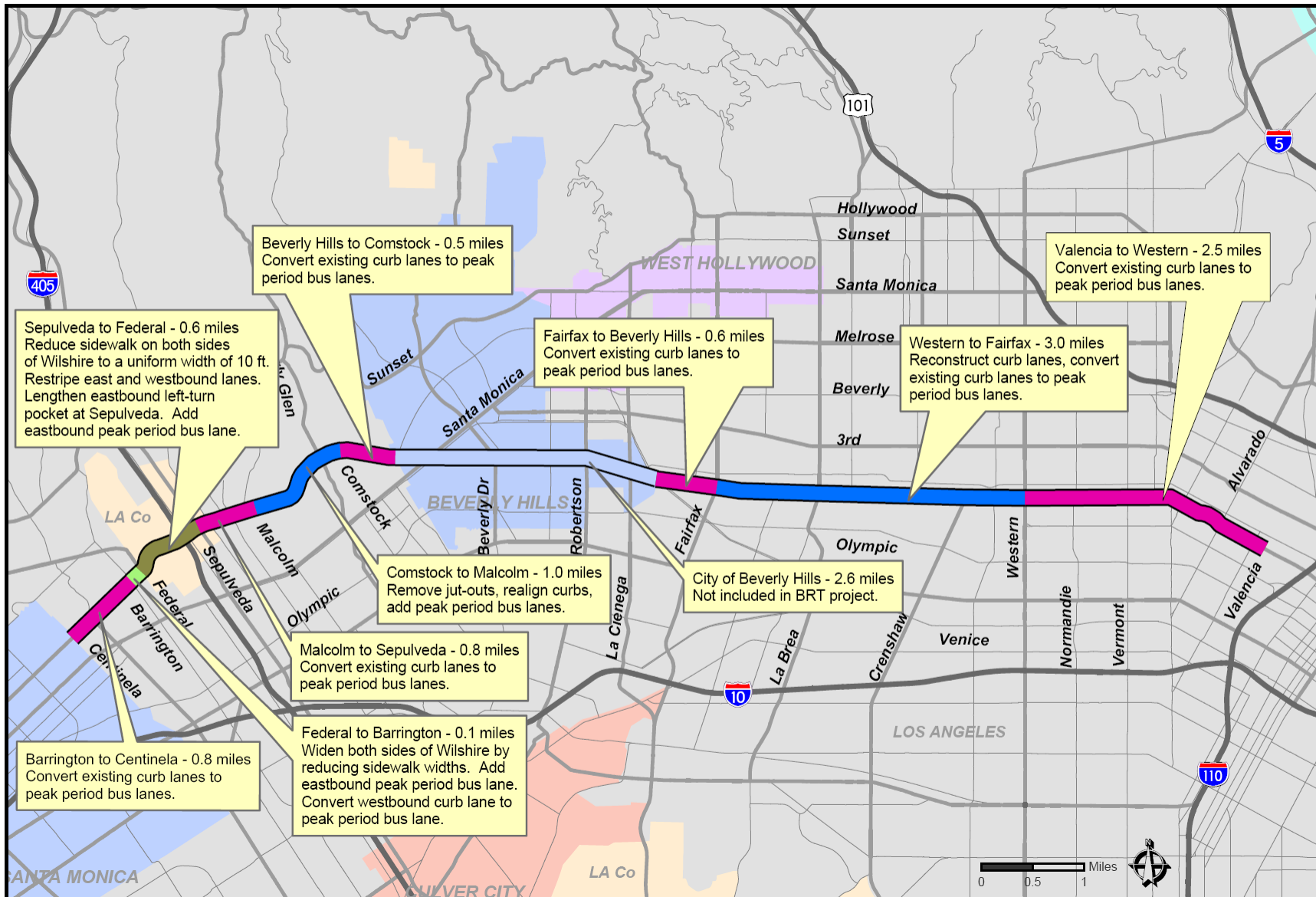
A variety of activities are proposed along the entire length of the project corridor within the City's boundaries (approximately 9.1 miles). Most of the existing curb lanes on Wilshire Boulevard in the City of Los Angeles would be "converted" to a bus and right-turn only operation in the peak periods (7 a.m. to 9 a.m. and 4 p.m. to 7 p.m.) on weekdays. In these segments, the curb lanes would be repaired or reconstructed, where necessary, and restriped and signed as peak period bus lanes. In other areas, curbside bus lanes would be added as new lanes to Wilshire Boulevard by widening or with the removal of jut-outs. Upgrades to the transit signal priority system would also be implemented, including (1) addition of bus signal priority at intersections with near-side bus stops (a recently developed and successfully tested concept), (2) increase in maximum available time for transit signal priority from 10 percent to 15 percent of the traffic signal cycle at minor intersections, and (3) reduction in the number of traffic signal recovery cycles from two to one at key intersections along the corridor.

A portion of the proposed project is under County jurisdiction, between Veteran Avenue and Federal Avenue (approximately 0.8 mile) near the Veterans Administration facilities. Key elements of the County's project scope include widening Wilshire Boulevard between Bonsall Avenue and Federal Avenue, reduction of adjacent sidewalks to a uniform width, traffic lane restriping, adjustments to geometrics and traffic signals, signage and markings, and a 470-foot extension of an eastbound left-turn pocket at Sepulveda Boulevard.

Geographically, the key elements of the proposed project can be discussed based upon specific segments of the 9.9-mile Wilshire Boulevard corridor under consideration (not including the City of Beverly Hills). Proposed in both the eastbound and westbound directions, from east to west, these project segments can be summarized as follows and as presented in Figure ES-1:

- From Valencia Street to Western Avenue (approximately 2.5 miles), existing curb lanes would be converted to peak period bus lanes.
- From Western Avenue to Fairfax Avenue (approximately 3.0 miles), curb lanes would be reconstructed/resurfaced and converted to peak period bus lanes. The curb lanes in this segment have deteriorated to the point that both buses and vehicles seldom use the lanes because of extreme rough and uneven pavement conditions. Reconstruction of the roadway base (below the pavement surface) and curb and gutters, where damaged, would not only allow buses to consistently use the curb lanes but also improve the traffic capacity of the two adjacent lanes (in each direction) by moving buses from the curb-adjacent lanes to the curb lanes, thereby improving both the vehicular and transit levels of service in this segment.
- From Fairfax Avenue to the Beverly Hills city limits at the intersection of San Vicente Boulevard and Wilshire Boulevard (approximately 0.6 mile), existing curb lanes would be converted to peak period bus lanes. The lanes in this segment need only minor surface repairs.
- Within the Beverly Hills city limits (2.6 miles), no bus lanes would be implemented.

Figure ES1. Proposed Project Plan



Source: LACMTA, 2010.

- From the Beverly Hills city limits, west of the intersection of Wilshire Boulevard and Santa Monica Boulevard, to Comstock Avenue (approximately 0.5 mile), existing curb lanes would be converted to peak period bus lanes.
- From Comstock Avenue to Malcolm Avenue (approximately 1.0 mile), various curb improvements, including jut-out removal and realignment of curbs, would be necessary. This would allow the realignment of curbs to create new curb lanes, thereby adding peak period bus lanes. A number of parking spaces would be removed in this segment as a result of the removal of the curb jut-outs.
- From Malcolm Avenue to Sepulveda Boulevard (approximately 0.8 mile), existing curb lanes would be converted to peak period bus lanes.
- From Sepulveda Boulevard to Bonsall Avenue (approximately 0.2 mile), no bus lanes would be implemented. However, at Sepulveda Boulevard, the eastbound left-turn pocket would be lengthened by approximately 470 feet to accommodate a greater number of vehicles that are currently queued in the No. 1 eastbound traffic lane, resulting in full use of the No. 1 lane for through traffic movements.
- From Bonsall Avenue to Federal Avenue (approximately 0.4 mile), in order to accommodate an eastbound peak period bus lane, the sidewalk widths on both sides of Wilshire Boulevard would be reduced to a uniform width. Both eastbound and westbound lanes would be restriped. Wilshire Boulevard between Interstate 405 and Federal Avenue is bordered by the Veterans Administration (VA) property. The sidewalk widths on both sides of Wilshire Boulevard in this segment vary between 10 and 15 feet.
- From Federal Avenue to Barrington Avenue (approximately 0.1 mile), both sides of Wilshire Boulevard would be widened by reducing the sidewalk widths on the north and south sides, allowing restriping of the street and creation of a new eastbound peak period bus lane and conversion of the existing westbound curb lane to a peak period bus lane. The intersection of Wilshire Boulevard and Federal Avenue is extremely congested in the eastbound direction. The widening of this two-block segment would allow buses to pass safely and quickly through the intersection of Wilshire Boulevard and Federal Avenue and provide a contiguous eastbound bus lane from Centinela Avenue to Bonsall Avenue.
- From Barrington Avenue to Centinela Avenue (approximately 0.8 mile), existing curb lanes would be converted to peak period bus lanes.

ES.4 Project Goals and Objectives/Purpose and Need

Wilshire Boulevard is the most heavily used transit corridor in the County of Los Angeles, with over 80,000 bus boardings taking place along the corridor each weekday. In addition to being the most heavily used transit corridor in

the County, Wilshire Boulevard has the distinction of having some of the highest average daily traffic (ADT) volumes in the City of Los Angeles. Approximately 110,000 automobiles pass through the intersections of Westwood Boulevard, Gayley Avenue, and Veteran Avenue each weekday in the Westwood area. While ADT volumes are lower along the eastern portion of the project area (e.g., the ADT volume at Fairfax Avenue is 62,000), the corridor's average ADT volume is estimated at 80,000. Moreover, Wilshire Boulevard is an important strategic BRT corridor due to the following: (1) the Mid-City/Westside segment of Wilshire Boulevard is a highly significant origin and/or destination point for trips in southern California, especially for transit trips, over 41% of which either originate or terminate in the Wilshire corridor; (2) the Wilshire corridor has a significantly higher transit mode split (20%) than the City of Los Angeles as a whole (8%), and the trend is expected to increase from nearly 2.5 to 2.8 times the City mode split; and (3) the Wilshire corridor currently has very high internal trip retention (over half of all trips begin and end in the corridor), and despite growth in regional trips, the corridor is expected to maintain these high internal trip retention percentages.

With increasing ADT volumes on Wilshire Boulevard, demands for viable alternatives to the automobile have increased as congestion continues to slow automobile travel. This same congestion also slows buses, increasing travel time, and reducing schedule reliability for transit customers, while increasing operating costs for Metro. Average bus speeds, along with automobile speeds, have declined steadily over the past 20 years. The Wilshire BRT Project is intended to further improve bus passenger travel times, service reliability, ridership of the existing Wilshire BRT system, and encourage a shift from automobile use to public transit.

Metro's Metro Rapid Program provides fast, frequent regional bus service throughout Los Angeles County. Key features of Metro Rapid include simple route layouts, frequent service, fewer stops, low-floor buses to facilitate boarding and alighting, color-coded buses and stations, and traffic signal priority

The program's success has garnered national acclaim from both the federal government and major transit providers. Launched in June 2000, the Wilshire/Whittier Metro Rapid Line 720 was one of the first two Metro Rapid Bus Rapid Transit (BRT) lines to be implemented in Los Angeles County. It demonstrated that by implementing a few key attributes as mentioned above, passenger travel times could be reduced by as much as 29% and ridership increased by as much as 40%.

Metro Rapid Line 720 currently serves Wilshire Boulevard from 4:00 a.m. to 1:00 a.m. weekdays, with service every 3 to 4 minutes during the peak hours. There are currently 51 buses operating during the peak periods on Metro Rapid Line 720. Wilshire Boulevard is also served by Local Line 20 and Metro Rapid Express Line 920. Local Line 20 operates 24 hours a day with service every 6 minutes during the peak hours, and up to 29 peak buses. Metro Rapid Express Line 920 operates every 6 to 7 minutes during the weekday peak hours only. The same level of service along Wilshire Boulevard is planned post implementation of the Wilshire BRT project.

Construction of the proposed Wilshire BRT project would not only assure the corridor's immediate and long-term success as a BRT facility but would further enhance all transit services along Wilshire Boulevard. When implemented, bus passenger travel times are expected to further improve by an average of 24%. Average Metro Rapid bus speeds are projected to increase by an average of nearly 32%. Up to a 10% mode shift from mixed flow to bus use is projected.

The goals and objectives for the project have been developed from the transportation and land use goals and objectives of local and regional agencies, including the City of Los Angeles, Los Angeles County, and the Southern California Association of Governments (SCAG), who serves as the regional Metropolitan Planning Organization, and are consistent with the other transit improvements currently planned in Los Angeles County. The following is a list of general project goals and objectives that have been developed for the proposed project:

- Improve bus passenger travel times by allowing buses to travel in dedicated peak-period bus lanes for the majority of the alignment between Valencia Street to the east and Centinela Avenue to the west;
- Improve bus service reliability by separating buses from the already high levels of corridor traffic congestion;
- Improve traffic flow along Wilshire Boulevard;
- Repave the curb lanes along damaged portions of Wilshire Boulevard to allow their effective use by buses during peak periods and by both buses and automobiles during non-peak periods;
- Encourage shift from automobile use to public transit by continuing to attract new transit riders;
- Improve air quality in Los Angeles County with the reduction in mobile source emissions resulting from a mode shift from automobile use to bus use; and
- Minimize impacts to existing on-street parking.

ES.5 Alternatives to the Proposed Project

ES.5.1 No Project Alternative

This alternative is required by Section 15126.6(e) of the CEQA Guidelines and assumes that the proposed project would not occur. Under the No Project Alternative, proposed improvements to 9.9 miles of the Wilshire Corridor included under the proposed project would not be implemented. Specifically, the proposed restriping and widening of some existing portions of the Wilshire corridor would not occur. The No Project Alternative would not include the conversion of existing curb lanes to bus lanes in each direction during peak periods; upgrade of the existing transit signal priority system; selective street widening; reconstruction/resurfacing of curb lanes in select areas; and, installation of traffic/transit signage and pavement markings, as

necessary, to implement dedicated peak period bus lanes. Existing conditions of the Wilshire Corridor would remain under this alternative. Consequently, the No Project Alternative would not achieve or fulfill any of the goals and objectives of the proposed project.

ES.5.2 Alternative A: Truncated Project Without Jut-Out Removal

Alternative A – Truncated Project Without Jut-Out Removal would include the development of an 8.7 mile bus lane from the Wilshire Boulevard/S. Park View Street intersection to the Wilshire Boulevard/Centinel Avenue intersection. This alternative would eliminate the bus lane from mid-block Veteran Avenue/Gayley Avenue to Sepulveda Boulevard, totaling 0.3 mile. Additionally, this alternative would eliminate the jut-out removal between Comstock Avenue and Malcolm Avenue (1.0 mile). The existing traffic lane would be converted to a bus lane in each direction between Comstock Avenue and Malcolm Avenue. Under Alternative A, an additional 1.8 miles of curb lane reconstruction/ resurfacing would occur between Fairfax Avenue and San Vicente Boulevard and between the western border of the City of Beverly Hills and Westholme Avenue.

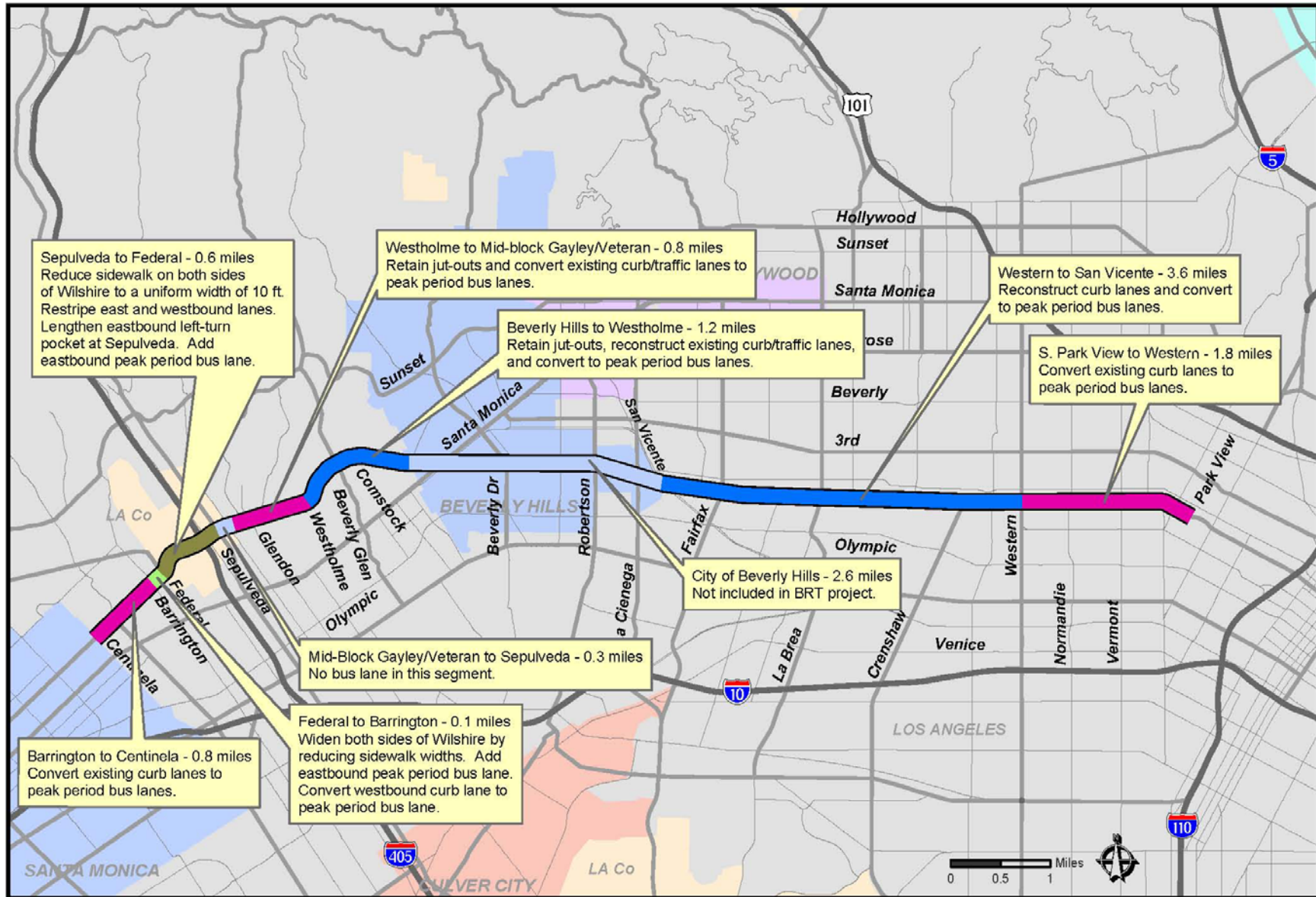
The key differences between this alternative and the proposed project are summarized from east to west (and implemented in both the eastbound and westbound directions), as follows and as presented in Figure ES-2:

- Elimination of the bus lane between Valencia Street and S. Park View Street;
- Inclusion of an additional 1.8 miles of curb lane reconstruction/ resurfacing between Fairfax Avenue and San Vicente Boulevard and between the western border of the City of Beverly Hills and Westholme Avenue;
- Retention of the jut-outs between Comstock Avenue and Malcolm Avenue; and
- Elimination of the bus lane from approximately 300 feet east of Veteran Avenue to the I-405 northbound ramps.

ES.5.3 Alternative B: Truncated Project

The Truncated Project Alternative would include a shortened bus route (8.7 miles) compared to the 9.7 miles of exclusive bus lane included under the proposed project. Specifically, this alternative would eliminate a bus lane from Valencia Street to S. Park View Street, totaling 0.7 mile. Additionally, under this alternative, a bus lane from mid-block Veteran Avenue/Gayley Avenue to Sepulveda Boulevard, totaling 0.3 mile, would be eliminated.

Figure ES-2: Alternative A – Truncated Project Without Jut-Out Removal



Source: LACMTA, 2010.

Although this project would meet the project's objectives, this alternative is not being evaluated further because the cost of this alternative would exceed the per-mile amount allowed under the Federal Very Small Starts Program as it reduces the project length but retains the expense of the jutting-out removal. Accordingly, this project alternative would not qualify for the federal funding that has been allocated to the project. Without this funding, LACMTA and LADOT would not have adequate funds to implement this alternative.

In addition, this alternative would neither avoid nor substantially lessen any of the significant effects identified for the proposed project. As such, this project alternative was considered infeasible and eliminated from further analysis in this EIR/EA.

ES.5.4 Alternative C: Mini-Bus Lanes

The Mini-Bus Lanes Alternative would include a 2.5-mile bus lane compared to the 9.7 miles that would be included under the proposed project. This alternative would include bus lanes in selected segments plus street improvements and engineering enhancements. This alternative is not being evaluated further because, while it would improve bus travel time through several congested locations, it would not substantially improve schedule reliability and reduce bus "bunching" due to congested conditions elsewhere in the corridor. One of the goals of the project is to increase transit ridership by providing more reliable bus service, and this alternative would not meet that goal. This alternative would also be very difficult to enforce because of the intermittent nature of the bus lanes, as well as their short length, and would require an intensive enforcement approach. Additionally, since this alternative would not create a continuous BRT corridor, it would not be eligible for federal funding as part of the Very Small Starts Program. Finally, this alternative would require physical widening of Wilshire Boulevard within the Wilshire Community Plan Area, which the Community Plan prohibits. As such, this project alternative was considered infeasible and eliminated from further analysis in this EIR/EA.

ES.6 Areas of Controversy

Potential areas of controversy and issues to be resolved by the decision-makers include those areas where the potential for a significant unavoidable impact has been identified and/or an area where community concerns elevate the project's perceived effects beyond reasonable threshold criteria.

Areas of controversy associated with the proposed project also include those comments received in response to the Notice of Preparation (NOP), as well as input solicited during the public scoping meetings and an understanding of the community issues in the project area. Public comments were submitted concerning a large number of different topics, including the following:

- Concerns regarding anticipated increase in bus ridership;
- Impacts on automobile travel times/increased idling and congestion that would lead to more noise and air quality problems;
- Concerns regarding less accessibility to businesses and homes and reduced emergency access;
- Concerns regarding results of past trial bus lanes and results of test demonstration;
- Concerns regarding the creation of more traffic in the local neighborhoods;
- Concerns regarding increased accident rates;
- Impacts resulting from cut-through through traffic on the local neighborhoods;
- Concerns regarding the non-participation of the Cities of Santa Monica and Beverly Hills;
- Concerns regarding road degradation;
- Concerns regarding parking impacts (i.e., loss of approximately 11 permanent and approximately 85 peak hour parking spaces on Wilshire Boulevard);
- More stress, noise, pollution, and speeding vehicles/reduced quality of life;
- Impacts to air quality, noise and vibration from more buses and buses running closer to residential buildings;
- Concerns regarding the aesthetic impacts of the project;
- Concerns regarding potential decreases in property values;
- Increased risk to children, elderly, pedestrians, cyclists, and pets in the local neighborhoods (i.e., health and safety concerns);
- Concerns regarding land use impacts, change in neighborhood character, and consistency with community and specific plans and growth inducing impacts;
- Concerns about street widening and removal of sidewalks;
- Concerns regarding project impacts to traffic on north/south and east/west streets;
- Scope of the project should exclude the Westwood residential corridor; and
- Concerns regarding project elements to affect sidewalk, jut-outs, and median.

The public comment letters received on the project are included in Appendix A.

ES.7 Issues to Be Resolved

Issues to be resolved include those impacts that have been identified as significant and unavoidable (i.e., traffic). LACMTA will be required to prepare a Statement of Overriding Considerations (SOC) for those project impacts that cannot be mitigated to less than significant levels. Section 15093 of the CEQA Guidelines states that a lead agency is required to “balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered ‘acceptable.’”

In addition, the lead agency must decide whether one of the alternatives should be approved rather than the proposed project.

ES.8 Summary of Impacts and Mitigation Measures

Table ES-1 provides a summary of the environmental effects that would result from implementation of the proposed project or Alternative A, potential mitigation measures, and the level of significance of the environmental impacts after implementation of the proposed mitigation, as identified in Chapter 4.0 of this document. Impacts identified as “potentially significant” are considered to be significant impacts under CEQA.

In addition to the project impacts under CEQA, Table ES-1 also summarizes the environmental impacts identified under the National Environmental Policy Act (NEPA), as identified in Chapter 7.0 of this document.

Table ES-1: Summary of Impacts and Mitigation Measures (Proposed Project and Alternative A)

Proposed Project Impacts	Alternative A Impacts	Mitigation Measures	Proposed Project Significance after Mitigation	Alternative A Significance after Mitigation
CEQA IMPACTS				
Traffic, Circulation, and Parking				
<p>T1: The proposed project would result in significant impacts related to the exceedance of LOS criteria for multiple intersections in both 2012 and 2020 project years, as identified below:</p> <ul style="list-style-type: none"> • Veteran Av/Sunset Bl; • Bundy Drive/Wilshire Bl; • Barrington Av/Wilshire Bl; • Veteran Av/Wilshire Bl; • Veteran Av/Santa Monica Bl ; • Westwood Bl/Santa Monica Bl ; • Overland Av/Santa Monica Bl; • Westwood Bl/Olympic Bl; • Beverly Glen Bl/Olympic Bl; • Sepulveda Bl/Pico Bl; • Westwood Bl/Pico Bl; • Overland Av/Pico Bl; • Highland Av/3rd St; • Alvarado St/6th St; • Fairfax Av/Wilshire Bl ; • La Brea Av/Wilshire Bl; • Highland Av/Wilshire; • Fairfax Av/Olympic Bl; • La Brea Av/Olympic Bl; • Highland Av/Olympic Bl; and • Crenshaw Bl/Olympic Bl. 	<p>Alternative A would result in significant impacts related to the exceedance of LOS criteria for multiple intersections in both 2012 and 2020 project years, as identified below:</p> <ul style="list-style-type: none"> • Veteran Av/Sunset Bl; • Bundy Dr/Wilshire Bl; • Barrington Av/Wilshire Bl; • Beverly Glen Bl/Wilshire Bl; • Veteran Av/Santa Monica Bl; • Westwood Bl/Santa Monica Bl; • Overland Av/Santa Monica Bl; • Beverly Glen Bl/Santa Monica Bl; • Bundy Dr/Olympic Bl; • Westwood Bl/Olympic Bl; • Beverly Glen Bl/Olympic Bl; • Westwood Bl/Pico Bl; • Fairfax Av/Wilshire Bl; • La Brea Av/Wilshire Bl; • Highland Av/Wilshire Bl; • Fairfax Av/Olympic Bl; • La Brea Av/Olympic Bl; • Highland Av/Olympic Bl; and • Crenshaw Bl/Olympic Bl. 	<p>T-1:</p> <ul style="list-style-type: none"> • Barrington Avenue/Wilshire Boulevard – The traffic signal at this intersection shall be modified to include a westbound “Protected plus Permitted” phase. By adding a “protected” left-turn phasing (a left-turn arrow), traffic operations can be improved and delay reduced, and the project impact at this location would be eliminated. • Veteran Avenue/Wilshire Boulevard – The eastbound and westbound bus lanes from mid-block Veteran Avenue/Gayley Avenue to Sepulveda Boulevard would be eliminated. By eliminating the bus lanes along this segment of the project corridor and allowing other through vehicles into the curb lane, the project impact at this location would be eliminated. • Westwood Boulevard/Santa Monica Boulevard – The southbound approach shall be restriped to add a second left-turn lane, and the southbound left-turn signal phasing shall be modified to 	<p>Impacts at 10 of the 18 significantly impacted intersections would be reduced to less than significant with implementation of the mitigation measures for 2012 with-project conditions. In addition, impacts at 10 of the 19 significantly affected intersections would be reduced to less than significant with implementation of the mitigation measures for 2020 with-project conditions. The following intersections are forecast to remain significantly affected because</p>	<p>Ten of the 19 significantly impacted intersections are reduced to less than significant levels under Alternative A similar to the proposed project. The following intersections are forecast to remain significantly impacted in either year 2012 or year 2020 under Alternative A since no feasible mitigation measures that fully mitigate impacts at these intersections could be identified:</p> <ul style="list-style-type: none"> • Veteran Av/ Sunset Bl; • Bundy Dr/ Wilshire Bl; • Veteran Av/ Santa Monica Bl;

Table ES-1: Summary of Impacts and Mitigation Measures (Proposed Project and Alternative A) (Continued)

Proposed Project Impacts	Alternative A Impacts	Mitigation Measures	Proposed Project Significance after Mitigation	Alternative A Significance after Mitigation
		<p>“Protected” phasing. By adding a “protected” left-turn phasing, traffic operations can be improved and delay reduced, and the project impact at this location would be eliminated.</p> <ul style="list-style-type: none"> • Beverly Glen Boulevard/ Olympic Boulevard – The traffic signal shall be modified to include a northbound “Protected plus Permitted” phase. By adding a “Protected plus Permitted” left-turn phasing (a left-turn arrow [and left turners can also turn on green]) for heavy turning movements, traffic operations can be improved and delay reduced, and the project impact at this location would be eliminated. • Sepulveda Boulevard/Pico Boulevard – The traffic signal shall be modified to include eastbound and southbound “Protected plus Permitted” phases. By adding a “Protected plus Permitted” left-turn phasing for heavy turning movements, traffic operations can be improved and delay reduced, and the project impact at this location would be eliminated. • Highland Avenue/3rd Street – The traffic signal shall be 	<p>no feasible mitigation measure could be identified:</p> <ul style="list-style-type: none"> • Veteran Av/ Sunset Bl; • Bundy Dr/ Wilshire Bl; • Veteran Av/ Santa Monica Bl; • Overland Av/ Santa Monica Bl; • Westwood Bl/ Olympic Bl; • Westwood Bl/ Pico Bl; • Overland Av/ Pico Bl; • Fairfax Av/ Wilshire Bl; and • La Brea Av/ Wilshire Bl. 	<ul style="list-style-type: none"> • Overland Av/ Santa Monica Bl; • Beverly Glen Bl/ Santa Monica Bl; • Westwood Bl/ Olympic Bl; • Westwood Bl/ Pico Bl; • Fairfax Av/ Wilshire Bl; and • La Brea Av/ Wilshire Bl.

Table ES-1: Summary of Impacts and Mitigation Measures (Proposed Project and Alternative A) (Continued)

Proposed Project Impacts	Alternative A Impacts	Mitigation Measures	Proposed Project Significance after Mitigation	Alternative A Significance after Mitigation
		<p>modified to include a westbound “Protected plus Permitted” phase. By adding a “Protected plus Permitted” left-turn phasing for heavy turning movements, traffic operations can be improved and delay reduced, and the project impact at this location would be eliminated.</p> <ul style="list-style-type: none"> • Alvarado Street/6th Street – The traffic signal shall be modified to include eastbound and westbound “Protected plus Permitted” phases. By adding a “Protected plus Permitted” left-turn phasing for heavy turning movements, traffic operations can be improved and delay reduced, and the project impact at this location would be eliminated. • Highland Avenue/Wilshire Boulevard – The traffic signal shall be modified to include a westbound “Protected plus Permitted” phase. By adding a “Protected plus Permitted” left-turn phasing for heavy turning movements, traffic operations can be improved and delay reduced, and the project impact at this location would be eliminated. • Fairfax Avenue/Olympic Boulevard The traffic signal 		

Table ES-1: Summary of Impacts and Mitigation Measures (Proposed Project and Alternative A) (Continued)

Proposed Project Impacts	Alternative A Impacts	Mitigation Measures	Proposed Project Significance after Mitigation	Alternative A Significance after Mitigation
		<p>phasing shall be modified to improve efficiency, and an Adaptive Traffic Control System (ATCS) shall be installed at eight intersections on Olympic Boulevard between Fairfax Avenue and La Brea Avenue. The ATCS is a personal computer-based program that provides a fully responsive method to accommodate real-time (actual) traffic conditions. The expected benefit to traffic flow is a reduction in the volume-to-capacity (V/C) ratio of 0.03 at the eight upgraded intersections, which corresponds to a 7.5 second reduction in overall intersection delay.</p> <ul style="list-style-type: none"> • La Brea Avenue/Olympic Boulevard – The traffic signal shall be modified to include an eastbound “Protected plus Permitted” phase. By adding a “Protected plus Permitted” left-turn phasing for heavy turning movements, traffic operations can be improved and delay reduced, and the project impact at this location would be eliminated. • Highland Avenue/Olympic Boulevard – The traffic signal shall be modified to include a westbound “Protected plus 		

Table ES-1: Summary of Impacts and Mitigation Measures (Proposed Project and Alternative A) (Continued)

Proposed Project Impacts	Alternative A Impacts	Mitigation Measures	Proposed Project Significance after Mitigation	Alternative A Significance after Mitigation
		<p>Permitted” phase. By adding a “Protected plus Permitted” left-turn phasing for heavy turning movements, traffic operations can be improved and delay reduced, and the project impact at this location would be eliminated.</p> <ul style="list-style-type: none"> • Crenshaw Boulevard/Olympic Boulevard –ATCS shall be installed at six intersections along Olympic Boulevard between La Brea Avenue and Crenshaw Boulevard. The expected benefit to traffic flow is a reduction in the volume-to-capacity (V/C) ratio of 0.03 at the six upgraded intersections, which corresponds to a 7.5 second reduction in overall intersection delay. <p>No feasible mitigation measures are available at the remaining intersections.</p>		
T2: The proposed project would result in less-than-significant impacts on local residential streets.	Alternative A would result in less-than-significant impacts on local residential streets.	No mitigation measures are required.	Not applicable.	Not applicable.
T3: The removal or restriction of parking spaces on Wilshire Boulevard would result in less than significant impacts.	The removal or restriction of parking spaces on Wilshire Boulevard would result in less than significant impacts.	No mitigation measures are required.	Not applicable.	Not applicable.
T4: The proposed project would result in less-than-significant impacts related to automobile/bus transition conflicts.	Alternative A would result in less-than-significant impacts related to automobile/bus transition conflicts.	No mitigation measures are required.	Not applicable.	Not applicable.

Table ES-1: Summary of Impacts and Mitigation Measures (Proposed Project and Alternative A) (Continued)

Proposed Project Impacts	Alternative A Impacts	Mitigation Measures	Proposed Project Significance after Mitigation	Alternative A Significance after Mitigation
T5: A less-than-significant impact would occur related to inadequate emergency access.	A less-than-significant impact would occur related to inadequate emergency access.	No mitigation measures are required.	Not applicable.	Not applicable.
<i>Air Quality</i>				
AQ1: The proposed project would be consistent with the projections in the AQMP, resulting in a less-than-significant impact.	Alternative A would be consistent with the projections in the AQMP, resulting in a less-than-significant impact.	No mitigation measures are required.	Not applicable.	Not applicable.
AQ2: Criteria pollutant emissions for both construction and operation of the proposed project would result in a less-than-significant regional air quality impact.	Criteria pollutant emissions for both construction and operation of Alternative A would result in a less-than-significant regional air quality impact.	No mitigation measures are required.	Not applicable.	Not applicable.
AQ3: The proposed project would result in less than significant impacts in exposing sensitive receptors to substantial pollutant concentrations.	Alternative A would result in less than significant impacts in exposing sensitive receptors to substantial pollutant concentrations.	No mitigation measures are required.	Not applicable.	Not applicable.
AQ4: The proposed project would result in less than significant odor impacts.	Alternative A would result in less than significant odor impacts	No mitigation measures are required.	Not applicable.	Not applicable.
AQ5: The proposed project would result in less than significant greenhouse gas emissions impacts.	Alternative A would not result in significant greenhouse gas emissions impacts.	Project-related impacts are expected to be less than significant because climate change would not occur directly from project emissions. Nevertheless, mitigation measures to reduce project-related GHG emissions by the greatest extent feasible are prescribed below:	Less than significant.	Less than significant.

Table ES-1: Summary of Impacts and Mitigation Measures (Proposed Project and Alternative A) (Continued)

Proposed Project Impacts	Alternative A Impacts	Mitigation Measures	Proposed Project Significance after Mitigation	Alternative A Significance after Mitigation
		<p>AQ-1: To the extent applicable and practicable, minimize, reuse, and recycle construction-related waste.</p> <p>AQ-2: Minimize grading, earth-moving, and other energy-intensive construction practices.</p> <p>AQ-3: To the extent applicable and practicable, replacement trees or landscaping shall be provided.</p> <p>AQ-4: To the extent applicable and practicable, use solar power or electricity from power poles rather than temporary diesel power generators.</p>		
<i>Cultural Resources</i>				
<p>CR1: A less-than-significant impact on archaeological resources would occur. The proposed improvements would have no direct or indirect impact on archaeological resources, particularly the La Brea Tar Pits in the project area.</p>	<p>A less-than-significant impact on archaeological resources would occur. The proposed improvements would have no direct or indirect impact on archaeological resources, particularly the La Brea Tar Pits in the project area.</p>	<p>No mitigation measures are required.</p>	<p>Not applicable.</p>	<p>Not applicable.</p>
<p>CR2: A less-than-significant impact on historic resources would occur. Modifications to the sidewalks adjacent to historic resources would have no direct or indirect impact on the characteristics that qualify those resources for inclusion in the National Register or the California Register.</p>	<p>A less-than-significant impact on historic resources would occur. Modifications to the sidewalks adjacent to historic resources would have no direct or indirect impact on the characteristics that qualify those resources for inclusion in the National Register or the California Register.</p>	<p>No mitigation measures are required.</p>	<p>Not applicable.</p>	<p>Not applicable.</p>

Table ES-1: Summary of Impacts and Mitigation Measures (Proposed Project and Alternative A) (Continued)

Proposed Project Impacts	Alternative A Impacts	Mitigation Measures	Proposed Project Significance after Mitigation	Alternative A Significance after Mitigation
CR3: A less-than-significant impact on paleontological resources would occur. It is anticipated that the proposed project would result in no direct or indirect impacts on paleontological resources.	A less-than-significant impact on paleontological resources would occur. It is anticipated that the proposed project would result in no direct or indirect impacts on paleontological resources.	No mitigation measures are required.	Not applicable.	Not applicable.
Noise				
N1: Exposure to noise levels in excess of applicable standards and to substantial permanent increase in ambient noise would be considered less than significant.	Noise impacts from construction of Alternative A are expected to be similar to those of the proposed project since the same excavation and finishing activities for the reconstruction of the roadway base and the curbs are required for Alternative A as for the proposed project. The only differences are that under Alternative A, there would be no jut-out removal activities for realignment of the curbs from Comstock Avenue to Malcolm Avenue and additional resurfacing/reconstruction of curb lanes between Fairfax Avenue and San Vicente Boulevard and between the western boundary of the City of Beverly Hills to Westholme Avenue would occur. Therefore, construction noise impacts would be less along the stretch of Wilshire Boulevard between Comstock Avenue and Malcolm Avenue under Alternative A than under the proposed project since the removal of jut-outs to create a curb lane would not occur. However, noise impacts from the reconstruction of	Project-related noise impacts are expected to be less than significant. However, since construction noise levels would temporarily increase, the following mitigation measures are included: N-1: To the extent applicable, practicable, and feasible, all noise-producing construction equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specification. Mobile or fixed “package” equipment (e.g., arc-welders, air compressors) may be equipped with shrouds and noise control features that are readily available for that type of equipment. N-2: To the extent applicable, practicable, and feasible, electrically powered equipment	Less than significant.	Less than significant.

Table ES-1: Summary of Impacts and Mitigation Measures (Proposed Project and Alternative A) (Continued)

Proposed Project Impacts	Alternative A Impacts	Mitigation Measures	Proposed Project Significance after Mitigation	Alternative A Significance after Mitigation
	curb lanes would be extended under Alternative A. Therefore, noise control measures (Mitigation Measures N-1 through N-4) are also recommended during construction of Alternative A to reduce the noise levels to the extent practicable in order to minimize the impact on nearby sensitive receptors.	shall be used instead of pneumatic or internal combustion powered equipment. N-3: The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only. N-4: No project-related public address or music system shall be audible at any adjacent receptor.		
N2: The proposed project would result in less-than-significant groundborne vibration or groundborne noise impacts as a result of construction activities and projected operational conditions.	Alternative A would result in less-than-significant groundborne vibration or groundborne noise impacts as a result of construction activities and projected operational conditions.	No mitigation measures are required.	Not applicable.	Not applicable.
Land Use				
LU1: The proposed project would not result in an impact related to compatibility with surrounding land uses.	Alternative A would not result in an impact related to compatibility with surrounding land uses.	No mitigation measures are required.	Not applicable.	Not applicable.
LU2: The proposed project would not result in an impact related to division of an existing neighborhood.	Alternative A would not result in an impact related to division of an existing neighborhood.	No mitigation measures are required.	Not applicable.	Not applicable.
LU3: The proposed project would not result in an impact related to consistency with applicable plans and policies.	Alternative A would not result in an impact related to consistency with applicable plans and policies.	No mitigation measures are required.	Not applicable.	Not applicable.
Aesthetics				
A1: Impacts related to the visual character or quality of the site and	Under Alternative A, the jut-outs would not be removed between	A-1: Wherever physically feasible, trees within the existing	Less than significant.	Not applicable.

Table ES-1: Summary of Impacts and Mitigation Measures (Proposed Project and Alternative A) (Continued)

Proposed Project Impacts	Alternative A Impacts	Mitigation Measures	Proposed Project Significance after Mitigation	Alternative A Significance after Mitigation
<p>its surroundings may be potentially significant. The removal of jut-outs along the segment of the project corridor between Comstock Avenue and Malcolm Avenue would result in the removal of up to 40 magnolia street trees. Similarly, the segment of the proposed project, where an existing eastbound left-turn pocket would be extended and the street widened between Bonsall and Federal Avenues, would involve the removal of a maximum of 30 small jacaranda trees between I-405 and Federal Avenue. However, the proposed project would comply with all local construction standards and guidelines, including design guidelines for roadways, streetscape, and landscaping, and as such, would not significantly affect the visual integrity of the surrounding neighborhood and streetscape/landscape along Wilshire Boulevard.</p>	<p>Comstock Avenue and Malcolm Avenue, and, therefore, no trees would be removed in this area. However, Alternative A would also involve the extension of the eastbound left-turn pocket at Sepulveda Boulevard and street widening between Bonsall and Federal Avenues, which would affect the existing median, resulting in the removal of a number of small jacaranda trees. This alternative would comply with all local construction standards and guidelines, including design guidelines for roadways, streetscape, and landscaping, and as such, would not significantly affect the visual integrity of the surrounding neighborhood and streetscape/landscape along Wilshire Boulevard.</p>	<p>jut-outs shall be preserved or relocated and incorporated into the landscape plan where space permits.</p>		
<p>Biological Resources</p>				
<p>BR1: Project operation would not create any new impacts related to ecologically sensitive areas and endangered species beyond existing conditions. Therefore, a less-than-significant impact related to sensitive or special status plant and animal species would occur.</p>	<p>A less-than-significant impact would occur relative to the visual character, integrity, and quality of the project corridor under Alternative A.</p>	<p>No mitigation measures are required.</p>	<p>Not applicable</p>	<p>Not applicable.</p>
<p>BR2: The segment of the proposed project, where jut-outs are proposed</p>	<p>Alternative A would avoid impacts to existing street trees on the jut-out</p>	<p>BR-1: Prior to the typical breeding/nesting season for</p>	<p>Less than significant.</p>	<p>Not applicable.</p>

Table ES-1: Summary of Impacts and Mitigation Measures (Proposed Project and Alternative A) (Continued)

Proposed Project Impacts	Alternative A Impacts	Mitigation Measures	Proposed Project Significance after Mitigation	Alternative A Significance after Mitigation
<p>to be removed, would involve the removal of a maximum of 40 trees along Wilshire Boulevard between Comstock Avenue and Malcolm Avenue, which may serve as habitat for migratory birds. This may result in conflict with state and federal laws protecting native birds and their active nests. Similarly, the segment of the proposed project, where an existing eastbound left-turn pocket would be extended and the street widened between Bonsall and Federal Avenues, would involve the removal of a maximum of 30 small jacaranda trees between I-405 and Federal Avenue. However, these trees are ornamental and would not provide suitable habitat for migratory birds. Therefore, no impacts related to migratory birds are anticipated along this segment.</p>	<p>sidewalk areas between Comstock Avenue and Malcolm Avenue that have been identified as potential migratory bird nesting habitat. Similar to the proposed project, the segment of the proposed project, where an existing eastbound left-turn pocket would be extended and the street widened between Bonsall and Federal Avenues, would involve the removal of a maximum of 30 small jacaranda trees between I-405 and Federal Avenue. However, these trees are ornamental and would not provide suitable habitat for migratory birds. Therefore, a less than significant impact would occur under Alternative A.</p>	<p>birds (February 1 through September 1), trees to be removed as part of the jut-out removal between Comstock Avenue and Malcolm Avenue shall be netted to prevent birds from inhabiting the trees prior to tree removal and construction.</p>		
<p>BR3: The proposed project would remove a maximum of 40 trees along Wilshire Boulevard, between Comstock Avenue and Malcolm Avenue and a maximum of 30 small trees in the median between I-405 and Federal Avenue. This would potentially conflict with City of Los Angeles requirements for the preservation or replacement of street trees and state and federal laws protecting native birds and their active nests.</p>	<p>Alternative A would avoid impacts to existing street trees on the jut-out sidewalk areas between Comstock Avenue and Malcolm Avenue. However, similar to the proposed project, Alternative A would require the removal of a maximum of 30 trees. Regardless, there are no City- or County-protected trees within this segment of the project corridor.. Therefore, a less than significant impact would occur under Alternative A.</p>	<p>Please refer to Mitigation Measures A-1 and BR-1 above.</p>	<p>Less than significant.</p>	<p>Not applicable.</p>

Table ES-1: Summary of Impacts and Mitigation Measures (Proposed Project and Alternative A) (Continued)

Proposed Project Impacts	Alternative A Impacts	Mitigation Measures	Proposed Project Significance after Mitigation	Alternative A Significance after Mitigation
NEPA IMPACTS				
Land Use & Zoning				
The proposed action would be consistent with local plans and policies identified in the Westlake, Wilshire, Westwood, Brentwood-Pacific Palisades, and West Los Angeles Community Plan. No adverse effects would occur.	Alternative A would be consistent with local plans and policies identified in the Westlake, Wilshire, Westwood, Brentwood-Pacific Palisades, and West Los Angeles Community Plan. No adverse effects would occur.	No mitigation measures are required.	Not applicable.	Not applicable.
Traffic & Parking				
The proposed action would result in unacceptable levels of service and exceed local criteria for determining traffic impacts at some of the local intersections. Most of the delays would be 15 seconds or less, but because the intersections are already operating at unacceptable levels of service, the established local threshold is very low. However, the proposed action would be expected to result in a beneficial regional effect on traffic through the increased efficiency and public utilization of the Wilshire BRT system. Therefore, despite any localized traffic impacts discussed above, within the larger context of the Wilshire corridor and the City of Los Angeles, the proposed action would not have an adverse effect on traffic and circulation.	Similar to the proposed action, Alternative A would result in unacceptable levels of service and exceed local criteria for determining traffic impacts at some of the local intersections. However, the Alternative A would be expected to result in a beneficial regional effect on traffic through the increased efficiency and public utilization of the Wilshire BRT system. Therefore, despite any localized traffic impacts discussed above, within the larger context of the Wilshire corridor and the City of Los Angeles, Alternative A would not have an adverse effect on traffic and circulation. Similar to the proposed action, Alternative A would result in the removal of approximately 11 parking spaces between S. Park View Street and Fairfax Avenue (a	Mitigation Measure T-1 identified above would be implemented in order to avoid or reduce some of the expected localized traffic impacts.	Not applicable.	Not applicable.

Table ES-1: Summary of Impacts and Mitigation Measures (Proposed Project and Alternative A) (Continued)

Proposed Project Impacts	Alternative A Impacts	Mitigation Measures	Proposed Project Significance after Mitigation	Alternative A Significance after Mitigation
<p>The proposed action would result in the removal of approximately 11 parking spaces between Valencia Street and Fairfax Avenue (a distance of approximately 5.5 miles) to accommodate larger or relocated bus stops for facilitating bus movements in and out of stops. The removed parking spaces would be spread throughout this segment of the project, with no more than three spaces being removed on any single block. The removed parking spaces would have a small effect on parking supply to serve local businesses during off-peak hours. During peak periods, parking is prohibited under current conditions; as such, the removal of these parking spaces would not affect parking supply at all.</p> <p>In addition to the 11 parking spaces discussed above, under the proposed action, parking in approximately 85 existing on-street parking spaces between Selby Avenue and Comstock Avenue would be prohibited during peak hours. As a result, guests of certain residents may be required to either park in spaces on adjacent streets within a preferential parking district or use off-street visitor parking spaces. However, a project's potential impact on parking supply is considered a <i>social</i> impact, not an environmental impact. Therefore,</p>	<p>distance of approximately 4.8 miles) to accommodate larger or relocated bus stops for facilitating bus movements in and out of stops. The removed parking spaces would be spread throughout this segment of the project, with no more than three spaces being removed on any single block. The removed parking spaces would have a small effect on parking supply to serve local businesses during off-peak hours. During peak periods, parking is prohibited under current conditions; as such, the removal of these parking spaces would not affect parking supply at all.</p> <p>Under Alternative A, parking supply would be unchanged between Comstock Avenue and Malcolm Avenue since jut-outs in this area would be retained. Therefore, no impact on parking would occur in this area.</p>			

Table ES-1: Summary of Impacts and Mitigation Measures (Proposed Project and Alternative A) (Continued)

Proposed Project Impacts	Alternative A Impacts	Mitigation Measures	Proposed Project Significance after Mitigation	Alternative A Significance after Mitigation
the removal or restriction of parking spaces on Wilshire Boulevard would not result in adverse effects related to parking.				
<i>Air Quality</i>				
Operation of the proposed action would not result in a substantial adverse effect related to criteria pollutants or toxic air contaminants.	Operation of Alternative A would not result in a substantial adverse effect related to criteria pollutants or toxic air contaminants.	No mitigation measures are required.	Not applicable.	Not applicable.
<i>Planning & Air Quality Conformity</i>				
The proposed action's operational emissions, which include the ozone (O ₃) precursors reactive organic gases (ROG) and nitrogen oxides (NO _x), meet regional transportation conformity determination requirements imposed by the U.S. Environmental Protection Agency (EPA). In addition, the proposed action qualifies for an exemption from the requirement to determine conformity per 23 CFR 93.126. As such, the proposed action does not require a project-level conformity analysis.	Similar to the proposed action, Alternative A qualifies for an exemption from the requirement to determine conformity per 23 CFR 93.126. As such, the project does not require a project-level conformity analysis.	No mitigation measures are required.	Not applicable.	Not applicable.
<i>Carbon Monoxide Hot Spots</i>				
No substantial adverse effect related to carbon monoxide hotspots would occur for any of the study area intersection locations under the proposed action.	No substantial adverse effect related to carbon monoxide hotspots would occur for any of the study area intersection locations under Alternative A	No mitigation measures are required.	Not applicable.	Not applicable.

Table ES-1: Summary of Impacts and Mitigation Measures (Proposed Project and Alternative A) (Continued)

Proposed Project Impacts	Alternative A Impacts	Mitigation Measures	Proposed Project Significance after Mitigation	Alternative A Significance after Mitigation
<i>Greenhouse Gas Emissions</i>				
During operation of the proposed action, it would be expected that a beneficial impact on GHG emissions would occur due to decreased traffic congestion along the Wilshire corridor, increased efficiency and use of the CNG-fueled Wilshire BRT, and decreased personal vehicle VMTs.	During operation of Alternative A, it would be expected that a beneficial impact on GHG emissions would occur due to decreased traffic congestion along the Wilshire corridor, increased efficiency and use of the CNG-fueled Wilshire BRT, and decreased personal vehicle VMTs.	While no substantial adverse effects requiring mitigation would occur under the proposed action or Alternative A, the Mitigation Measures AQ-1 through AQ-4 would reduce project-related GHG emissions by the greatest extent feasible.	Not applicable.	Not applicable.
<i>Historic, Archaeological, & Paleontological Resources</i>				
It is anticipated that the proposed action would result in no direct or indirect impacts on historic, archaeological, and paleontological resources. Therefore, there would be no adverse effects on historic, archaeological, and paleontological resources.	It is anticipated that Alternative A would result in no direct or indirect impacts on historic, archaeological, and paleontological resources. Therefore, there would be no adverse effects on historic, archaeological, and paleontological resources.	No mitigation measures are required.	Not applicable.	Not applicable.
<i>Visual Quality</i>				
Under the proposed action, the removal of street trees between Comstock Avenue and Malcolm Avenue in the Westwood area may adversely affect the visual integrity of the surrounding neighborhood and streetscape/landscape along Wilshire Boulevard. No adverse effects would occur related to light, glare and shadows.	No adverse effects are anticipated related to the visual character, integrity, and quality of the project corridor. Furthermore, no adverse effects related to light, glare and shadows would occur.	Please refer to Mitigation Measure A-1 above.	No adverse effects would occur after mitigation.	Not applicable
<i>Noise</i>				
Project noise levels are predicted to decrease from what they would be	Project noise levels are predicted to decrease from what they would be	No mitigation measures are required.	Not applicable.	Not applicable.

Table ES-1: Summary of Impacts and Mitigation Measures (Proposed Project and Alternative A) (Continued)

Proposed Project Impacts	Alternative A Impacts	Mitigation Measures	Proposed Project Significance after Mitigation	Alternative A Significance after Mitigation
without the proposed action at most locations, and increase only slightly, and by no more than 1 dBA at other locations. Accordingly, the proposed action would not result in long-term adverse traffic noise effects on the surrounding area. No adverse effects related to operational noise would occur under the proposed action.	without Alternative A at most locations, and increase only slightly, and by no more than 1 dBA at other locations. Accordingly, Alternative A would not result in long-term adverse traffic noise effects on the surrounding area. No adverse effects related to operational noise would occur under Alternative A.			
<i>Vibration</i>				
One of the project elements involves the reconstruction and smoothing of the roadway surface, where it is deteriorated, resulting in holes, dips, and bumps. By smoothing these irregular portions of Wilshire Boulevard, the proposed action would result in a benefit due to the net reduction in vibration from roadway surface irregularities affecting buses along the project corridor. Therefore, no adverse effects would occur during operation of the proposed action.	Operational impacts with regards to vibration in Alternative A are similar to those under the proposed action.	No mitigation measures are required.	Not applicable.	Not applicable.
<i>Land Acquisitions</i>				
The proposed action would not require the acquisition of any properties or result in the displacement of land uses currently in the project corridor. Therefore, no impacts related to land acquisition, displacement and relocation would occur as a result of the proposed action.	Alternative A would not require the acquisition of any properties or result in the displacement of land uses currently in the project corridor. Therefore, no impacts related to land acquisition, displacement and relocation would occur as a result of Alternative A.	No mitigation measures are required.	Not applicable.	Not applicable

Table ES-1: Summary of Impacts and Mitigation Measures (Proposed Project and Alternative A) (Continued)

Proposed Project Impacts	Alternative A Impacts	Mitigation Measures	Proposed Project Significance after Mitigation	Alternative A Significance after Mitigation
<i>Hazardous Materials</i>				
The proposed action would not introduce any new hazardous materials as part of the operation of the proposed action, as the same types and numbers of buses would continue to operate along the Wilshire corridor. As such, project operation would not create any new impacts related to the use of hazardous materials beyond existing conditions.	Alternative A would not introduce any new hazardous materials as part of project operation, as the same types and numbers of buses would continue to operate along the Wilshire corridor. As such, project operation would not create any new impacts related to the use of hazardous materials beyond existing conditions under Alternative A.	No mitigation measures are required.	Not applicable.	Not applicable
<i>Geology, Soils, Seismicity</i>				
The potential for soil erosion during the operation of the proposed action is low because the project alignment is currently entirely paved. No adverse effects would occur related to geology or seismicity would occur under the proposed action.	The potential for soil erosion during the operation of Alternative A is low because the project alignment is currently entirely paved. No adverse effects would occur related to geology or seismicity would occur under Alternative A.	No mitigation measures are required.	Not applicable.	Not applicable
<i>Community Disruption/Environmental Justice</i>				
The proposed action would not require acquisition of any residential or commercial properties. Furthermore, during construction, disruptions to electricity, water, gas, and other public utilities would not be expected since project activities would not involve excavation or disturbance of subsurface facilities. Therefore, it is anticipated that the community, including businesses	Similar to the proposed action, Alternative A would not result in any disproportionately high or adverse human health or environmental effects along the project corridor. Alternative A would not require acquisition of any residential or commercial properties. Furthermore, during construction, disruptions to electricity, water, gas, and other public utilities would not be	No mitigation measures are required.	Not applicable.	Not applicable

Table ES-1: Summary of Impacts and Mitigation Measures (Proposed Project and Alternative A) (Continued)

Proposed Project Impacts	Alternative A Impacts	Mitigation Measures	Proposed Project Significance after Mitigation	Alternative A Significance after Mitigation
<p>and residences, within and adjacent to the project corridor would remain intact. In addition, the impacts borne by the minority and low-income communities along the project corridor would be similar and no greater than impacts borne by all populations and populations in non-minority communities. It should be noted that minority populations may rely on transit heavily and, therefore, transit improvements as a result of this project would be beneficial to these communities. The construction and operational impacts of the proposed action would not disproportionately impact minority or low-income groups, and, therefore, effects related to community disruption and environmental justice are not anticipated. No adverse effects related to community disruption or environmental justice would occur under the proposed action.</p>	<p>expected since project activities would not involve excavation or disturbance of subsurface facilities. Therefore, it is anticipated that the community, including businesses and residences, within and adjacent to the project corridor would remain intact. Similar to the proposed action, the impacts borne by the minority and low-income communities along the project corridor would be similar and no greater than impacts borne by all populations and populations in non-minority communities. The construction and operational impacts of Alternative A would not disproportionately impact minority or low-income groups, and, therefore, effects related to community disruption and environmental justice are not anticipated.</p>			
<i>Public Parkland and Recreation Areas</i>				
<p>Because the proposed action would not include a housing component and would not add new employees to the area, the proposed action would not result in any increase in the demand on local parks. Because the proposed action would not require the acquisition of any parkland, or incur temporary or</p>	<p>Similar to the proposed action, Alternative A does not include a housing component and would not add new employees to the areas or result in any increase in demand on local parks. No parkland would be acquired, and no temporary or constructive use impacts would occur. Therefore, no adverse</p>	<p>No mitigation measures are required.</p>	<p>Not applicable.</p>	<p>Not applicable.</p>

Table ES-1: Summary of Impacts and Mitigation Measures (Proposed Project and Alternative A) (Continued)

Proposed Project Impacts	Alternative A Impacts	Mitigation Measures	Proposed Project Significance after Mitigation	Alternative A Significance after Mitigation
<p>constructive “use” pursuant to Section 4(f) (see Section 4(f) Applicability Evaluation Memo), these impacts would not be applicable. Therefore, no adverse environmental effects are anticipated related to parklands and recreational areas.</p>	<p>environmental effects are anticipated related to parklands and recreational areas.</p>			
<i>Wetlands & Floodplains</i>				
<p>Implementation of the proposed action would neither create nor contribute to flooding that would exceed the storm drain system capacity nor impede or redirect flood flow. No adverse impacts related to wetlands or floodplains would occur under the proposed action.</p>	<p>Similar to the proposed action, Alternative A would be built within the existing Wilshire corridor and would not affect any federally protected wetlands. Alternative A would not contribute to flooding that would exceed the storm drain system, or impede or redirect flood flow, or otherwise increase or alter existing conditions related to flooding in the area. No adverse impacts related to wetlands or floodplains would occur under Alternative A.</p>	<p>No mitigation measures are required.</p>	<p>Not applicable.</p>	<p>Not applicable.</p>
<i>Water Quality, Navigable Waterways, and Coastal Zones</i>				
<p>Implementation of the proposed action would not create any new impacts related to water quality beyond existing conditions, alter the existing drainage pattern of the project corridor that would result in erosion or siltation, or interfere with runoff flow patterns. No natural streams or waterways or navigable waterways are located in the project corridor that would be considered</p>	<p>Similar to the proposed action, Alternative A would be built within the existing Wilshire corridor and would not affect existing conditions related to water quality, navigable waters, or coastal zones. No adverse effect would occur under Alternative A.</p>	<p>No mitigation measures are required.</p>	<p>Not applicable.</p>	<p>Not applicable.</p>

Table ES-1: Summary of Impacts and Mitigation Measures (Proposed Project and Alternative A) (Continued)

Proposed Project Impacts	Alternative A Impacts	Mitigation Measures	Proposed Project Significance after Mitigation	Alternative A Significance after Mitigation
<p>ecologically sensitive or potentially harbor endangered species. Therefore, adverse environmental effects related to water quality, navigable waterways, and coastal zones are not anticipated with the proposed action.</p>				
<i>Ecological Sensitive Areas</i>				
<p>Project operation would not create any new impacts related to ecologically sensitive areas and endangered species beyond existing conditions. Therefore, no adverse effects related to sensitive biological resources are anticipated to occur. However, during project construction, there is moderate potential for violation of the federal Migratory Bird Treaty Act and similar laws in the California Fish and Game Code protecting native birds, if any tree removal or other project construction were to occur during the nesting season. The segment of the project corridor, where jut-outs are proposed to be removed, would involve the removal of a maximum of 40 magnolia trees along Wilshire Boulevard between Comstock Avenue and Malcolm Avenue, which may serve as habitat for migratory birds. This may result in conflict with state and federal laws protecting native birds and their active nests.</p>	<p>No adverse effects related to ecologically sensitive resources or endangered species are anticipated to occur. Similar to the proposed project, the segment of the proposed project, where an existing eastbound left-turn pocket would be extended, would involve the removal of a maximum of 30 small jacaranda trees between I-405 and Federal Avenue. However, these trees are ornamental and would not provide suitable habitat for migratory birds.</p>	<p>Please refer to Mitigation Measure BR-1.</p>	<p>No adverse effects would occur after mitigation.</p>	<p>Not applicable.</p>

Table ES-1: Summary of Impacts and Mitigation Measures (Proposed Project and Alternative A) (Continued)

Proposed Project Impacts	Alternative A Impacts	Mitigation Measures	Proposed Project Significance after Mitigation	Alternative A Significance after Mitigation
<p>In addition, the segment of the proposed project, where an existing eastbound left-turn pocket would be extended, would involve the removal of a maximum of 30 small jacaranda trees between I-405 and Federal Avenue. However, these trees are ornamental and would not provide suitable habitat for migratory birds.</p>				
<i>Energy Resources</i>				
<p>Based on previous studies related to the Los Angeles Metro Rapid Demonstration Program, it has been determined that with improved bus passenger travel times and bus service reliability, ridership can increase dramatically. Accordingly, the proposed action would be expected to reduce VMT in personal vehicles as the proposed action would encourage a shift from automobile use to public transit by continuing to attract new transit riders. The overall effect of the proposed action is expected to result in increased use of public transportation. In turn, this would result in decreased traffic congestion, vehicle idling, thereby increasing the transportation related energy efficiency within the project corridor for both public transportation and private vehicle use. Therefore, the proposed action would result in less energy</p>	<p>Similar to the proposed action, Alternative A is expected to result in increased use of public transportation, with a corresponding decrease in traffic congestion and vehicle idling. Increased transportation related energy efficiency under Alternative A would result in less energy consumption than baseline conditions and, as such, would result in a beneficial effect (reduction) on energy use.</p>	<p>No mitigation measures are required.</p>	<p>Not applicable.</p>	<p>Not applicable.</p>

Table ES-1: Summary of Impacts and Mitigation Measures (Proposed Project and Alternative A) (Continued)

Proposed Project Impacts	Alternative A Impacts	Mitigation Measures	Proposed Project Significance after Mitigation	Alternative A Significance after Mitigation
consumption than baseline conditions and, as such, would result in a beneficial energy impact.				
<i>Safety and Security</i>				
Implementation of the proposed action, which would involve improvements to an existing transportation corridor already used by buses and other vehicles, would neither increase the number of crimes occurring on LACMTA property or service corridor nor substantially change the operation of the Wilshire Metro Rapid service. Therefore, no adverse effects related to safety and security are anticipated.	Similar to the proposed action, implementation of Alternative A would neither increase the number of crimes occurring on LACMTA property or service corridor nor substantially change the operation of the Wilshire Metro Rapid service. Therefore, no adverse effects related to safety and security are anticipated.	No mitigation measures are required.	Not applicable.	Not applicable.
<i>Construction</i>				
It is anticipated that construction work may temporarily reduce the capacity of, and cause delays to, the traffic flow along Wilshire Boulevard. The City and County of Los Angeles would be required to prepare and implement a Traffic Management Plan, a Worksite Traffic Control plan, and a Construction Phasing and Staging Plan that would best serve the mobility and safety needs of the motoring public, construction workers, businesses, and community, as well as facilitate the flow of automobile and pedestrian traffic during construction. In	Alternative A would have the same impacts on land uses (including residences, businesses, and motorists) along the Wilshire corridor during project construction as the proposed action. It is anticipated that construction work may temporarily reduce the capacity of, and cause delays to, the traffic flow along Wilshire Boulevard. Mitigation Measures C-1 through C-3 shall be implemented to ensure that traffic and sidewalk disruptions are reduced to a level that would not be considered adverse.	C-1: The City and County of Los Angeles shall prepare a traffic management plan to facilitate the flow of traffic during construction. The plan shall include the following: <ul style="list-style-type: none">• Implement diversions/detours to facilitate traffic flow throughout the construction zones;• Implement traffic control devices and flagmen/traffic officers, if possible, to maintain traffic flow throughout the construction zones; and	No adverse effects would occur after mitigation.	No adverse effects would occur after mitigation.

Table ES-1: Summary of Impacts and Mitigation Measures (Proposed Project and Alternative A) (Continued)

Proposed Project Impacts	Alternative A Impacts	Mitigation Measures	Proposed Project Significance after Mitigation	Alternative A Significance after Mitigation
<p>addition, the proposed action would be required to implement a public outreach program to mitigate the effects of construction on businesses by informing customers that merchants and other businesses are open and to provide special access directions, if warranted. Mitigation Measures C-1 through C-3 shall be implemented to ensure that traffic and sidewalk disruptions are reduced to a level that would not be considered adverse.</p> <p>Construction of the proposed action would not result in a substantial adverse effects related to regional or local criteria pollutants or toxic air contaminants.</p> <p>Similarly, construction noise generated by the proposed action would be temporary and intermittent and would not substantially threaten public health. Construction activities would not occur simultaneously along all segments of the project corridor and would be of short-duration (approximately one to two weeks), completed in segment by segment intervals (a few blocks at a time). In addition, the proposed action would be required to comply with the City's Noise Ordinance, which limits construction between the hours of 7:00 a.m. to 9:00 p.m., Mondays through Fridays, and 8:00</p>	<p>Construction of the proposed action would not result in a substantial adverse effects related to regional or local criteria pollutants or toxic air contaminants.</p> <p>Similarly, construction noise generated by the proposed action would be temporary and intermittent and would not substantially threaten public health.</p>	<ul style="list-style-type: none"> • Implement a public outreach/education program to inform the public about theplanned construction process and encourage motorists to consider alternate travel routes. <p>C-2: The City and County of Los Angeles shall develop Worksite Traffic Control plans to accommodate required pedestrian and traffic movements. The plan shall include the following:</p> <ul style="list-style-type: none"> • Location of any roadway/lane or sidewalk closure; • Traffic detours and haul routes; • Hours of operation; • Protective devices and warning signs; and • Access to abutting properties. <p>C-3: The City and County of Los Angeles shall develop a Construction Phasing and Staging Plan to minimize the inconvenience to businesses and motorists within the construction zones. The plan shall control the impacts of construction in any segment by limiting the areas that may be constructed at a particular time.</p>		

Table ES-1: Summary of Impacts and Mitigation Measures (Proposed Project and Alternative A) (Continued)

Proposed Project Impacts	Alternative A Impacts	Mitigation Measures	Proposed Project Significance after Mitigation	Alternative A Significance after Mitigation
a.m. to 6:00 p.m. on Saturdays. Based on these considerations, construction noise effects would not be considered substantially adverse under NEPA.				

Chapter 1 Introduction

1.1 Purpose of the EIR/EA

This Environmental Impact Report (EIR) and Environmental Assessment (EA) was prepared to evaluate the significant or potentially significant environmental impacts associated with implementation of the proposed project and address appropriate and feasible mitigation measures and alternatives to the proposed project that would reduce or eliminate those impacts. A detailed description of the proposed project is provided in Chapter 2, Project Description.

The EIR portion of the document has been prepared pursuant to the California Environmental Quality Act (CEQA) Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.) and CEQA statutes provided in California Public Resources Code Section 21000 et seq.

All projects in the State of California are required to undergo environmental review in accordance with CEQA to determine if implementation of the proposed project would result in any environmental impacts. Accordingly, a project is defined as requiring environmental review pursuant to CEQA if by implementing it, the project has the potential to result in either a direct physical change to the environment or a reasonably foreseeable indirect physical change to the environment. More specifically, a project requires environmental review if it incorporates an action undertaken by a public agency; is an activity that is supported in whole or in part through public agency contracts, grants, subsidies, etc.; or is an activity requiring a public agency to issue a lease, permit, license, certificate, or other entitlement.

CEQA was enacted in 1970 by the California legislature to disclose to decision makers and the public significant environmental effects of proposed activities and methods to avoid or reduce those effects by requiring implementation of feasible alternatives or mitigation measures. CEQA applies to California government agencies at all levels, including local government agencies that must issue permits or provide discretionary approvals for projects proposed with the potential to affect the environment. Therefore, the public agency is required to conduct an environmental review of the proposed project and consider its environmental effects before making a decision on the proposed project. In accordance with CEQA, the Los Angeles County Metropolitan Transportation Authority (LACMTA) is the lead agency for the preparation of this EIR, and LACMTA will be taking responsibility for conducting the environmental review and certifying the EIR.

CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before taking action on them. The purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the potential significant environmental effects associated with the proposed project, describes and

evaluates reasonable alternatives to the project, and proposes mitigation measures that would avoid or reduce the project's significant effects.

In accordance with Section 15121(a) of the CEQA Guidelines (California Administrative Code, Title 14, Division 6, Chapter 3), the purpose of an EIR is as follows:

An EIR is an informational document that will inform public agency decision makers and the public generally of the significant environmental effect of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.

This EIR evaluates the direct, indirect, and cumulative impacts of the proposed project and alternatives in accordance with the provisions set forth in CEQA and the CEQA Guidelines. It will be used to address potentially significant environmental issues and recommend adequate and feasible mitigation measures, where possible, that could reduce or eliminate potentially significant environmental impacts.

The EA portion of the document (Chapter 7) has been prepared pursuant to the National Environmental Policy Act (NEPA), in order to determine the effects of the proposed project on the quality of the human environment. The EA portion of this joint document is prepared for consideration by the Federal Transit Administration (FTA), which is the lead federal agency for the project.

It is important to note the differences between CEQA and NEPA in the way significance is determined. CEQA requires the lead agency to identify each significant impact on the environment resulting from the project and presents ways to mitigate each significant impact. If the project may have a significant impact on any environmental resource, then an EIR must be prepared. Each and every significant impact on the environment must be disclosed in the EIR and mitigated if feasible. In addition, the CEQA Guidelines list a number of mandatory findings of significance, which also require the preparation of an EIR.

NEPA requires that an Environmental Impact Statement (EIS) be prepared when the proposed federal action (project) as a whole has the potential to "significantly affect the quality of the human environment." The determination of significance is based on context and intensity.¹ Some impacts determined to be significant under CEQA may not be of sufficient magnitude to be determined significant under NEPA. NEPA does not require that a determination of significant impacts be stated in the environmental documents. Also, there are no types of actions under NEPA that parallel the findings of mandatory significance of CEQA.

For the FTA as lead agency, the process for complying with NEPA is defined in the joint Federal Highway Administration/FTA Environmental Impact and

¹ Council on Environmental Quality (CEQ) regulations (40 CFR §§ 1500-1508).

Related Procedures.² Based on this regulation, the FTA determines the level of documentation required in the NEPA process. The following are examples of actions that normally require an EIS:

- 1) A new controlled access freeway.
- 2) A highway project of four or more lanes on a new location.
- 3) New construction or extension of fixed rail transit facilities (e.g., rapid rail, light rail, commuter rail, automated guideway transit).
- 4) New construction or extension of a separate roadway for buses or high occupancy vehicles not located within an existing highway facility.

None of these actions apply to the proposed project.

An EA is required for all actions in which the significance of the environmental impact is not clearly established. An EA can result in either a Finding of No Significant Impact (FONSI) requiring no further environmental evaluation, or identification of potentially significant impacts requiring an EIS. As described in detail in Chapter 7, the EA provides the basis for a FONSI.

1.2 Focus of the EIR/EA

LACMTA has initiated the Wilshire Bus Rapid Transit (BRT) Project within a 12.5-mile segment of Wilshire Boulevard between downtown Los Angeles and the City of Santa Monica (excluding the City of Beverly Hills) (see figure 2.1). Using federal funds administered by the FTA, LACMTA proposes to fund construction of weekday peak period curbside bus lanes in the City of Los Angeles and Los Angeles County. The project converts existing curbside lanes to peak period (7 a.m. to 9 a.m. to 4 p.m. to 7 p.m.) bus lanes by repaving and/or restriping and creates approximately 1.5 miles of new curbside bus lanes through selective street widening and jut-out removal. The project also includes some improvements to the existing bus signal priority system as well as a left-turn pocket extension at Sepulveda Boulevard.

The analysis contained in this EIR/EA reflects the level of detail necessary at this time for LACMTA to evaluate the proposed project. Consistent with Section 15180 of the CEQA Guidelines, this is a “project” EIR for the construction and operation of the proposed project. This EIR/EA, focuses on the effects that may be expected with the approval of and the subsequent implementation of the proposed project, resulting in the following potential impacts: air quality, cultural resources, land use, noise, and traffic and circulation.

1.3 Intended Uses of the EIR/EA

This EIR/EA is being circulated to the public and agencies for review and comment. The document is meant to inform agencies and the public of

² These procedures are found in 23 C.F.R. 771.

potential significant environmental effects associated with the proposed project, describe and evaluate reasonable alternatives, and propose mitigation measures that would avoid or reduce the project's significant effects.

The information used in this EIR/EA will be used to apply for project approvals that may be required by LACMTA, FTA, and other reviewing agencies. Accordingly, this EIR/EA will be used by LACMTA, as the lead agency under CEQA, and by FTA as the lead agency under NEPA, when making decisions regarding approval of the project and its implementation. The information in this EIR/EA may also be used by other agencies when deciding whether to grant the permits or approvals necessary to construct or operate the proposed project.

1.4 EIR/EA Participants and Public Review

1.4.1 The CEQA/NEPA Environmental Review Process

CEQA requires the preparation of an EIR when there is substantial evidence that a project may have a significant effect on the environment. Similarly, as discussed above, NEPA requires an EA for all actions in which the significance of the environmental impact is not clearly established. An EA can result in either a Finding of No Significant Impact (FONSI) requiring no further environmental evaluation, or identification of potentially significant impacts requiring an EIS.

The purpose of an EIR/EA is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the potential environmental effects of the proposed project. This EIR/EA process is specially designed to facilitate the objective evaluation of potentially significant direct, indirect, and cumulative impacts of the proposed project and identify potentially feasible mitigation measures and alternatives that reduce or avoid the project's significant effects. In addition, CEQA specifically requires that an EIR identify those adverse impacts determined to be significant after mitigation.

This EIR/EA addresses the potential environmental effects of the proposed project. Scoping for the EIR/EA was conducted using all of the tools required and recommended by CEQA. The following sections discuss the environmental review process that was undertaken for the proposed project.

Notice of Preparation

In accordance with Section 15063 of the CEQA Guidelines, a Notice of Preparation (NOP) was prepared and distributed to the State Office of Planning and Research, responsible and trustee agencies, as well as private organizations and individuals that may have an interest in the proposed project. The 30-day public comment period for the NOP commenced on September 23, 2009, and ended on October 23, 2009. The NOP was posted

with the County Clerk's office and sent to the State Clearinghouse at the Governor's Office of Planning and Research to officially solicit statewide agency participation in determining the scope of the EIR/EA.

The purpose of the NOP was to provide notification that LACMTA and FTA, as lead agencies under CEQA and NEPA, respectively, planned to prepare an EIR/EA for the proposed project and solicit guidance on the scope and content of the EIR/EA.

The NOP presented a description of the proposed project, potential environmental effects, instructions on how to provide comments, and the date, time, and location of the public scoping meeting. A copy of the NOP is included in Appendix A.

Public Scoping Meeting

Four public scoping meetings for the proposed project were held on the following dates, times, and locations:

- Felicia Mahood Community Center
October 5, 2009
6:00 p.m. – 8:00 p.m.
11338 Santa Monica Boulevard
Los Angeles, CA 90025
- Wilshire United Methodist Church
October 7, 2009
6:00 p.m. – 8:00 p.m.
4350 Wilshire Boulevard
Los Angeles, CA 90005
- Westwood Presbyterian Church
October 8, 2009
6:00 p.m. – 8:00 p.m.
10822 Wilshire Boulevard
Los Angeles, CA 90024
- Good Samaritan Hospital, Moseley-Salvatori Conference Room
October 13, 2009
6:00 p.m. – 8:00 p.m.
637 Lucas Avenue
Los Angeles, CA 90017

Draft EIR/EA and Public Review

The contents of this EIR/EA are based on public and agency input. Issues found during the scoping phase that were determined to have no impact do not require further evaluation and, therefore, are not discussed in this EIR; these include aesthetics (scenic vistas and light/glare), agricultural resources, biological resources (sensitive ecological species), geology and soils, hazards and hazardous materials, hydrology and water quality, mineral resources, population and housing, public services and recreation, and utilities and service systems.

Nonetheless, project scoping identified potentially significant impacts, which are addressed in this EIR/EA. These include the following:

- Aesthetics (Loss of Trees)
- Air Quality
- Biological Resources (Loss of Trees)
- Cultural Resources
- Land Use
- Noise
- Transportation and Circulation

This EIR/EA will be circulated as a Draft EIR/EA for public review and comment for a period of 45 days. During this period, comments from the general public, organizations, and agencies regarding environmental issues raised in the EIR/EA and the EIR/EA's accuracy and completeness may be submitted to LACMTA at the following address:

Los Angeles County Metropolitan Transportation Authority
One Gateway Plaza
Los Angeles, CA 90012
Contact: Ms. Martha Butler, Project Manager
Phone: (213) 922-2500
Email: wilshirebrt@metro.net

Formal comment on the EIR/EA should be submitted in writing, with a contact name and mailing address, and delivered to the address above by the last day of the public review period identified in the Notice of Availability circulated with this EIR/EA.

Final EIR/EA

Upon completion of the public review period, a Final EIR/EA will be prepared. The Final EIR/EA will include the comments on the EIR/EA received during the formal public review period, as well as responses to those comments. Prior to approval of the proposed project, CEQA also requires the LACMTA Board to adopt "findings" with respect to each significant environmental effect identified in the EIR/EA (Public Resources Code, Section 21081, and CEQA Guidelines, Section 15091).

For each such significant effect, CEQA requires the approving agency to reach one or both of the following findings:

- The project has been altered to avoid or substantially lessen significant impacts identified in the EIR; or
- Specific economic, legal, social, technological, or other considerations, including the provision of employment opportunities for highly trained workers, make the mitigation measures or project alternatives identified in the final EIR infeasible.

In the event that LACMTA, as the lead agency under CEQA, concludes that the proposed project will result in significant effects, which were identified in the EIR/EA but not substantially lessened or avoided by feasible mitigation measures and alternatives, the LACMTA Board must adopt a “Statement of Overriding Considerations” prior to approval of the proposed project (Public Resources Code, Section 21081, subd. (b), and CEQA Guidelines, Section 15093). Such statements are intended, under CEQA, to provide a written means by which the lead agency balances in writing the benefits of the proposed project and the significant and unavoidable environmental impacts. Where the lead agency concludes that the economic, legal, social, technological, or other benefits outweigh the unavoidable environmental impacts, the lead agency may find such impacts “acceptable” and approve the project.

Mitigation Monitoring and Reporting Program

Pursuant to Section 21081.6 of the Public Resources Code, public agencies, when approving a project, must also adopt a monitoring and reporting program for the changes that were incorporated into the project or made a condition of project approval to mitigate or avoid significant effects on the environment. The monitoring and reporting program is adopted at the time of project approval and must be designed to ensure compliance during project implementation. If LACMTA, as the lead agency, approves the proposed project, the LACMTA Board will implement the proposed project and mitigation monitoring and reporting program.

1.5 Community/Public Outreach Efforts

1.5.1 Meeting Preparation

In order to inform the community about the project, a series of public meetings were held throughout the project area. The project team utilized a multi-media approach, which included the delivery of postal and electronic mail invitations to the meetings. The stakeholder database was developed using the Metro Westside Extension Transit Corridor Study since the two projects share a similar project study area. The stakeholder database included 309 postal addresses and 950 email addresses. Those who had both email and postal addresses included were sent both notices.

Take-ones were placed on the Metro 20, 720, and 920 bus lines, which run primarily on Wilshire Boulevard. Take-ones were also placed on the Metro Red and Purple rail lines.

The outreach effort included development of a project webpage located at <http://www.metro.net/wilshire> and included establishing and regularly monitoring an information line at (213) 922-2500. The webpage included a project overview, information about upcoming meetings and posted relevant collateral materials, including a fact sheet, the presentation made at the community meetings, and other information of interest to the public. In addition to a press release, a fact sheet was developed and a series of e-bulletins were distributed to coincide with the community meetings. A set of Frequently Asked Questions (FAQs) was also prepared. Most materials were prepared in English, Spanish, and Korean.

1.5.2 Stakeholder Database

A comprehensive stakeholder identification process was initiated to coincide with the early scoping process. Recognizing the size of the study area and the tremendous geographic diversity of the potential study stakeholders, a radius mail was not recommended to publicize the early scoping meetings. Rather, the intent was to develop a comprehensive study database throughout the study area for the purposes of a targeted email and direct mail that included the following:

- Elected officials on the local, state and federal level (42 entries);
- Neighborhood Councils and other elected groups (183 entries);
- Homeowners Associations and Neighborhood Organizations (134 entries);
- Chambers of Commerce and business leaders (39 entries);
- Community-based and civic organizations (21 entries);
- Key destinations and employers (25 entries);
- Transportation advocates and interest groups (12 entries);
- Print, broadcast and electronic media, including community-based publications and blogs (175 entries);
- Local Business Improvement Districts (BIDs) (7 entries); and
- Other interested groups and persons.

While the Westside Subway Extension stakeholder list was used as a “starter,” the stakeholder list was complemented and expanded to include Wilshire Corridor neighborhoods between Western Avenue and Witmer Street and beyond into Downtown Los Angeles. The expanded stakeholder database consists of residential and business addresses, service organizations and neighborhood councils, which include the following:

- Downtown Los Angeles Neighborhood Council (Eastern Boundary: Bixel Street);
- MacArthur Park (Boundaries: 7th Street, Olympic Boulevard, Alvarado Street, Vermont Avenue);
- Mid City West (Boundaries: Olympic Boulevard, La Brea Avenue, Cities of West Hollywood and Beverly Hills);
- Pico Neighborhood Council (Boundaries: Olympic, Venice, and La Cienega Boulevards, and La Brea Avenue); and
- Wilshire Center/Koreatown (Boundaries: Vermont and Western Avenues, 101 Freeway, Olympic Boulevard).

Scoping materials were hand delivered to a number of residential, commercial, and retail buildings along Wilshire Boulevard from Witmer Street to the Wilshire/Vermont Metro rail station.

Additionally, recognizing the significant number of religious congregations along Wilshire Boulevard in the project area, a separate database of those congregations was developed, and every congregation received a mailer notifying them of upcoming meetings. Materials were distributed in English, Spanish and Korean.

To accommodate those communities east of Western Avenue, meeting locations were carefully chosen to address the needs of the transit dependent. Two of the four meetings were held at Good Samaritan Hospital and Southwest Law School and attracted over 80 participants, including a number of Spanish and Korean speaking participants that required translations services. These meetings also had noticeable participation from seniors, youth, and those identified as transit dependent.

Furthermore, an existing database originally developed for the Exposition Light Rail Transit (Expo LRT) Project was reviewed and 118 email addresses and 18 US mail addresses were extracted from that database and incorporated into the Wilshire BRT database.

In addition to mailing to those key individuals, the 3 key Westside neighborhood councils impacted by the Wilshire BRT were contacted on a regular basis throughout the study. Again, careful consideration was given to meeting locations and one of the four meetings was held at the Felicia Mahood Senior Center, which is also where a number of Westside organizations regularly convene.

1.5.3 Web Notice

As mentioned earlier, a project website was developed to serve as an information clearinghouse. Located at metro.net/Wilshire, the website provides the project fact sheet, meeting information, and methods available to submit comments on the project. As the project moves forward, the website will be updated as more information becomes available.

Meeting information was reposted on a handful of neighborhood and transportation-related blogs.

1.5.4 Email Notification

An electronic notice was distributed to 950 people who have previously supplied their email address for the Westside Extension Transit Corridor Study. The listing of electronic addresses also included representatives from local elected official offices and neighborhood councils.

The notice was distributed on September 24, 2009. A reminder email was distributed on October 10, 2009, and provided a link to the project webpage, and additional information on how to provide comment on the project.

1.6 Areas of Public Concern and Known Controversy

Public comments were submitted concerning a large number of different topics, including the following:

- Concerns regarding anticipated increase in bus ridership;
- Impacts on automobile travel times/increased idling and congestion that would lead to more noise and air quality problems;
- Concerns regarding less accessibility to businesses and homes and reduced emergency access;
- Concerns regarding results of past trial bus lanes and results of test demonstration;
- Concerns regarding the creation of more traffic in the local neighborhoods;
- Concerns regarding increased accident rates;
- Impacts resulting from cut-through through traffic on the local neighborhoods;
- Concerns regarding the non-participation of the Cities of Santa Monica and Beverly Hills in the project
- Concerns regarding road degradation;
- Concerns regarding parking impacts (i.e., loss of parking spaces on Wilshire Boulevard)
- More stress, noise, pollution, and speeding vehicles/reduced quality of life;
- Impacts to air quality, noise and vibration from more buses and buses running closer to residential buildings;
- Concerns regarding the aesthetic impacts of project;

- Concerns regarding impacts to property values;
- Increased risk to children, elderly, pedestrians, cyclists, and pets in the local neighborhoods (i.e., health and safety concerns);
- Concerns regarding land use impacts, change in neighborhood character, and consistency with community and specific plans and growth inducing impacts;
- Concerns about street widening and removal of sidewalks;
- Concerns regarding project impacts to traffic on north/south and east/west streets;
- Scope of the project should exclude the Westwood residential corridor; and
- Concerns regarding project elements to affect sidewalk, jut-outs, and median.

Copies of all letters received in response to the NOP are included in Appendix A.

1.7 Organization of the EIR/EA

- Executive Summary. The Executive Summary provides an overview of the detailed information contained in subsequent chapters. This chapter includes a table that summarizes the potential environmental impacts in each resource area and the significance determination, mitigation measures, and level of significance after mitigation for those impacts.
- Chapter 1 of this document provides an introduction to the project, as well as an overview of the environmental review process, the community/public outreach efforts, and the agencies involved. In addition, a description of the intended uses of the EIR/EA is included in this chapter.
- Chapter 2 of this document provides a detailed description of the proposed project, as well as its objectives, location, characteristics, and construction scenario.
- Chapter 3 of this document provides a description of the regional and local setting of the project area.
- Chapter 4 of this document describes the potential environmental effects on traffic and circulation, air quality, cultural resources, noise, and land use. A discussion of the environmental setting for the resource, the environmental impacts resulting from the project, and the required mitigation measures is provided for each resource area.
- Chapter 5 of this document describes and analyzes the No-Project Alternative and other alternatives that were considered during the planning process. It also identifies the Environmentally Superior Alternative.
- Chapter 6 of this document provides a discussion of other CEQA considerations, including a discussion of cumulative impacts, a summary

of significant unavoidable impacts, significant irreversible environmental changes, growth-inducing effects, and those impacts that were not found to be significant.

- Chapter 7 of this document consists of the Environmental Assessment in compliance with NEPA and FTA requirements.
- Chapter 8 of this document provides sources, references, and a list of persons consulted in the preparation of this draft document.
- Chapter 9 of this document identifies the preparers of this EIR/EA.

Chapter 2 Project Description

2.1 Introduction

This section presents the description of the proposed Wilshire Bus Rapid Transit Project (proposed project), the objectives of the proposed project, a description of the existing environment within the proposed project, a description of surrounding land uses, and an estimated time line for construction of the project.

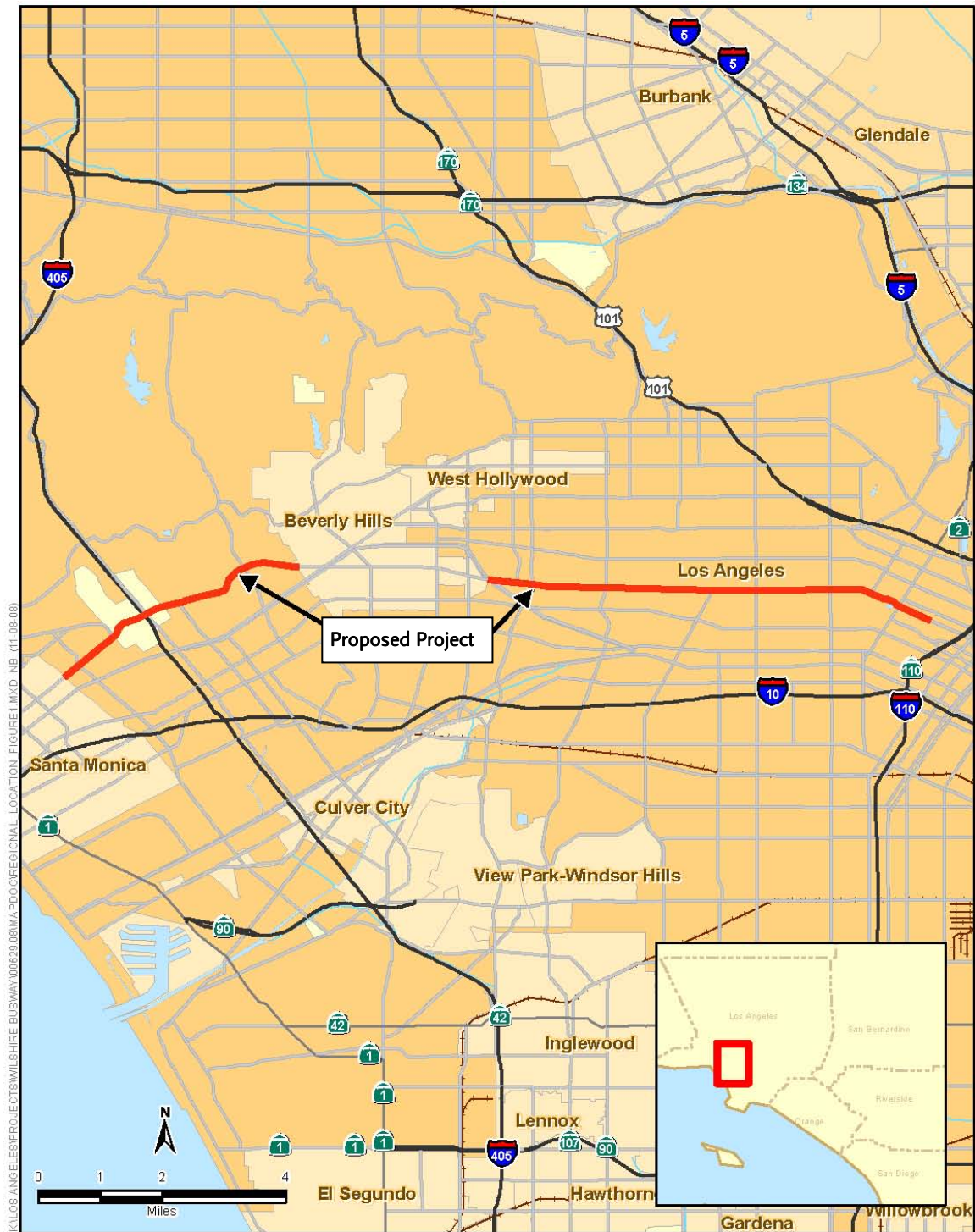
2.2 Project Location

Wilshire Boulevard, the proposed project corridor, traverses five community plan areas within the City of Los Angeles. The community plan areas that encompass the proposed project include Westlake, Wilshire, Westwood, West Los Angeles, and Brentwood-Pacific Palisades. The proposed project runs through the densely populated mid-western portion of the City of Los Angeles, from the western edge of downtown at Valencia Street to the east, and to the eastern boundary of the City of Santa Monica at Centinela Avenue to the west (Figure 2-1). The proposed project spans approximately 9.9 miles, excluding the City of Beverly Hills. The Wilshire corridor is a densely populated, highly developed inner urban region with extensive commercial and nearby residential uses. Regional access to the Wilshire corridor is provided by a large number of intersecting streets including Alvarado Street, Hoover Street, Vermont Avenue, Western Avenue, Crenshaw Boulevard, Highland Avenue, La Brea Avenue, Fairfax Avenue, San Vicente Boulevard, La Cienega Boulevard, Robertson Boulevard, Santa Monica Boulevard, Beverly Glen Boulevard, Westwood Boulevard, Overland Avenue, Sepulveda Boulevard, the San Diego Freeway (Interstate 405), and Centinela Avenue.

2.3 Project History and Background

In March 2004, the Los Angeles Department of Transportation (LADOT) and LACMTA implemented peak period bus lanes along a one-mile segment of Wilshire Boulevard between Centinela Avenue and Federal Avenue in West Los Angeles, as part of a Bus Lane Demonstration Project. The purpose of this demonstration project was to test whether curbside, exclusive bus lanes operating in the a.m. and p.m. peak periods would significantly improve bus travel speeds and service on Wilshire Boulevard. This demonstration project resulted in improvements in bus speeds and reliability through the one-mile segment. Before and after data analysis indicated that this demonstration project resulted in a 14 percent bus speed improvement and up to a 32 percent improvement in bus schedule reliability.

Figure 2-1. Regional Location



SOURCE: ESRI Streetmap USA (2007)

In November 2006, LACMTA and LADOT began studying the feasibility of implementing end-to-end bus lanes on Wilshire Boulevard between downtown Los Angeles and the City of Santa Monica. The City of Los Angeles and LACMTA began the Wilshire Bus Speed Improvement Study. Three options were developed by LADOT, which are as follows:

- Peak period end-to-end bus lanes, which consists of the conversion of Wilshire Boulevard curb lanes from mixed flow to bus and right-turn only, and implementation of a number of engineering enhancements, including increased bus signal priority, bus stop relocations, pavement repair, and minor on-street parking space removal to improve bus speeds, schedule reliability, and overall bus travel times.
- All day mini bus lanes, which consist of implementation of “mini” bus lanes in selected segments, construction of a number of minor street improvements, and implementation of the engineering enhancements identified above.
- Implementation of engineering enhancements (e.g., traffic signal modifications/Transit Priority System) only.

In May 2007, the Los Angeles City Council was presented with the above options and made a decision to pursue the first option of constructing peak period end-to-end bus lanes, which clearly met the corridor objectives to reduce bus congestion, improve passenger travel times and average bus speeds, minimize parking space removal, and improve the mode shift from automobile to bus.

In August 2007, the demonstration project was temporarily suspended by the Los Angeles City Council until the one-mile segment could be integrated into a larger bus lane project, such as the proposed project or Alternative A.

In September 2007, LACMTA and the City of Los Angeles submitted a “Very Small Starts” funding application to the FTA for the Wilshire BRT Project. Subsequently, in December 2007, FTA approved LACMTA’s request to initiate Project Development activities for the proposed project.

2.4 Project Goals and Objectives/Purpose and Need

Wilshire Boulevard is the most heavily used transit corridor in the County of Los Angeles, with over 80,000 bus boardings taking place along the corridor each weekday. In addition to being the most heavily used transit corridor in the County, Wilshire Boulevard has the distinction of having some of the highest average daily traffic (ADT) volumes in the City of Los Angeles. Approximately 110,000 automobiles pass through the intersections of Westwood Boulevard, Gayley Avenue, and Veteran Avenue each weekday in the Westwood area. While ADT volumes are lower along the eastern portion of the project area (e.g., the ADT volume at Fairfax Avenue is 62,000), the corridor’s average ADT volume is estimated at 80,000. Moreover, Wilshire Boulevard is an important strategic BRT corridor due to the following: (1) the

Mid-City/Westside segment of Wilshire Boulevard is a highly significant origin and/or destination point for trips in southern California, especially for transit trips, over 41% of which either originate or terminate in the Wilshire corridor; (2) the Wilshire corridor has a significantly higher transit mode split (20%) than the City of Los Angeles as a whole (8%), and the trend is expected to increase from nearly 2.5 to 2.8 times the City mode split; and (3) the Wilshire corridor currently has very high internal trip retention (over half of all trips begin and end in the corridor), and despite growth in regional trips, the corridor is expected to maintain these high internal trip retention percentages.

With increasing ADT volumes on Wilshire Boulevard, demands for viable alternatives to the automobile have increased as congestion continues to slow automobile travel. This same congestion also slows buses, increasing travel time, and reducing schedule reliability for transit customers, while increasing operating costs for Metro. Average bus speeds, along with automobile speeds, have declined steadily over the past 20 years. The Wilshire BRT Project is intended to further improve bus passenger travel times, service reliability, ridership of the existing Wilshire BRT system, and encourage a shift from automobile use to public transit.

Metro's Metro Rapid Program provides fast, frequent regional bus service throughout Los Angeles County. Key features of Metro Rapid include simple route layouts, frequent service, fewer stops, low-floor buses to facilitate boarding and alighting, color-coded buses and stations, and traffic signal priority

The program's success has garnered national acclaim from both the federal government and major transit providers. Launched in June 2000, the Wilshire/Whittier Metro Rapid Line 720 was one of the first two Metro Rapid Bus Rapid Transit (BRT) lines to be implemented in Los Angeles County. It demonstrated that by implementing a few key attributes as mentioned above, passenger travel times could be reduced by as much as 29% and ridership increased by as much as 40%.

Metro Rapid Line 720 currently serves Wilshire Boulevard from 4:00 a.m. to 1:00 a.m. weekdays, with service every 3 to 4 minutes during the peak hours. There are currently 51 buses operating during the peak periods on Metro Rapid Line 720. Wilshire Boulevard is also served by Local Line 20 and Metro Rapid Express Line 920. Local Line 20 operates 24 hours a day with service every 6 minutes during the peak hours, and up to 29 peak buses. Metro Rapid Express Line 920 operates every 6 to 7 minutes during the weekday peak hours only. The same level of service along Wilshire Boulevard is planned post implementation of the Wilshire BRT project.

Construction of the proposed Wilshire BRT project would not only assure the corridor's immediate and long-term success as a BRT facility but would further enhance all transit services along Wilshire Boulevard. When implemented, bus passenger travel times are expected to further improve by an average of 24%. Average Metro Rapid bus speeds are projected to increase by an average of nearly 32%. Up to a 10% mode shift from mixed flow to bus use is projected.

The goals and objectives for the project have been developed from the transportation and land use goals and objectives of local and regional agencies, including the City of Los Angeles, Los Angeles County, and the Southern California Association of Governments (SCAG), who serves as the regional Metropolitan Planning Organization (MPO), and are consistent with the other transit improvements currently planned in Los Angeles County. The following is a list of general project goals and objectives that have been developed for the proposed project:

- Improve bus passenger travel times by allowing buses to travel in dedicated peak-period bus lanes for the majority of the alignment between Valencia Street to the east and Centinela Avenue to the west;
- Improve bus service reliability by separating buses from the already high levels of corridor traffic congestion;
- Improve traffic flow along Wilshire Boulevard;
- Repave the curb lanes along damaged portions of Wilshire Boulevard to allow their effective use by buses during peak periods and by both buses and automobiles during non-peak periods;
- Encourage shift from automobile use to public transit by continuing to attract new transit riders;
- Improve air quality in Los Angeles County with the reduction in mobile source emissions resulting from a mode shift from automobile use to bus use; and
- Minimize impacts to existing on-street parking.

2.5 Overview of Surrounding Land Uses and Environmental Setting

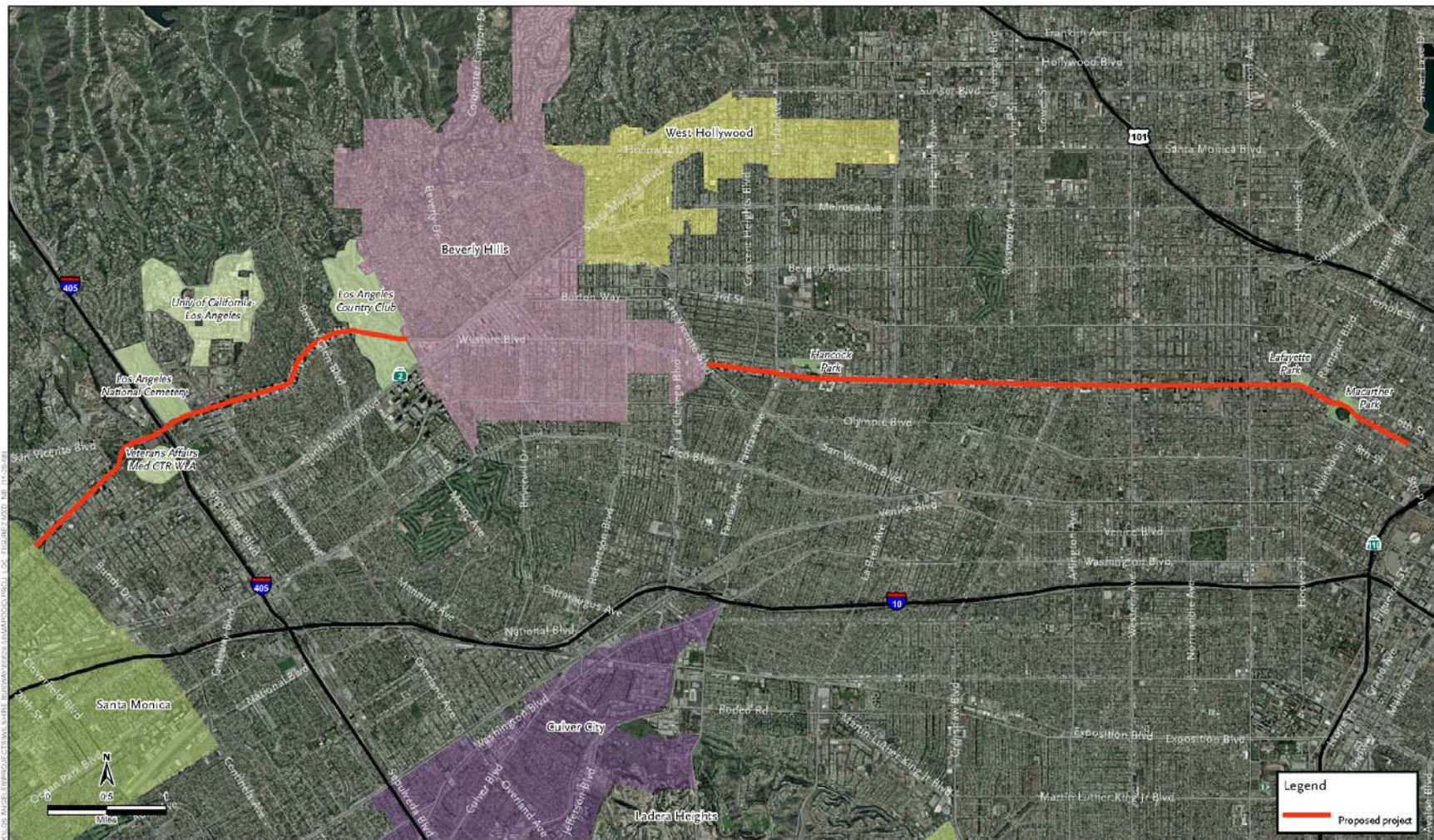
2.5.1 Project Corridor

Wilshire Boulevard is a densely developed corridor with commercial and residential development along both sides of the street. Figure 2-2 shows the project alignment from Valencia Street on the east to Centinela Avenue on the west. Figure 2-3 presents the community plan area boundaries along the proposed project.

The segment of the Wilshire corridor within the Westlake Community Plan Area is mainly commercial and includes office and retail (small businesses and strip malls), interspersed with some residential uses, parking lots and community facilities, including MacArthur Park and Lafayette Park. This segment also consists of a mix of mid-rise (8-10 stories) and low-rise buildings.

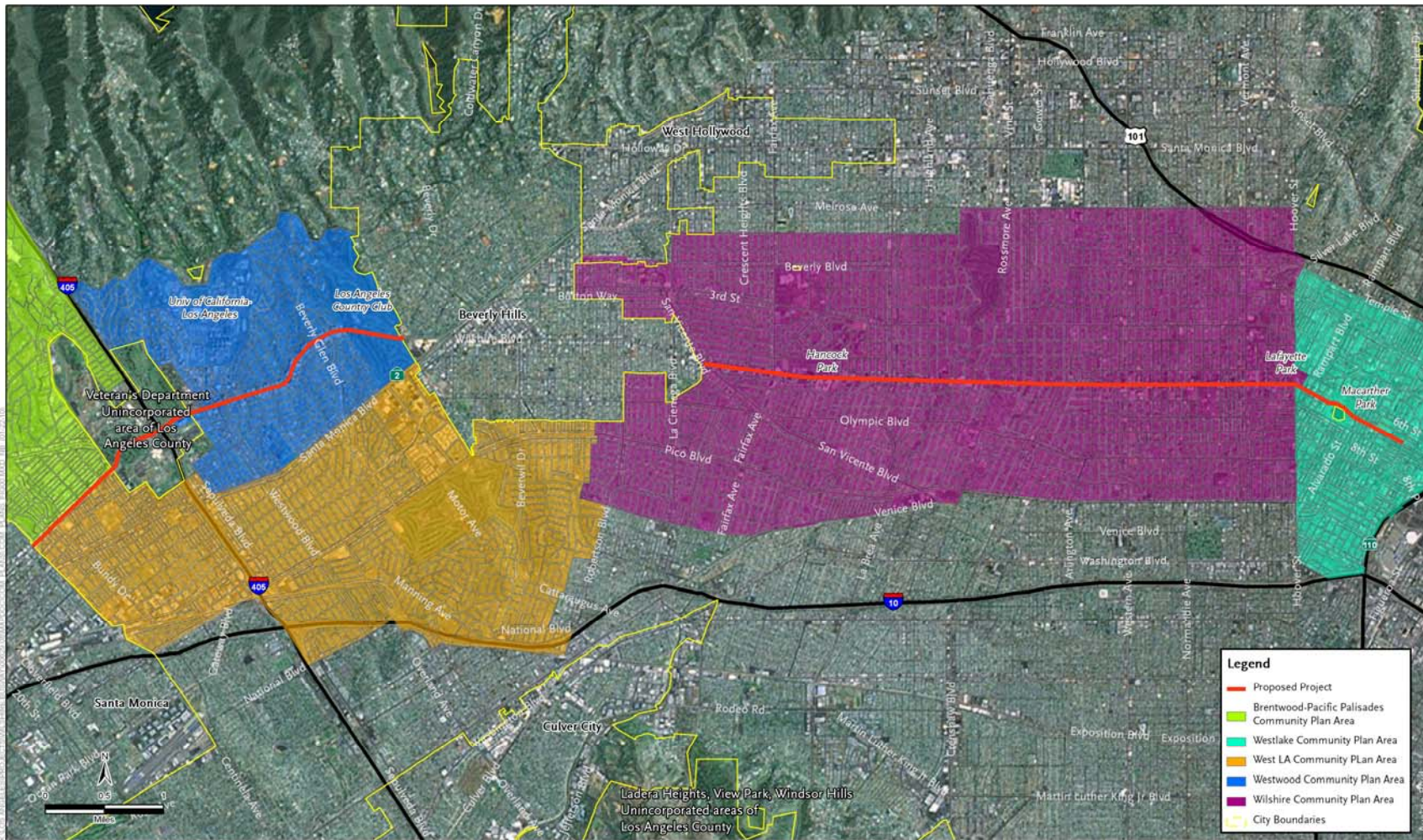
In the Wilshire Community Plan Area, a long, narrow corridor of commercial activity exists along Wilshire Boulevard. The commercial activities along this corridor are comprised of professional offices and retail (strip mall and small

Figure 2-2. Project Vicinity



SOURCE: ESRI Streetmap USA (2007), ESRI USA Imagery (2006)

Figure 2-3. Jurisdictional Boundaries of Community Planning Areas



SOURCE: ESRI (2008), City of LA GIS (2010)

businesses), interspersed with a few multi-family residential areas. Additionally, the corridor includes public attractions such as Museum Row, Hancock Park, and the La Brea Tar Pits. The structures fronting Wilshire Boulevard contain numerous high-rise (20 stories) and mid-rise (8-10 stories) office buildings.

The segment of the Wilshire corridor within the Westwood Community Plan Area consists of multiple-family housing, both high-medium and medium density residential. High-rise condominium towers are located along Wilshire Boulevard between the Los Angeles Country Club and Malcolm Avenue along Wilshire Boulevard. Near Westwood Boulevard, the high-rise office corridor along Wilshire Boulevard serves as a regional business center with financial institutions and corporate headquarters.

The segment of the Wilshire corridor within the West Los Angeles Community Plan Area consists of commercial land uses, primarily strip mall development. The majority of commercial facilities are either small-scale and free standing or mini-mall type buildings designed to primarily serve local neighborhoods. The Los Angeles Veterans Administration and Hospital Complex and the Los Angeles National Cemetery are located to the south and north of this segment of the corridor, respectively.

Wilshire Boulevard is under the jurisdiction of the City of Los Angeles throughout most of the corridor (approximately 9.1 miles). Adjacent to the Veteran's Administration facilities between Veteran Avenue and Federal Avenue (approximately 0.8 mile), Wilshire Boulevard is under the jurisdiction of Los Angeles County. Approximately 2.6 miles of Wilshire Boulevard are under the jurisdiction of the City of Beverly Hills, between San Vicente Boulevard and just to the west of North Whittier Drive. This portion of Wilshire Boulevard is not part of the project. Similarly, the proposed project ends at the eastern edge of the City of Santa Monica and does not include any portion of Wilshire Boulevard west of Centinela Avenue.

2.6 Project Description

A number of general improvements are required as part of the proposed project. These general improvements include restriping of traffic lanes, as necessary; conversion of existing curb lanes to bus lanes in each direction during peak periods; upgrade of the existing transit signal priority system; selective street widening; reconstruction/resurfacing of curb lanes in select areas; and, installation of traffic/transit signage and pavement markings, as necessary, to implement dedicated peak period bus lanes.

A variety of activities are proposed along the entire length of the proposed project within the City's boundaries (approximately 9.1 miles). Most of the existing curb lanes on Wilshire Boulevard in the City of Los Angeles would be "converted" to a bus and right-turn only operation in the peak periods (7 a.m. to 9 a.m. and 4 p.m. to 7 p.m.) on weekdays. In these segments, the curb lanes would be repaired or reconstructed, where necessary, and restriped and signed as peak period bus lanes. In other areas, curbside bus lanes would be added as new lanes to Wilshire Boulevard by widening or with the removal of jut-outs.

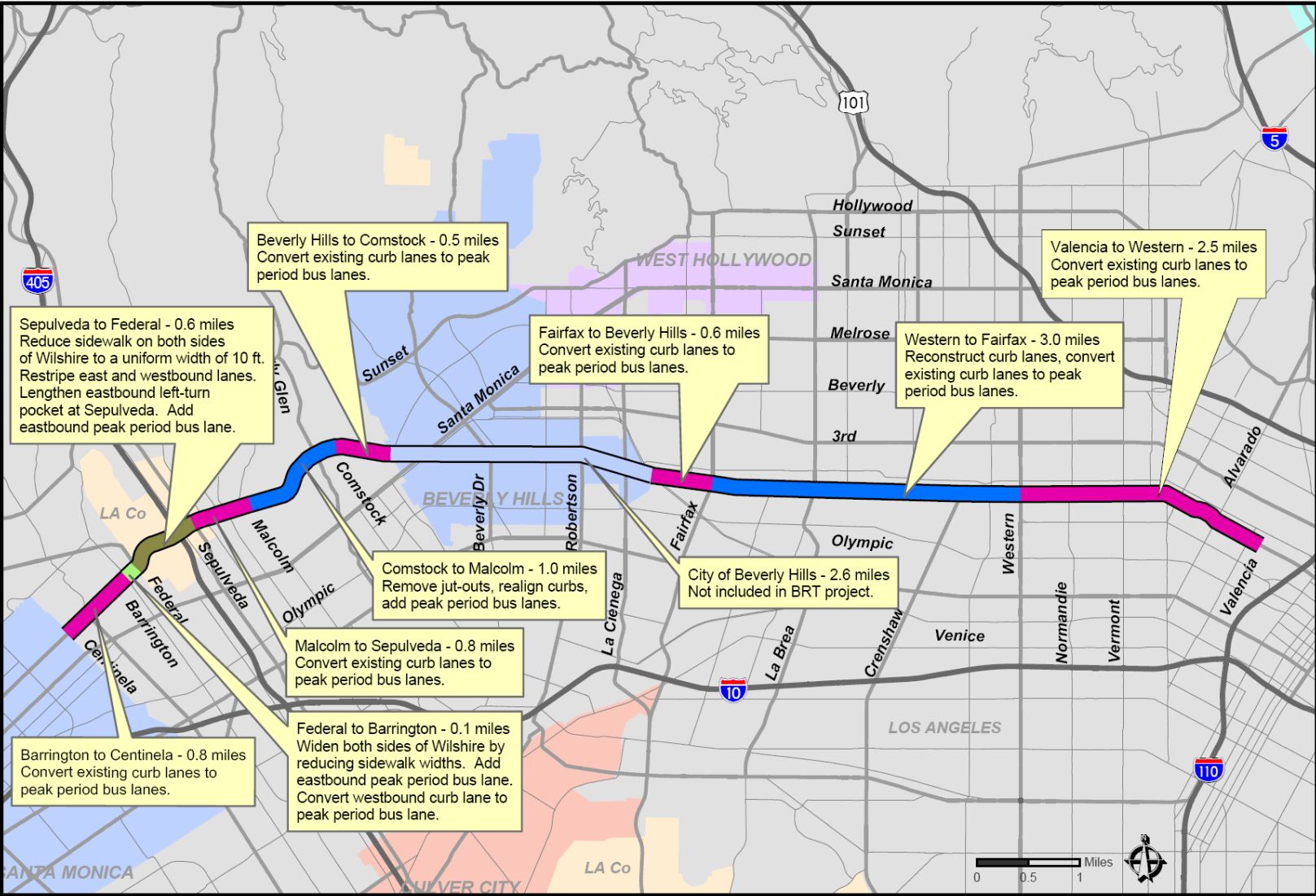
Upgrades to the transit signal priority system would also be implemented, including (1) addition of bus signal priority at intersections with near-side bus stops (a recently developed and successfully tested concept), (2) increase in maximum available time for transit signal priority from 10 percent to 15 percent of the traffic signal cycle at minor intersections, and (3) reduction in the number of traffic signal recovery cycles from two to one at key intersections along the corridor.

A portion of the proposed project is under County jurisdiction, between Veteran Avenue and Federal Avenue (approximately 0.8 mile) near the Veterans Administration facilities. Key elements of the County's project scope include widening Wilshire Boulevard between Bonsall Avenue and Federal Avenue, reduction of adjacent sidewalks to a uniform width, traffic lane restriping, adjustments to geometrics and traffic signals, signage and markings, and a 470-foot extension of an eastbound left-turn pocket at Sepulveda Boulevard.

Geographically, the key elements of the proposed project can be discussed based upon specific segments of the 9.9-mile Wilshire Boulevard corridor under consideration. These improvements are presented in Figure 2-4, which shows the different segments of Wilshire Boulevard between Valencia Street to the east and Centinela Avenue to the west, excluding the portion in the City of Beverly Hills. Proposed in both the eastbound and westbound directions, from east to west, these project segments can be summarized as follows:

- From Valencia Street to Western Avenue (approximately 2.5 miles), existing curb lanes would be converted to peak period bus lanes.
- From Western Avenue to Fairfax Avenue (approximately 3.0 miles), curb lanes would be reconstructed/resurfaced and converted to peak period bus lanes. The curb lanes in this segment have deteriorated to the point that both buses and vehicles seldom use the lanes because of extreme rough and uneven pavement conditions. Reconstruction of the roadway base (below the pavement surface) and curb and gutters, where damaged, would not only allow buses to consistently use the curb lanes but also improve the traffic capacity of the two adjacent lanes (in each direction) by moving buses from the curb-adjacent lanes to the curb lanes, thereby improving both the vehicular and transit levels of service in this segment.
- From Fairfax Avenue to the Beverly Hills city limits at the intersection of San Vicente Boulevard and Wilshire Boulevard (approximately 0.6 mile), existing curb lanes would be converted to peak period bus lanes. The lanes in this segment need only minor surface repairs.
- Within the Beverly Hills city limits (2.6 miles), no bus lanes would be implemented.
- From the Beverly Hills city limits, west of the intersection of Wilshire Boulevard and Santa Monica Boulevard, to Comstock Avenue (approximately 0.5 mile), existing curb lanes would be converted to peak period bus lanes.

Figure 2-4. Proposed Project Plan



Source: LACMTA, 2010.

- From Comstock Avenue to Malcolm Avenue (approximately 1.0 mile), various curb improvements, including jut-out removal and realignment of curbs, would be necessary. This would allow the realignment of curbs to create new curb lanes, thereby adding peak period bus lanes. A number of parking spaces would be removed in this segment as a result of the removal of the curb jut-outs.
- From Malcolm Avenue to Sepulveda Boulevard (approximately 0.8 mile), existing curb lanes would be converted to peak period bus lanes.
- From Sepulveda Boulevard to Bonsall Avenue (approximately 0.2 mile), no bus lanes would be implemented. However, at Sepulveda Boulevard, the eastbound left-turn pocket would be lengthened by approximately 470 feet to accommodate a greater number of vehicles that are currently queued in the No. 1 eastbound traffic lane, resulting in full use of the No. 1 lane for through traffic movements.
- From Bonsall Avenue to Federal Avenue (approximately 0.4 mile), in order to accommodate an eastbound peak period bus lane, the sidewalk widths on both sides of Wilshire Boulevard would be reduced to a uniform width. Both eastbound and westbound lanes would be restriped. Wilshire Boulevard between Interstate 405 and Federal Avenue is bordered by the Veterans Administration (VA) property. The sidewalk widths on both sides of Wilshire Boulevard in this segment vary between 10 and 15 feet.
- From Federal Avenue to Barrington Avenue (approximately 0.1 mile), both sides of Wilshire Boulevard would be widened by reducing the sidewalk widths on the north and south sides, allowing restriping of the street and creation of a new eastbound peak period bus lane and conversion of the existing westbound curb lane to a peak period bus lane. The intersection of Wilshire Boulevard and Federal Avenue is extremely congested in the eastbound direction. The widening of this two-block segment would allow buses to pass safely and quickly through the intersection of Wilshire Boulevard and Federal Avenue and provide a contiguous eastbound bus lane from Centinela Avenue to Bonsall Avenue.
- From Barrington Avenue to Centinela Avenue (approximately 0.8 mile), existing curb lanes would be converted to peak period bus lanes.

2.7 Estimated Construction Schedule

Construction of the proposed project could possibly begin in early 2011 and take approximately two years to implement all the proposed improvements.

2.8 Approvals

The proposed project would need certification of this EIR by LACMTA's Board of Directors, and issuance of a Finding of No Significant Impact by the FTA. Final design plans would require approval by the following agencies:

- Los Angeles County Metropolitan Transportation Authority – Approval of project scope and funding;
- City of Los Angeles Department of Transportation – Approval of traffic signal/transit priority system improvements and street restriping plans;
- City of Los Angeles Bureau of Engineering (LABOE) – Approval of all engineering drawings and street widening plans;
- City of Los Angeles Bureau of Street Services (LABOS) – Approval of street reconstruction plans;
- Los Angeles County Department of Public Works – Approval of all engineering drawings and street widening plans; and
- Other ancillary approvals and permits as may be required.

Chapter 3 Environmental Setting

3.1 Regional Setting

Wilshire Boulevard, the proposed project corridor, traverses five community plan areas within the City of Los Angeles. The community plan areas that encompass the proposed project include Westlake, Wilshire, Westwood, West Los Angeles, and Brentwood-Pacific Palisades. The project corridor includes portions of Wilshire Boulevard between Valencia Street, near the western edge of downtown Los Angeles, and the eastern boundary of the City of Beverly Hills as well as portions of Wilshire Boulevard between the western boundary of the City of Beverly Hills and Centinela Avenue at the eastern boundary of the City of Santa Monica. The proposed project spans approximately 9.9 miles, excluding the City of Beverly Hills.

Wilshire Boulevard is a major transportation corridor traversing roughly east to west through the City of Los Angeles. Accordingly, regional access to the project corridor is provided by the adjoining major north-south streets and highways, including (from east to west) Alvarado Street, Hoover Street, Vermont Avenue, Western Avenue, Crenshaw Boulevard, Highland Avenue, La Brea Avenue, Fairfax Avenue, San Vicente Boulevard, La Cienega Boulevard, Robertson Boulevard, Santa Monica Boulevard, Beverly Glen Boulevard, Westwood Boulevard, Overland Avenue, Sepulveda Boulevard, the San Diego Freeway (Interstate 405), and Centinela Avenue.

3.2 Local Setting

As described above, the project corridor includes the portion of Wilshire Boulevard between Valencia Street and Centinela Avenue, excluding the City of Beverly Hills. Wilshire Boulevard varies in width from two lanes in each direction in the Westlake area, east of Park View Street, to four lanes in each direction in the Westwood area between Glendon Avenue and I-405.

Wilshire Boulevard is classified as Major Highway (Class II). A Major Highway (Class II) generally operates with two full-time lanes in each direction, with continuous left-turn channelization and one additional lane in each direction during selected peak periods with curb-side parking during off-peak periods. Most of Wilshire Boulevard already has both a.m. and p.m. peak period parking restrictions along the project corridor.

The project corridor varies in elevation along the entire length -- approximately 340 feet above mean sea level (amsl) at the eastern end, approximately 140 feet amsl at La Cienega Boulevard, approximately 380 feet amsl at Beverly Glen Boulevard, and approximately 200 feet at Centinela Avenue.

No bodies of water are present on or adjacent to the project corridor. The Pacific Ocean is located approximately 2.5 miles to the west of the western end of the project corridor at Centinela Avenue.

A variety of land uses are located adjacent to the approximately 9.9-mile long Wilshire corridor. The corridor is densely developed with an abundance of various commercial uses. The majority of land uses located adjacent to the Wilshire corridor consist of parcels zoned for office, retail, commercial, residential, or institutional uses (e.g., museums). Commercial development and some multi-family residential uses front both sides of the corridor and the intersecting north/south streets.

The Wilshire corridor forms a central area for commercial activity for a number of neighborhoods, including the Westlake/MacArthur Park, Lafayette Park, Koreatown, Wilshire Center, Mid-Wilshire, Miracle Mile, Carthay Circle, Carthay Square, South Beverly Roxbury, Westwood, Boulevard Heights, West Los Angeles, and Brentwood Village.

The eastern portion of the Wilshire corridor, which is located in the Westlake community of the City of Los Angeles includes mainly commercial office and retail (small businesses and strip malls) uses, interspersed with some residential uses, parking lots and community facilities. This portion of the segment also includes MacArthur Park and Lafayette Park. This segment also consists of a mix of mid-rise (8 to 10 stories) and low-rise buildings.

A long, narrow corridor of commercial activity exists along Wilshire Boulevard in the Wilshire Community Plan Area. The commercial activities along this corridor are comprised of professional offices and retail (strip mall and small businesses), interspersed with a few multi-family residential areas. Additionally, the corridor includes public attractions, such as Museum Row, Hancock Park, and the La Brea Tar Pits. The structures fronting Wilshire Boulevard contain numerous high-rise (20 stories) and mid-rise office buildings.

The segment of the Wilshire corridor located within the community of Westwood consists of multi-family housing, both high-medium and medium density residential uses. High-rise condominium towers are located along Wilshire Boulevard between the Los Angeles Country Club and Malcolm Avenue. Near Westwood Boulevard, the high-rise office corridor along Wilshire Boulevard serves as a regional business center with financial institutions and corporate headquarters.

The segment of the Wilshire corridor within the West Los Angeles community consists of commercial land uses, primarily strip mall development. The majority of commercial facilities are either small-scale and free standing or mini-mall type buildings designed to primarily serve local neighborhoods. The Los Angeles Veterans Administration and Hospital Complex and the Los Angeles National Cemetery are located to the south and north of this segment of the corridor, respectively.

Figure 2-3 in Chapter 2 of this document presents the community plan area boundaries along the proposed project.

Chapter 4 CEQA Environmental Analysis

Based on public comments, public agency input, and preliminary studies (i.e., traffic impact analysis, air quality study, noise study), LACMTA determined that an EIR would be required for the project. In addition, LACMTA considered agency and public input received during the Notice of Preparation (NOP) comment period (September 23, 2009 to October 23, 2009) and the four scoping meetings held on October 5, 7, 8, and 13, 2009 to determine the scope of the evaluation for the EIR/EA.

The NOP and/or agency and public comments identified seven issue areas as potentially significant environmental impacts associated with the proposed project. These environmental issues and their corresponding section numbers are as follows:

- 4.1 Traffic, Circulation, and Parking
- 4.2 Air Quality
- 4.3 Cultural Resources
- 4.4 Noise
- 4.5 Land Use
- 4.6 Aesthetics (Tree Removal)
- 4.7 Biological Resources (Tree Removal)

The other environmental issues were identified as less than significant or no impact. Therefore, only the seven environmental issue areas are evaluated in this chapter.

Sections 4.1 through 4.7 provide a detailed discussion of the environmental setting, impacts associated with the proposed project, cumulative impacts, and mitigation measures designed to reduce significant impacts.

Each section contains the following information:

- Environmental Setting;
- Thresholds of Significance;
- Environmental Impacts;
- Mitigation Measures; and
- Level of Significance After Mitigation.

For each impact identified in the EIR/EA, a statement of the level of significance of the impact is provided. Impacts are categorized in the following categories:

- A designation of **no impact** is given when no adverse changes in the environment are expected.
- A **less-than-significant impact** would cause no substantial adverse change in the environment.
- A **significant (but mitigable) impact** would have a substantial adverse impact on the environment but could be reduced to a less-than-significant level with incorporation of mitigation measure(s).
- A **significant unavoidable impact** would cause a substantial adverse effect on the environment, and no feasible mitigation measures would be available to reduce the impact to a less-than-significant level.
- **Level of significance after mitigation** is the remaining impact after the identified mitigation is implemented.

4.1 Traffic, Circulation, and Parking

This section describes the existing transportation and parking conditions within and adjacent to the project area. A traffic report describing the potential impacts of the proposed project was prepared by Iteris in March 2010 and is included as Appendix B. This section summarizes the findings of the traffic report and discusses any necessary mitigation and residual impacts after mitigation.

The study area for the traffic report prepared for the proposed project was developed in conjunction with LACMTA and the Los Angeles Department of Transportation (LADOT). A study area that included 74 study intersections, consisting of intersections along Wilshire Boulevard, as well as parallel corridors, such as Sunset Boulevard, Santa Monica Boulevard, Olympic Boulevard, Pico Boulevard, 3rd Street, 6th Street, and 8th Street, was established for the proposed project.

4.1.1 Environmental Setting

The following discussion includes an overview of the transportation system within the Wilshire BRT study area. The roadway system in the study area forms a grid pattern, with arterials and collectors that generally follow a northeast-to-southwest orientation in the western portion of the study area (west of the City of Beverly Hills) and an east-to-west orientation in the eastern portion of the study area (east of the City of Beverly Hills.)

Freeway Network

The Santa Monica Freeway (Interstate 10 [I-10]) is a major east-west freeway that parallels Wilshire Boulevard south of the study area. The freeway is one of the busiest and carries some of the highest daily traffic volumes in the nation. Annual counts from the California Department of Transportation (Caltrans) indicate that the 2007 average daily traffic (ADT) on I-10 ranges from 199,000 (east of Centinela Avenue) to 323,000 (east of Vermont Avenue). I-10 varies between three and five general purpose lanes in each direction, with several sections having additional lanes within the auxiliary lanes and/or collector/distributor roadways. Access ramps to and from I-10 that serve the study area include the following:

- Centinela Avenue (westbound on- and off-ramps/eastbound on-ramp);
- Bundy Drive (westbound off-ramp/eastbound on-ramp);
- Overland Avenue/National Boulevard;
- National Boulevard (westbound off-ramp/eastbound on-ramp);
- Robertson Boulevard;
- La Cienega Boulevard;

- Fairfax Avenue;
- La Brea Avenue;
- Crenshaw Boulevard;
- Western Avenue;
- Vermont Avenue; and
- Hoover Street.

The San Diego Freeway (I-405) is a major north-south freeway that connects the San Fernando Valley and points north to the west side of Los Angeles, then continues southward to Long Beach and Orange County. The freeway varies from four to five lanes in each direction, with several sections having auxiliary lanes. Annual counts from Caltrans indicate that the 2007 ADT on I-405 ranges from 280,000 (south of Venice Boulevard) to 308,000 (between Venice Boulevard and Olympic Boulevard, immediately south of the project area).

I-405 includes a southbound high-occupancy vehicle (HOV) lane that terminates at Santa Monica Boulevard. However, construction to extend the southbound HOV lane to the Marina Freeway (State Route 90 [SR-90]) is expected to be completed by 2012; a northbound HOV lane will run from the Marina Freeway to the Santa Monica Freeway.

Access ramps to and from I-405 that serve the study area include the following:

- Sunset Boulevard;
- Montana Avenue (northbound off-ramp only);
- Wilshire Boulevard;
- Santa Monica Boulevard; and
- Olympic Boulevard/Pico Boulevard (southbound off-ramp/northbound on-ramp).

Arterial Network

Most daily travel (in terms of vehicle miles traveled or VMT) in the study area occurs on surface streets. The entire study area corridor is within the jurisdictions of the City of Los Angeles, the County of Los Angeles, and the City of Beverly Hills. Roadways in these jurisdictions have functional classifications that include Major Highway, Secondary Highway, Collector Street, and Local Street. A brief description of each of these types of roadways is provided below.

- A Major Highway (Class I) has three full-time through lanes in each direction, one part-time parking lane in each direction, and one median/left-turn lane with 12-foot sidewalks on both sides.

- A Major Highway (Class II) has two full-time through lanes in each direction, one part-time parking lane in each direction, and one median/left-turn lane with 12-foot sidewalks on both sides.
- A Secondary Highway has two full-time through lanes in each direction, all-day permitted parking, and one median/left-turn lane with 10-foot sidewalks on both sides.
- A standard Collector Street has one full-time lane in each direction, one full-time parking lane in each direction, and 10-foot sidewalks on both sides.

These descriptions are the “ultimate” configuration expected for each roadway classification. In practice, roadways are generally not built out to their ultimate classification.

The existing configurations of the significant roadways within the study area corridor are described below.

Major East/West Roadways

Sunset Boulevard is a Major Highway (Class II) with two lanes in each direction. On-street parking is prohibited along Sunset Boulevard within the study area.

Wilshire Boulevard is a Major Highway (Class II) with three lanes in each direction in most areas. In the Westwood area between I-405 and Glendon Avenue, Wilshire Boulevard has four lanes in each direction. In the Westlake area east of Park View Street, Wilshire Boulevard has two lanes in each direction. Within the City of Los Angeles, on-street parking is permitted on both sides of the street except during peak periods (7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 7:00 p.m.) in most areas along Wilshire Boulevard.

Santa Monica Boulevard is a Major Highway (Class II) that generally has two lanes in each direction. Between Bundy Drive and Sawtelle Boulevard, morning and evening peak-period parking restrictions provide a third travel lane in each direction. On-street parking is permitted on both sides of the street except during peak periods (7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 7:00 p.m.) between Bundy Drive and Sawtelle Boulevard. Between I-405 and the City of Beverly Hills, Santa Monica Boulevard has three lanes in each direction.

Olympic Boulevard is a Major Highway (Class II) with three to four lanes in each direction. In the City of Los Angeles, on-street parking is permitted on both sides of the street between Centinela Avenue and Sawtelle Boulevard. East of Sawtelle Boulevard, on-street parking is not permitted on the south side of the street between the hours of 7:00 a.m. and 7:00 p.m. or on the north side of the street between 3:00 p.m. and 7:00 p.m.

Pico Boulevard is a Major Highway (Class II) with two lanes in each direction. In the City of Los Angeles, morning and evening peak-hour parking

restrictions provide a third lane in each direction east of Gateway Boulevard. On-street parking is permitted west of Gateway Boulevard. East of Gateway Boulevard, on-street parking is permitted except for the hours between 3:00 p.m. and 7:00 p.m.

3rd Street is a Secondary Highway with two lanes in each direction. On-street parking is permitted on both sides of the street.

6th Street is a Secondary Highway with two lanes in each direction east of Fairfax Avenue and a Collector Street with two lanes in each direction west of Fairfax Avenue. On-street parking is permitted on both sides of the street at most locations west of La Brea Avenue and at some locations east of La Brea Avenue within the study area.

8th Street is a Secondary Highway with two lanes in each direction east of Crenshaw Boulevard within the study area. Between Crenshaw Boulevard and Fairfax Avenue, 8th Street is a Collector Street with one lane in each direction. On-street parking is permitted on both sides of the street.

San Vicente Boulevard, in the western part of the study area, is a Secondary Highway with two lanes in each direction, with on-street parking permitted on both sides of the street. In the eastern part of the study area, San Vicente Boulevard is a Major Highway (Class II) with three lanes in each direction. On-street parking is permitted on both sides of the street.

Major North/South Roadways

Centinela Avenue is a Collector Street with one lane in each direction north of Pico Boulevard and two lanes in each direction between Pico Boulevard and Ocean Park Boulevard. A separate segment of Centinela Avenue is a Major Highway (Class II) with two lanes in each direction south of National Boulevard; this is the southern continuation of Bundy Drive. On-street parking is permitted on both sides of the street.

Bundy Drive is a Major Highway with two lanes in each direction south of Pico Boulevard and a Secondary Highway with one lane in each direction north of Pico Boulevard. Weekdays between 7:00 a.m. and 7:00 p.m., curbside parking is prohibited, allowing for a second lane in each direction. On-street parking is permitted on both sides of the street south of the I-10 eastbound on-ramp.

Barrington Avenue is a Secondary Highway with two lanes in each direction between Olympic Boulevard and Navy Street and one lane in each direction north of Olympic Boulevard. It is a Collector Street south of Navy Street with one lane in each direction. On-street parking is permitted on both sides of the street.

Federal Avenue is a Collector Street with one lane in each direction. On-street parking is permitted on both sides of the street in most areas.

Sepulveda Boulevard is a Major Highway with two lanes in each direction. On-street parking is permitted on both sides of the street except on the west side between Santa Monica Boulevard and Exposition Boulevard.

Veteran Avenue is a Collector Street with one lane in each direction between Ohio Avenue and Pico Boulevard; on-street parking is permitted on both sides of the street. Veteran Avenue is a Secondary Highway north of Ohio Avenue, with two lanes in each direction north of Wilshire Boulevard.

Westwood Boulevard is a Secondary Highway with one lane northbound and two southbound lanes. During peak hours, an additional northbound lane is provided north of Pico Boulevard. On-street parking is permitted on both sides of the street south of Pico Boulevard and on the west side north of Pico Boulevard. On-street parking is permitted on the east side of the street north of Pico Boulevard except during peak hours.

Overland Avenue is a Major Highway (Class II) with two lanes in each direction south of Pico Boulevard and a Secondary Highway with one lane in each direction north of Pico Boulevard. On-street parking is permitted on both sides of the street except in the vicinity of I-10.

Beverly Glen Boulevard is a Major Highway (Class II) with two lanes in each direction south of Wilshire Boulevard and a Secondary Highway with one lane in each direction between Wilshire Boulevard and Sunset Boulevard. On-street parking is permitted on both sides of the street.

Century Park West is a Secondary Highway with two to three lanes in each direction. On-street parking is permitted on the east side of the street at some locations.

Avenue of the Stars is a Major Highway (Class II) with three lanes in each direction. On-street parking is prohibited on both sides of the street.

Century Park East is a Secondary Highway [with three lanes in each direction between Santa Monica Boulevard and Constellation Boulevard. South of Constellation Boulevard, Century Park East consists of two southbound lanes and three northbound lanes. On-street parking is prohibited on both sides of the street in most areas.

Comstock Avenue is a Collector Street with one lane in each direction; on-street parking is permitted on both sides of the street.

Fairfax Avenue is a Secondary Highway with two lanes in each direction. On-street parking is permitted on both sides of the street at some locations.

La Brea Avenue is a Major Highway (Class II) with three lanes in each direction. On-street parking is permitted on both sides of the street at some locations.

Highland Avenue is a Secondary Highway with two lanes in each direction north of Wilshire Boulevard and one lane in each direction south of Wilshire Boulevard. On-street parking is permitted on both sides of the street.

Crenshaw Boulevard is a Major Highway (Class II) with two lanes in each direction. On-street parking is permitted on both sides of the street at some locations.

Western Avenue is a Major Highway (Class II) with two lanes in each direction. On-street parking is permitted on both sides of the street.

Vermont Avenue is a Major Highway (Class II) with three lanes in each direction north of Wilshire Boulevard and two lanes in each direction south of Wilshire Boulevard. On-street parking is permitted on both sides of the street south of Wilshire Boulevard.

Alvarado Street is a Major Highway (Class II) with three lanes in each direction north of Olympic Boulevard and two lanes in each direction south of Olympic Boulevard. North of Olympic Boulevard, on-street parking is prohibited on the west side of the street during the AM peak period (7:00 a.m. to 9:00 a.m.) to allow for a third southbound travel lane and prohibited on the east side of the street during the PM peak period (4:00 p.m. to 7:00 p.m.) to allow for a third northbound travel lane.

Transit Services

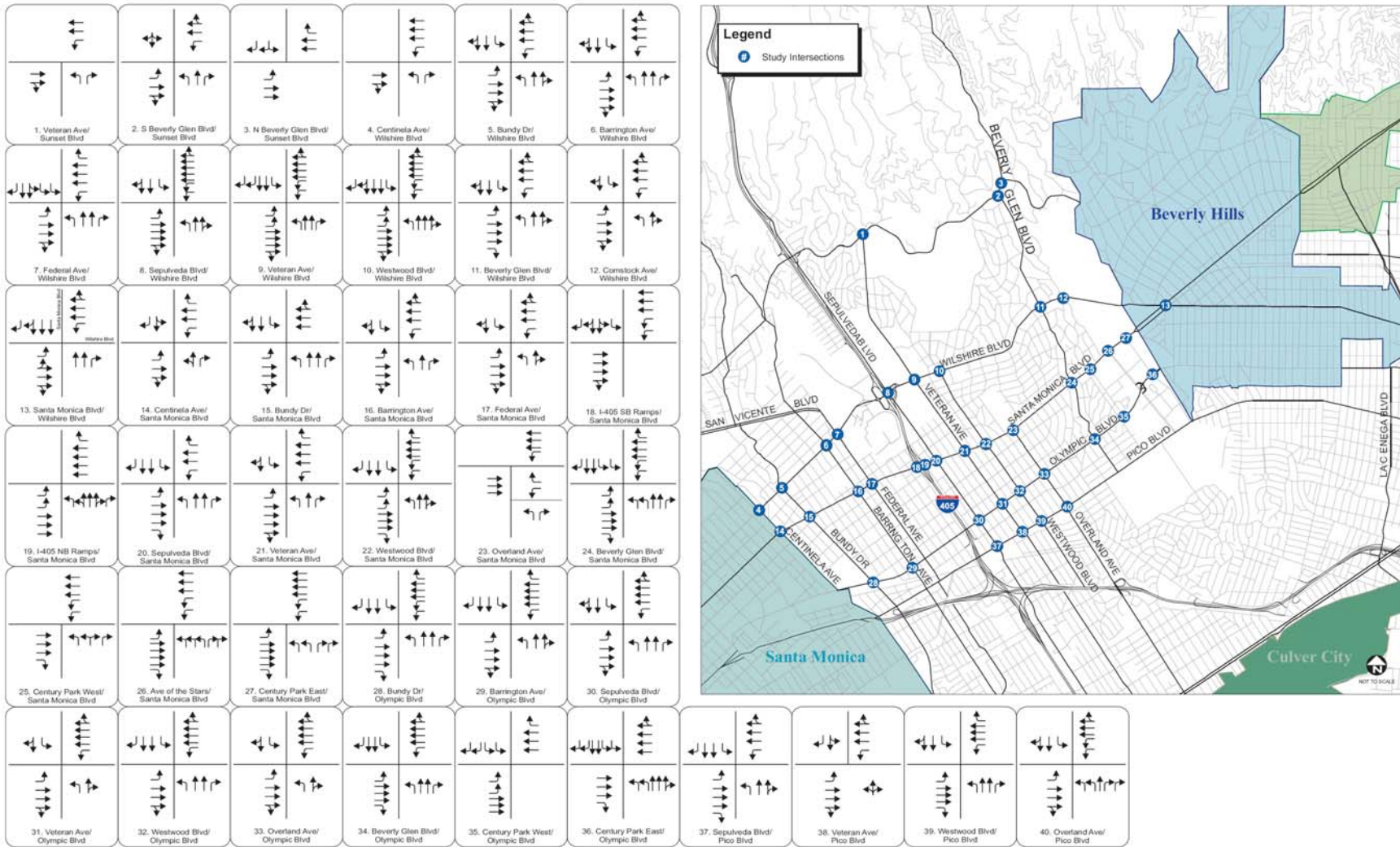
The transit system that serves the study area is an integrated system of bus and rail transit services. These services are provided by several operators, including LACMTA and LADOT. The following transit lines currently serve the study area:

- Santa Monica Big Blue Bus Line 2;
- Metro Local 20;
- Metro Rapid 710, 720, 761, 920;
- Metro Purple Line (Wilshire/Vermont, Wilshire/Western, Wilshire/Alvarado);
- LADOT Commuter Express 431, 534, 573; and
- Antelope Valley Transit 786.

Existing Intersection Levels of Service

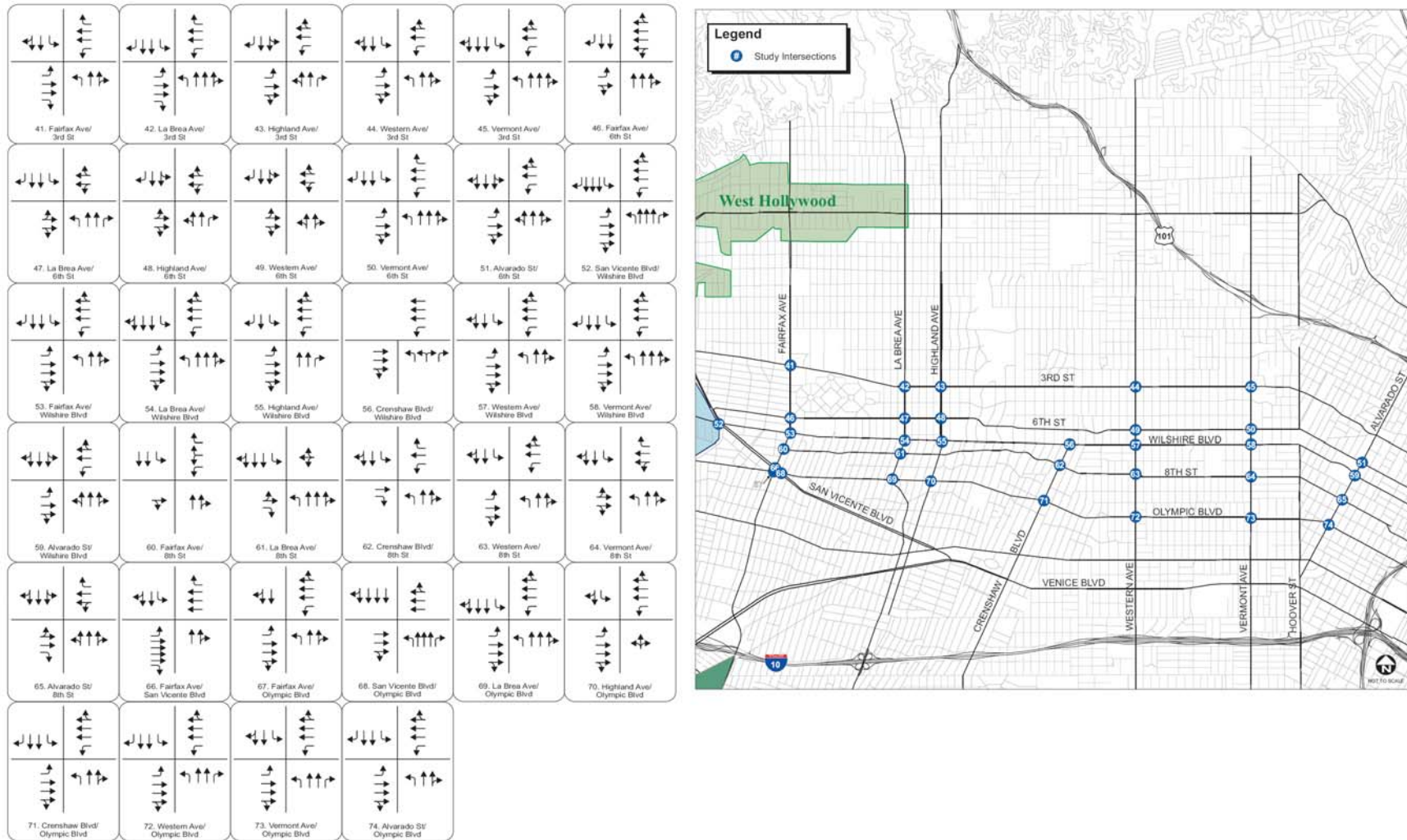
In consultation with LADOT, a total of 74 intersections in the vicinity of the Wilshire Boulevard corridor were selected for a detailed level of service (LOS) analysis. The key intersections are located along the Wilshire Boulevard corridor and along parallel corridors. The existing lane configurations of these intersections are illustrated in Figures 4.1-1a and b.

Figure 4.1-1a. Existing Lane Configurations



Source: Iteris 2010

Figure 4.1-1b. Existing Lane Configurations



Source: Iteris 2010

Detailed weekday AM peak-period (7:00 a.m. to 10:00 a.m.) and PM peak-period (4:00 p.m. to 7:00 p.m.) turning movement traffic counts were collected at most of the study intersections during October 2008. At the Sepulveda Boulevard/Wilshire Boulevard and Westwood Boulevard/Wilshire Boulevard intersections, traffic count data from February 2008 were used. At the Santa Monica Boulevard/Wilshire Boulevard intersection in the City of Beverly Hills, traffic count data collected for the *Beverly Hills Gateway Project Environmental Impact Report* (Fehr and Peers, June 2008) were used. Because of concerns regarding the accuracy of the 2008 traffic count data at the three intersections, previous traffic counts were used. The traffic count sheets are included in Appendix B.

Signal timing data at all City of Los Angeles study intersections and lane widths along Wilshire Boulevard were provided by LADOT. Peak-hour factors at each intersection were calculated from existing traffic count data. The peak hour factor defines the relationship between the peak 15 minutes of traffic volume within the peak hour and the traffic volume over the entire peak hour. Peak-hour factors generally range from 0.25 (highly concentrated traffic within a 15-minute peak period) to 1.00 (evenly spread out traffic over the course of the hour). Additionally, truck classification counts were collected at selected intersections along each corridor and converted to passenger car equivalent (PCE) volumes. To accurately model the utilization of the existing curb lanes along Wilshire Boulevard, in comparison to adjacent travel lanes, lane utilization factors were calculated at Wilshire Boulevard intersections after observing LADOT traffic cameras at selected locations during peak hour conditions. To calculate lane utilization factors, traffic volumes were counted in each travel lane.

Detailed LOS calculation sheets can be found in the Traffic Study (Appendix B). Table 4.1-1 presents the 2008 intersection operating conditions for the AM and PM peak hours at the 74 study intersections.

Parking

There are currently a total of 218 metered parking spaces on Wilshire Boulevard between Fairfax Avenue and Western Avenue, a distance of approximately three miles.

In this area, there are three preferential parking districts bordering Wilshire Boulevard, Districts 4, 6, and 11 (a figure is provided in Appendix B). Preferential Parking District 4 borders Wilshire Boulevard and covers a residential area south of Wilshire Boulevard between Malcolm Avenue and Manning Avenue. Preferential Parking District 6 borders Wilshire Boulevard and covers a residential area south of Wilshire Boulevard between Beverly Glen Boulevard and Club View Drive. Preferential Parking District 11 borders Wilshire Boulevard and covers a residential area north of Wilshire Boulevard between Malcolm Avenue and Beverly Glen Boulevard. Residents within these parking districts, including those living on the side of Wilshire Boulevard within the district, are eligible to receive guest permits for their visitors.

Table 4.1-1. Existing Intersection LOS

Intersection	AM Peak Hour		PM Peak Hour	
	Delay (sec)	LOS	Delay (sec)	LOS
1. Veteran Ave/Sunset Blvd	69.9	E	29.4	C
2. S Beverly Glen Blvd/Sunset Blvd	24.1	C	35.4	D
3. N Beverly Glen Blvd/Sunset Blvd	81.9	F	43.9	D
4. Centinela Ave/Wilshire Blvd	7.8	A	7.2	A
5. Bundy Dr/Wilshire Blvd	45.2	D	57.2	E
6. Barrington Ave/Wilshire Blvd	34.5	C	29.9	C
7. Federal Ave/Wilshire Blvd	55.9	E	42.6	D
8. Sepulveda Blvd/Wilshire Blvd	197.8	F	76.6	E
9. Veteran Ave/Wilshire Blvd	201.7	F	74.5	E
10. Westwood Blvd/Wilshire Blvd	43.1	D	48.9	D
11. Beverly Glen Blvd/Wilshire Blvd	35.2	D	33.7	C
12. Comstock Ave/Wilshire Blvd	16.5	B	22.9	C
13. Santa Monica Blvd/Wilshire Blvd	57.5	E	69.8	E
14. Centinela Ave/Santa Monica Blvd	14.9	B	15.7	B
15. Bundy Dr/Santa Monica Blvd	16.0	B	15.5	B
16. Barrington Ave/Santa Monica Blvd	15.1	B	13.7	B
17. Federal Ave/Santa Monica Blvd	27.7	C	30.6	C
18. I-405 SB Ramps/Santa Monica Blvd	26.4	C	25.3	C
19. I-405 NB Ramps/Santa Monica Blvd	47.7	D	47.5	D
20. Sepulveda Blvd/Santa Monica Blvd	37.7	D	45.3	D
21. Veteran Ave/Santa Monica Blvd	19.4	B	50.0	D
22. Westwood Blvd/Santa Monica Blvd	88.5	F	63.4	E
23. Overland Ave/Santa Monica Blvd	27.2	C	56.8	E
24. Beverly Glen Blvd/Santa Monica Blvd	48.8	D	39.8	D
25. Century Park W/Santa Monica Blvd	18.8	B	20.7	C
26. Ave of the Stars/Santa Monica Blvd	47.2	D	27.7	C
27. Century Park E/Santa Monica Blvd	30.2	C	17.2	B
28. Bundy Dr/Olympic Blvd	86.5	F	67.0	E
29. Barrington Ave/Olympic Blvd	44.0	D	52.1	D
30. Sepulveda Blvd/Olympic Blvd	29.4	C	41.1	D
31. Veteran Ave/Olympic Blvd	17.4	B	10.0	A
32. Westwood Blvd/Olympic Blvd	27.3	C	36.3	D
33. Overland Ave/Olympic Blvd	28.6	C	47.7	D
34. Beverly Glen Blvd/Olympic Blvd	49.0	D	39.2	D
35. Century Park W/Olympic Blvd	14.1	B	18.5	B
36. Century Park E/Olympic Blvd	40.7	D	40.2	D
37. Sepulveda Blvd/Pico Blvd	43.4	D	48.8	D
38. Veteran Ave/Pico Blvd	6.0	A	14.6	B
39. Westwood Blvd/Pico Blvd	27.1	C	53.5	D
40. Overland Ave/Pico Blvd	33.0	C	104.1	F
41. Fairfax Ave/3 rd St	43.3	D	36.3	D

Table 4.1-1. Existing Intersection LOS (Continued)

Intersection	AM Peak Hour		PM Peak Hour	
	Delay (sec)	LOS	Delay (sec)	LOS
42. La Brea Ave/3 rd St	29.7	D	19.8	B
43. Highland Ave/3 rd St	56.4	E	22.9	C
44. Western Ave/3 rd St	37.6	D	44.6	D
45. Vermont Ave/3 rd St	34.9	C	36.4	D
46. Fairfax Ave/6 th St	14.1	B	12.6	B
47. La Brea Ave/6 th St	22.1	C	33.5	C
48. Highland Ave/6 th St	15.3	B	14.7	B
49. Western Ave/6 th St	25.5	C	28.4	C
50. Vermont Ave/6 th St	33.6	C	35.3	D
51. Alvarado St/6 th St	17.7	B	17.5	B
52. San Vicente Blvd/Wilshire Blvd	60.7	E	77.6	E
53. Fairfax Ave/Wilshire Blvd	78.0	E	124.9	F
54. La Brea Ave/Wilshire Blvd	28.4	C	28.9	C
55. Highland Ave/Wilshire Blvd	25.9	C	26.9	C
56. Crenshaw Blvd/Wilshire Blvd	23.5	C	19.4	B
57. Western Ave/Wilshire Blvd	35.3	D	67.1	E
58. Vermont Ave/Wilshire Blvd	42.7	D	48.7	D
59. Alvarado St/Wilshire Blvd	17.1	B	25.7	C
60. Fairfax Ave/8 th St	11.1	B	10.6	B
61. La Brea Ave/8 th St	7.3	A	10.0	B
62. Crenshaw Blvd/8 th St	11.1	B	14.7	B
63. Western Ave/8 th St	15.8	B	15.9	B
64. Vermont Ave/8 th St	19.3	B	22.7	C
65. Alvarado St/8 th St	12.7	B	13.3	B
66. Fairfax Ave/San Vicente Blvd	25.6	C	23.2	C
67. Fairfax Ave/Olympic Blvd	27.3	C	31.3	C
68. San Vicente Blvd/Olympic Blvd	25.9	C	19.5	B
69. La Brea Ave/Olympic Blvd	29.3	C	46.4	D
70. Highland Ave/Olympic Blvd	40.4	D	57.3	E
71. Crenshaw Blvd/Olympic Blvd	54.3	D	32.6	C
72. Western Ave/Olympic Blvd	27.6	C	40.6	D
73. Vermont Ave/Olympic Blvd	31.6	C	44.7	D
74. Alvarado St/Olympic Blvd	19.9	B	27.6	B

Notes:
 HCM 2000 Operations Methodology
 Delay = Average Vehicle Delay (Seconds), LOS = Level of Service

Source: Iteris, Wilshire Boulevard BRT Project-Traffic Impact Analysis, 2010.

Residences south of Wilshire Boulevard between Manning Avenue and Beverly Glen Boulevard are not included in a preferential parking district. Residents of these buildings are not eligible to park in adjacent preferential districts. This segment between Manning Avenue and Beverly Gen Boulevard includes 51 spaces (on both sides of the street).

On February 2, 2010 an on-street parking occupancy count was conducted along this segment during a.m. and p.m. peak periods. The results of the count indicate that a maximum of 35 vehicles occupied parking spaces during the a.m. peak period and a maximum of 34 vehicles occupied parking spaces during the p.m. peak period.

Additionally, residences north of Wilshire Boulevard between Beverly Glen Boulevard and Comstock Avenue are not included in a preferential parking district. Residents of these buildings are not eligible to park in adjacent preferential districts. This segment includes 27 spaces on both sides of the street. Results of the parking occupancy count on this segment indicate that a maximum of 26 vehicles occupied parking spaces during the a.m. peak period and a maximum of 16 vehicles occupied parking spaces during the p.m. peak period.

4.1.2 Thresholds of Significance

This section presents an analysis of the potential impacts from traffic associated with the proposed project. The analysis compares the projected levels of service at each study location under cumulative conditions, both without and with the project, to determine potential impacts, using significance criteria established by the City of Los Angeles.

The analysis of traffic operations at the intersections included in the traffic report prepared for the proposed project relied on the *Highway Capacity Manual* (HCM) Operations Analysis Methodology to quantify existing conditions and future (2012 and 2020) conditions at all intersections, with and without the proposed project. The Operations Analysis Methodology yielded a rating for conditions at an intersection based on the average number of seconds of delay experienced by vehicles traveling through the intersection. Levels of service ranged from LOS A (free-flow conditions) to LOS F (extreme congestion with very significant delay), as shown below in Table 4.1-2.

The threshold of significance is based on the amount of change in average vehicular delay experienced by vehicles traveling through an intersection. This methodology provides a more accurate assessment of the impact of operational signal changes, such as signal timing and phasing, as well as changes in lane configuration than a measure based on volume-to-capacity (V/C) ratios.

The City of Los Angeles employs the Critical Movement Analysis (CMA) methodology for traffic impact studies involving development projects. The CMA uses the increase in the V/C ratio to determine the significance of an impact. However, for transit project analysis, the City has an established history of using the HCM methodology.

Table 4.1-2. LOS Criteria for Intersections

Level of Service	Control Delay per Vehicle (sec) Signalized Intersections	Control Delay per Vehicle (sec) Unsignalized Intersections
A	≤ 10	< 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

Source: Iteris, Wilshire Boulevard BRT Project-Traffic Impact Analysis, 2010.

The relationship between an increase in V/C ratio and a comparable increase in delay is discussed below.

The definition of a significant impact established by LADOT is as follows:

- At LOS C, under with project conditions, the project-related increase is equal to or greater than 6.0 seconds, or
- At LOS D, under with project conditions, the project-related increase is equal to or greater than 4.0 seconds, or
- At LOS E and LOS F, under with project conditions, the project-related increase is equal to or greater than 2.5 seconds.

This methodology is used to evaluate the impacts of project related traffic, as well as the effects of transit operations at signalized intersections. The mitigation of impacts based on these guidelines would likely require traffic signal modifications and/or physical improvements, such as additional through or turn lanes at intersections, new traffic signals, or road widening. A local residential street is deemed to be affected by a significant impact based on the increase in the projected ADT volume, as shown in Table 4.1-3.

Table 4.1-3. Significant Impact Criteria for Local Residential Streets

Projected Average Daily Traffic with Project (Final ADT)	Project-Related Increase in ADT
0 to 999	16% or more of final ADT*
1,000 or more	12% or more of final ADT
2,000 or more	10% or more of final ADT
3,000 or more	8% or more of final ADT
* For projects in the West Los Angeles Transportation Improvement and Mitigation Specific Plan.	

Source: Iteris, Wilshire Boulevard BRT Project Traffic Impact Analysis, 2010.

4.1.3 Environmental Impacts

Traffic Forecast Methodology

Traffic volumes for 2012 and 2020 were forecast for the without project and with project scenarios. The without project scenario represents the projected traffic volumes in the study area in the absence of the Wilshire Boulevard BRT project.

Traffic volume forecasts for 2012 and 2020 conditions (without project and with project scenarios) are based on the results of the Southern California Association of Governments (SCAG) 2008 Regional Transportation Plan's (RTP) travel demand model. The model was updated and refined specifically for use in this study. This included modifying locations of centroid connectors, which are locations on the roadway network where local streets intersect with arterial streets. In addition, adjustments to roadway speeds and capacities were made based on the configuration of the roadways in the model and traffic patterns in the area. The model was calibrated to 2008 conditions for this project specifically and then used to forecast travel characteristics and ridership for the analysis years of 2012 and 2020.

Within the study area, major projects that the travel demand model includes, as listed in the 2008 Regional Transportation Improvement Program (RTIP), are the HOV lane on I-405 from I-10 to U.S. 101 (RTIP ID# LA0B408) in 2012 and 2020, the Exposition Line Phase I in 2012, and the Exposition Line Phase II in 2020. The HOV project includes the removal of the Montana Avenue off-ramp from the northbound I-405. SCAG's travel demand forecasting model predicts future travel demand based on several input data items, which include the following:

- SCAG forecasts of regional growth in population and employment in the six-county region;
- SCAG forecast changes in the socio-demographic characteristics of travelers;
- Future characteristics of the roadway and transit systems, including travel times and costs; and
- System capacity that reflects the planned system.

The socioeconomic data in the model were further refined to include large known future development projects provided by LADOT. These projects are listed in Table 4.1-4.

Table 4.1-4. Future Development Projects

Area	Location	Project Description
West LA	11122 W Pico Blvd	538 Apartments 212,000 sf Target 54,000 sf Supermarket
Westwood	Glendon Ave/ Kinross Ave	50,000 sf Shopping Center 350 Apartments
Central LA	Wilshire Blvd/ Hoover St	156,000 sf Shopping Center
Downtown	Figueroa St/8 th Pl	836 Condos 988,255 sf Office 480 Hotel Rooms 46,000 sf Retail
Downtown	Figueroa St/7 th St	Korean Air project to replace Wilshire Grand Hotel with new Hotel and Office space

Source: Iteris, Wilshire Boulevard BRT Project-Traffic Impact Analysis, 2010.

The travel demand model was used to generate future traffic volume projections for without project and with project scenarios. The “with project” scenario incorporates a capacity reduction on Wilshire Boulevard within the project limits to reflect implementation of the peak-period bus lanes. To determine the appropriate capacity reduction to apply to the model, PM peak-period lane utilization counts were collected during a typical weekday at five intersections along the Wilshire Boulevard corridor with the use of City of Los Angeles intersection cameras. These were the same data used for the lane utilization factor calculations described earlier.

The 2012 and 2020 turning movement volumes at the study intersections were developed from existing turning movement volumes and 2012 and 2020 approach and departure volumes using the methodology described in National Cooperative Highway Research Program Report 255, *Highway Traffic Data for Urbanized Area Project Planning and Design* (Transportation Research Board 1982).

The forecast traffic model is a dynamic system in which drivers respond to changes in the speed and capacity of the roadway network. If a roadway’s capacity is reduced, as is the case along Wilshire Boulevard, traffic will divert to other routes that may offer faster travel times, which will cause a ripple effect through the entire system. Thus, traffic volumes on Wilshire Boulevard with implementation of the proposed project are generally lower than the volumes without the project.

Impact T1: Exceed LOS criteria under projected 2012 and 2020 levels of service.

The proposed project would result in significant impacts related to the exceedance of LOS criteria for multiple intersections in both 2012 and 2020 project years.

2012 Conditions

2012 Without Project Levels of Service

As previously mentioned, the 2012 transportation network assumes construction of the Exposition Line Phase I project and the I-405 HOV lane project. The 2012 without project peak hour volumes are shown in Figures 4.1-2a and 4.1-2b. An LOS analysis was conducted to evaluate the 2012 without project intersection operations, and is reflected in Tables 4.1-5 and 4.1-6.

2012 With Project Levels of Service

The 2012 with project peak hour volumes are shown in Figures 4.1-3a and 4.1-3b. The proposed project's lane configurations for the study intersections are illustrated in Figures 4.1-4a and 4.1-4b. An LOS analysis was conducted to evaluate the 2012 with project intersection operations. Table 4.1-5 presents the 2012 with project intersection operating conditions for the AM peak hour at the 74 study intersections.

Table 4.1-6 presents the 2012 with project intersection operating conditions during the PM peak hour at the 74 study intersections.

As shown in Tables 4.1-5 and 4.1-6, the following 18 intersections are forecast to be significantly affected by the proposed project in 2012:

- Veteran Avenue/Sunset Boulevard (a.m. peak);
- Bundy Drive/Wilshire Boulevard (a.m. and p.m. peak);
- Barrington Avenue/Wilshire Boulevard (a.m. peak);
- Veteran Avenue/Wilshire Boulevard (p.m. peak);
- Veteran Avenue/Santa Monica Boulevard (p.m. peak);
- Westwood Boulevard/Santa Monica Boulevard (a.m. peak);
- Overland Avenue/Santa Monica Boulevard (p.m. peak);
- Beverly Glen Boulevard/Olympic Boulevard (p.m. peak);
- Sepulveda Boulevard/Pico Boulevard (a.m. peak);
- Westwood Boulevard/Pico Boulevard (a.m. and p.m. peak);
- Overland Avenue/Pico Boulevard (a.m. peak);
- Highland Avenue/3rd Street (a.m. peak);
- Alvarado Street/6th Street (p.m. peak);
- Fairfax Avenue/Wilshire Boulevard (a.m. peak);
- La Brea Avenue/Wilshire Boulevard (a.m. peak);
- Highland Avenue/Wilshire Boulevard (a.m. peak);
- Fairfax Avenue/Olympic Boulevard (a.m. and p.m. peak); and
- Crenshaw Boulevard/Olympic Boulevard (a.m. peak).

Table 4.1-5. 2012 With Project AM Peak Hour Intersection LOS

Intersection	2012 Without Project		2012 With Proposed Project		Change in Delay	Threshold	Significant Impact?
	Delay (sec)	LOS	Delay (sec)	LOS			
1. Veteran Ave/Sunset Blvd	92.3	F	117.2	F	24.9	2.5	Yes
2. S Beverly Glen Blvd/Sunset Blvd	26.9	C	25.0	C	*	6.0	-
3. N Beverly Glen Blvd/Sunset Blvd	118.0	F	118.0	F	0.0	2.5	-
4. Centinela Ave/Wilshire Blvd	8.0	A	9.7	A	1.7	-	-
5. Bundy Dr/Wilshire Blvd	60.3	E	90.5	F	30.2	2.5	Yes
6. Barrington Ave/Wilshire Blvd	38.1	D	43.3	D	5.2	4.0	Yes
7. Federal Ave/Wilshire Blvd	67.8	E	56.1	E	*	2.5	-
8. Sepulveda Blvd/Wilshire Blvd	207.8	F	191.8	F	*	2.5	-
9. Veteran Ave/Wilshire Blvd	236.4	F	201.9	F	*	2.5	-
10. Westwood Blvd/Wilshire Blvd	66.8	E	47.6	D	*	4.0	-
11. Beverly Glen Blvd/Wilshire Blvd	34.5	C	33.4	C	*	6.0	-
12. Comstock Ave/Wilshire Blvd	20.6	C	20.6	C	0.0	6.0	-
13. Santa Monica Blvd/Wilshire Blvd	87.3	F	53.2	D	*	4.0	-
14. Centinela Ave/Santa Monica Blvd	16.6	B	16.2	B	-0.4	-	-
15. Bundy Dr/Santa Monica Blvd	16.9	B	17.0	B	0.1	-	-
16. Barrington Ave/Santa Monica Blvd	16.5	B	17.1	B	0.6	-	-
17. Federal Ave/Santa Monica Blvd	27.8	C	28.4	C	0.6	6.0	-
18. I-405 SB Ramps/Santa Monica Blvd	26.8	C	27.1	C	0.3	6.0	-
19. I-405 NB Ramps/Santa Monica Blvd	48.9	D	47.3	D	-1.6	4.0	-
20. Sepulveda Blvd/Santa Monica Blvd	46.4	D	40.5	D	-5.9	4.0	-
21. Veteran Ave/Santa Monica Blvd	20.6	C	21.3	C	0.7	6.0	-
22. Westwood Blvd/Santa Monica Blvd	122.9	F	126.8	F	3.9	2.5	Yes
23. Overland Ave/Santa Monica Blvd	30.0	C	30.8	C	0.8	6.0	-
24. Beverly Glen Blvd/Santa Monica Blvd	60.7	E	61.6	E	0.9	2.5	-
25. Century Park W/Santa Monica Blvd	20.5	C	20.4	C	-0.1	6.0	-
26. Ave of the Stars/Santa Monica Blvd	46.8	D	46.8	D	0.0	4.0	-
27. Century Park E/Santa Monica Blvd	28.5	C	27.4	C	-1.1	6.0	-
28. Bundy Dr/Olympic Blvd	99.5	F	100.4	F	0.9	2.5	-
29. Barrington Ave/Olympic Blvd	51.1	D	52.1	D	1.0	4.0	-
30. Sepulveda Blvd/Olympic Blvd	33.9	C	34.0	C	0.1	6.0	-
31. Veteran Ave/Olympic Blvd	23.8	C	23.0	C	-0.8	6.0	-
32. Westwood Blvd/Olympic Blvd	38.7	D	39.5	D	0.8	4.0	-
33. Overland Ave/Olympic Blvd	37.6	D	41.0	D	3.4	4.0	-
34. Beverly Glen Blvd/Olympic Blvd	67.2	E	66.7	E	-0.5	2.5	-
35. Century Park W/Olympic Blvd	15.0	B	15.3	B	0.3	-	-
36. Century Park E/Olympic Blvd	42.6	D	42.0	D	-0.6	4.0	-
37. Sepulveda Blvd/Pico Blvd	53.0	D	59.5	E	6.5	2.5	Yes
38. Veteran Ave/Pico Blvd	12.2	B	10.8	B	-1.4	-	-
39. Westwood Blvd/Pico Blvd	39.1	D	48.4	D	9.3	4.0	Yes
40. Overland Ave/Pico Blvd	60.1	E	63.6	E	3.5	2.5	Yes
41. Fairfax Ave/3 rd St	69.9	E	71.7	E	1.8	2.5	-
42. La Brea Ave/3 rd St	34.5	C	34.3	C	-0.2	6.0	-
43. Highland Ave/3 rd St	69.6	E	75.0	E	5.4	2.5	Yes
44. Western Ave/3 rd St	47.1	D	48.5	D	1.4	4.0	-

Table 4.1-5. 2012 With Project AM Peak Hour Intersection LOS (Continued)

Intersection	2012 Without Project		2012 With Proposed Project		Change in Delay	Threshold	Significant Impact?
	Delay (sec)	LOS	Delay (sec)	LOS			
45. Vermont Ave/3 rd St	42.3	D	42.4	D	0.1	4.0	-
46. Fairfax Ave/6 th St	15.5	B	15.6	B	0.1	-	-
47. La Brea Ave/6 th St	58.9	E	48.4	D	-10.5	4.0	-
48. Highland Ave/6 th St	18.9	B	19.9	B	1.0	-	-
49. Western Ave/6 th St	27.2	C	27.6	C	0.4	6.0	-
50. Vermont Ave/6 th St	39.6	D	39.7	D	0.1	4.0	-
51. Alvarado St/6 th St	17.5	B	18.1	B	0.6	-	-
52. San Vicente Blvd/Wilshire Blvd	76.2	E	72.3	E	*	2.5	-
53. Fairfax Ave/Wilshire Blvd	104.0	F	121.8	F	17.8	2.5	Yes
54. La Brea Ave/Wilshire Blvd	37.5	D	46.4	D	8.9	4.0	Yes
55. Highland Ave/Wilshire Blvd	44.2	D	54.4	D	10.2	4.0	Yes
56. Crenshaw Blvd/Wilshire Blvd	31.9	C	32.8	C	0.9	6.0	-
57. Western Ave/Wilshire Blvd	51.0	D	49.3	D	*	4.0	-
58. Vermont Ave/Wilshire Blvd	60.1	E	56.4	E	*	2.5	-
59. Alvarado St/Wilshire Blvd	23.0	C	21.6	C	*	6.0	-
60. Fairfax Ave/8 th St	11.7	B	11.6	B	-0.1	-	-
61. La Brea Ave/8 th St	8.4	A	9.5	A	1.1	-	-
62. Crenshaw Blvd/8 th St	11.4	B	14.6	B	3.2	-	-
63. Western Ave/8 th St	16.2	B	16.2	B	0.0	-	-
64. Vermont Ave/8 th St	21.4	C	22.5	C	1.1	6.0	-
65. Alvarado St/8 th St	13.4	B	13.7	B	0.3	-	-
66. Fairfax Ave/San Vicente Blvd	27.0	C	29.6	C	2.6	6.0	-
67. Fairfax Ave/Olympic Blvd	37.0	D	51.5	D	14.5	4.0	Yes
68. San Vicente Blvd/Olympic Blvd	31.2	C	30.9	C	-0.3	6.0	-
69. La Brea Ave/Olympic Blvd	46.6	D	43.7	D	-2.9	4.0	-
70. Highland Ave/Olympic Blvd	48.2	D	49.7	D	1.5	4.0	-
71. Crenshaw Blvd/Olympic Blvd	68.5	E	75.3	E	6.8	2.5	Yes
72. Western Ave/Olympic Blvd	31.6	C	33.6	C	2.0	6.0	-
73. Vermont Ave/Olympic Blvd	37.5	D	38.6	D	1.1	4.0	-
74. Alvarado St/Olympic Blvd	23.9	C	25.2	C	1.3	6.0	-
Notes: * Average delay reduced, see explanation in "Analysis Methodology" section. HCM 2000 Operations Methodology Delay = Average Vehicle Delay (Seconds), LOS = Level of Service							

Source: Iteris, Wilshire Boulevard BRT Project-Traffic Impact Analysis, 2010.

Table 4.1-6. 2012 With Project PM Peak Hour Intersection LOS

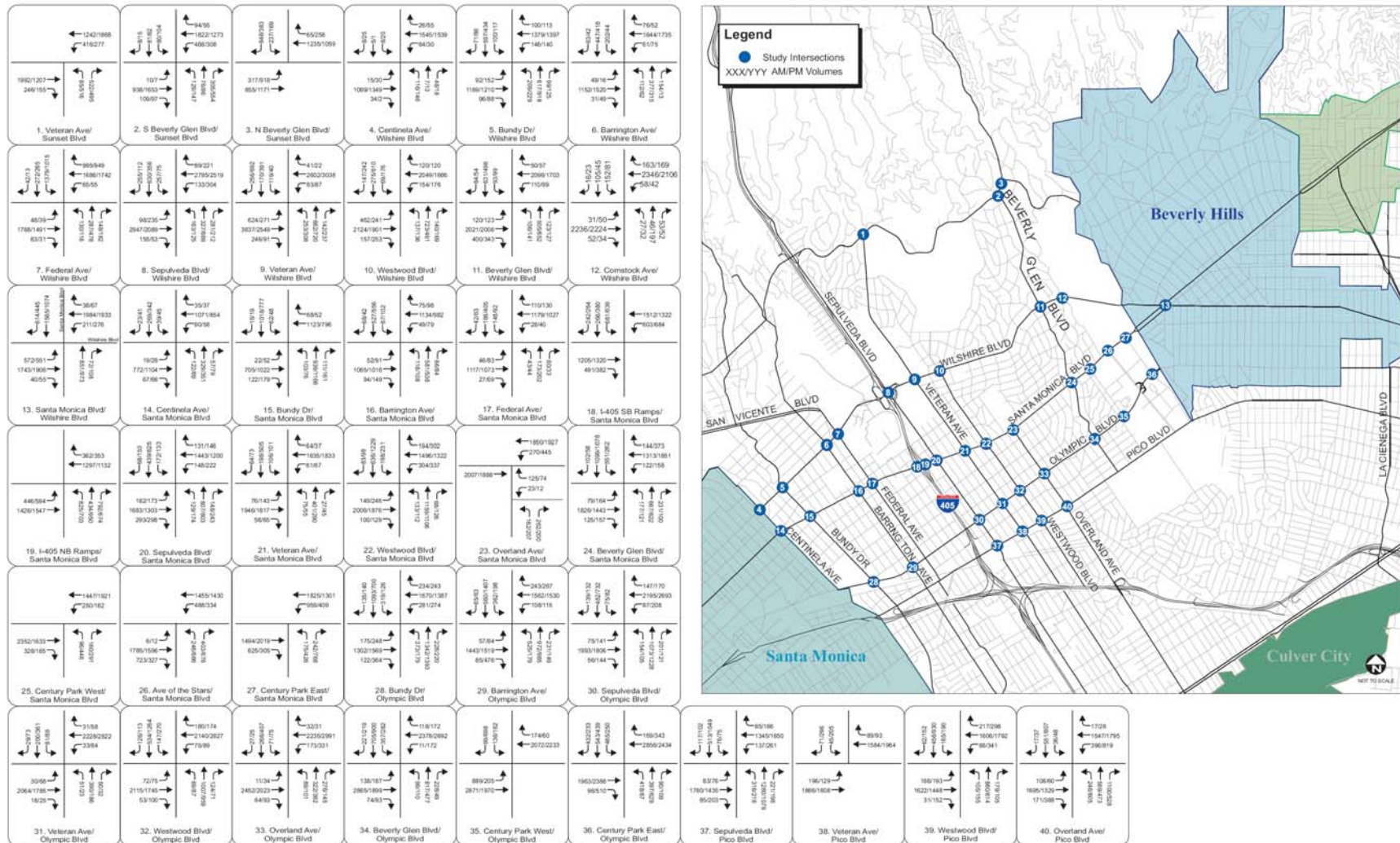
Intersection	2012 Without Project		2012 With Proposed Project		Change in Delay	Threshold	Significant Impact?
	Delay (sec)	LOS	Delay (sec)	LOS			
1. Veteran Ave/Sunset Blvd	41.5	D	38.4	D	-3.1	4.0	-
2. S Beverly Glen Blvd/Sunset Blvd	53.1	D	44.9	D	-8.2	4.0	-
3. N Beverly Glen Blvd/Sunset Blvd	46.0	D	40.0	D	-6.0	4.0	-
4. Centinela Ave/Wilshire Blvd	8.3	A	7.8	A	*	-	-
5. Bundy Dr/Wilshire Blvd	77.2	E	109.1	F	31.9	2.5	Yes
6. Barrington Ave/Wilshire Blvd	32.9	C	30.9	C	*	6.0	-
7. Federal Ave/Wilshire Blvd	49.9	D	46.0	D	*	4.0	-
8. Sepulveda Blvd/Wilshire Blvd	111.5	F	97.4	F	*	2.5	-
9. Veteran Ave/Wilshire Blvd	114.9	F	130.8	F	15.9	2.5	Yes
10. Westwood Blvd/Wilshire Blvd	62.7	E	49.2	D	*	4.0	-
11. Beverly Glen Blvd/Wilshire Blvd	38.1	D	35.1	D	*	4.0	-
12. Comstock Ave/Wilshire Blvd	25.7	C	24.4	C	*	6.0	-
13. Santa Monica Blvd/Wilshire Blvd	91.6	F	69.4	E	*	2.5	-
14. Centinela Ave/ Santa Monica Blvd	16.9	B	16.9	B	0.0	-	-
15. Bundy Dr/Santa Monica Blvd	16.0	B	16.1	B	0.1	-	-
16. Barrington Ave/ Santa Monica Blvd	15.1	B	15.2	B	0.1	-	-
17. Federal Ave/Santa Monica Blvd	31.0	C	30.8	C	-0.2	6.0	-
18. I-405 SB Ramps/ Santa Monica Blvd	26.3	C	25.4	C	-0.9	6.0	-
19. I-405 NB Ramps/ Santa Monica Blvd	52.4	D	48.8	D	-3.6	4.0	-
20. Sepulveda Blvd/ Santa Monica Blvd	46.6	D	44.9	D	-1.7	4.0	-
21. Veteran Ave/Santa Monica Blvd	61.2	E	67.6	E	6.4	2.5	Yes
22. Westwood Blvd/ Santa Monica Blvd	90.7	F	89.2	F	-1.5	2.5	-
23. Overland Ave/ Santa Monica Blvd	72.9	E	78.9	E	6.0	2.5	Yes
24. Beverly Glen Blvd/ Santa Monica Blvd	48.9	D	52.8	D	3.9	4.0	-
25. Century Park W/ Santa Monica Blvd	23.2	C	23.3	C	0.1	6.0	-
26. Ave of the Stars/ Santa Monica Blvd	27.8	C	28.2	C	0.4	6.0	-
27. Century Park E/ Santa Monica Blvd	18.0	B	18.4	B	0.4	-	-
28. Bundy Dr/Olympic Blvd	73.3	E	75.6	E	2.3	2.5	-
29. Barrington Ave/Olympic Blvd	56.3	E	56.3	E	0.0	2.5	-
30. Sepulveda Blvd/Olympic Blvd	51.5	D	52.0	D	0.5	4.0	-
31. Veteran Ave/Olympic Blvd	13.6	B	19.5	B	5.9	-	-
32. Westwood Blvd/Olympic Blvd	44.6	D	46.7	D	2.1	4.0	-
33. Overland Ave/Olympic Blvd	65.4	E	65.1	E	-0.3	2.5	-
34. Beverly Glen Blvd/Olympic Blvd	49.0	D	53.4	D	4.4	4.0	Yes
35. Century Park W/Olympic Blvd	20.6	C	21.1	C	0.5	6.0	-
36. Century Park E/Olympic Blvd	44.9	D	45.7	D	0.8	4.0	-
37. Sepulveda Blvd/Pico Blvd	65.6	E	67.5	E	1.9	2.5	-
38. Veteran Ave/Pico Blvd	19.1	B	19.8	B	0.7	-	-
39. Westwood Blvd/Pico Blvd	70.1	E	73.4	E	3.3	2.5	Yes
40. Overland Ave/Pico Blvd	122.9	F	113.2	F	-9.7	2.5	-
41. Fairfax Ave/3 rd St	44.8	D	44.0	D	-0.8	4.0	-

Table 4.1-6. 2012 With Project PM Peak Hour Intersection LOS (Continued)

Intersection	2012 Without Project		2012 With Proposed Project		Change in Delay	Threshold	Significant Impact?
	Delay (sec)	LOS	Delay (sec)	LOS			
42. La Brea Ave/3 rd St	26.2	C	26.9	C	0.7	6.0	-
43. Highland Ave/3 rd St	29.9	C	31.4	C	1.5	6.0	-
44. Western Ave/3 rd St	54.8	D	52.5	D	-2.3	4.0	-
45. Vermont Ave/3 rd St	43.8	D	43.1	D	-0.7	4.0	-
46. Fairfax Ave/6 th St	13.9	B	12.4	B	-1.5	-	-
47. La Brea Ave/6 th St	78.5	E	70.0	E	-8.5	2.5	-
48. Highland Ave/6 th St	18.2	B	18.3	B	0.1	-	-
49. Western Ave/6 th St	30.8	C	31.0	C	0.2	6.0	-
50. Vermont Ave/6 th St	47.2	D	43.6	D	-3.6	4.0	-
51. Alvarado St/6 th St	20.3	C	26.9	C	6.6	6.0	Yes
52. San Vicente Blvd/Wilshire Blvd	116.6	F	96.7	F	*	2.5	-
53. Fairfax Ave/Wilshire Blvd	151.5	F	150.8	F	*	2.5	-
54. La Brea Ave/Wilshire Blvd	34.8	C	36.8	D	2.0	4.0	-
55. Highland Ave/Wilshire Blvd	38.6	D	34.3	C	*	6.0	-
56. Crenshaw Blvd/Wilshire Blvd	21.5	C	24.8	C	3.3	6.0	-
57. Western Ave/Wilshire Blvd	100.0	F	83.0	F	*	2.5	-
58. Vermont Ave/Wilshire Blvd	65.8	E	55.6	E	*	2.5	-
59. Alvarado St/Wilshire Blvd	30.4	C	27.2	C	*	6.0	-
60. Fairfax Ave/8 th St	13.6	B	14.4	B	0.8	-	-
61. La Brea Ave/8 th St	10.9	B	11.0	B	0.1	-	-
62. Crenshaw Blvd/8 th St	15.5	B	16.6	B	1.1	-	-
63. Western Ave/8 th St	16.8	B	16.5	B	-0.3	-	-
64. Vermont Ave/8 th St	30.7	C	33.1	C	2.4	6.0	-
65. Alvarado St/8 th St	14.1	B	14.4	B	0.3	-	-
66. Fairfax Ave/San Vicente Blvd	23.0	C	24.4	C	1.4	6.0	-
67. Fairfax Ave/Olympic Blvd	60.9	E	68.5	E	7.6	2.5	Yes
68. San Vicente Blvd/Olympic Blvd	22.8	C	25.4	C	2.6	6.0	-
69. La Brea Ave/Olympic Blvd	68.0	E	66.2	E	-1.8	2.5	-
70. Highland Ave/Olympic Blvd	71.0	E	68.1	E	-2.9	2.5	-
71. Crenshaw Blvd/Olympic Blvd	51.8	D	52.1	D	0.3	4.0	-
72. Western Ave/Olympic Blvd	48.0	D	48.7	D	0.7	4.0	-
73. Vermont Ave/Olympic Blvd	63.7	E	62.6	E	-1.1	2.5	-
74. Alvarado St/Olympic Blvd	33.2	C	34.7	C	1.5	6.0	-
Notes: * Average delay reduced, see explanation in "Analysis Methodology" section. HCM 2000 Operations Methodology Delay = Average Vehicle Delay (Seconds), LOS = Level of Service							

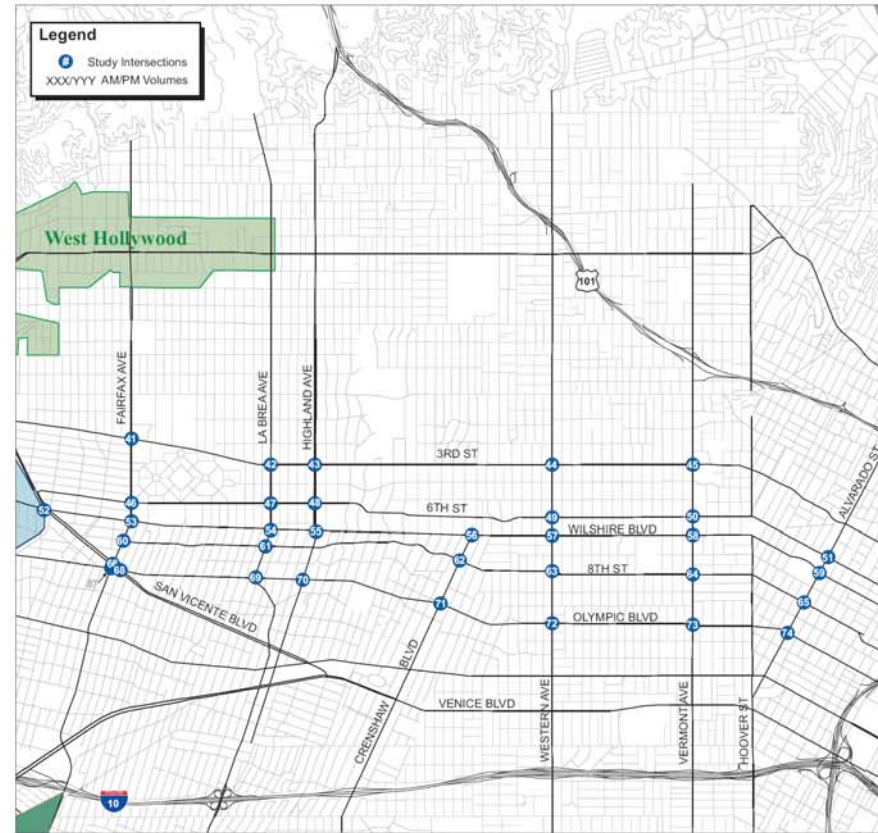
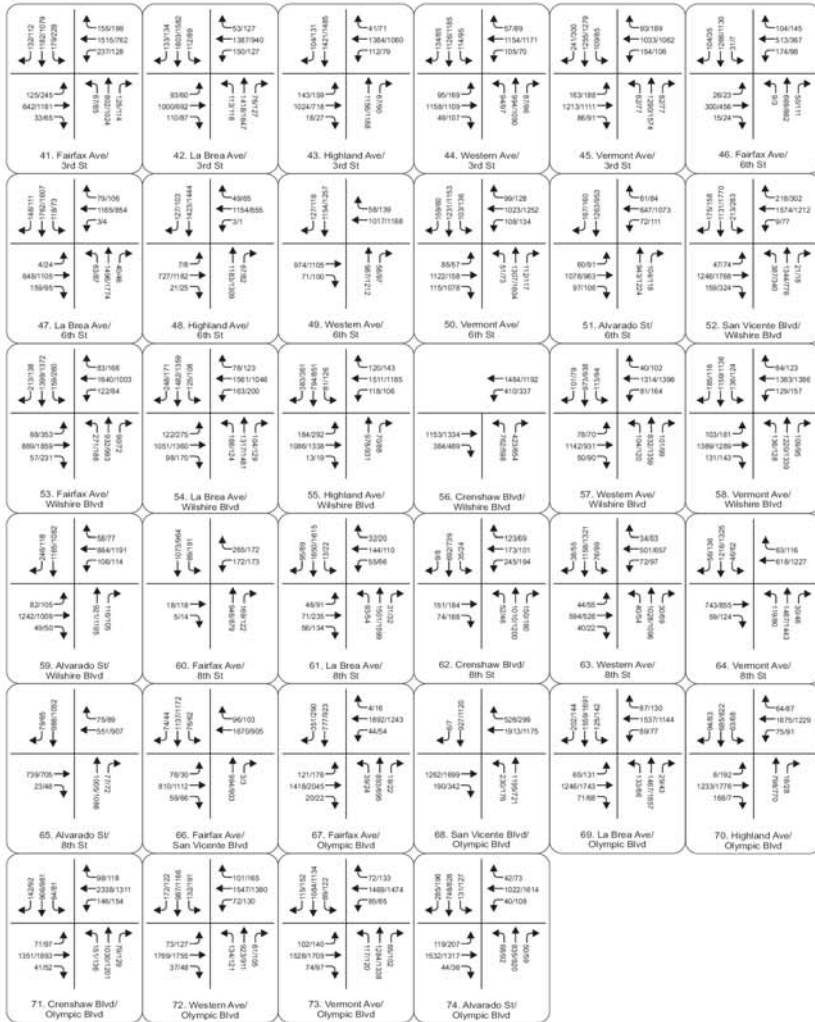
Source: Iteris, Wilshire Boulevard BRT Project-Traffic Impact Analysis, 2010.

Figure 4.1-2a. Year 2010 Without Project Volumes



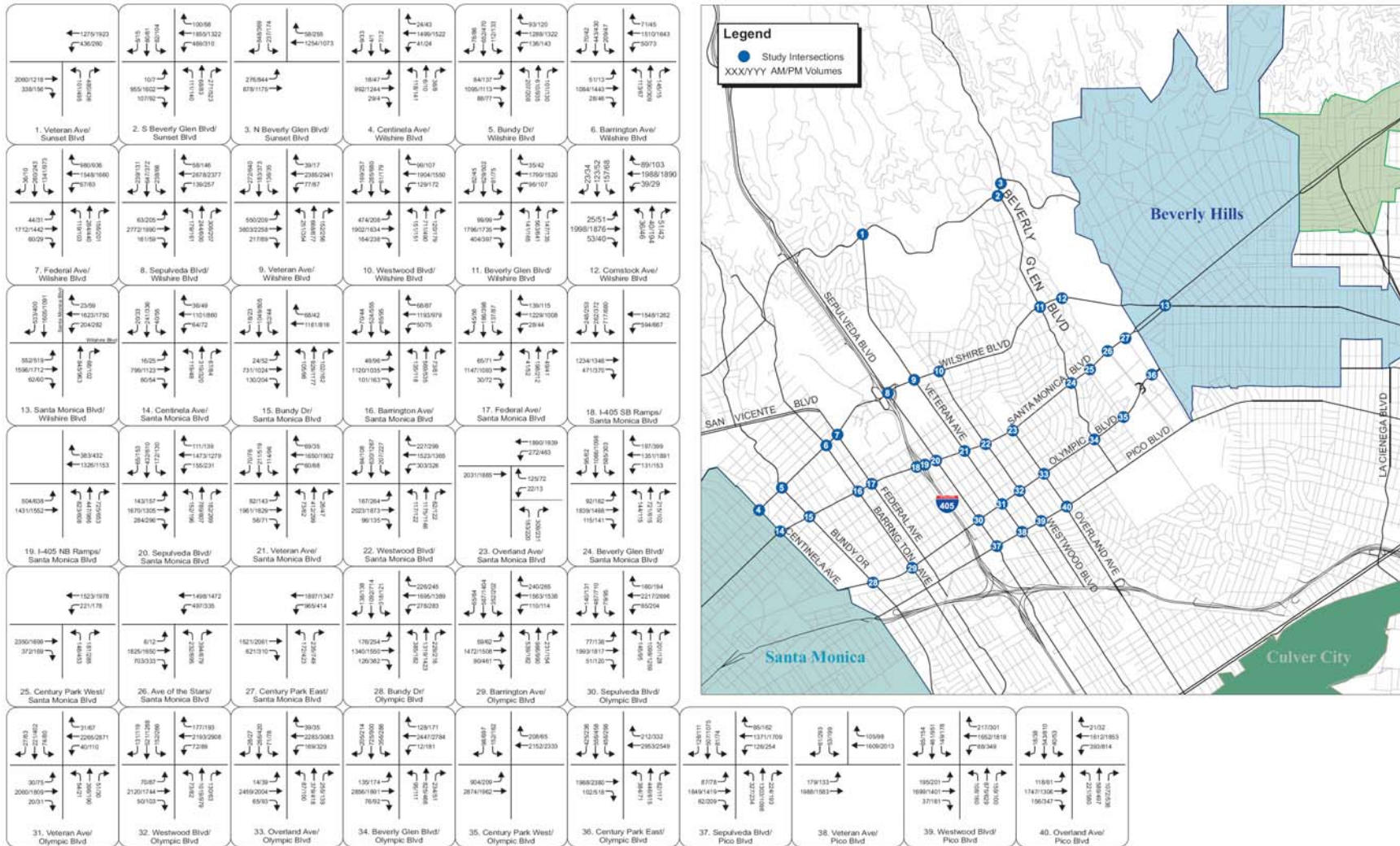
Source: Iteris 2010

Figure 4.1-2b. Year 2010 Without Project Volumes



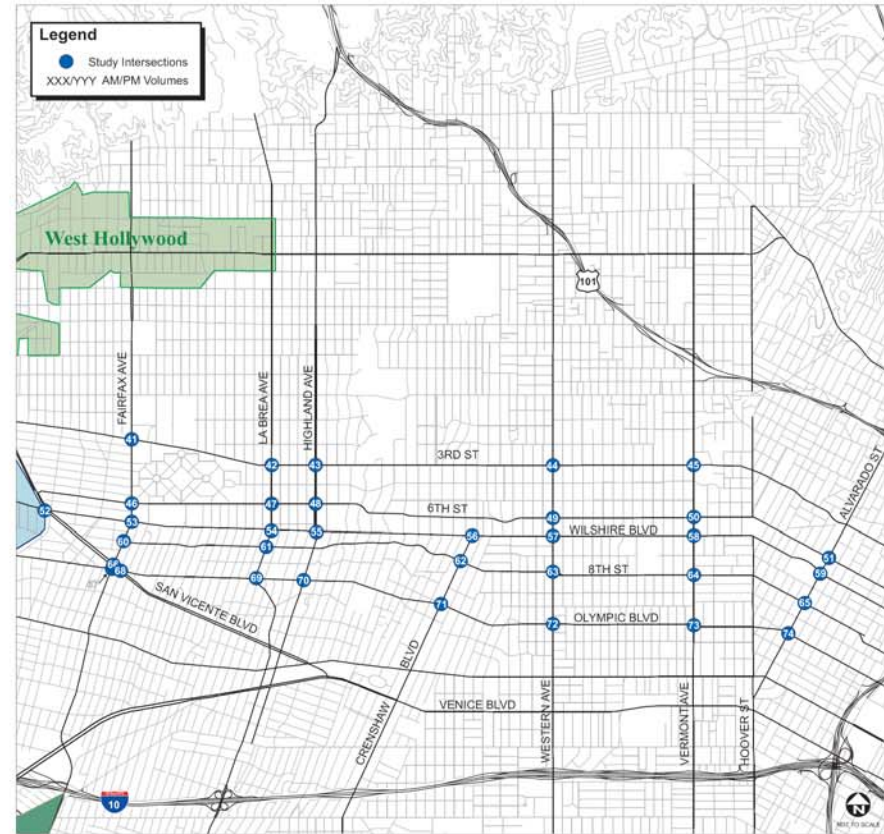
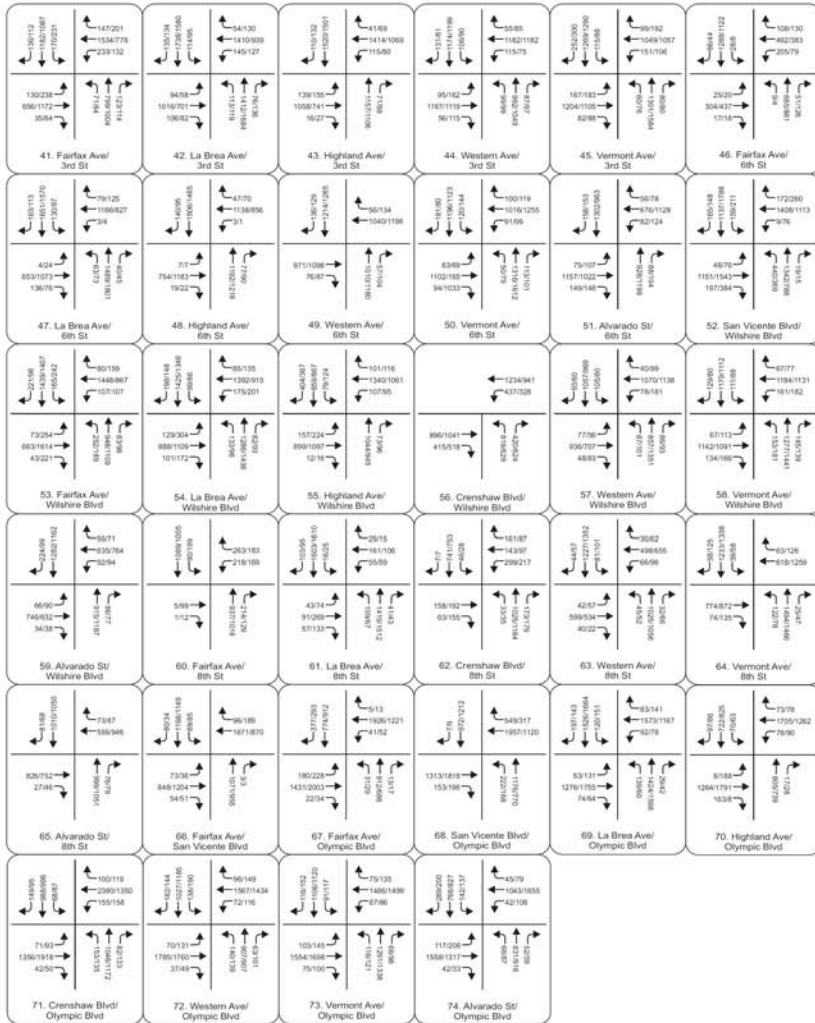
Source: Iteris 2010

Figure 4.1-3a. 2012 With Project Peak Hour Volumes



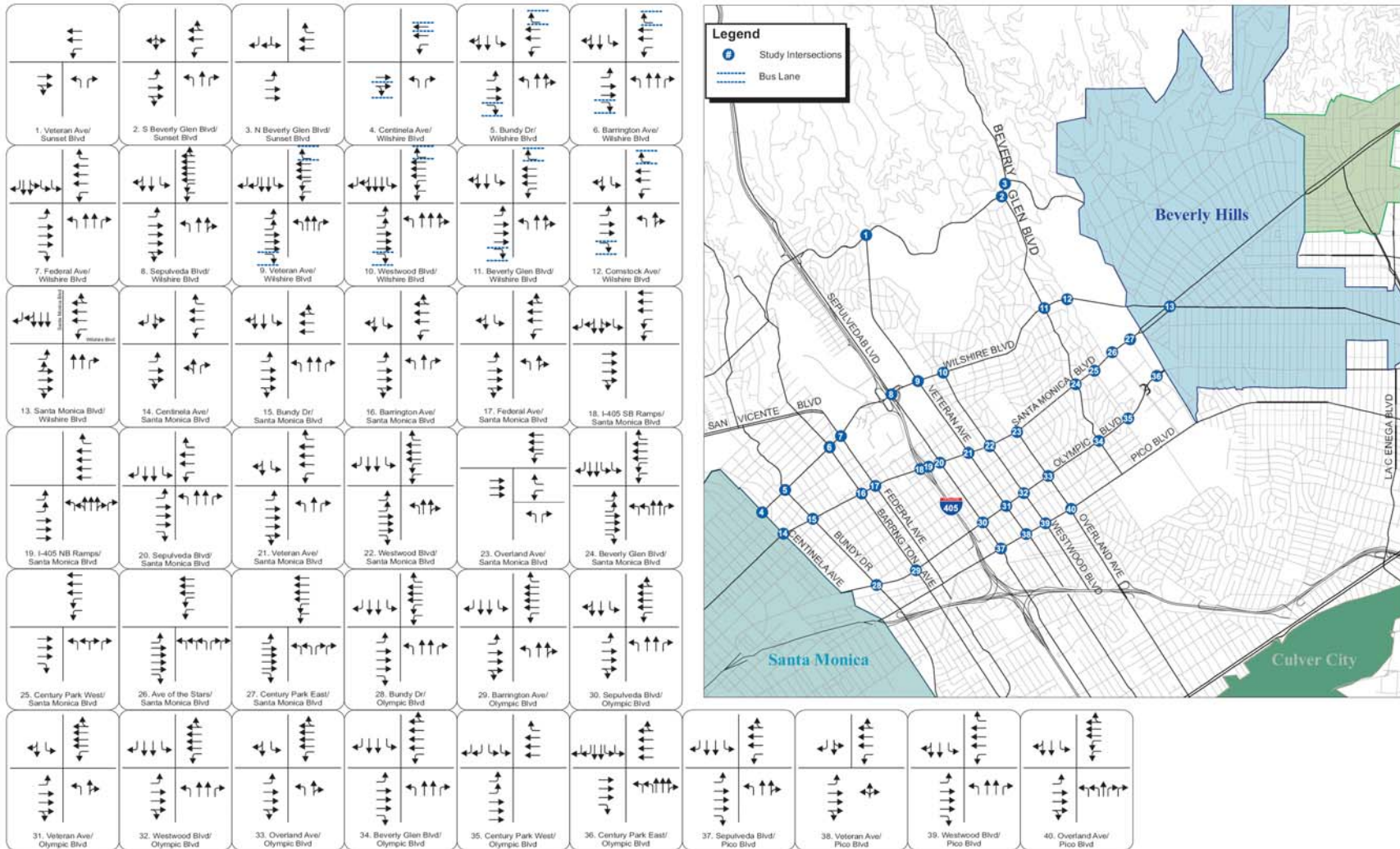
Source: Iteris 2010

Figure 4.1-3b. 2012 With Project Peak Hour Volumes



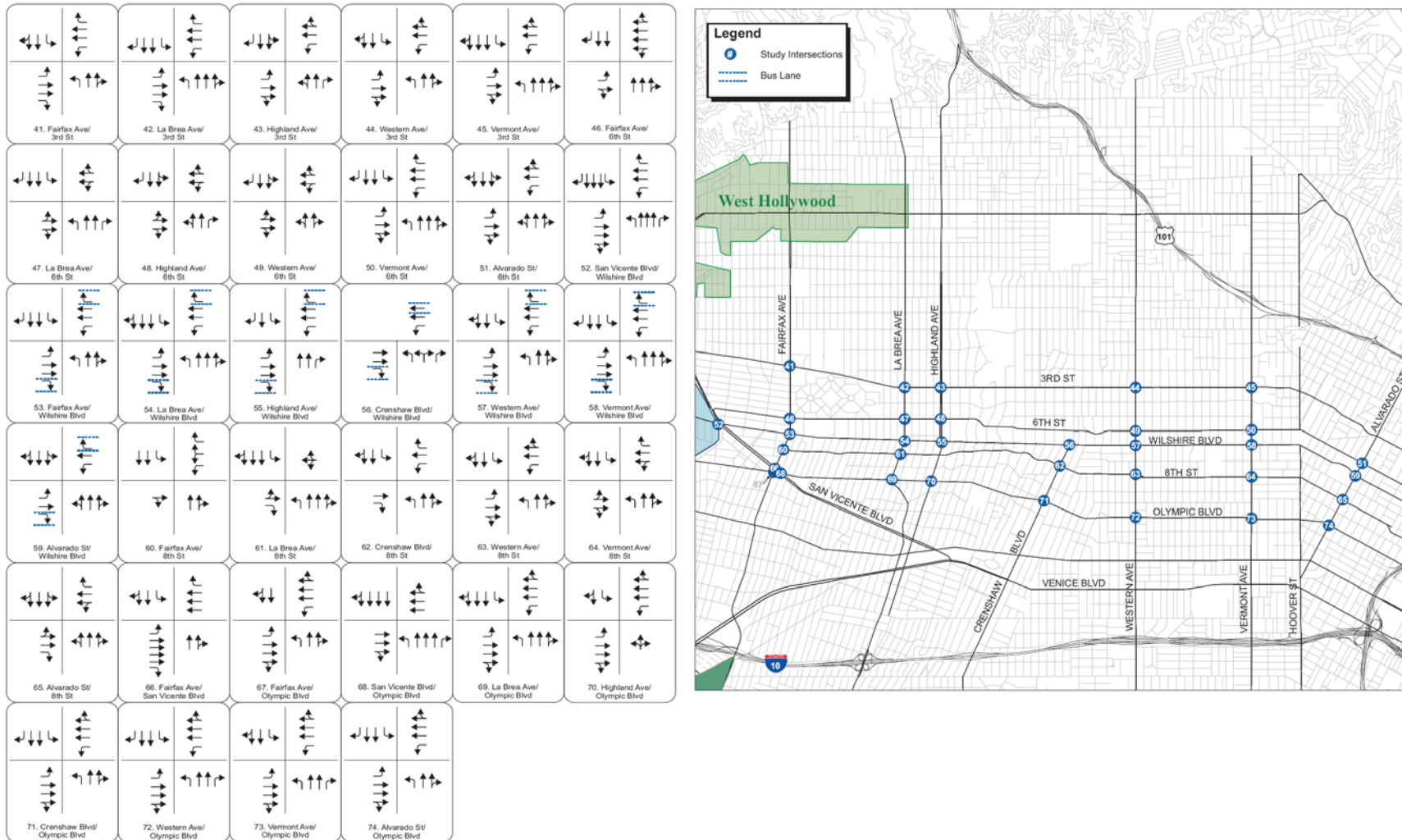
Source: Iteris 2010

Figure 4.1-4a. Proposed Project Lane Configurations



Source: Iteris 2010

Figure 4.1-4b. Proposed Project Lane Configuration



Source: Iteris 2010

2020 Conditions

2020 Without Project Levels of Service

The 2020 without project peak hour volumes are shown in Figures 4.1-5a and 4.1-5b. An LOS analysis was conducted to evaluate the 2020 without project intersection operations. Detailed LOS calculations can be found in Appendix B. Tables 4.1-7 and 4.1-8 include the 2020 without project intersection operating conditions during the AM and PM peak hours, respectively, at the 74 study intersections.

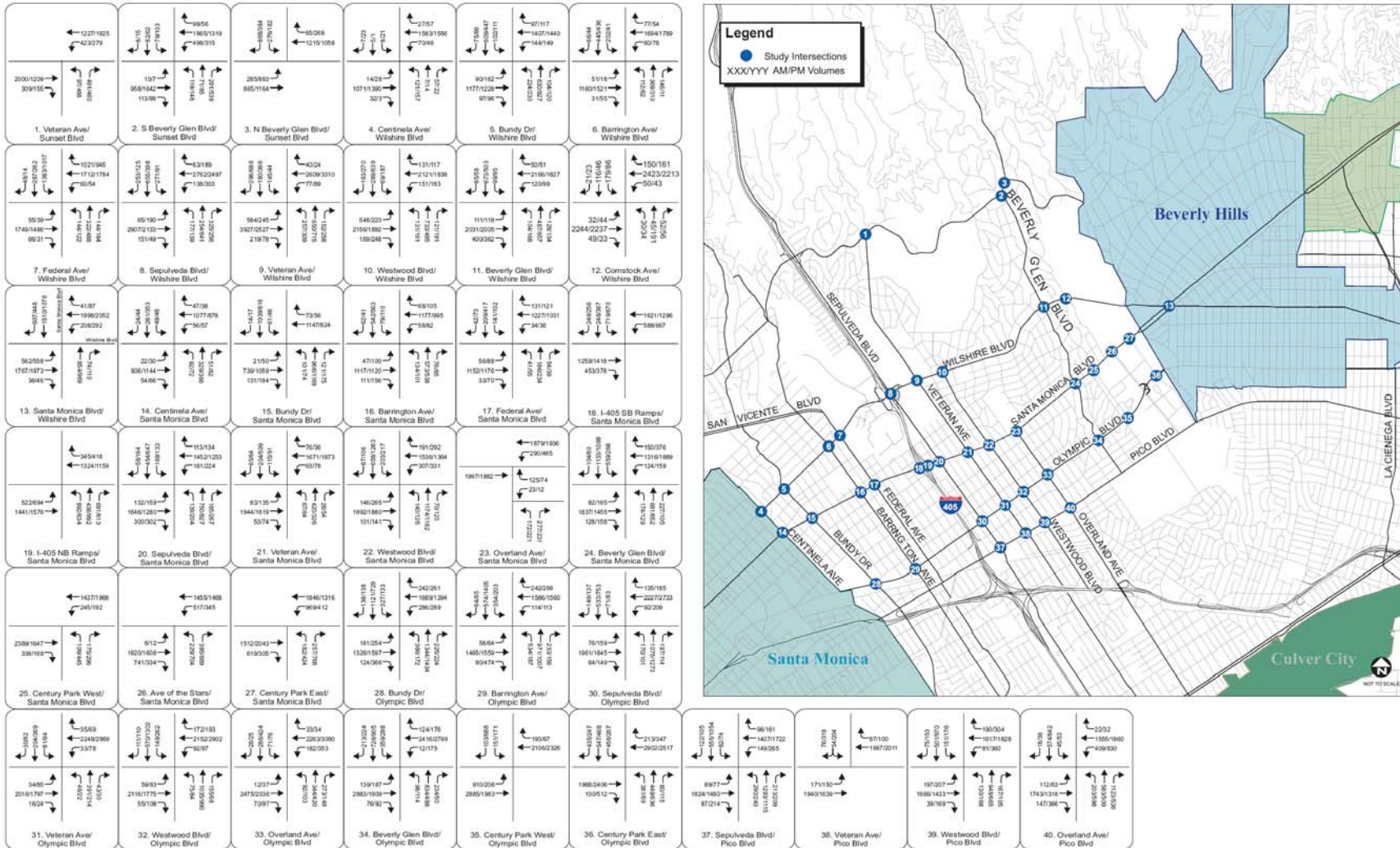
2020 With Project Levels of Service

The 2020 with project peak hour volumes are shown in Figures 4.1-6a and 4.1-6b. An LOS analysis was conducted to evaluate the 2020 with project intersection operations. Tables 4.1-7 and 4.1-8 include the 2020 with project intersection operating conditions for the AM and PM peak hours, respectively, at the 74 study intersections.

As shown in Tables 4.1-7 and 4.1-8, the following 19 intersections are forecast to be significantly affected by the proposed project in 2020 with project conditions:

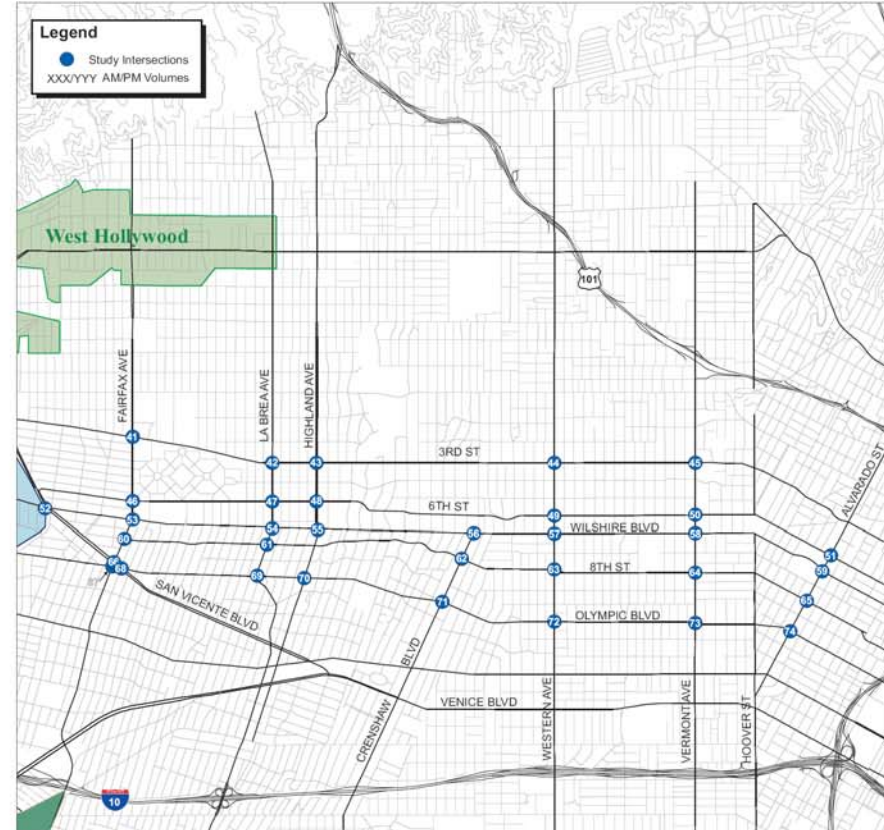
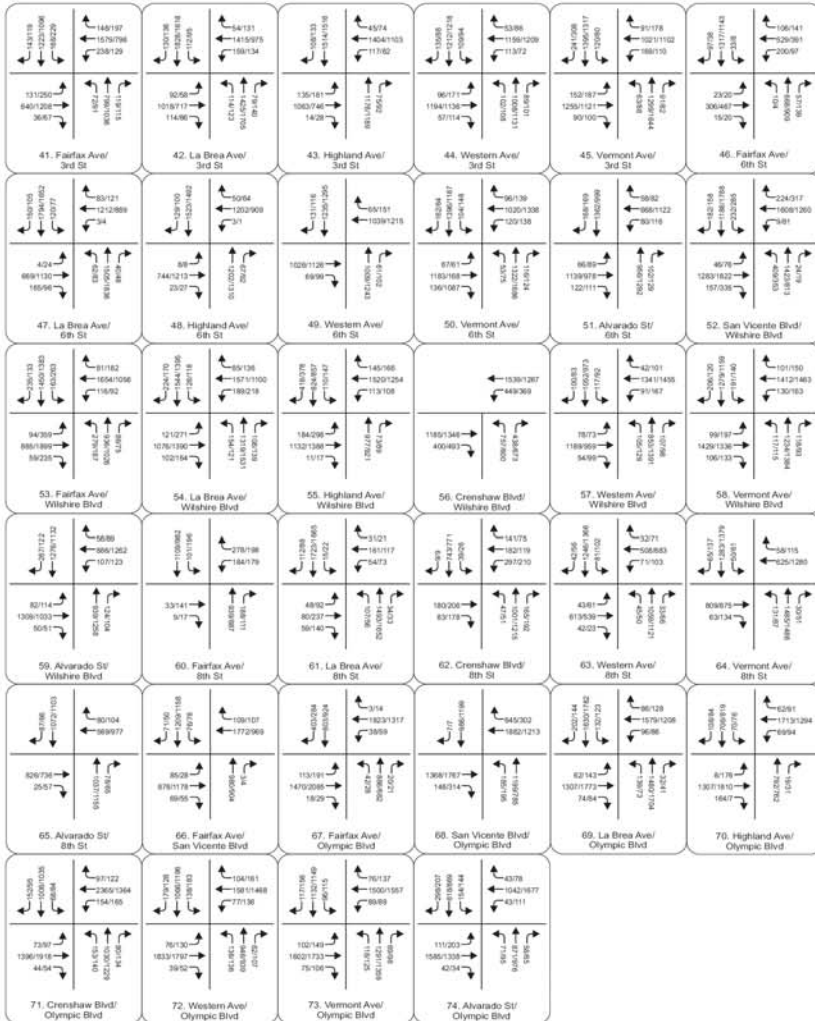
- Veteran Avenue/Sunset Boulevard (a.m. peak);
- Bundy Drive/Wilshire Boulevard (a.m. and p.m. peak);
- Barrington Avenue/Wilshire Boulevard (a.m. peak);
- Veteran Avenue/Wilshire Boulevard (p.m. peak);
- Veteran Avenue/Santa Monica Boulevard (p.m. peak);
- Westwood Boulevard/Santa Monica Boulevard (a.m. peak);
- Overland Avenue/Santa Monica Boulevard (p.m. peak);
- Westwood Boulevard/Olympic Boulevard (a.m. peak);
- Beverly Glen Boulevard/Olympic Boulevard (p.m. peak);
- Sepulveda Boulevard/Pico Boulevard (a.m. peak);
- Westwood Boulevard/Pico Boulevard (a.m. and p.m. peak);
- Overland Avenue/Pico Boulevard (a.m. peak);
- Alvarado Street/6th Street (p.m. peak);
- Fairfax Avenue/Wilshire Boulevard (a.m. and p.m. peak);
- La Brea Avenue/Wilshire Boulevard (a.m. peak);
- Fairfax Avenue/Olympic Boulevard (a.m. and p.m. peak);
- La Brea Avenue/Olympic Boulevard (a.m. and p.m. peak);
- Highland Avenue/Olympic Boulevard (p.m. peak); and
- Crenshaw Boulevard/Olympic Boulevard (a.m. and p.m. peak).

Figure 4.1-5a. 2020 Without Project Peak Hour Volumes



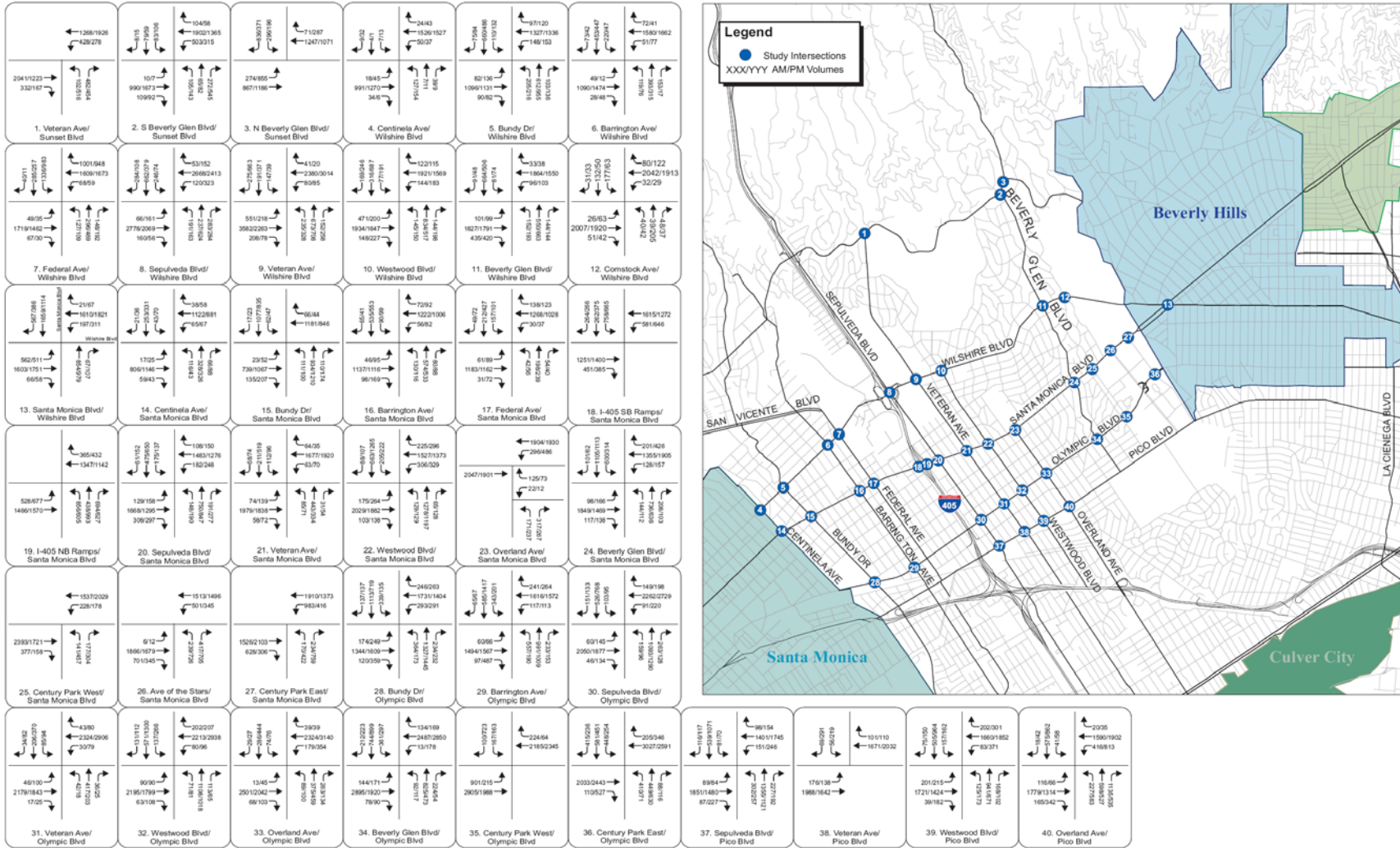
Source: Iteris 2010

Figure 4.1-5b. 2020 Without Project Peak Hour Volumes



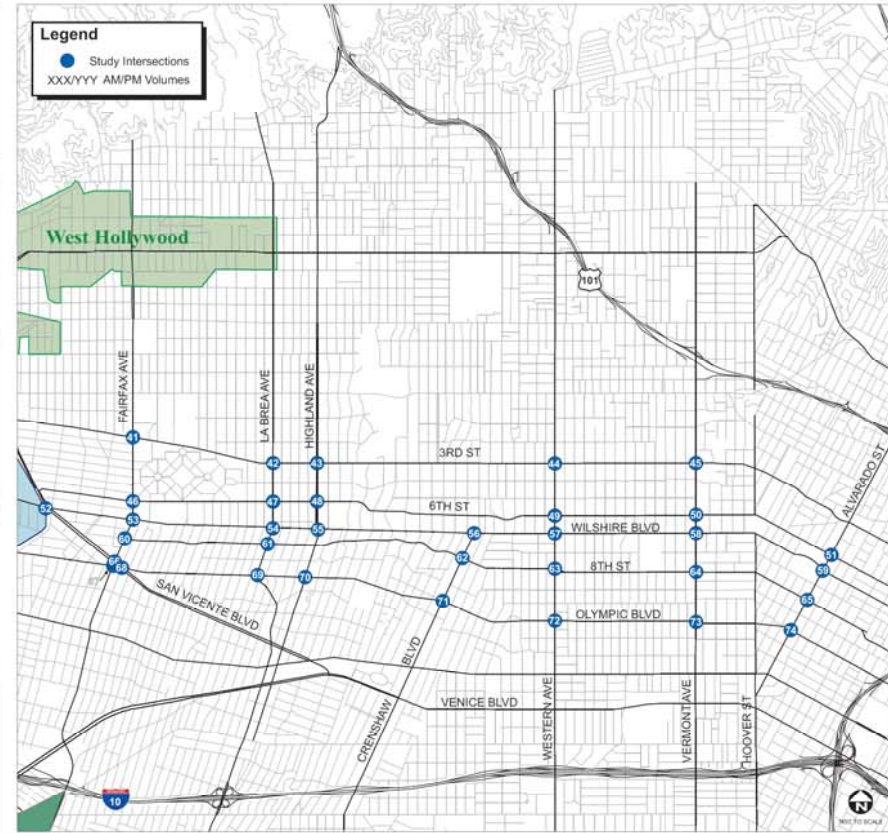
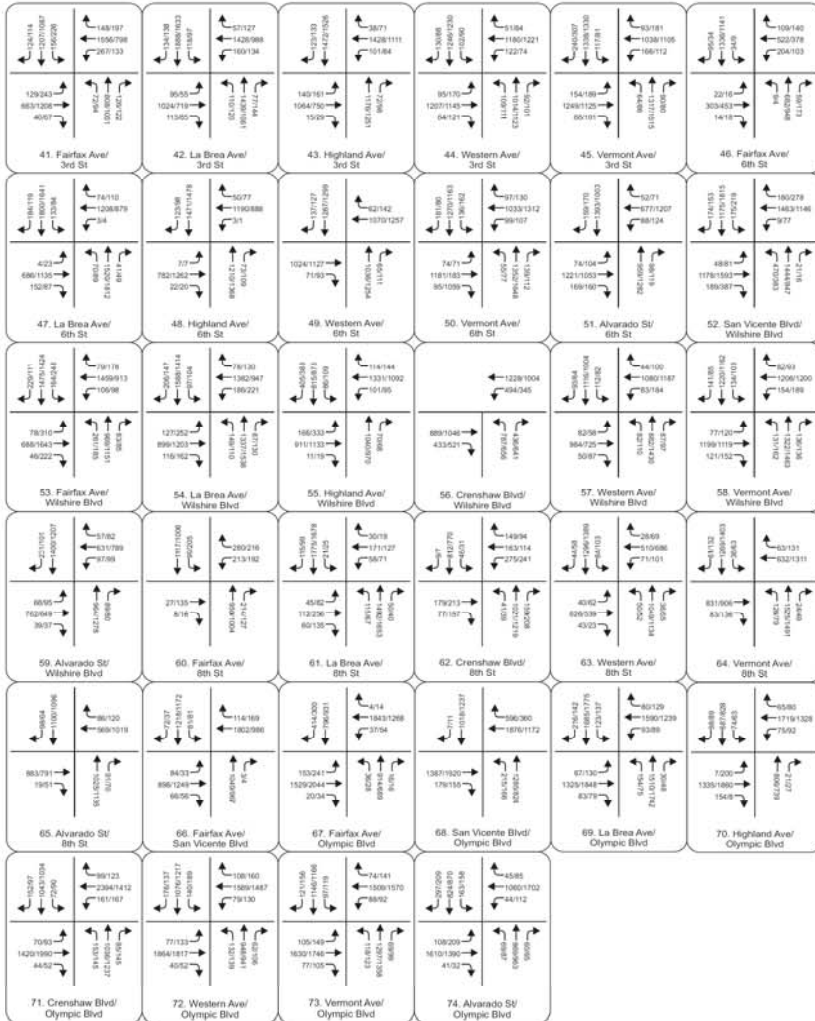
Source: Iteris 2010

Figure 4.1-6a. Year 2020 With Proposed Project Volumes



Source: Iteris 2010

Figure 4.1-6b. Year 2020 With Proposed Project Volumes



Source: Iteris 2010

Table 4.1-7. 2020 With Project AM Peak Hour Intersection LOS

Intersection	2020 Without Project		2020 With Proposed Project		Change in Delay	Threshold	Significant Impact?
	Delay (sec)	LOS	Delay (sec)	LOS			
1. Veteran Ave/Sunset Blvd	103.4	F	114.0	F	10.6	2.5	Yes
2. S Beverly Glen Blvd/Sunset Blvd	26.8	C	26.0	C	-0.8	6.0	-
3. N Beverly Glen Blvd/Sunset Blvd	147.0	F	141.4	F	-5.6	2.5	-
4. Centinela Ave/Wilshire Blvd	8.3	A	11.3	B	3.0	-	-
5. Bundy Dr/Wilshire Blvd	63.7	E	96.6	F	32.9	2.5	Yes
6. Barrington Ave/Wilshire Blvd	38.1	D	47.4	D	9.3	4.0	Yes
7. Federal Ave/Wilshire Blvd	68.4	E	57.1	E	*	2.5	-
8. Sepulveda Blvd/Wilshire Blvd	208.4	F	196.9	F	*	2.5	-
9. Veteran Ave/Wilshire Blvd	243.7	F	201.7	F	*	2.5	-
10. Westwood Blvd/Wilshire Blvd	75.2	E	62.3	E	*	2.5	-
11. Beverly Glen Blvd/Wilshire Blvd	36.1	D	34.8	C	*	6.0	-
12. Comstock Ave/Wilshire Blvd	23.3	C	22.0	C	*	6.0	-
13. Santa Monica Blvd/ Wilshire Blvd	88.0	F	54.4	D	*	4.0	-
14. Centinela Ave/ Santa Monica Blvd	15.7	B	16.5	B	0.8	-	-
15. Bundy Dr/Santa Monica Blvd	17.0	B	17.1	B	0.1	-	-
16. Barrington Ave/ Santa Monica Blvd	17.1	B	17.4	B	0.3	-	-
17. Federal Ave/Santa Monica Blvd	28.5	C	28.8	C	0.3	6.0	-
18. I-405 SB Ramps/Santa Monica Blvd	26.9	C	27.3	C	0.4	6.0	-
19. I-405 NB Ramps/Santa Monica Blvd	48.0	D	47.3	D	-0.7	4.0	-
20. Sepulveda Blvd/ Santa Monica Blvd	39.9	D	40.0	D	0.1	4.0	-
21. Veteran Ave/Santa Monica Blvd	21.7	C	21.5	C	-0.2	6.0	-
22. Westwood Blvd/ Santa Monica Blvd	122.2	F	128.7	F	6.5	2.5	Yes
23. Overland Ave/Santa Monica Blvd	32.8	C	34.7	C	1.9	6.0	-
24. Beverly Glen Blvd/Santa Monica Blvd	63.2	E	63.0	E	-0.2	2.5	-
25. Century Park W/ Santa Monica Blvd	20.9	C	20.4	C	-0.5	6.0	-
26. Ave of the Stars/ Santa Monica Blvd	47.3	D	46.9	D	-0.4	4.0	-
27. Century Park E/ Santa Monica Blvd	29.0	C	27.9	C	-1.1	6.0	-
28. Bundy Dr/Olympic Blvd	100.3	F	101.6	F	1.3	2.5	-
29. Barrington Ave/Olympic Blvd	52.5	D	54.5	E	2.0	2.5	-
30. Sepulveda Blvd/Olympic Blvd	34.6	C	37.1	D	2.5	4.0	-
31. Veteran Ave/Olympic Blvd	22.7	C	24.8	C	2.1	6.0	-
32. Westwood Blvd/Olympic Blvd	41.3	D	52.1	D	10.8	4.0	Yes
33. Overland Ave/Olympic Blvd	40.1	D	42.5	D	2.4	4.0	-
34. Beverly Glen Blvd/Olympic Blvd	69.0	E	69.3	E	0.3	2.5	-
35. Century Park W/Olympic Blvd	15.2	B	15.4	B	0.2	-	-
36. Century Park E/Olympic Blvd	41.7	D	42.1	D	0.4	4.0	-
37. Sepulveda Blvd/Pico Blvd	54.4	D	58.1	E	3.7	2.5	Yes
38. Veteran Ave/Pico Blvd	11.0	B	12.3	B	1.3	-	-
39. Westwood Blvd/Pico Blvd	39.6	D	45.6	D	6.0	4.0	Yes
40. Overland Ave/Pico Blvd	62.8	E	68.2	E	5.4	2.5	Yes
41. Fairfax Ave/3 rd St	78.5	E	76.0	E	-2.5	2.5	-
42. La Brea Ave/3 rd St	34.8	C	36.0	D	1.2	4.0	-
43. Highland Ave/3 rd St	74.2	E	74.6	E	0.4	2.5	-
44. Western Ave/3 rd St	49.7	D	52.0	D	2.3	4.0	-
45. Vermont Ave/3 rd St	46.3	D	46.1	D	-0.2	4.0	-
46. Fairfax Ave/6 th St	16.1	B	15.6	B	-0.5	-	-
47. La Brea Ave/6 th St	71.2	E	70.9	E	-0.3	2.5	-
48. Highland Ave/6 th St	22.2	C	20.7	C	-1.5	6.0	-

Table 4.1-7. 2020 With Project AM Peak Hour Intersection LOS (Continued)

Intersection	2020 Without Project		2020 With Proposed Project		Change in Delay	Threshold	Significant Impact?
	Delay (sec)	LOS	Delay (sec)	LOS			
49. Western Ave/6 th St	27.9	C	28.3	C	0.4	6.0	-
50. Vermont Ave/6 th St	42.8	D	44.3	D	1.5	4.0	-
51. Alvarado St/6 th St	18.6	B	18.6	B	0.0	-	-
52. San Vicente Blvd/Wilshire Blvd	81.5	F	79.9	F	*	2.5	-
53. Fairfax Ave/Wilshire Blvd	111.2	F	128.1	F	16.9	2.5	Yes
54. La Brea Ave/Wilshire Blvd	39.0	D	49.2	D	10.2	4.0	Yes
55. Highland Ave/Wilshire Blvd	48.2	D	51.8	D	3.6	4.0	-
56. Crenshaw Blvd/Wilshire Blvd	37.4	D	39.1	D	1.7	4.0	-
57. Western Ave/Wilshire Blvd	59.2	E	56.5	E	*	2.5	-
58. Vermont Ave/Wilshire Blvd	72.5	E	62.6	E	*	2.5	-
59. Alvarado St/Wilshire Blvd	22.9	C	22.6	C	*	6.0	-
60. Fairfax Ave/8 th St	12.5	B	12.9	B	0.4	-	-
61. La Brea Ave/8 th St	10.1	B	12.8	B	2.7	-	-
62. Crenshaw Blvd/8 th St	15.7	B	14.0	B	-1.7	-	-
63. Western Ave/8 th St	16.4	B	16.8	B	0.4	-	-
64. Vermont Ave/8 th St	24.7	C	24.2	C	-0.5	6.0	-
65. Alvarado St/8 th St	13.9	B	14.2	B	0.3	-	-
66. Fairfax Ave/San Vicente Blvd	32.4	C	32.7	C	0.3	6.0	-
67. Fairfax Ave/Olympic Blvd	35.0	D	43.1	D	8.1	4.0	Yes
68. San Vicente Blvd/Olympic Blvd	28.3	C	30.6	C	2.3	6.0	-
69. La Brea Ave/Olympic Blvd	53.7	D	62.5	E	8.8	2.5	Yes
70. Highland Ave/Olympic Blvd	50.7	D	49.7	D	-1	4.0	-
71. Crenshaw Blvd/Olympic Blvd	73.5	E	78.7	E	5.2	2.5	Yes
72. Western Ave/Olympic Blvd	37.4	D	39.7	D	2.3	4.0	-
73. Vermont Ave/Olympic Blvd	39.8	D	40.8	D	1.0	4.0	-
74. Alvarado St/Olympic Blvd	29.9	C	31.6	C	1.7	6.0	-
Notes: * Average delay reduced, see explanation in "Analysis Methodology" section. HCM 2000 Operations Methodology Delay = Average Vehicle Delay (Seconds), LOS = Level of Service Source: Iteris, Wilshire Boulevard BRT Project-Traffic Impact Analysis, 2010.							

Table 4.1-8 presents the 2020 with project intersection operating conditions for the PM peak hour at the 74 study intersections.

Table 4.1-8. 2020 With Project PM Peak Hour Intersection LOS

Intersection	2020 Without Project		2020 With Proposed Project		Change in Delay	Threshold	Significant Impact?
	Delay (sec)	LOS	Delay (sec)	LOS			
1. Veteran Ave/Sunset Blvd	38.2	D	41.7	D	3.5	4.0	-
2. S Beverly Glen Blvd/Sunset Blvd	50.0	D	52.8	D	2.8	4.0	-
3. N Beverly Glen Blvd/Sunset Blvd	43.6	D	43.3	D	-0.3	4.0	-
4. Centinela Ave/Wilshire Blvd	8.9	A	8.4	A	*	-	-
5. Bundy Dr/Wilshire Blvd	80.4	F	113.1	F	32.7	2.5	Yes
6. Barrington Ave/Wilshire Blvd	33.8	C	32.1	C	*	6.0	-
7. Federal Ave/Wilshire Blvd	49.9	D	47.2	D	*	4.0	-
8. Sepulveda Blvd/Wilshire Blvd	110.0	F	103.2	F	*	2.5	-
9. Veteran Ave/Wilshire Blvd	126.6	F	134.6	F	8.0	2.5	Yes
10. Westwood Blvd/Wilshire Blvd	64.0	E	52.0	D	*	4.0	-
11. Beverly Glen Blvd/Wilshire Blvd	39.4	D	36.4	D	*	4.0	-
12. Comstock Ave/Wilshire Blvd	26.9	C	24.2	C	*	6.0	-
13. Santa Monica Blvd/ Wilshire Blvd	109.1	F	77.6	E	*	2.5	-
14. Centinela Ave/ Santa Monica Blvd	17.5	B	17.1	B	-0.4	-	-
15. Bundy Dr/Santa Monica Blvd	16.1	B	16.3	B	0.2	-	-
16. Barrington Ave/ Santa Monica Blvd	15.7	B	15.4	B	-0.3	-	-
17. Federal Ave/Santa Monica Blvd	31.3	C	31.4	C	0.1	6.0	-
18. I-405 SB Ramps/Santa Monica Blvd	25.7	C	25.4	C	-0.3	6.0	-
19. I-405 NB Ramps/Santa Monica Blvd	48.5	D	48.0	D	-0.5	4.0	-
20. Sepulveda Blvd/ Santa Monica Blvd	44.6	D	45.4	D	0.8	4.0	-
21. Veteran Ave/Santa Monica Blvd	63.5	E	68.7	E	5.2	2.5	Yes
22. Westwood Blvd/ Santa Monica Blvd	91.3	F	93.2	F	1.9	2.5	-
23. Overland Ave/Santa Monica Blvd	78.9	E	86.0	F	7.1	2.5	Yes
24. Beverly Glen Blvd/Santa Monica Blvd	53.8	D	55.0	E	1.2	2.5	-
25. Century Park W/ Santa Monica Blvd	23.3	C	23.6	C	0.3	6.0	-
26. Ave of the Stars/ Santa Monica Blvd	28.0	C	28.4	C	0.4	6.0	-
27. Century Park E/ Santa Monica Blvd	18.3	B	19.2	B	0.9	-	-
28. Bundy Dr/Olympic Blvd	77.9	E	79.1	E	1.2	2.5	-
29. Barrington Ave/Olympic Blvd	56.7	E	56.8	E	0.1	2.5	-
30. Sepulveda Blvd/Olympic Blvd	58.2	E	57.4	E	-0.8	2.5	-
31. Veteran Ave/Olympic Blvd	15.0	B	17.4	B	2.4	-	-
32. Westwood Blvd/Olympic Blvd	47.2	D	50.0	D	2.8	4.0	-
33. Overland Ave/Olympic Blvd	69.0	E	71.2	E	2.2	2.5	-
34. Beverly Glen Blvd/Olympic Blvd	54.7	D	57.2	E	2.5	2.5	Yes
35. Century Park W/Olympic Blvd	20.9	C	21.5	C	0.6	6.0	-
36. Century Park E/Olympic Blvd	46.2	D	48.8	D	2.6	4.0	-
37. Sepulveda Blvd/Pico Blvd	73.8	E	73.7	E	-0.1	2.5	-
38. Veteran Ave/Pico Blvd	24.9	C	21.4	C	-3.5	6.0	-
39. Westwood Blvd/Pico Blvd	77.3	E	80.6	F	3.3	2.5	Yes
40. Overland Ave/Pico Blvd	122.1	F	116.5	F	-5.6	2.5	-
41. Fairfax Ave/3 rd St	47.4	D	48.4	D	1.0	4.0	-
42. La Brea Ave/3 rd St	27.4	C	28.0	C	0.6	6.0	-
43. Highland Ave/3 rd St	34.5	C	35.3	D	0.8	4.0	-
44. Western Ave/3 rd St	56.6	E	56.4	E	-0.2	2.5	-
45. Vermont Ave/3 rd St	45.4	D	45.7	D	0.3	4.0	-
46. Fairfax Ave/6 th St	13.9	B	12.7	B	-1.2	-	-
47. La Brea Ave/6 th St	96.1	F	91.1	F	-5.0	2.5	-
48. Highland Ave/6 th St	20.0	C	24.1	C	4.1	6.0	-
49. Western Ave/6 th St	31.8	C	32.6	C	0.8	6.0	-
50. Vermont Ave/6 th St	50.0	D	48.2	D	-1.8	4.0	-
51. Alvarado St/6 th St	21.9	C	28.9	C	7.0	6.0	Yes
52. San Vicente Blvd/Wilshire Blvd	127.9	F	105.1	F	*	2.5	-
53. Fairfax Ave/Wilshire Blvd	158.4	F	163.2	F	4.8	2.5	Yes

Table 4.1-8. 2020 With Project PM Peak Hour Intersection LOS (Continued)

Intersection	2020 Without Project		2020 With Proposed Project		Change in Delay	Threshold	Significant Impact?
	Delay (sec)	LOS	Delay (sec)	LOS			
54. La Brea Ave/Wilshire Blvd	40.7	D	41.2	D	0.5	4.0	-
55. Highland Ave/Wilshire Blvd	40.9	D	43.5	D	2.6	4.0	-
56. Crenshaw Blvd/Wilshire Blvd	24.8	C	25.2	C	0.4	6.0	-
57. Western Ave/Wilshire Blvd	111.1	F	101.5	F	*	2.5	-
58. Vermont Ave/Wilshire Blvd	77.6	E	62.2	E	*	2.5	-
59. Alvarado St/Wilshire Blvd	34.9	C	29.2	C	*	6.0	-
60. Fairfax Ave/8 th St	15.1	B	19.9	B	4.8	-	-
61. La Brea Ave/8 th St	11.4	B	11.9	B	0.5	-	-
62. Crenshaw Blvd/8 th St	16.0	B	18.6	B	2.6	-	-
63. Western Ave/8 th St	17.2	B	17.2	B	0.0	-	-
64. Vermont Ave/8 th St	35.2	D	37.5	D	2.3	4.0	-
65. Alvarado St/8 th St	14.7	B	15.1	B	0.4	-	-
66. Fairfax Ave/San Vicente Blvd	24.7	C	25.2	C	0.5	6.0	-
67. Fairfax Ave/Olympic Blvd	67.4	E	81.0	F	13.6	2.5	Yes
68. San Vicente Blvd/Olympic Blvd	26.5	C	26.5	C	0.0	6.0	-
69. La Brea Ave/Olympic Blvd	79.5	E	87.5	F	8.0	2.5	Yes
70. Highland Ave/Olympic Blvd	67.1	E	70.4	E	3.3	2.5	Yes
71. Crenshaw Blvd/Olympic Blvd	57.2	E	66.6	E	9.4	2.5	Yes
72. Western Ave/Olympic Blvd	53.8	D	55.0	E	1.2	2.5	-
73. Vermont Ave/Olympic Blvd	70.2	E	71.8	E	1.6	2.5	-
74. Alvarado St/Olympic Blvd	37.8	D	40.3	D	2.5	4.0	-

Notes:
 * Average delay reduced, see explanation in "Analysis Methodology" section.
 HCM 2000 Operations Methodology
 Delay = Average Vehicle Delay (Seconds), LOS = Level of Service

Source: Iteris, Wilshire Boulevard BRT Project-Traffic Impact Analysis, 2010.

Impact T2: Exceed significance criteria for local residential streets.

The proposed project would result in less-than-significant impacts on local residential streets.

Impacts to local residential streets along the Wilshire corridor caused by potential traffic diversion during bus lane operations could occur. Along the project corridor, Goshen Avenue between Bundy Drive and San Vicente Boulevard, and Lindbrook Drive and Ashton Avenue between Malcolm Avenue and Comstock Avenue, in the western part of the study area, are local residential streets adjacent and run parallel to Wilshire Boulevard. Texas Avenue, in the western part of the study area, also runs parallel to Wilshire Boulevard but is designated as a collector street and, therefore, not subject to a local residential street analysis. Additionally, 6th Street, 7th Street, and 8th Street, adjacent and parallel to Wilshire Boulevard in the eastern part of the study area, are designated as either collector or secondary streets between Fairfax Avenue and Lucas Avenue and, therefore, are not subject to a local residential street analysis.

Under proposed project conditions, study intersections on Wilshire Boulevard in the vicinity of Lindbrook Drive and Ashton Avenue operate at LOS D or better in 2012 and 2020. Therefore, it is not expected that a significant amount of traffic would divert from Wilshire Boulevard to these local residential streets. In the vicinity of Goshen Avenue, the Bundy Drive/Wilshire Boulevard and Federal Avenue-San Vicente Boulevard/Wilshire Boulevard intersections are projected to operate at LOS E or F in 2012 and 2020. However, traffic diversion onto Goshen Avenue is unlikely since Goshen Avenue runs for only a short distance, eastbound left-turn movements from Wilshire Boulevard to Bundy Drive are relatively high-delay movements during peak hours, and northbound left-turn movements from San Vicente Boulevard to Goshen Avenue are prohibited. Therefore, no significant impacts to local residential streets are expected.

Impact T3: Exceed parking requirements or result in inadequate parking supply.

The removal or restriction of parking spaces on Wilshire Boulevard would result in less than significant impacts.

Under the proposed project, approximately 11 parking spaces between Valencia Street and Fairfax Avenue (a distance of approximately 5.5 miles) would be removed to accommodate larger or relocated bus stops to facilitate bus movements in and out of the stops. The removed parking spaces would be spread throughout this segment of the project, with no more than three spaces being removed on any single block. The removed parking spaces would have a small effect on parking supply during off-peak hours. During peak periods, parking is prohibited under current conditions, so the removal of these parking spaces would not affect parking supply at all.

Under the proposed project, parking in approximately 85 existing on-street parking spaces between Selby Avenue and Comstock Avenue would be prohibited during peak hours, 53 on the north side of the street and 32 on the south side. Of these spaces, 36 are currently restricted to 2-hour parking between 8 a.m. and 6 p.m., and 49 (35 on the north side and 14 on the south side) are not restricted. (An inventory of the parking spaces on Wilshire Boulevard in this area is included in Appendix B). However, parking supply during off-peak hours would not be reduced and, in fact, would likely be increased under the proposed project because the removal of the jut-outs would create room for additional on-street parking in the curb lanes.

In this area, there are three preferential parking districts bordering Wilshire Boulevard, Districts 4, 6, and 11 (A figure is provided in Appendix B). Preferential Parking District 4 borders Wilshire Boulevard and covers a residential area south of Wilshire Boulevard between Malcolm Avenue and Manning Avenue. Preferential Parking District 6 borders Wilshire Boulevard and covers a residential area south of Wilshire Boulevard between Beverly Glen Boulevard and Club View Drive. Preferential Parking District 11 borders Wilshire Boulevard and covers a residential area north of Wilshire Boulevard between Malcolm Avenue and Beverly Glen Boulevard. Residents within these parking districts, including those living on the side of Wilshire

Boulevard within the district, are eligible to receive guest permits for their visitors. Therefore, guests of residents within these districts would be able to park on any street within their district.

Residences south of Wilshire Boulevard between Manning Avenue and Beverly Glen Boulevard are not included in a preferential parking district. Residents of these buildings are not eligible to park in adjacent preferential districts. This segment includes 51 spaces (on both sides of the street) at which parking would be prohibited during peak hours under the Proposed Project. On February 2, 2010 an on-street parking occupancy count was collected along this segment during a.m. and p.m. peak periods. The results of the count indicate that a maximum of 35 vehicles occupied parking spaces during the a.m. peak period and a maximum of 34 vehicles occupied parking spaces during the p.m. peak period. Guests of residents in this area would have to use off-street visitor parking spaces during peak periods.

Additionally, residences north of Wilshire Boulevard between Beverly Glen Boulevard and Comstock Avenue are not included in a preferential parking district. Residents of these buildings are not eligible to park in adjacent preferential districts. This segment includes 27 spaces (on both sides of the street) at which parking would be prohibited during peak periods under the proposed project. Results of the parking occupancy count on this segment indicate that a maximum of 26 vehicles occupied parking spaces during the a.m. peak period and a maximum of 16 vehicles occupied parking spaces during the p.m. peak period. Guests of residents in this area would have to use off-street visitor parking spaces during peak periods.

The proposed project would result in reduced availability of parking spaces along Wilshire Boulevard during peak periods, including the prohibition of parking in approximately 85 spaces located along Wilshire Boulevard between Selby Avenue and Comstock Avenue. As a result, guests of certain residents may be required to either park in spaces on adjacent streets within a preferential parking district or use off-street visitor parking spaces.

CEQA, however, does not require an analysis of parking adequacy as part of a project's environmental review process. A project's potential impact on parking supply is considered a *social* impact, and an EIR needs to only address the *secondary physical impacts* that could be triggered by a social impact (CEQA Guidelines, section 15131(a)). In other words, the social inconvenience of having to search for parking spaces is not an environmental impact; however, the secondary effect of a lack of parking on traffic and air quality may result in an environmental impact under CEQA.

In this case, the potential secondary effects of searching for parking spaces that may result from the proposed project are too speculative to determine. First, an adequate supply of guest parking for those who can no longer park on Wilshire Boulevard in residential areas may be available on adjacent streets within a preferential parking district or in off-street parking lots of residential buildings. If such parking is available, air quality or traffic impacts associated with guest vehicles would be negligible. Even if such parking is not readily available when the proposed project is implemented, drivers would likely, in time, adjust their driving routes to find available

parking, and the amount of resulting air pollution or traffic congestion associated with vehicles searching for scarce parking spaces is likely to be short-term and minimal. Further, if parking is not available, guests may choose to take public transportation instead of private vehicles, thus reducing air quality or traffic impacts associated with these vehicles. Regardless, it is impossible to determine with reasonable certainty whether secondary physical effects, if any, may result from the proposed project. Therefore, the removal or restriction of parking spaces on Wilshire Boulevard would result in less than significant impacts.

Impact T4: Result in auto/bus transition conflicts at certain locations.

The proposed project would result in less-than-significant impacts related to automobile/bus transition conflicts.

Along the Wilshire Boulevard BRT route, Metro buses would transition into and out of mixed-flow travel lanes at certain locations, depending on downstream roadway capacity changes and jurisdictional boundaries.

Eastbound

The following summarizes the transitional locations along the project route in the eastbound direction under the proposed project conditions:

- Between the I-405 northbound off-ramps and Veteran Avenue, mixed-flow capacity would drop from four lanes to three lanes because the bus lane occupies the curb lane.
- At Comstock Avenue, the mixed-flow capacity would drop from three lanes of traffic west of Comstock Avenue to two lanes of traffic east of Comstock Avenue.
- At the western city limits of Beverly Hills (approximately 500 feet west of the Whittier Drive/Merv Griffin Way intersection), the bus lane transitions to a mixed-flow lane. Therefore, three eastbound through lanes would remain at the Whittier Drive/Merv Griffin Way intersection. The proposed project would not reduce capacity at this intersection, nor would the number of queued vehicles increase. However, the length of queues might increase because vehicles would be traveling in two lanes instead of three as they enter the City of Beverly Hills;
- East of San Vicente Boulevard (City of Beverly Hills boundary), a transition area of approximately 300 feet would be provided to allow through traffic to exit the bus lane.
- At Park View Street, the mixed-flow capacity would drop from two lanes of traffic west of Park View Street to one lane of traffic east of Park View Street.

In order to reduce or avoid these conflicts, the proposed project would include installation of appropriate signage along Wilshire Boulevard adjacent to each of the areas of potential conflict described above, in order to inform motorists of bus lane operation during peak hours.

Westbound

The following summarizes the transitional locations along the peak hour bus lane route in the westbound direction under the proposed project conditions:

- At Valencia Street, mixed-flow capacity would drop from two lanes to one lane because the bus lane occupies the curb lane.
- At the western City of Beverly Hills boundary, the mixed-flow capacity would drop from three lanes of traffic to two lanes of traffic because the bus lane occupies the curb lane.
- Between Federal Avenue and Barrington Avenue, the curb lane would be used as a bus lane as well as a right-turn-only lane along the entire segment.

In order to reduce or avoid these conflicts, the proposed project would include installation of appropriate signage along Wilshire Boulevard adjacent to each of the areas of potential conflict described above, in order to inform motorists of bus lane operation during peak hours.

For potential traffic conflicts in both eastbound and westbound directions along Wilshire Boulevard, the installation of appropriate signage, as described above, would ensure that the proposed project would result in less-than-significant impacts related to automobile/bus transition conflicts. No mitigation measures are required.

Impact T5: Result in inadequate emergency access.

A less-than-significant impact would occur related to inadequate emergency access.

Emergency vehicles would be permitted to use the bus lanes when they are in operation. Because these lanes would be free of most other vehicular traffic, emergency response time would likely improve during peak periods. During construction activities, alternative access routes would be utilized, and local emergency access would be retained at all times. Therefore, a less than significant impact would occur.

4.1.4 Mitigation Measures

At some of the intersections at which the proposed project would have a significant impact on traffic operations, the following mitigation measures would improve traffic operations and reduce the impacts to less-than-significant levels

T-1:

- Barrington Avenue/Wilshire Boulevard – The traffic signal at this intersection shall be modified to include a westbound “Protected plus Permitted” phase. By adding a “protected” left-turn phasing (a

left-turn arrow), traffic operations can be improved and delay reduced, and the project impact at this location would be eliminated.

- Veteran Avenue/Wilshire Boulevard – The eastbound and westbound bus lane from mid-block Veteran Avenue/Gayley Avenue to Sepulveda Boulevard shall be truncated. By eliminating the bus lane along this segment of the project corridor and allowing other through vehicles into the curb lane, the project impact at this location would be eliminated.
- Westwood Boulevard/Santa Monica Boulevard – The southbound approach shall be restriped to add a second left-turn lane, and the southbound left-turn signal phasing shall be modified to “Protected” phasing. By adding a “protected” left-turn phasing, traffic operations can be improved and delay reduced, and the project impact at this location would be eliminated.
- Beverly Glen Boulevard/Olympic Boulevard – The traffic signal shall be modified to include a northbound “Protected plus Permitted” phase. By adding a “Protected plus Permitted” left-turn phasing (a left-turn arrow [and left turners can also turn on green]) for heavy turning movements, traffic operations can be improved and delay reduced, and the project impact at this location would be eliminated.
- Sepulveda Boulevard/Pico Boulevard – The traffic signal shall be modified to include eastbound and southbound “Protected plus Permitted” phases. By adding a “Protected plus Permitted” left-turn phasing for heavy turning movements, traffic operations can be improved and delay reduced, and the project impact at this location would be eliminated.
- Highland Avenue/3rd Street – The traffic signal shall be modified to include a westbound “Protected plus Permitted” phase. By adding a “Protected plus Permitted” left-turn phasing for heavy turning movements, traffic operations can be improved and delay reduced, and the project impact at this location would be eliminated.
- Alvarado Street/6th Street – The traffic signal shall be modified to include eastbound and westbound “Protected plus Permitted” phases. By adding a “Protected plus Permitted” left-turn phasing for heavy turning movements, traffic operations can be improved and delay reduced, and the project impact at this location would be eliminated.
- Highland Avenue/Wilshire Boulevard – The traffic signal shall be modified to include a westbound “Protected plus Permitted” phase. By adding a “Protected plus Permitted” left-turn phasing for heavy turning movements, traffic operations can be improved and delay reduced, and the project impact at this location would be eliminated.
- Fairfax Avenue/Olympic Boulevard – The traffic signal phasing shall be modified to improve efficiency, and an Adaptive Traffic Control System (ATCS) shall be installed at eight intersections on Olympic Boulevard between Fairfax Avenue and La Brea Avenue. The ATCS is a personal computer-based program that provides a fully responsive

method to accommodate real-time (actual) traffic conditions. The expected benefit to traffic flow is a reduction in the volume-to-capacity (V/C) ratio of 0.03 at the eight upgraded intersections, which corresponds to a 7.5 second reduction in overall intersection delay.

- La Brea Avenue/Olympic Boulevard – The traffic signal shall be modified to include an eastbound “Protected plus Permitted” phase. By adding a “Protected plus Permitted” left-turn phasing for heavy turning movements, traffic operations can be improved and delay reduced, and the project impact at this location would be eliminated.
- Highland Avenue/Olympic Boulevard – The traffic signal shall be modified to include a westbound “Protected plus Permitted” phase. By adding a “Protected plus Permitted” left-turn phasing for heavy turning movements, traffic operations can be improved and delay reduced, and the project impact at this location would be eliminated.
- Crenshaw Boulevard/Olympic Boulevard – ATCS shall be installed at six intersections along Olympic Boulevard between La Brea Avenue and Crenshaw Boulevard. The expected benefit to traffic flow is a reduction in the volume-to-capacity (V/C) ratio of 0.03 at the six upgraded intersections, which corresponds to a 7.5 second reduction in overall intersection delay.

No feasible mitigation measures are available at the remaining nine intersections:

- Veteran Avenue/Sunset Boulevard;
- Bundy Drive/Wilshire Boulevard;
- Veteran Avenue/Santa Monica Boulevard;
- Westwood Boulevard/Olympic Boulevard;
- Westwood Boulevard/Pico Boulevard;
- Overland Avenue/Pico Boulevard;
- Fairfax Avenue/Wilshire Boulevard;
- La Brea Avenue/Wilshire Boulevard; and
- Overland Avenue/Santa Monica Boulevard.

4.1.5 Level of Significance after Mitigation

Table 4.1-9 presents the 2012 with project intersection operating conditions for the AM peak hour at the significantly impacted intersections after mitigation.

Table 4.1-9. Mitigated 2012 With Project AM Peak Hour Intersection LOS

Intersection	2012 Without Project		Mitigated 2012 With Proposed Project		Change in Delay	Threshold	Significant Impact?	Percent Mitigated
	Delay (sec)	LOS	Delay (sec)	LOS				
1. Veteran Ave/Sunset Blvd	92.3	F	117.2	F	24.9	2.5	Yes	0%
5. Bundy Dr/Wilshire Blvd	60.3	E	88.0	F	27.7	2.5	Yes	9%
6. Barrington Ave/Wilshire Blvd	38.1	D	38.4	D	0.3	4.0	No	100%
9. Veteran Ave/Wilshire Blvd	236.4	F	146.3	F	-90.1	2.5	No	100%
21. Veteran Ave/ Santa Monica Blvd	20.6	C	18.8	B	-1.8	6.0	No	100%
22. Westwood Blvd/Santa Monica Blvd	122.9	F	121.6	F	-1.3	2.5	No	100%
34. Beverly Glen Blvd/Olympic Blvd	67.2	E	65.7	E	-1.5	2.5	No	100%
37. Sepulveda Blvd/Pico Blvd	53.0	D	55.4	E	2.4	2.5	No	100%
39. Westwood Blvd/Pico Blvd	39.1	D	48.4	D	9.3	4.0	Yes	0%
40. Overland Ave/Pico Blvd	60.1	E	63.6	E	3.5	2.5	Yes	0%
43. Highland Ave/3 rd St	69.6	E	47.6	D	-22.0	4.0	No	100%
51. Alvarado St/6 th St	17.5	B	21.8	C	4.3	6.0	No	100%
53. Fairfax Ave/Wilshire Blvd	104.0	F	119.3	F	15.3	2.5	Yes	16%
54. La Brea Ave/Wilshire Blvd	37.5	D	43.9	D	6.4	4.0	Yes	51%
55. Highland Ave/Wilshire Blvd	44.2	D	43.4	D	-0.8	4.0	No	100%
67. Fairfax Ave/Olympic Blvd	37.0	D	40.5	D	3.5	4.0	No	100%
71. Crenshaw Blvd/ Olympic Blvd	68.5	E	67.8	E	-0.7	2.5	No	100%

Notes: HCM 2000 Operations Methodology
Delay = Average Vehicle Delay (Seconds), LOS = Level of Service

Source: Iteris, Wilshire Boulevard BRT Project-Traffic Impact Analysis, 2010.

Table 4.1-10 presents the 2012 with project intersection operating conditions for the PM peak hour at the significantly impacted intersections after mitigation.

As shown in Tables 4.1-9 and 4.1-10, impacts at 10 of the 18 significantly affected intersections would be reduced to less than significant with implementation of the mitigation measures for 2012 with project conditions.

Table 4.1-10. Mitigated 2012 With Project PM Peak Hour Intersection LOS

Intersection	2012 Without Project		Mitigated 2012 With Proposed Project		Change in Delay	Threshold	Significant Impact?	Percent Mitigated
	Delay (sec)	LOS	Delay (sec)	LOS				
5. Bundy Dr/Wilshire Blvd	77.2	E	106.6	F	29.4	2.5	Yes	9%
6. Barrington Ave/Wilshire Blvd	32.9	C	26.1	C	-6.8	6.0	No	100%
9. Veteran Ave/Wilshire Blvd	114.9	F	74.4	E	-40.5	2.5	No	100%
21. Veteran Ave/ Santa Monica Blvd	61.2	E	65.1	E	3.9	2.5	Yes	64%
22. Westwood Blvd/Santa Monica Blvd	90.7	F	89.8	F	-0.9	2.5	No	100%
23. Overland Av/Santa Monica Bl.	72.9	E	78.9	E	6.0	2.5	Yes	0%
34. Beverly Glen Blvd/Olympic Blvd	49.0	D	45.5	D	-3.5	4.0	No	100%
37. Sepulveda Blvd/Pico Blvd	65.6	E	56.8	E	-8.8	2.5	No	100%
39. Westwood Blvd/Pico Blvd	70.1	E	73.4	E	3.3	2.5	Yes	0%
43. Highland Ave/3 rd St	29.9	C	24.8	C	-5.1	6.0	No	100%
51. Alvarado St/6 th St	20.3	C	23.9	C	3.6	6.0	No	100%
53. Fairfax Ave/Wilshire Blvd	151.5	F	148.3	F	-3.2	2.5	No	100%
54. La Brea Ave/Wilshire Blvd	34.8	C	34.3	C	-0.5	4.0	No	100%
55. Highland Ave/Wilshire Blvd	38.6	D	32.2	C	-6.4	6.0	No	100%
67. Fairfax Ave/Olympic Blvd	60.9	E	54.2	E	-6.7	2.5	No	100%
71. Crenshaw Blvd/Olympic Blvd	51.8	D	44.6	D	-7.2	4.0	No	100%

Notes:
HCM 2000 Operations Methodology
Delay = Average Vehicle Delay (Seconds), LOS = Level of Service

Source: Iteris, Wilshire Boulevard BRT Project-Traffic Impact Analysis, 2010.

The following eight intersections are forecast to remain significantly affected under 2012 with project conditions because no feasible mitigation measure could be identified. However, with some proposed improvements, four of these eight intersections are partially mitigated:

- Veteran Avenue/Sunset Boulevard;
- Bundy Drive/Wilshire Boulevard (partially mitigated);
- Veteran Avenue/Santa Monica Boulevard (partially mitigated);
- Overland Avenue/Santa Monica Boulevard;
- Westwood Boulevard/Pico Boulevard;
- Overland Avenue/Pico Boulevard;
- Fairfax Avenue/Wilshire Boulevard (partially mitigated); and
- La Brea Avenue/Wilshire Boulevard (partially mitigated).

Table 4.1-11 presents the 2020 project intersection operating conditions for the AM peak hour at the significantly impacted intersections after mitigation. Table 4.1-12 presents the 2020 project intersection operating conditions for the PM peak hour at the significantly impacted intersections after mitigation.

Table 4.1-11. Mitigated 2020 With Project AM Peak Hour Intersection LOS

Intersection	2020 Without Project		Mitigated 2020 With Proposed Project		Change in Delay	Threshold	Significant Impact?	Percent Mitigated
	Delay (sec)	LOS	Delay (sec)	LOS				
1. Veteran Ave/Sunset Blvd	103.4	F	114.0	F	10.6	2.5	Yes	0%
5. Bundy Dr/Wilshire Blvd	103.4	F	114.0	F	10.6	2.5	Yes	0%
6. Barrington Ave/Wilshire Blvd	63.7	E	94.1	F	30.4	2.5	Yes	8%
9. Veteran Ave/Wilshire Blvd	38.1	D	41.4	D	3.3	4.0	No	100%
21. Veteran Ave/ Santa Monica Blvd	243.7	F	114.8	F	-128.9	2.5	No	100%
22. Westwood Blvd/Santa Monica Blvd	21.7	C	19.0	B	-2.7	6.0	No	100%
32. Westwood Blvd/Olympic Blvd	122.2	F	120.8	F	-1.4	2.5	No	100%
34. Beverly Glen Blvd/Olympic Blvd	41.3	D	49.6	D	8.3	4.0	Yes	37%
37. Sepulveda Blvd/Pico Blvd	69.0	E	69.9	E	0.9	2.5	No	100%
39. Westwood Blvd/Pico Blvd	54.4	D	55.6	E	1.2	2.5	No	100%
40. Overland Ave/Pico Blvd	39.6	D	45.6	D	6.0	4.0	Yes	0%
51. Alvarado St/6 th St	62.8	E	68.2	E	5.4	2.5	Yes	0%
53. Fairfax Ave/Wilshire Blvd	18.6	B	23.1	C	4.5	6.0	No	100%
54. La Brea Ave/Wilshire Blvd	111.2	F	125.6	F	14.4	2.5	Yes	17%
67. Fairfax Ave/Olympic Blvd	39.0	D	46.7	D	7.7	4.0	Yes	40%
69. La Brea Ave/Olympic Blvd	35.0	D	37.5	D	2.5	4.0	No	100%
70. Highland Ave/Olympic Blvd	53.7	D	43.4	D	-10.3	2.5	No	100%
71. Crenshaw Blvd/Olympic Blvd	50.7	D	33.2	C	-17.5	6.0	No	100%

Notes:
HCM 2000 Operations Methodology
Delay = Average Vehicle Delay (Seconds), LOS = Level of Service

Source: Iteris, Wilshire Boulevard BRT Project-Traffic Impact Analysis, 2010.

As shown in Tables 4.1-11 and 4.1-12, impacts at 10 of the 19 significantly affected intersections would be reduced to less than significant with implementation of the mitigation measures for 2020 with project conditions.

The following nine intersections are forecast to remain significantly affected under 2020 with project conditions because no feasible mitigation measure could be identified. However, with some proposed improvements, five of these intersections are partially mitigated:

- Veteran Avenue/Sunset Boulevard;
- Bundy Drive/Wilshire Boulevard (partially mitigated);
- Veteran Avenue/Santa Monica Boulevard (partially mitigated);
- Overland Avenue/Santa Monica Boulevard;
- Westwood Boulevard/Olympic Boulevard (partially mitigated);
- Westwood Boulevard/Pico Boulevard;
- Overland Avenue/Pico Boulevard;
- Fairfax Avenue/Wilshire Boulevard (partially mitigated); and
- La Brea Avenue/Wilshire Boulevard (partially mitigated).

Table 4.1-12. Mitigated 2020 With Project PM Peak Hour Intersection LOS

Intersection	2020 Without Project		Mitigated 2020 With Proposed Project		Change in Delay	Threshold	Significant Impact?	Percent Mitigated
	Delay (sec)	LOS	Delay (sec)	LOS				
5. Bundy Dr/Wilshire Blvd	80.4	F	110.6	F	30.2	2.5	Yes	8%
6. Barrington Ave/Wilshire Blvd	33.8	C	27.2	C	-6.6	6.0	No	100%
9. Veteran Ave/Wilshire Blvd	126.6	F	73.5	E	-53.1	2.5	No	100%
21. Veteran Ave/ Santa Monica Blvd	63.5	E	66.2	E	2.7	2.5	Yes	93%
22. Westwood Blvd/Santa Monica Blvd	91.3	F	53.8	D	-37.5	2.5	No	100%
23. Overland Av/Santa Monica Blvd	78.9	E	86.0	F	7.1	2.5	Yes	0%
32. Westwood Blvd/Olympic Blvd	47.2	D	47.5	D	0.3	4.0	No	100%
34. Beverly Glen Blvd/Olympic Blvd	54.7	D	48.5	D	-6.2	4.0	No	100%
37. Sepulveda Blvd/Pico Blvd	73.8	E	62.4	E	-11.4	2.5	No	100%
39. Westwood Blvd/Pico Blvd	77.3	E	80.6	F	3.3	2.5	Yes	0%
51. Alvarado St/6 th St	21.9	C	25.8	C	3.9	6.0	No	100%
53. Fairfax Ave/Wilshire Blvd	158.4	F	160.7	F	2.3	2.5	No	100%
54. La Brea Ave/Wilshire Blvd	40.7	D	38.7	D	-2.0	4.0	No	100%
67. Fairfax Ave/Olympic Blvd	67.4	E	64.2	E	-3.2	2.5	No	100%
69. La Brea Ave/Olympic Blvd	79.5	E	60.0	E	-19.5	2.5	No	100%
70. Highland Ave/Olympic Blvd	67.1	E	40.9	D	-26.2	4.0	No	100%
71. Crenshaw Blvd/Olympic Blvd	57.2	E	59.1	E	1.9	2.5	No	100%
Notes: HCM 2000 Operations Methodology Delay = Average Vehicle Delay (Seconds), LOS = Level of Service								

Source: Iteris, Wilshire Boulevard BRT Project-Traffic Impact Analysis, 2010.

This page left intentionally blank.

4.2 Air Quality

This section describes the environmental setting (existing conditions and regulatory setting) for air quality related to the proposed project, the impacts on air quality that may result from the proposed project, and mitigation measures that would be required to reduce these impacts.

4.2.1 Environmental Setting

This section provides a description of relevant air pollutants and provides a discussion of the existing regulatory and physical setting as they relate to air quality. This assessment includes a discussion of applicable significance criteria and analysis methodologies outlined in the following South Coast Air Quality Management District (SCAQMD) guidance documents:

- *CEQA Air Quality Handbook* (1993),
- *Localized Significance Threshold Methodology for CEQA Evaluations* (2003), and
- *Particulate Matter (PM) 2.5 Significance Thresholds and Calculation Methodology* (2006).

Based on these above-referenced guidance documents, this assessment evaluates the short-term construction-period and long-term operational period impacts on localized and regional air quality that would result with development of the proposed project.

Description of Relevant Air Pollutants

Criteria Air Pollutants

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. These regulated air pollutants are known as “criteria air pollutants” and are categorized as primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxides (NO_x), sulfur dioxide (SO₂), and most fine particulate matter (PM₁₀, PM_{2.5}), including lead (Pb) and fugitive dust, are primary air pollutants. Of these, CO, SO₂, PM₁₀, and PM_{2.5} are criteria pollutants. ROG and NO_x are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O₃) and nitrogen dioxide (NO₂) are the principal secondary pollutants. Presented below is a description of each of the primary and secondary criteria air pollutants and their known health effects.

Carbon Monoxide (CO) is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel.

The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation.³

Reactive Organic Gases (ROG) are compounds made up primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Other sources of ROG are emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by ROG but rather by reactions of ROG to form secondary pollutants such as ozone.⁴

Nitrogen Oxides (NO_x) serve as integral participants in the process of photochemical smog production. The two major forms of NO_x are nitric oxide (NO) and nitrogen dioxide (NO₂). NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO₂ is a reddish-brown irritating gas formed by the combination of NO and oxygen. NO_x acts as an acute respiratory irritant and increases susceptibility to respiratory pathogens.

Nitrogen Dioxide (NO₂) is a by-product of fuel combustion. The principal form of NO₂ produced by combustion is NO, but NO reacts with oxygen to form NO₂, creating the mixture of NO and NO₂ commonly called NO_x. NO₂ acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NO₂ is only potentially irritating. There is some indication of a relationship between NO₂ and chronic pulmonary fibrosis. Some increase in bronchitis in children (two and three years old) has also been observed at concentrations below 0.3 parts per million (ppm). NO₂ absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO₂ also contributes to the formation of PM₁₀. NO_x are also precursors to the formation of both O₃ and PM_{2.5}.^{5,6}

Sulfur Dioxide (SO₂) is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. Fuel combustion is the primary source of SO₂. At high concentrations SO₂ may irritate the upper respiratory tract. At lower concentrations and when combined with particulates, SO₂ may do greater harm by injuring lung tissue. A primary source of SO₂ emissions is high sulfur content coal. Gasoline and natural gas have very low sulfur content and hence do not release significant quantities of SO₂.⁷

Particulate Matter (PM) consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized. Inhalable course particles, or PM₁₀, include the particulate

³ South Coast Air Quality Management District. 2005. *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*.

⁴ *Ibid.*

⁵ *Ibid.*; South Coast Air Quality Management District. 2007 *Air Quality Management Plan*.

⁶ South Coast Air Quality Management District, *Guidance Document for Addressing Air Quality Issues*.

⁷ *Ibid.*

matter with a diameter of 10 microns (10 millionths of a meter or 0.0004 inch) or less. Inhalable fine particles, or PM_{2.5}, have a diameter of 2.5 microns (i.e., 2.5 millionths of a meter or 0.0001 inch) or less. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind on arid landscapes also contributes substantially to local particulate loading. Both PM₁₀ and PM_{2.5} may adversely affect the human respiratory system, especially in those people who are naturally sensitive or susceptible to breathing problems.⁸

Fugitive dust primarily poses two public health and safety concerns. The first concern is that of respiratory problems attributable to the particulates suspended in the air. The second concern is that of motor vehicle accidents caused by reduced visibility during severe wind conditions. Fugitive dust may also cause significant property damage during strong windstorms by acting as an abrasive material agent (much like sandblasting).⁹

Ozone (O₃), or smog, is one of a number of substances called photochemical oxidants that are formed when ROG and NO_x (both by-products of the internal combustion engine) react with sunlight. O₃ is present in relatively high concentrations in the South Coast Air Basin (Basin or SCAB), and the damaging effects of photochemical smog are generally related to the concentrations of O₃. O₃ poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Additionally, O₃ has been tied to crop damage, typically in the form of stunted growth and premature death. O₃ can also act as a corrosive, resulting in property damage such as the degradation of rubber products.¹⁰

Toxic Air Contaminants

With respect to criteria pollutants, federal and State ambient air quality standards (AAQS) represent the exposure level (with an adequate margin of safety) deemed safe for humans. No AAQS exist for toxic air contaminants (TACs), because there is no exposure level deemed safe for humans. Pollutants are identified as TACs because of their potential to increase the risk of developing cancer or because of their acute or chronic health risks. For TACs that are known or suspected carcinogens, the California Air Resources Board (ARB) has consistently found that there are no levels or thresholds below which exposure is risk-free. Individual TACs vary greatly in the risk they present. At a given level of exposure, one TAC may pose a hazard that is many times greater than another. For certain TACs, a unit risk factor can be developed to evaluate cancer risk. For acute and chronic health risks, a similar factor, called a Hazard Index, is used to evaluate risk. In the early 1980s, ARB established a statewide comprehensive air toxics program to reduce exposure to air toxics. The Toxic Air Contaminant Identification and Control Act (AB 1807, ARB 1999) created California's program to reduce exposure to air toxics. The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, ARB 1999) supplements the AB 1807 program by

⁸ *Ibid.*

⁹ *Ibid.*

¹⁰ *Ibid.*

requiring a statewide air toxics inventory, notification of people exposed to a significant health risk, and facility plans to reduce these risks.

In August 1998, ARB identified particulate emissions from diesel-fueled engines as TACs. In September 2000, ARB approved a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel-fueled engines and vehicles. The goal of the plan is to reduce diesel PM₁₀ emissions and the associated health risk by 75% in 2010 and by 85% by 2020.

Greenhouse Gases

Greenhouse gases (GHG) include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated gases. Presented below is a description of each GHG and their known sources.

Carbon Dioxide (CO₂) enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, respiration, and also as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is also removed from the atmosphere (or “sequestered”) when it is absorbed by plants as part of the biological carbon cycle.

Methane (CH₄) is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.¹¹

Nitrous Oxide (N₂O) is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.¹²

Fluorinated Gases are synthetic, strong greenhouse gases that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances. These gases are typically emitted in smaller quantities, but because they are potent greenhouse gases, they are sometimes referred to as High Global Warming Potential gases.¹³

- *Chlorofluorocarbons (CFCs)* are greenhouse gases covered under the 1987 Montreal Protocol and used for refrigeration, air conditioning, packaging, insulation, solvents, or aerosol propellants. Since they are not destroyed in the lower atmosphere (troposphere, stratosphere), CFCs drift into the upper atmosphere where, given suitable conditions, they break down ozone. These gases are being replaced by other compounds that are greenhouse gases covered under the Kyoto Protocol.
- *Perfluorocarbons (PFCs)* are a group of human-made chemicals composed of carbon and fluorine only. These chemicals (predominantly perfluoromethane [CF₄] and perfluoroethane [C₂F₆]) were introduced as

¹¹ *Ibid.*

¹² *Ibid.*

¹³ *Ibid.*

alternatives, along with HFCs, to the ozone-depleting substances. In addition, PFCs are emitted as by-products of industrial processes and are also used in manufacturing. PFCs do not harm the stratospheric ozone layer, but they are strong greenhouse gases.

- *Sulfur Hexafluoride (SF₆)* is a colorless gas soluble in alcohol and ether, slightly soluble in water. SF₆ is a strong greenhouse gas used primarily in electrical transmission and distribution systems as a dielectric.¹⁴
- *Hydrochlorofluorocarbons (HCFCs)* contain hydrogen, fluorine, chlorine, and carbon atoms. Although ozone-depleting substances, they are less potent than CFCs. They have been introduced as temporary replacements for CFCs and are also greenhouse gases.
- *Hydrofluorocarbons (HFCs)* contain only hydrogen, fluorine, and carbon atoms. They were introduced as alternatives to ozone-depleting substances in serving many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are also used in manufacturing. They do not significantly deplete the stratospheric ozone layer, but they are strong greenhouse gases.

4.2.2 Regulatory Setting

A number of statutes, regulations, plans, and policies have been adopted that address air quality issues. The project site and vicinity are subject to air quality regulations developed and implemented at the federal, State, and local levels. At the federal level, the USEPA is responsible for implementation of the federal Clean Air Act (CAA). Some portions of the CAA (e.g., certain mobile-source and other requirements) are implemented directly by the USEPA. Other portions of the CAA (e.g., stationary-source requirements) are implemented by state and local agencies.

Federal Clean Air Act

The CAA was first enacted in 1955 and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes federal air quality standards, known as National Ambient Air Quality Standards (NAAQS), and specifies future dates for achieving compliance. The CAA also mandates that the state submit and implement a State Implementation Plan (SIP) for local areas not meeting those standards. The plans must include pollution control measures that demonstrate how the standards will be met. The City of Los Angeles is within the Basin and, as such, is in an area designated a nonattainment area for certain pollutants that are regulated under the CAA.

The 1990 amendments to the CAA identify specific emission-reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or meet interim

¹⁴ An electrical insulator that is highly resistant to the flow of an electric current.

milestones. The sections of the CAA that would most substantially affect the development of the proposed project include Title I (Nonattainment Provisions) and Title II (Mobile-Source Provisions).

Title I provisions were established with the goal of attaining the NAAQS for criteria pollutants. Table 4.2-1 shows the NAAQS currently in effect for each criteria pollutant. The NAAQS were amended in July 1997 to include an 8-hour standard for ozone (O₃) and adopt a NAAQS for fine particulate matter (PM_{2.5}). The Basin fails to meet national standards for O₃, inhalable particulate matter (PM₁₀, and PM_{2.5} and therefore is considered a federal nonattainment area for those pollutants. Table 4.2-2 lists each criteria pollutant and their related attainment status.

Federal Climate Change Policy

Twelve U.S. states and cities (including California), in conjunction with several environmental organizations, sued to force the USEPA to regulate GHGs as a pollutant pursuant to the federal Clean Air Act (CAA) (*Massachusetts vs. Environmental Protection Agency et al.* [U.S. Supreme Court No. 05–1120; argued November 29, 2006; decided April 2, 2007]). The court ruled that the plaintiffs had standing to sue, that GHGs fit within the CAA's definition of a pollutant, and that the USEPA's reasons for not regulating GHGs were insufficiently grounded in the CAA. This prompted the Administrator of the USEPA to sign a proposal April 24, 2009. The proposal contained two distinct findings regarding greenhouse gases under section 202(a) of the CAA.

The Administrator is proposing to find that the current and projected concentrations of the mix of six key greenhouse gases (carbon dioxide [CO₂], methane [CH₄], nitrous oxide [N₂O], hydrofluorocarbons [HFCs], perfluorocarbons [PFCs], and sulfur hexafluoride [SF₆]) in the atmosphere threaten the public health and welfare of current and future generations. This is referred to as the Endangerment Finding.

The Administrator is further proposing to find that the combined emissions of CO₂, CH₄, N₂O, and HFCs from new motor vehicles and motor vehicle engines contribute to the atmospheric concentrations of these key greenhouse gases and hence to the threat of climate change. This is referred to as the Cause or Contribute Finding.

California Clean Air Act

The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the State to achieve and maintain the California Ambient Air Quality Standards (CAAQS) by the earliest practical date. The CAAQS incorporate additional standards for most of the criteria pollutants and set standards for

Table 4.2-1. Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	CAAQS ^a	NAAQS ^b
Ozone (O ₃)	1 hour	0.09 ppm ^c	--
	8 hour	0.070 ppm	0.075 ppm
Carbon Monoxide (CO)	1 hour	20.0 ppm	35.0 ppm
	8 hour	9.0 ppm	9 ppm
Nitrogen Dioxide (NO ₂)	1 hour	0.18 ppm	0.100 ppm
	Annual	0.030 ppm	0.053 ppm
Sulfur Dioxide (SO ₂)	1 hour	0.25 ppm	--
	3 hour	--	0.5 ppm
	24 hour	0.04 ppm	0.14 ppm
	Annual	--	0.030 ppm
Respirable Particulate Matter (PM ₁₀)	24 hour	50 µg/m ^{3c}	150 µg/m ³
	Annual	20 µg/m ³	--
Fine Particulate Matter (PM _{2.5})	24 hour	--	35 µg/m ³
	Annual	12 µg/m ³	15.0 µg/m ³
Sulfates	24 hour	25 µg/m ³	--
Lead (Pb)	30 day	1.5 µg/m ³	--
	Calendar quarter	--	1.5 µg/m ³
	Rolling 3-month Average	--	0.15 µg/m ³
Hydrogen Sulfide	1 hour	0.03 ppm	--
Vinyl Chloride	24 hour	0.01 ppm	--
<p>Notes:</p> <p>^aThe CAAQS for O₃, CO, SO₂ (1-hour and 24-hour), NO₂, PM₁₀, and PM_{2.5} are values not to be exceeded. All other California standards shown are values not to be equaled or exceeded.</p> <p>^bThe NAAQS, other than O₃ and those based on annual averages, are not to be exceeded more than once a year. The O₃ standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than one.</p> <p>^cppm = parts per million by volume; µg/m³ = micrograms per cubic meter</p>			

Source: California Air Resources Board, February 16, 2010.

other pollutants recognized by the State. In general, the California standards are more health protective than the corresponding NAAQS. California has also set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. The Basin is in compliance with these California standards for sulfates, hydrogen sulfide, visibility-reducing particles, and vinyl chloride. Table 4.2-1 details the current NAAQS and CAAQS, while Table 4.2-2 provides the Basin's attainment status with respect to federal and State standards.

Table 4.2-2. Federal and State Attainment Status for South Coast Air Basin

Pollutants	Federal Classification	State Classification
O ₃ (1-hour standard)	--	Nonattainment
O ₃ (8-hour standard)	Nonattainment, Severe-17	--
PM ₁₀	Serious Nonattainment	Nonattainment
PM _{2.5}	Nonattainment	Nonattainment
CO	Attainment/Maintenance	Attainment
NO ₂	Unclassified/Attainment	Attainment
SO ₂	Attainment	Attainment

Source: California Air Resources Board, compiled by ICF International, January 2010.

California Climate Change Policy

California’s major initiatives for reducing climate change or greenhouse gas (GHG) emissions are outlined in the 2006 legislation Assembly Bill 32 (AB 32), 2005 Executive Order S-3-05, and a 2004 ARB regulation to reduce passenger car GHG emissions (AB 1493). These efforts aim at reducing GHG emissions to 1990 levels by 2020 - a reduction of about 25 percent, and then an 80 percent reduction below 1990 levels by 2050.

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of this executive order is to reduce California’s GHG emissions to (1) 2000 levels by 2010, (2) 1990 levels by the 2020, and (3) 80percent below the 1990 levels by the year 2050. In 2006, this goal was further reinforced with the passage of AB 32, the Global Warming Solutions Act of 2006. AB 32 sets the same overall GHG emissions reduction goals while further mandating that ARB create a plan, which includes market mechanisms, and implement rules to achieve “real, quantifiable, cost-effective reductions of greenhouse gases.”

In response to the State’s efforts to reduce GHG emissions, the Secretary of the California Environmental Protection Agency (Cal/EPA) created the Climate Action Team (CAT), which, in March 2006, published the first Climate Action Team Report to Governor Schwarzenegger and the Legislature (the “2006 CAT Report”). The 2006 CAT Report identifies a recommended list of strategies that the State could pursue to reduce climate change greenhouse gas emissions. These are strategies that could be implemented by various State agencies to ensure that the Governor’s targets are met and can be met with existing authority of the State agencies. Executive Order S-20-06 further directs state agencies to begin implementing AB 32, including the recommendations made by the state’s Climate Action Team.

In consultation with ARB and California Public Utilities Commission (CPUC), the California Energy Commission (CEC) is currently establishing a GHG emission performance standard for local, public-owned electric utilities (pursuant to Senate Bill [SB] 1368). This standard will limit the rate of GHG

emissions to a level that is no higher than the rate of emissions of GHGs for combined-cycle natural gas baseload generation.

In October 2007, Governor Schwarzenegger signed SB 97, which requires the Governor's Office of Planning and Research (OPR) to prepare CEQA guidelines for the mitigation of GHG emissions. OPR prepared these guidelines and transmitted them to the Natural Resources Agency on April 13, 2009. On July 3, 2009, the Natural Resources Agency commenced the Administrative Procedure Act rulemaking process for certifying and adopting these amendments pursuant to Public Resources Code section 21083.05. Having reviewed and considered all comments received, the Natural Resources Agency has revised the text of the proposed amendments. From October 23, 2009 to November 10, 2009, the Natural Resources Agency held a public comment period on the proposed revisions to the CEQA Guidelines amendments. The Natural Resources Agency is currently reviewing and considering all comments received during the comment period relating to the proposed revisions. OPR and the Natural Resources Agency are required to periodically review the guidelines to incorporate new information or criteria adopted by the ARB pursuant to AB 32.

South Coast Air Quality Management District

The SCAQMD has jurisdiction over an area of approximately 10,743 square miles. This area includes all of Orange County, all of Los Angeles County except for the Antelope Valley, the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County. The SCAB is a subregion of the SCAQMD jurisdiction. While air quality in this area has improved, the SCAB requires continued diligence to meet air quality standards.

SCAQMD has adopted a series of AQMPs to meet the CAAQS and NAAQS. These plans require, among other emissions-reducing activities, control technology for existing sources; control programs for area sources and indirect sources; a SCAQMD permitting system designed to allow no net increase in emissions from any new or modified (i.e., previously permitted) emission sources; and transportation control measures.

The SCAQMD adopted a comprehensive AQMP update, the 2007 Air Quality Management Plan for the SCAB on June 1, 2007 (South Coast Air Quality Management District 2007). The 2007 AQMP addresses several federal planning requirements and incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. The 2007 AQMP builds upon the approaches taken in the 2003 AQMP for the SCAB for the attainment of the federal air quality standards. Additionally, the air plan highlights the significant amount of reductions necessary and the urgent need to identify additional strategies, especially in the area of mobile sources, to meet federal criteria pollutant standards within the timeframes allowed under the federal CAA. After the 2007 AQMP is approved by the ARB, it will be sent to the USEPA for its final approval. Until the USEPA approves the 2007 AQMP, the 2003 AQMP remains in effect.

SCAQMD adopts rules and regulations to implement portions of the AQMP. Several of these rules may apply to construction or operation of the proposed project. For example, SCAQMD Rule 403 requires implementing the best available fugitive dust control measures during active operations capable of generating fugitive dust emissions from on-site earth-moving activities, construction/demolition activities, and construction equipment travel on paved and unpaved roads. SCAQMD has published a handbook (CEQA Air Quality Handbook 1993) to help local governments analyze and mitigate project-specific air quality impacts. This handbook provides standards, methodologies, and procedures for conducting air quality analyses in environmental impact reports and was used extensively in the preparation of this report. In addition, SCAQMD has published two additional documents (Localized Significance Threshold Methodology for CEQA Evaluations in 2003, and Particulate Matter (PM) 2.5 Significance Thresholds and Calculation Methodology in 2006) that provide guidance in evaluating localized effects from mass emissions during construction. Both were used in the preparation of this report.

Regional Comprehensive Plan and Guide

The Southern California Association of Governments (SCAG) is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties. It addresses regional issues relating to transportation, economy, community development, and environment. SCAG is the federally designated metropolitan planning organization (MPO) for the majority of the southern California region and is the largest MPO in the nation. With respect to air quality planning, SCAG has prepared the Regional Comprehensive Plan and Guide (RCPG) for the SCAG region, which includes Growth Management and Regional Mobility chapters, which form the basis for the land use and transportation components of the AQMP. These chapters are utilized in the preparation of air quality forecasts and the consistency analysis that is included in the AQMP.

Existing Conditions

State Greenhouse Gas Emissions

California is the second largest emitter of GHG in the United States (Texas is the largest GHG emitter) and the sixteenth largest GHG emitter in the world.¹⁵ However, because of more stringent air pollutant emission regulations and mild climate, in 2001 California ranked fourth lowest in carbon emissions per capita and fifth lowest among states in CO₂ emissions from fossil fuel consumption per unit of Gross State Product (total economic

¹⁵ California Energy Commission. 2006b. *Our Changing Climate, Assessing the Risks to California, 2006 Biennial Report*. California Climate Change Center, California Energy Commission Staff Paper, Report CEC-500-2006-077. Sacramento, CA.

output of goods and services). In 2004, California produced 492 MMT-CO₂e¹⁶ GHG emissions, of which 81 percent are CO₂ from the combustion of fossil fuels, 2.8 percent were from other sources of CO₂, 5.7 percent were from methane, and 6.8 percent were from N₂O.¹⁷ The remaining 2.9 percent of GHG emissions were from High Global Warming Potential (GWP) gases.¹⁸

CO₂ emissions from human activities represent 84 percent of the total GHG emissions. California's transportation sector is the single largest generator of GHG emissions, producing 40.7 percent of the state's total emissions. Electricity generation for in-state consumption is the second largest source, with 22.2 percent. While out-of-state electricity generation comprises one-fifth to one-third of California's total electricity supply, it contributes 39 to 57 percent of the GHG emissions associated with electricity consumption in the state. Industrial activities are California's third largest source of GHG emissions, producing 20.5 percent of state's total emissions. Other major sources of GHG emissions include mineral production, waste combustion and land use, and forestry changes. Agriculture, forestry, commercial, and residential activities comprise the balance of California's greenhouse gas emissions.¹⁹

Climate change could impact the natural environment in California in the following ways, among others:

- rising sea levels along the California coastline, particularly in San Francisco and the San Joaquin Delta due to ocean expansion;
- extreme-heat conditions, such as heat waves and very high temperatures, which could last longer and become more frequent;
- an increase in heat-related human deaths, infectious diseases, and a higher risk of respiratory problems caused by deteriorating air quality;
- reduced snow pack and stream flow in the Sierra Nevada mountains, affecting winter recreation and water supplies;
- potential increase in the severity of winter storms, affecting peak stream flows and flooding;

¹⁶ Greenhouse gas emissions other than carbon dioxide are commonly converted into carbon dioxide equivalents, which take into account the differing global warming potential (310) of different gases. For example, the Intergovernmental Panel on Climate Change (IPCC) finds that nitrous oxide has a global warming potential (GWP) of 310 and methane has a GWP of 21. Thus, emission of one ton of nitrous oxide and one ton of methane is represented as the emission of 310 tons of CO₂e and 21 tons of CO₂e, respectively. This allows for the summation of different greenhouse gas emissions into a single total.

¹⁷ CO₂ equivalence is used to show the relative potential that different GHG have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, the global warming potential of a GHG, is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere.

¹⁸ California Energy Commission. 2006a. *Inventory of California Greenhouse Gas Emissions and Sinks 1990 to 2004*. California Energy Commission Staff Paper, Report CEC-600-2006-013. Sacramento, CA.

¹⁹ *Ibid.*

- changes in growing season conditions that could affect California agriculture, causing variations in crop quality and yield; and
- changes in distribution of plant and wildlife species due to changes in temperature, competition from colonizing species, changes in hydrologic cycles, changes in sea levels, and other climate-related effects.

These changes in California's climate and ecosystems are occurring at a time when California's population is expected to increase from 34 million to 59 million by the year 2040.

As such, the number of people potentially affected by climate change, as well as the amount of anthropogenic GHG emissions expected under a "business as usual" scenario, is expected to increase. Similar changes as those noted above for California would also occur in other parts of the world with regional variations in resources affected and vulnerability to adverse effects. GHG emissions in California are attributable to human activities associated with industrial/manufacturing, utilities, transportation, residential, and agricultural sectors as well as natural processes.

Regional Context

The project site is located within the SCAB, an approximately 6,745-square-mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The SCAB includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Geronio Pass area in Riverside County. The terrain and geographical location determine the distinctive climate of the SCAB, which is a coastal plain with connecting broad valleys and low hills.

The southern California region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The extent and severity of the air pollution problem in the SCAB is a function of the area's natural physical characteristics (weather and topography) and human influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and dispersion of pollutants throughout the SCAB, making it an area of high pollution potential.

The greatest air pollution impacts throughout the SCAB occur from June through September. These are attributed to the large amount of pollutant emissions, light winds, and shallow vertical atmospheric mixing, which frequently reduce pollutant dispersion, thus causing elevated air pollution levels. Pollutant concentrations in the SCAB vary with location, season, and time of day. O₃ concentrations, for example, tend to be lower along the coast, higher in the near inland valleys, and lower in the far inland areas of the SCAB and adjacent desert. Over the past 30 years, substantial progress has been made in reducing air pollution levels in southern California.

The SCAQMD has recently completed the Multiple Air Toxics Exposure Study III (MATES III), which was an ambient air monitoring and evaluation study conducted in the Basin. MATES III was a follow on to previous air toxics studies in the Basin and is part of the SCAQMD Governing Board Environmental Justice Initiative.

Compared to previous studies of air toxics in the Basin, MATES III found a decreasing risk for air toxics exposure, with the population weighted risk down by 17% from the analysis in MATES II. While there has been improvement in air quality regarding air toxics, the risks are still unacceptable and are higher near sources of emissions such as ports and transportation corridors. Diesel particulate continues to dominate the risk from air toxics, and the portion of air toxic risk attributable to diesel exhaust is increased compared to the MATES II Study. The highest risks are found near the port area, an area near central Los Angeles, and near transportation corridors. The results from the MATES III study underscore that a continued focus on reduction of toxic emissions, particularly from diesel engines, is needed to reduce air toxics exposure.

The MATES III study concluded that the average carcinogenic risk throughout the Basin, attributed to toxic air contaminants, is approximately 1,194 in one million. Mobile sources (e.g., cars, trucks, trains, ships, aircraft, etc.) represent the greatest contributors. About 83.6% of all risk is attributed to DPM emissions.

Local Area Conditions

Local Climate

Data from the Western Regional Climate Center's Los Angeles Civic Center climate monitoring station was used to characterize the eastern project vicinity climate conditions because it is nearest to the eastern end of the project site. The average project area summer (August) high and low temperatures are 83.2 degrees Fahrenheit (°F) and 64.0°F, respectively, while the average winter (January) high and low temperatures are 66.4°F and 48.4°F, respectively. The average annual rainfall is 14.91 inches.²⁰

Data from the Western Regional Climate Center's University of California – Los Angeles climate monitoring station was used to characterize the western project vicinity climate conditions because it is nearest to the western end of the project site. The average project area summer (August) high and low temperatures are 77.8 degrees Fahrenheit (°F) and 61.9°F, respectively, while the average winter (January) high and low temperatures are 65.7°F and 49.9°F, respectively. The average annual rainfall is 17.64 inches.²¹

The wind monitoring station located nearest to the project site is in downtown Los Angeles; therefore, data from the downtown Los Angeles wind monitoring station was used to characterize study area wind conditions.

²⁰ Western Regional Climate Center. n.d. *Los Angeles Area, California Climate Summaries, Los Angeles Civic Center, California (045115)*. Available: <<http://www.wrcc.dri.edu/cgi-bin/cliREctM.pl?calacc>>. Accessed: December 1, 2008.

²¹ Western Regional Climate Center. n.d. *Los Angeles Area, California Climate Summaries, UCLA – Los Angeles, California (049152)*. Available: <<http://www.wrcc.dri.edu/cgi-bin/cliREctM.pl?caucla>>. Accessed: December 1, 2008.

Wind patterns in the project vicinity display a nearly unidirectional flow, primarily from the west-southwest, at an average speed of 4.94 miles per hour. Calm wind conditions are present 8% of the time.²²

Existing Pollutant Levels at Nearby Monitoring Station

The SCAQMD has divided the Basin into air monitoring areas and maintains a network of air quality monitoring stations located throughout the Basin. The project site's eastern half is located in the Central Los Angeles County Monitoring Area (i.e., Source Receptor Area [SRA] Number 1), while the western half is located in the Northwest Los Angeles County Coastal Monitoring Area (SRA 2). The nearest monitoring stations to the project site are the Los Angeles – North Main Street station to the east and the West Los Angeles VA Hospital station to the west. The North Main Street station monitors O₃, PM₁₀, and PM_{2.5}, while the VA Hospital station monitors only O₃.

Monitoring data, shown in Table 4.2-3, show the following pollutant trends: both State 1-hour and 8-hour O₃ standards were exceeded an average of four times each year at both stations. Particulate (PM₁₀ and PM_{2.5}) concentrations are largely affected by meteorology and show some variability during the 3-year reporting period. The State 24-hour PM₁₀ standard was exceeded three times in 2006, five times in 2007, and twice in 2008, while the national standard was not exceeded during the 3-year reporting period. The national PM_{2.5} standard was exceeded 11 times in 2006, 20 times in 2007, and 10 times in 2008.

Existing Health Risk in the Surrounding Area

According to the most current SCAQMD inhalation cancer risk data (MATES III Carcinogenic Interactive Map), the project area is located within a cancer risk zone of approximately 800 to 1,100 in one million.²³ This is largely due to the project area's proximity to the Interstate 10 freeway that is located just south of the project site. For comparison, the average cancer risk in the Basin is 1,194 per million.

Sensitive Receptors and Locations

Some population groups, such as children, the elderly, and acutely and chronically ill persons, especially those with cardio-respiratory diseases, are considered more sensitive to air pollution than others. Sensitive receptors within the project vicinity include multi-family residential land uses and schools located along the route.

Proposed construction activity would occur within 25 meters of these sensitive land uses. As such, the evaluation of localized impacts during construction activity will focus on these land uses.

²² South Coast Air Quality Management District. n.d. Agency web site. Available: <<ftp://ftp.aqmd/pub/metdatadla.exe>>. Accessed: December 1, 2008.

²³ South Coast Air Quality Management District. n.d. *MATES III Carcinogenic Risk Interactive Map*. Available: <<http://www2.aqmd.gov/webappl/matesiii/>>. Accessed: July 25, 2008.

Table 4.2-3. Air Quality Data from Los Angeles – North Main Street Station (ARB 70087) and West Los Angeles - VA Hospital Station (ARB 70091)

Pollutant Standards	2006	2007	2008
Ozone (O₃)			
<i>State standard (1-hour average = 0.09 ppm)</i>			
<i>National standard (8-hour average = 0.075 ppm)</i>			
Maximum concentration 1-hour period (ppm)	0.108/0.099	0.115/0.117	0.109/0.111
Maximum concentration 8-hour period (ppm)	0.079/0.074	0.102/0.088	0.090/0.097
Days state 1-hour standard exceeded	8/3	3/2	3/3
Days state 8-hour standard exceeded	7/2	6/2	6/2
Suspended Particulates (PM₁₀)			
<i>State standard (24-hour average = 50 µg/m³)</i>			
<i>National standard (24-hour average = 150 µg/m³)</i>			
Maximum state 24-hour concentration	58.0/NA	77.0/NA	64.0/NA
Maximum national 24-hour concentration	59.0/NA	78.0/NA	66.0/NA
Days exceeding state standard	3/NA	5/NA	2/NA
Days exceeding national standard	0/NA	0/NA	0/NA
Suspended Particulates (PM_{2.5})			
<i>National standard (24-hour average = 35 µg/m³)</i>			
Maximum 24-hour concentration	56.2/NA	64.1/NA	78.3/NA
Days exceeding national standard ^a	11/NA	20/NA	10/NA
Notes:			
^a Number of exceedances based on NAAQS applicable during period shown (65 µg/m ³). Standard was changed to 35 µg/m ³ in November 2006, to be applied to 2007.			
Numbers for both stations are given where applicable with the North Main Street Station values first. Ex; (North Main / VA Hospital).			

Source: California Air Resources Board, compiled by ICF International, May 2008.

4.2.3 Thresholds of Significance

Based on Appendix G of the State CEQA Guidelines, the proposed project would have a potentially significant effect on air quality if it would:

- conflict with or obstruct implementation of the applicable air quality management plan,
- violate any air quality standard or contribute substantially to an existing or projected air quality violation,
- result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors),
- expose sensitive receptors to substantial pollutant concentrations,

- create objectionable odors affecting a substantial number of people,
- generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, or
- conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The CEQA Guidelines also state that the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the determinations above.

Based on the SCAQMD's regulatory role in the Basin, the significance thresholds and analysis methodologies outlined in the SCAQMD *CEQA Air Quality Handbook* (as updated per their website), *Final Localized Significance Threshold Methodology* and *Final—Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds* guidance documents were used in evaluating project impacts.

Construction Emissions

According to criteria set forth in the SCAQMD *CEQA Air Quality Handbook*, *Localized Significance Threshold Methodology for CEQA Evaluations*, and *Particulate Matter (PM) 2.5 Significance Thresholds and Calculation Methodology* guidance documents, the project would have a significant impact on construction emissions if any of the following were to occur.

- Regional emissions from both direct and indirect sources exceed any of the following SCAQMD prescribed threshold levels: (1) 75 pounds a day for reactive organic gases (ROG), (2) 100 pounds per day for NO_x, (3) 550 pounds per day for CO, (4) 150 pounds per day for PM₁₀ or SO_x, and (5) 55 pounds per day for PM_{2.5}.
- Localized emissions from on-site construction equipment and site disturbance activity exceed any of the following SCAQMD-prescribed threshold levels: (1) 74 pounds per day for NO_x, (2) 562 pounds per day for CO, (3) 4 pounds per day for PM₁₀, and (4) 2 pounds per day for PM_{2.5}.²⁴

Operational Emissions

According to criteria set forth in the SCAQMD *CEQA Air Quality Handbook*, the project would have a significant impact with regard to operational emissions if:

- regional emissions from both direct and indirect sources would exceed any of the following SCAQMD prescribed threshold levels: (1) 55 pounds a day for ROG, (2) 55 pounds per day for NO_x, (3) 550 pounds per day for

²⁴ Derived from SCAQMD Localized Significance Threshold Tables—SRA 1 (Central Los Angeles County) and SRA 2 (Northwest Los Angeles County Coastal), 1-acre site, 25-meter receptor distance.

CO, (4) 150 pounds per day for PM₁₀ or SO_x, and (5) 55 pounds per day for PM_{2.5} (South Coast Air Quality Management District 1993 and 2006).

- localized emissions from on-site sources exceed any of the following SCAQMD prescribed threshold levels: (1) 74 pounds per day for NO_x, (2) 562 pounds per day for CO, (3) 1 pounds per day for PM₁₀, and (4) 1 pounds per day for PM_{2.5}.²⁵
- the project would cause an exceedance of the California 1-hour or 8-hour CO standards of 20 or 9 ppm, respectively, at an intersection or roadway within 0.25 mile of a sensitive receptor.²⁶

Toxic Air Contaminants

According to guidelines provided in the SCAQMD *CEQA Air Quality Handbook*, the project would have a significant impact from TACs if:

- on-site stationary sources emit carcinogenic or TACs that individually or cumulatively exceed the maximum individual cancer risk of ten in one million (1.0×10^{-5}) or an acute or chronic hazard index of 1.0 (South Coast Air Quality Management District 1998);²⁷
- hazardous materials associated with on-site stationary sources result in an accidental release of air toxic emissions or acutely hazardous materials, posing a threat to public health and safety; or
- the project would be occupied primarily by sensitive individuals within 0.25 mile of any existing facility that emits TACs, which could result in a health risk from pollutants identified in District Rule 1401 (South Coast Air Quality Management District 1993).

Climate Change/Greenhouse Gas Emissions

No federal, State, or regional air quality agency has adopted a methodology or quantitative threshold that can be applied to evaluate the significance of an individual project's contribution to GHG emissions, such as the quantitative thresholds that exist for criteria pollutants. Rather, the proposed project is evaluated for consistency with the state goal of reducing GHG emissions in California to 1990 levels by 2020, as set forth by the timetable established in AB 32 (California Global Warming Solutions Act of 2006).

²⁵ Derived from SCAQMD Localized Significance Threshold Tables – SRA 1 (Central Los Angeles County) and SRA 2 (Northwest Los Angeles County Coastal), 1-acre site, 25-meter receptor distance.

²⁶ Where the CO standard is exceeded at the intersection, a project would result in a significant impact if the incremental increase due to the project is equal to or greater than 1.0 ppm for the California 1-hour CO standard or 0.45 ppm for the 8-hour CO standard.

²⁷ SCAQMD Risk Assessment Procedures for Rules 1401 and 212, November 1998.

4.2.4 Environmental Impacts

Methodology

Construction

Mass daily combustion emissions, fugitive PM₁₀ and PM_{2.5}, and off-gassing emissions were compiled using URBEMIS 2007, which is an emissions estimation/evaluation model developed by ARB that is based, in part, on SCAQMD *CEQA Air Quality Handbook* guidelines and methodologies.

The URBEMIS 2007 model separates the construction process into multiple phases that account for everything from structure demolition and site clearing to asphalt paving and the application of architectural coatings. For example, demolition-period emissions would include fugitive dust emissions from jut-out removal, as well as combustion exhaust emissions from on-site construction equipment, haul truck trips, and worker commute trips. Construction and finishing emissions would include combustion exhaust emissions from on-site construction equipment, haul truck trips, and worker commute trips, as well as fugitive off-gassing emissions (i.e., ROG) from the application of architectural coatings and asphalt paving.

Construction equipment, by phase, was estimated based on the proposed scope of work. A complete listing of the construction equipment by phase, construction phase duration assumptions, and changes to modeling default values used in this analysis is included within the URBEMIS 2007 printout sheets that are provided in Appendix C of this EIR.

Operations

The proposed project has the potential to create local operational impacts as a result of local traffic redistribution. With respect to the evaluation of localized impacts, local area CO concentrations for roadways were evaluated using the CALINE-4 line-source dispersion model developed by the California Department of Transportation (Caltrans) combined with EMFAC2007 emission factors. The analysis of roadway CO impacts followed the protocol recommended by Caltrans and published in the document *Transportation Project-Level Carbon Monoxide Protocol*, December 1997. It is also consistent with procedures identified through the SCAQMD's CO modeling protocol. All emissions calculation worksheets and air quality modeling output files are provided in Appendix C.

Toxic Air Contaminants Impacts (Construction and Operations)

Potential toxic air contaminant (TAC) impacts are evaluated by conducting a screening-level analysis followed by a more detailed analysis (i.e., dispersion modeling) if necessary. The screening-level analysis consists of reviewing the proposed project's description and site plan to identify any new or modified TAC emissions sources. If it is determined that the proposed project would introduce a new source, or modify an existing TAC emissions source, then

downwind sensitive-receptor locations are identified, and site-specific dispersion modeling is conducted to determine proposed project impacts.

Climate Change/Greenhouse Gas Emissions

Project-related GHG emissions were estimated using the following methodology: 1) the URBEMIS 2007 software was utilized to calculate project-related CO₂ emissions, and 2) methane (CH₄) and N₂O emissions were compiled using the calculation formulas provided in the *California Climate Action Registry, General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, version 3.0*.

Impact AQ1: Conflict with or obstruct implementation of the applicable air quality management plan.

The proposed project would be consistent with the projections in the AQMP, resulting in a less-than-significant impact.

SCAQMD is required, pursuant to the CAA, to reduce emissions of criteria pollutants for which the Basin is in non-attainment (i.e., O₃, PM₁₀, and PM_{2.5}). The proposed project would be subject to SCAQMD's AQMP. The AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. These strategies are developed, in part, based on regional population, housing, and employment projections prepared by SCAG.

The proposed project would be consistent with all local general plans and compatible with the surrounding uses. Because the proposed project would be consistent with the local general plan, pursuant to SCAQMD guidelines, the proposed project would be considered consistent with the region's AQMP. As such, project-related emissions are accounted for in the AQMP, which is crafted to bring the Basin into attainment for all criteria pollutants. Accordingly, the proposed project would be consistent with the projections in the AQMP, thereby resulting in a less-than-significant impact.

The SCAQMD is required, pursuant to the Clean Air Act, to reduce emissions of criteria pollutants for which the Basin is in non-attainment (i.e., O₃, PM₁₀, and PM_{2.5}). The project would be subject to the SCAQMD's AQMP. The AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. These strategies are developed, in part, based on regional population, housing, and employment projections prepared by SCAG.

Impact AQ2: Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Criteria pollutant emissions for both construction and operation of the proposed project would result in a less-than-significant regional air quality impact.

Construction Impacts

Construction of the proposed project has the potential to create air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated from construction workers traveling to and from the project site. In addition, fugitive dust emissions would result from demolition and construction activities. Mobile-source emissions, primarily NO_x, would result from the use of construction equipment.

Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and, for dust, the prevailing weather conditions. The assessment of construction air quality impacts considers each of these potential sources. The equipment mix and duration for each construction stage is detailed in the URBEMIS 2007 printout sheets provided in Appendix C.

To present a conservative worst-case impact analysis, it was assumed, for modeling purposes, that construction would last approximately 4 months. The total amount of construction, the duration of construction, and the intensity of construction activity could have a substantial effect upon the amount of construction emissions, the concentrations, and the resulting impacts occurring at any one time. As such, the emission forecasts provided herein reflect a specific set of conservative assumptions based on the expected construction scenario wherein a relatively large amount of construction is occurring in a relatively intensive manner. Because of this conservative assumption, actual emissions could be less than those forecasted. If construction is delayed or occurs over a longer time period, emissions could be reduced because of (1) a more modern and cleaner burning construction equipment fleet mix, and/or (2) a less intensive buildout schedule (i.e., fewer daily emissions occurring over a longer time interval).

Table 4.2-4 shows the emissions calculated for the proposed project. As shown therein, criteria pollutant emissions would be less than the applicable SCAQMD significance thresholds, and as such, would result in a less than significant regional air quality impact.

Operations Impacts

Regional air pollutant emissions associated with project operations would be generated by operation of on-road vehicles. Mobile-source emissions are proportional to the vehicle miles traveled, or VMT, which are proportional to new vehicle trips. The proposed project would not generate new trips.

Table 4.2-4. Worst-Case Construction Emissions (pounds per day)

Construction Activity	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Jut-out removal	1.25	8.71	6.10	<0.01	1.39	0.58
Paving and Restriping	3.00	16.47	10.93	<0.01	1.37	1.25
Maximum Daily Emissions	3	16	11	<1	1	1
Regional Significance Threshold	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No
Notes: Construction emission calculation worksheets and URBEMIS2007 printouts are included in Appendix C.						

Source: ICF International, January 2010.

However, it would facilitate the movement of existing traffic through the study corridor, as well as other traffic generated by new development in the area. Consequently, the proposed project may result in local traffic redistribution. These potential impacts are discussed under Impact AQ3, below.

Impact AQ3: Expose sensitive receptors to substantial pollutant concentrations.

The proposed project would result in less than significant impacts in exposing sensitive receptors to substantial pollutant concentrations.

Construction Impacts

Criteria Pollutants

In addition to regional emissions, the SCAQMD has developed a set of mass emissions rate look-up tables that can be used to evaluate localized impacts that may result from construction-period emissions. If the on-site emissions from proposed construction activities are below the Localized Significance Threshold (LST) emission levels found in the LST mass rate look-up tables for the project site's SRA, then project emissions would not have the potential to cause a significant localized air quality impact.

When quantifying mass emissions for LST analysis, only emissions that occur on site are considered. Consistent with SCAQMD LST guidelines, emissions related to offsite delivery/haul truck activity and employee trips are not considered in the evaluation of localized impacts. A conservative estimate of the project's construction-period on-site mass emissions is presented in Table 4.2-5. As shown therein, the worst-case maximum emissions for all criteria pollutants would remain below their respective SCAQMD LST significance thresholds. As such, localized impacts that may result from construction-period air pollutant emissions would be less than significant.

Table 4.2-5. Worst-Case Localized Construction Emissions (pounds per day)

Construction Activity	NO _x	CO	PM ₁₀ ^a	PM _{2.5} ^a
Jut-out removal	7.68	4.68	1.34	0.70
Paving and Restriping	14.87	8.27	1.28	1.18
Localized Significance Thresholds ^b	74	562	4	2
Exceed Threshold	No	No	No	No
Notes: Construction emission calculation worksheets are included in the URBEMIS2007 printouts. ^a PM ₁₀ emissions estimates are based on compliance with SCAQMD Rule 403 requirements for fugitive dust suppression, which require that no visible dust be present beyond the site boundaries. ^b The project site is located in SCAQMD SRA No. 1/2. These LSTs are based on the site location SRA, distance to nearest sensitive receptor location from the project site (25 meters), and project area that could be under construction on any given day (1 acre).				

Source: ICF International, January 2010.

Toxic Air Contaminants

The greatest potential for TAC emissions would be related to diesel particulate emissions associated with heavy equipment operations during site grading activities. The SCAQMD does not consider diesel-related cancer risks from construction equipment to be an issue due to the short-term nature of construction activities. Construction activities associated with the proposed project would be sporadic, transitory, and short term in nature. The assessment of cancer risk is typically based on a 70-year exposure period. Because exposure to diesel exhaust would be well below the 70-year exposure period, construction of the proposed project is not anticipated to result in an elevated cancer risk to exposed persons due to the short-term nature of construction. As such, project-related toxic emission impacts during construction would not be significant under the proposed project.

Operational Impacts

Criteria Pollutants

Within an urban setting, vehicle exhaust is the primary source of CO. Consequently, the highest CO concentrations are generally found close to congested intersections. Under typical meteorological conditions, CO concentrations tend to decrease as the distance from the emissions source (i.e., congested intersection) increases. For purposes of providing a conservative worst-case impact analysis, CO concentrations are typically analyzed at congested intersection locations. If impacts are less than significant close to congested intersections, impacts will also be less than significant at more distant sensitive-receptor locations.

Project traffic during the operational phase of the project would have the potential to create local area CO impacts. To ascertain the proposed project's potential to generate localized air quality impacts, the *Wilshire Bus Rapid Transit Project Traffic Impact Analysis* (Iteris, December 2009) was reviewed to determine the potential for the creation of localized carbon monoxide (CO) hot spots at congested intersection locations. The SCAQMD recommends a

hot spot evaluation of potential localized CO impacts when vehicle to capacity (V/C) ratios are increased by two percent or more at intersections with a level of service (LOS) of C or worse. The traffic impact analysis identified 74 key intersection locations along routes that accommodate much of the traffic traveling within the project area. Of the 74 key intersection locations, the traffic analysis concluded that for the year 2012, 38 intersections could potentially create a localized CO hot spot with the proposed project and 36 intersections could potentially create a localized CO hot spot with the project alternative. For the year 2020, it was concluded that 43 intersections could potentially create a localized CO hot spot with the proposed project and 37 intersections could potentially create a localized CO hot spot with the project alternative.²⁸

Local area CO concentrations were projected using the CALINE 4 traffic pollutant dispersion model. The analysis of CO impacts followed the protocol recommended by the California Department of Transportation, published as *Transportation Project-Level Carbon Monoxide Protocol*, December 1997. It is also consistent with procedures identified through the SCAQMD's CO modeling protocol, with all four corners of each intersection analyzed to determine whether project development would result in a CO concentration that exceeds federal or state CO standards.

The project's CO contributions to AM and PM 1- and 8-hour CO levels for project buildout year 2012 and horizon year 2020 are presented in Tables 4.2-6 and 4.2-7, respectively. As shown therein, the proposed project would not have a significant impact on 1-hour or 8-hour local CO concentrations due to mobile source emissions.

Because significant impacts would not occur at the intersections adjacent to sensitive receptors with the highest traffic volumes under the proposed project, no significant impacts are anticipated to occur at any other locations in the study area because the conditions yielding CO hotspots would not be worse than those occurring at the analyzed intersections. Consequently, the sensitive receptors that are included in this analysis would not be significantly affected by CO emissions generated by the net increase in traffic that would occur under the proposed project. Because the proposed project would cause an exceedance or exacerbate an existing exceedance of an AAQS, localized operational air quality impacts would be less than significant. No mitigation measures are necessary.

²⁸ Based on SCAQMD-recommended screening criteria, any intersection that would 1) operate at LOS C or worse and 2) experience an increase in the peak-hour volume-to-capacity ratio of 2% or more as a result of project-related traffic should be evaluated for the potential to create a localized CO hot spot.

Table 4.2-6. Project Buildout (Year 2012)—Local Area Carbon Monoxide Dispersion Analysis

Intersection	Peak Period ^a	Maximum 1-Hour 2012 Base Concentration (ppm) ^b	Maximum 1-Hour 2012 w/ Project Concentration (ppm) ^c	Significant 1-Hour Concentration Impact ^d	Maximum 8-Hour 2012 Base Concentration (ppm) ^e	Maximum 8-Hour 2012 w/ Project Concentration (ppm) ^f	Significant 8-Hour Concentration Impact ^d
Alvarado @ 6 th	AM	7.3	7.5	No	4.8	5.0	No
	PM	7.5	7.3	No	5.0	4.8	No
Alvarado @ Olympic	AM	7.6	7.7	No	5.0	5.1	No
	PM	7.9	8.0	No	5.3	5.3	No
Barrington @ Wilshire	AM	7.2	7.1	No	4.8	4.7	No
	PM	7.1	7.0	No	4.7	4.6	No
Beverly Glen @ Olympic	AM	8.7	8.7	No	5.8	5.8	No
	PM	8.6	8.7	No	5.7	5.8	No
Beverly Glen @ Santa Monica	AM	8.2	8.4	No	5.5	5.6	No
	PM	8.3	8.7	No	5.5	5.8	No
Bundy @ Olympic	AM	8.7	8.8	No	5.8	5.9	No
	PM	8.5	8.6	No	5.7	5.7	No
Bundy @ Wilshire	AM	7.3	7.3	No	4.8	4.8	No
	PM	7.5	7.5	No	5.0	5.0	No
Crenshaw @ Olympic	AM	8.5	8.6	No	5.7	5.7	No
	PM	8.3	8.3	No	5.5	5.5	No
Crenshaw @ Wilshire	AM	7.4	7.2	No	4.9	4.8	No
	PM	7.4	7.4	No	4.9	4.9	No
Fairfax @ 3 rd	AM	7.9	7.9	No	5.3	5.3	No
	PM	7.8	7.7	No	5.2	5.1	No
Fairfax @ Olympic	AM	7.9	8.0	No	5.3	5.3	No
	PM	7.9	7.9	No	5.3	5.3	No
Fairfax @ San Vicente	AM	7.7	7.8	No	5.1	5.2	No
	PM	7.3	7.4	No	4.8	4.9	No
Fairfax @ Wilshire	AM	8.2	8.0	No	5.5	5.3	No
	PM	8.2	8.4	No	5.5	5.6	No
Federal @ Santa Monica	AM	6.5	6.6	No	4.3	4.3	No
	PM	6.4	6.4	No	4.2	4.2	No
Highland @ 3 rd	AM	7.8	7.9	No	5.2	5.3	No
	PM	7.6	7.6	No	5.0	5.0	No
Highland @ Olympic	AM	7.5	7.5	No	5.0	5.0	No
	PM	7.6	7.6	No	5.0	5.0	No
Highland @ Wilshire	AM	7.9	7.7	No	5.3	5.1	No
	PM	7.8	7.6	No	5.2	5.0	No
I-405 SB Ramps @ Santa Monica	AM	7.4	7.4	No	4.9	4.9	No
	PM	7.4	7.4	No	4.9	4.9	No
La Brea @ 3 rd	AM	8.3	8.3	No	5.5	5.5	No
	PM	7.8	7.8	No	5.2	5.2	No
La Brea @ Olympic	AM	8.4	8.4	No	5.6	5.6	No
	PM	8.6	8.6	No	5.7	5.7	No
La Brea @ Wilshire	AM	7.8	7.6	No	5.2	5.0	No
	PM	8.3	8.1	No	5.5	5.4	No

Table 4.2-6. Project Buildout (Year 2012)—Local Area Carbon Monoxide Dispersion Analysis (Continued)

Intersection	Peak Period ^a	Maximum 1-Hour 2012 Base Concentration (ppm) ^b	Maximum 1-Hour 2012 w/ Project Concentration (ppm) ^c	Significant 1-Hour Concentration Impact ^d	Maximum 8-Hour 2012 Base Concentration (ppm) ^e	Maximum 8-Hour 2012 w/ Project Concentration (ppm) ^f	Significant 8-Hour Concentration Impact ^d
Overland @ Olympic	AM	7.9	7.9	No	5.3	5.3	No
	PM	8.4	8.6	No	5.6	5.7	No
Overland @ Pico	AM	8.7	8.6	No	5.8	5.7	No
	PM	8.8	8.8	No	5.9	5.9	No
Overland @ Santa Monica	AM	7.3	7.4	No	4.8	4.9	No
	PM	7.4	7.4	No	4.9	4.9	No
San Vicente @ Olympic	AM	8.4	8.4	No	5.6	5.6	No
	PM	7.9	7.9	No	5.3	5.3	No
San Vicente @ Wilshire	AM	8.4	8.3	No	5.6	5.5	No
	PM	8.8	8.7	No	5.9	5.8	No
Sepulveda @ Pico	AM	8.2	8.3	No	5.5	5.5	No
	PM	8.2	8.2	No	5.5	5.5	No
Vermont @ 8 th	AM	7.2	7.2	No	4.8	4.8	No
	PM	7.8	7.8	No	5.2	5.2	No
Vermont @ Olympic	AM	8.1	8.1	No	5.4	5.4	No
	PM	8.4	8.4	No	5.6	5.6	No
Veteran @ Santa Monica	AM	7.3	7.3	No	4.8	4.8	No
	PM	7.4	7.4	No	4.9	4.9	No
Veteran @ Sunset	AM	7.5	7.6	No	5.0	5.0	No
	PM	7.1	7.1	No	4.7	4.7	No
Veteran @ Wilshire	AM	10.0	9.6	No	6.7	6.4	No
	PM	9.0	8.7	No	6.0	5.8	No
W Century Park @ Olympic	AM	8.5	8.5	No	5.7	5.7	No
	PM	7.7	7.8	No	5.1	5.2	No
Western @ 3 rd	AM	7.6	7.7	No	5.0	5.1	No
	PM	7.7	7.7	No	5.1	5.1	No
Western @ Olympic	AM	8.0	8.1	No	5.3	5.4	No
	PM	8.1	8.2	No	5.4	5.5	No
Westwood @ Olympic	AM	8.1	8.1	No	5.4	5.4	No
	PM	9.3	9.3	No	6.2	6.2	No
Westwood @ Pico	AM	7.7	7.7	No	5.1	5.1	No
	PM	8.2	8.3	No	5.5	5.5	No
Westwood @ Santa Monica	AM	8.2	8.2	No	5.5	5.5	No
	PM	8.5	8.6	No	5.7	5.7	No

Notes:
 CALINE4 dispersion model output sheets and Emfac2007 emission factors are provided in Appendix C.
 ppm = parts per million
^aPeak-hour traffic volumes are based on the *Wilshire Boulevard Bus Rapid Transit Project Traffic Impact Analysis* prepared for the project by Iteris, 2009.
^bSCAQMD 2012 1-hour ambient background concentration (4.4 ppm) + 2012 base traffic CO 1-hour contribution.
^cSCAQMD 2012 1-hour ambient background concentration (4.4 ppm) + 2012 with-project traffic CO 1-hour contribution.
^dThe state standard for the 1-hour average CO concentration is 20 ppm, and the 8-hour average concentration is 9.0 ppm.
^eSCAQMD 2012 8-hour ambient background concentration (2.8 ppm) + 2012 base traffic CO 8-hour contribution.
^fSCAQMD 2012 8-hour ambient background concentration (2.8 ppm) + 2012 with-project traffic CO 8-hour contribution.
 Source: ICF International, January 2010.

Table 4.2-7. Project Horizon (Year 2020)—Local Area Carbon Monoxide Dispersion Analysis

Intersection	Peak Period ^a	Maximum 1-Hour 2020 Base Concentration (ppm) ^b	Maximum 1-Hour 2020 w/ Project Concentration (ppm) ^c	Significant 1-Hour Concentration Impact? ^d	Maximum 8-Hour 2020 Base Concentration (ppm) ^e	Maximum 8-Hour 2020 w/ Project Concentration (ppm) ^f	Significant 8-Hour Concentration Impact? ^d
Alvarado @ 6 th	AM	6.0	6.1	No	3.9	4.0	No
	PM	6.1	6.1	No	4.0	4.0	No
Alvarado @ Olympic	AM	6.2	6.1	No	4.1	4.0	No
	PM	6.3	6.3	No	4.1	4.1	No
Barrington @ Olympic	AM	6.4	6.4	No	4.2	4.2	No
	PM	6.6	6.6	No	4.3	4.3	No
Barrington @ Wilshire	AM	5.9	5.9	No	3.9	3.9	No
	PM	5.9	5.8	No	3.9	3.8	No
Beverly Glen @ Olympic	AM	6.7	6.7	No	4.4	4.4	No
	PM	6.7	6.7	No	4.4	4.4	No
Beverly Glen @ Santa Monica	AM	6.5	6.5	No	4.3	4.3	No
	PM	6.5	6.5	No	4.3	4.3	No
Bundy @ Wilshire	AM	6.0	5.9	No	3.9	3.9	No
	PM	6.0	6.0	No	3.9	3.9	No
Crenshaw @ Olympic	AM	6.6	6.6	No	4.3	4.3	No
	PM	6.5	6.5	No	4.3	4.3	No
Crenshaw @ Wilshire	AM	5.9	6.0	No	3.9	3.9	No
	PM	6.1	6.0	No	4.0	3.9	No
E Century Park @ Olympic	AM	6.8	6.9	No	4.5	4.6	No
	PM	6.6	6.6	No	4.3	4.3	No
Fairfax @ 3 rd	AM	6.2	6.2	No	4.1	4.1	No
	PM	6.2	6.2	No	4.1	4.1	No
Fairfax @ Olympic	AM	6.9	6.3	No	4.6	4.1	No
	PM	6.3	6.3	No	4.1	4.1	No
Fairfax @ San Vicente	AM	6.2	6.3	No	4.1	4.1	No
	PM	5.9	6.0	No	3.9	3.9	No
Fairfax @ Wilshire	AM	6.4	6.3	No	4.2	4.1	No
	PM	6.6	6.5	No	4.3	4.3	No
Highland @ 3 rd	AM	6.2	6.2	No	4.1	4.1	No
	PM	6.1	6.1	No	4.0	4.0	No
Highland @ 6 th	AM	5.8	6.0	No	3.8	3.9	No
	PM	6.1	6.1	No	4.0	4.0	No
Highland @ Olympic	AM	6.1	6.0	No	4.0	3.9	No
	PM	6.1	6.1	No	4.0	4.0	No
Highland @ Wilshire	AM	6.3	6.1	No	4.1	4.0	No
	PM	6.2	6.2	No	4.1	4.1	No
La Brea @ 3 rd	AM	6.5	6.5	No	4.3	4.3	No
	PM	6.3	6.3	No	4.1	4.1	No
La Brea @ Olympic	AM	6.5	6.6	No	4.3	4.3	No
	PM	6.7	6.6	No	4.4	4.3	No
La Brea @ Wilshire	AM	6.5	6.4	No	4.3	4.2	No
	PM	6.5	6.4	No	4.3	4.2	No

Table 4.2-7. Project Horizon (Year 2020)—Local Area Carbon Monoxide Dispersion Analysis (Continued)

Intersection	Peak Period ^a	Maximum 1-Hour 2020 Base Concentration (ppm) ^b	Maximum 1-Hour 2020 w/ Project Concentration (ppm) ^c	Significant 1-Hour Concentration Impact? ^d	Maximum 8-Hour 2020 Base Concentration (ppm) ^e	Maximum 8-Hour 2020 w/ Project Concentration (ppm) ^f	Significant 8-Hour Concentration Impact? ^d
Overland @ Olympic	AM	6.3	6.3	No	4.1	4.1	No
	PM	6.6	6.6	No	4.3	4.3	No
Overland @ Pico	AM	6.7	6.7	No	4.4	4.4	No
	PM	6.7	6.7	No	4.4	4.4	No
Overland @ Santa Monica	AM	6.0	6.0	No	3.9	3.9	No
	PM	6.0	6.0	No	3.9	3.9	No
S. Beverly Glen @ Sunset	AM	5.9	5.9	No	3.9	3.9	No
	PM	5.9	5.9	No	3.9	3.9	No
San Vicente @ Olympic	AM	6.5	6.5	No	4.3	4.3	No
	PM	6.3	6.3	No	4.1	4.1	No
San Vicente @ Wilshire	AM	6.6	6.5	No	4.3	4.3	No
	PM	6.7	6.5	No	4.4	4.3	No
Sepulveda @ Olympic	AM	6.4	6.5	No	4.2	4.3	No
	PM	6.8	6.8	No	4.5	4.5	No
Sepulveda @ Pico	AM	6.4	6.5	No	4.2	4.3	No
	PM	6.4	6.4	No	4.2	4.2	No
Vermont @ 6 th	AM	6.3	6.2	No	4.1	4.1	No
	PM	6.5	6.5	No	4.3	4.3	No
Vermont @ 8 th	AM	5.9	5.9	No	3.9	3.9	No
	PM	6.2	6.2	No	4.1	4.1	No
Vermont @ Olympic	AM	6.4	6.4	No	4.2	4.2	No
	PM	6.5	6.5	No	4.3	4.3	No
Veteran @ Olympic	AM	6.1	6.1	No	4.0	4.0	No
	PM	6.4	6.4	No	4.2	4.2	No
Veteran @ Santa Monica	AM	5.9	6.0	No	3.9	3.9	No
	PM	6.0	6.0	No	3.9	3.9	No
Veteran @ Sunset	AM	6.1	6.1	No	4.0	4.0	No
	PM	5.9	5.9	No	3.9	3.9	No
Veteran @ Wilshire	AM	7.4	7.2	No	4.9	4.8	No
	PM	6.9	6.8	No	4.6	4.5	No
W Century Park @ Olympic	AM	6.6	6.6	No	4.3	4.3	No
	PM	6.2	6.2	No	4.1	4.1	No
Western @ 3 rd	AM	6.1	6.1	No	4.0	4.0	No
	PM	6.1	6.2	No	4.0	4.1	No
Western @ 6 th	AM	5.9	6.0	No	3.9	3.9	No
	PM	6.1	6.1	No	4.0	4.0	No
Western @ Olympic	AM	6.3	6.4	No	4.1	4.2	No
	PM	6.4	6.4	No	4.2	4.2	No
Westwood @ Olympic	AM	6.4	6.5	No	4.2	4.3	No
	PM	7.0	7.0	No	4.6	4.6	No
Westwood @ Pico	AM	6.2	6.2	No	4.1	4.1	No
	PM	6.5	6.5	No	4.3	4.3	No

Table 4.2-7. Project Horizon (Year 2020)—Local Area Carbon Monoxide Dispersion Analysis (Continued)

Intersection	Peak Period ^a	Maximum 1-Hour 2020 Base Concentration (ppm) ^b	Maximum 1-Hour 2020 w/ Project Concentration (ppm) ^c	Significant 1-Hour Concentration Impact ^d	Maximum 8-Hour 2020 Base Concentration (ppm) ^e	Maximum 8-Hour 2020 w/ Project Concentration (ppm) ^f	Significant 8-Hour Concentration Impact ^d
Westwood @ Santa Monica	AM	6.4	6.5	No	4.2	4.3	No
	PM	6.5	6.6	No	4.3	4.3	No

Notes:

CALINE4 dispersion model output sheets and Emfac2007 emission factors are provided in Appendix C.

ppm = parts per million

^aPeak hour traffic volumes are based on the *Wilshire Boulevard Bus Rapid Transit Project Traffic Impact Analysis* prepared for the project by Iteris, 2009..

^bSCAQMD 2020 1-hour ambient background concentration (4.4 ppm) + 2020 base traffic CO 1-hour contribution.

^cSCAQMD 2020 1-hour ambient background concentration (4.4 ppm) + 2020 with-project traffic CO 1-hour contribution.

^dThe State standard for the 1-hour average CO concentration is 20 ppm, and the 8-hour average concentration is 9.0 ppm.

^eSCAQMD 2020 8-hour ambient background concentration (2.8 ppm) + 2020 base traffic CO 8-hour contribution.

^fSCAQMD 2020 8-hour ambient background concentration (2.8 ppm) + 2020 with-project traffic CO 8-hour contribution.

Source: ICF International, January 2010.

Toxic Air Contaminants

Regarding potential TAC emissions associated with the buildout and long-term operation of the proposed project, SCAQMD recommends that a health risk assessment (HRA) be conducted for projects that emit substantial diesel particulate emissions (e.g., truck stops and warehouse distribution facilities) or certain industrial projects that result in the emitting of acute and/or chronically hazardous TAC pollutants. Since the proposed project would operate CNG buses rather than diesel buses and would not result in the emission of acute and/or chronically hazardous TAC pollutants, an air toxics HRA is not warranted. Potential project-generated air toxic impacts on surrounding land uses would be less than significant. No mitigation measures are necessary.

Impact AQ4: Create objectionable odors affecting a substantial number of people.

The proposed project would result in less than significant odor impacts.

According to the SCAQMD *CEQA Air Quality Handbook* (South Coast Air Quality Management District 1993), land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project not would include any uses identified by the SCAQMD as being associated with odors and therefore would not produce objectionable odors. As such, potential impacts would be less than significant with respect to objectionable odors.

Potential sources that may emit odors during construction activities include asphalt paving. SCAQMD Rule 1108 limits the amount of volatile organic compounds from cutback asphalt. Via mandatory compliance with SCAQMD

Rules, no construction activities or materials are proposed which would create a significant level of objectionable odors. As such, potential impacts during construction would be less than significant.

Impact AQ5: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

The proposed project would result in less than significant greenhouse gas emissions impacts.

Global climate change is caused by combined worldwide greenhouse gas emissions, and mitigating global climate change will require worldwide solutions. GHGs play a critical role in the Earth's radiation budget by trapping infrared radiation emitted from the Earth's surface, which could have otherwise escaped to space. Prominent GHGs contributing to this process include water vapor, CO₂, N₂O, CH₄, O₃, and certain hydro- and fluorocarbons. This phenomenon, known as the "greenhouse effect", keeps the Earth's atmosphere near the surface warmer than it would be otherwise and allows for successful habitation by humans and other forms of life. Increases in these gases lead to more absorption of radiation and warm the lower atmosphere further, thereby increasing evaporation rates and temperatures near the surface. Emissions of GHGs in excess of natural ambient concentrations are thought to be responsible for the enhancement of the greenhouse effect and to contribute to what is termed "global warming," a trend of unnatural warming of the Earth's natural climate. Climate change is a global problem, and GHGs are global pollutants, unlike criteria air pollutants (such as O₃ precursors) and TACs, which are pollutants of regional and local concern.

The California Department of Transportation (Caltrans) and its parent agency, the Business, Transportation, and Housing Agency, have taken an active role in addressing GHG emissions reduction and climate change. Recognizing that 98% of California's GHG emissions are from the burning of fossil fuels and 40% of all human-made GHG emissions are from transportation, Caltrans has created and is implementing the *Climate Action Program at Caltrans* (December 2006).

Caltrans' primary strategy for reducing state GHG emissions is to make the state's transportation system more efficient. The highest levels of CO₂ from mobile sources, such as automobiles, occur at stop-and-go speeds (0–25 mph and speeds over 55 mph). Relieving congestion by enhancing operations and improving travel times in high-congestion travel corridors will lead to an overall reduction in GHG emissions. Because the objective of the proposed project is to reduce congestion and improve operational efficiency within the immediate project vicinity, GHG emissions after completion of the proposed project would be reduced when compared to existing conditions.

During construction, existing ARB regulations (Title 13 of the California Code of Regulations, Sections 2480 and 2485), which limit idling time for

diesel-fueled commercial motor vehicles, would help to limit GHG emissions associated with project-related construction vehicles.

Table 4.2-8 presents an estimate of project-related GHG emissions of CO₂e. As shown therein, the proposed project’s contribution to GHG emissions during short-term construction activities is estimated to be 62 metric tons. In an effort to put this number into perspective, statewide CO₂e emissions for 2006 were estimated to be 479.8 million metric tons. As such, the relative amounts of GHG emissions associated with this project are negligible. The amount of emissions from the proposed project, without considering other cumulative global emissions, would not be enough to cause substantial climate change directly. Thus, project emissions, in isolation, are considered less than significant. However, climate change is a global cumulative impact, and the proper context for analysis of this issue is not a project’s emissions in isolation but, rather, its contribution to cumulative GHG emissions.

Table 4.2-8. Estimate of Project-Related Greenhouse Gas Emissions (tons per year) ^a

	CO ₂ e
California State-wide Average Daily Emissions (year 2006)	479,800,000
Project Emissions	
Construction-period Emissions (2010)	61.93
SCAQMD Daily Significance Threshold	N/A
Exceed Significance Threshold?	N/A
Notes: ^a URBEMIS 2007 output and energy emissions calculation worksheets are provided in the Air Quality Appendix.	

Source: ICF Jones & Stokes, August 2008.

Because quantitative GHG guidelines, including relevant thresholds, have not been developed by the SCAQMD, these emissions are provided for informational purposes only. According to a recent white paper by the Association of Environmental Professionals, “an individual project does not generate enough GHG emissions to significantly influence global climate change. Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHG emissions.” Project-related impacts are expected to be less than significant because climate change would not occur directly from project emissions. Nevertheless, mitigation measures to reduce project-related GHG emissions by the greatest extent feasible are prescribed below.

4.2.5 Mitigation Measures

Mitigation measures to reduce project-related GHG emissions by the greatest extent feasible are prescribed below.

- AQ-1 To the extent applicable and practicable, minimize, reuse, and recycle construction-related waste.
- AQ-2 To the extent applicable and practicable, minimize grading, earth-moving, and other energy-intensive construction practices.
- AQ-3 To the extent applicable and practicable, replacement trees or landscaping shall be provided.
- AQ-4 To the extent applicable and practicable, use solar power or electricity from power poles rather than temporary diesel power generators.

4.2.6 Level of Significance After Mitigation

As described above, the proposed project would reduce GHG emissions, compared with existing conditions, by improving traffic circulation and relieving local congestion. Implementation of prescribed mitigation measures during construction would further reduce the proposed project's GHG emissions. As such, the proposed project would not conflict with the state's goal of reducing GHG emissions to 1990 levels by 2020. Project impacts relative to GHG emissions and climate change would be less than significant.

Under the proposed project, all impacts, including those related to criteria pollutants, TACs, and potential odor emissions, would be less than significant.

This page left intentionally blank.

4.3 Cultural Resources

This section identifies cultural resources present within the project area, evaluates the potential project-related impacts on those resources, and provides mitigation measures, as applicable. The information provided herein is based on the survey results and recommendations contained in the Historic Resources Technical Report for the Wilshire Bus Rapid Transit Project and the Archaeological Survey Report for the Wilshire Bus Rapid Transit Project, both of which were prepared in January 2010 for LACMTA by ICF International.²⁹ The ICF International reports are included in their entirety in Appendix D and Appendix E of this document. The survey of cultural resources was conducted under the provisions of Section 15064.5 of the CEQA Guidelines and the National Historic Preservation Act (NHPA) of 1966, as amended, for implementing the Section 106 process.

4.3.1 Environmental Setting

The project site is known as the Wilshire corridor, a densely populated, highly developed urban region with extensive commercial and nearby residential uses. The entire length of the route has been previously disturbed by construction-related activity and is completely paved with roadway asphalt or built up with street improvements and multi-story structures. The Wilshire corridor is the most heavily used bus corridor in the County of Los Angeles, with over 80,000 transit boardings taking place along the corridor each weekday. In addition to being the most heavily used transit corridor in the county, Wilshire Boulevard has the distinction of having some of the highest average daily traffic (ADT) volumes in the City of Los Angeles. Approximately 110,000 automobiles pass through the intersections of Westwood Boulevard, Gayley Avenue, and Veteran Avenue each weekday in the Westwood area.

Regional access to the Wilshire corridor is provided by a large number of intersecting streets, including Alvarado Street, Hoover Street, Vermont Avenue, Western Avenue, Crenshaw Boulevard, Highland Avenue, La Brea Avenue, Fairfax Avenue, San Vicente Boulevard, La Cienega Boulevard, Robertson Boulevard, Santa Monica Boulevard, Beverly Glen Boulevard, Westwood Boulevard, Sepulveda Boulevard, the San Diego Freeway (Interstate 405), Barrington Avenue, Bundy Avenue, and Centinela Avenue.

Regulatory Framework

Historic resources fall within the jurisdiction of several levels of government. Federal laws provide the framework for the identification and, in certain instances, protection of historic resources. In addition, states and local jurisdictions play active roles in the identification, documentation, and protection of such resources. The NHPA, NEPA, CEQA, California Register of

²⁹ ICF Jones & Stokes became ICF International in January 2010.

Historical Resources (California Register), Public Resources Code (PRC) Section 5024, and the City of Los Angeles Cultural Heritage Ordinance (Los Angeles Administrative Code Section 22.130) are the primary laws that govern and affect the preservation of historic resources of national, state, regional, and local significance.

Federal Level

National Register of Historic Places. The National Register of Historic Places (National Register) was established by the NHPA as “an authoritative guide to be used by federal, state, and local governments; private groups; and citizens to identify the nation’s cultural resources and to indicate what properties should be considered for protection from destruction or impairment.”³⁰ The National Register recognizes properties that are significant at the national, state, and/or local levels.

To be eligible for listing in the National Register, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, and association. The following four criteria have been established to determine the significance of a resource:³¹

- A. The resource is associated with events that have made a significant contribution to the broad patterns of our history;
- B. The resource is associated with the lives of persons significant in our past;
- C. The resource embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master or possesses high artistic values or represents a significant and distinguishable entity whose components may lack individual distinction;
- D. The resource yields, or may be likely to yield, information important to prehistory or history.

For a property to be eligible for the National Register, it must meet one or more of the above criteria. In addition, unless the property possesses exceptional significance, it must be at least 50 years old to be eligible for National Register listing.

In addition to meeting the criteria of significance, a property must have integrity.³² Integrity is “the ability of a property to convey its significance.” According to the *National Register Bulletin, How to Apply the National*

³⁰ 36 Code of Federal Regulations (CFR) Section 60.2.

³¹ U.S. Department of Interior. 1997a. *National Register Bulletin, How to Complete the National Register Registration Form*. National Park Service. This bulletin contains technical information on comprehensive planning, cultural resources surveys, and National Register of Historic Places registration.

³² U.S. Department of Interior. 1997b. *National Register Bulletin, How to Apply the National Register Criteria for Evaluation*. National Park Service, p. 44.

Register Criteria for Evaluation, within the concept of integrity, the National Register criteria recognize seven aspects or qualities that, in various combinations, define integrity. To retain historic integrity, a property will always possess several, and usually most, of these seven aspects. The retention of specific aspects of integrity is paramount for a property to convey its significance.³³ The seven factors that define integrity are location, design, setting, materials, workmanship, feeling, and association. The list below is excerpted from the *National Register Bulletin, How to Apply the National Register Criteria for Evaluation*, which provides guidance on the interpretation and application of these factors.

- Location is the place where the historic property was constructed or the place where the historic event occurred.³⁴
- Design is the combination of elements that create the form, plan, space, structure, and style of the property.³⁵
- Setting is the physical environment of a historic property.³⁶
- Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.³⁷
- Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.³⁸
- Feeling is the property's expression of the aesthetic or historic sense of a particular period of time.³⁹

³³ *Ibid.*

³⁴ *Ibid.* "The relationship between the property and its location is often important to understanding why the property was created or why something happened. The actual location of historic property, complemented by its setting is particularly important in recapturing the sense of historic events and persons. Except in rare cases, the relationship between a property and its historic associations is destroyed if the property is moved."

³⁵ *Ibid.* "A property's design reflects historic functions and technologies as well as aesthetics. It includes such considerations as the structural system; massing; arrangement of spaces; pattern of fenestration; textures and colors of surface materials; type, amount, and style of ornamental detailing; and arrangement and type of plantings in a designed landscape."

³⁶ *Ibid.*, p. 45.

³⁷ *Ibid.* "The choice and combination of materials reveals the preferences of those who created the property and indicated the availability of particular types of materials and technologies. Indigenous materials are often the focus of regional building traditions and thereby help define an area's sense of time and place."

³⁸ *Ibid.* "Workmanship can apply to the property as a whole or to its individual components. It can be expressed in vernacular methods of construction and plain finishes or in highly sophisticated configurations and ornamental detailing. It can be based on common traditions or innovative period techniques."

³⁹ *Ibid.* "It results from the presence of physical features that, taken together, convey the property's historic character."

- Association is the direct link between an important historic event or person and a historic property.⁴⁰

In assessing a property's integrity, the National Register criteria recognize that properties change over time; therefore, it is not necessary for a property to retain all its historic physical features or characteristics. The property must, however, retain the essential physical features that enable it to convey its historic identity.⁴¹

For properties that are considered significant under National Register criteria A and B, the *National Register Bulletin, How to Apply the National Register Criteria for Evaluation*, states that a property that is significant for its historic association is eligible if it retains the essential physical features that made up its character or appearance during the period of its association with the important event, historical pattern, or person(s).⁴²

In assessing the integrity of properties that are considered significant under National Register criterion C, the *National Register Bulletin, How to Apply the National Register Criteria for Evaluation*, provides that a property important for illustrating a particular architectural style or construction technique must retain most of the physical features that constitute that style or technique.⁴³

State Level

The California Office of Historic Preservation (OHP), as part of the California Department of Parks and Recreation, implements the policies of the NHPA on a state-wide level. The OHP also carries out the duties as set forth in the Public Resources Code and maintains the California Historic Resources Inventory. The State Historic Preservation Officer (SHPO) is an appointed official who implements historic preservation programs within the state's jurisdictions. Also implemented at the state level, CEQA requires projects to identify any substantial adverse impacts that may affect the significance of identified historical resources.

California Register of Historical Resources. Created by Assembly Bill 2881, which was signed into law on September 27, 1992, the California Register is "an authoritative listing and guide to be used by state and local agencies, private groups, and citizens to identify the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent

⁴⁰ *Ibid.* "A property retains association if it is the place where the event or activity occurred and is sufficiently intact to convey that relationship to the observer. Like feeling, associations require the presence of physical features that convey a property's historic character...Because feeling and association depend on individual perceptions, their retention alone is never sufficient to support eligibility of a property for the National Register."

⁴¹ *Ibid.*, p. 46.

⁴² *Ibid.*

⁴³ *Ibid.* "A property that has lost some historic materials or details can be eligible if it retains the majority of the features that illustrate its style in terms of the massing, spatial relationships, proportion, pattern of windows and doors, texture of materials, and ornamentation. The property is not eligible, however, if it retains some basic features conveying massing but has lost the majority of features that once characterized its style."

prudent and feasible, from substantial adverse change.”⁴⁴ The criteria for eligibility for listing in the California Register are based on the National Register criteria.⁴⁵ Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for or listed in the National Register of Historic Places.⁴⁶

The California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed in the National Register and those formally determined eligible for the National Register;
- Registered California Historical Landmarks from No. 770 onward; and
- Those California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion in the California Register.
- Other resources that may be nominated to the California Register, including
 - Individual historical resources;
 - Historical resources contributing to historic districts;
 - Historic resources identified as significant in historical resources surveys with significance ratings of category 1 through 5;
 - Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as a Historic Preservation Overlay Zone.⁴⁷

California Register of Historical Resources Criteria. The criteria for listing in the California Register are consistent with those developed for the National Register but have been modified for state use. The types of resources that may be eligible for listing include buildings, sites, structures, objects, and historic districts. Resources must be significant at the local, state, or national level under one or more of the following criteria:

1. The resource is associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States;
2. The resource is associated with the lives of persons important to local, California, or national history;

⁴⁴ California PRC Section 5024.1(a).

⁴⁵ California PRC Section 5024.1(b).

⁴⁶ California PRC Section 5024.1(d).

⁴⁷ California PRC Section 5024.1(e).

3. The resource embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of a master or possesses high artistic values; and/or
4. The resource has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Resources that are eligible for listing in the California Register must retain enough of their historic character or appearance to be recognizable as historic resources and convey the reasons for their significance. It is possible that resources that may not retain sufficient integrity for listing in the National Register may still be eligible for the California Register. Moved, reconstructed, or rehabilitated buildings, structures, or objects, as well as resources that achieved significance within the past 50 years, may also be considered for listing in the California Register under specific circumstances.⁴⁸

Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. The resource must also be judged with reference to the particular criteria under which it is proposed for eligibility.

California Office of Historic Preservation Survey Methodology. The evaluation instructions and classification system prescribed by the OHP in its Instructions for Recording Historical Resources provide a three-digit evaluation code for use in classifying potential historic resources.⁴⁹ Referred to as the California Historical Resource Status Codes, the first digit indicates one of the following general evaluation categories for use in conducting cultural resource surveys:

1. Listed on the National Register or the California Register;
2. Determined eligible for listing in the National Register or California Register;
3. Appears eligible for the National Register or California Register through survey evaluation;
4. Appears eligible for the National Register or California Register through other evaluation;
5. Recognized as historically significant by local government;
6. Not eligible for listing or designation; and
7. Not evaluated for National Register or California Register or needs re-evaluation.

The second digit is a letter code, indicating whether the resource is separately eligible (S), eligible as part of a district (D), or both (B). The third digit is a number that is used to further specify significance and refine the relationship of the property to the National Register and/or California Register. Under this system, categories 1 through 4 pertain to various levels of National Register

⁴⁸ California Code of Regulations (CCR), California Register of Historical Resources (Title 14, Chapter 11.5), Section 4852(c).

⁴⁹ California Office of Historic Preservation. 2003. *California Historical Resource Status Codes*. December.

and/or California Register eligibility. A status code level of 5 identifies resources that are ineligible for the California Register but historically significant at the local level. In addition, properties that are found to be ineligible for listing in the National Register or the California Register or not historically significant at the local government level are given an evaluation code of 6.

California Environmental Quality Act. Under CEQA, “a project that may cause a substantial adverse change in the significance of a historic resource is a project that may have a significant effect on the environment.”⁵⁰ This statutory standard involves a two-part evaluation. The first part determines whether the project involves a historic resource. If so, then the second part determines whether the project may involve a “substantial adverse change in the significance” of the resource. CEQA Guidelines Section 15064.5(a) provides that, for the purposes of CEQA compliance, the term “historical resources” shall include the following:⁵¹

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the California Register;
2. A resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g), shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant;
3. Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be “historically significant” if the resource meets one of the criteria for listing on the California Register; and
4. The fact that a resource is not listed in, or determined to be eligible for listing in, the California Register; not included in a local register of historical resources (pursuant to PRC Section 5020.1(k)); or identified in a historical resources survey (meeting the criteria in PRC Section 5024.1(g)) does not preclude a lead agency from determining that the resource may be a historical resource, as defined in PRC Sections 5020.1(j) or 5024.1.

Local Level – City of Los Angeles

The City of Los Angeles’ April 1962 Cultural Heritage Ordinance defines Los Angeles’ Historic-Cultural Monuments (LAHCMs) for the city. According to the ordinance (Los Angeles Administrative Code Section 22.130), LAHCMs are sites, buildings, or structures of particular historic or

⁵⁰ California PRC Section 21084.1.

⁵¹ State CEQA Guidelines, 14 CCR Section 15064.5(a).

cultural significance to the City of Los Angeles in which the broad cultural, political, or social history of the nation, state, or city is reflected or exemplified, including sites and buildings associated with important personages or sites that embody certain distinguishing architectural characteristics and are associated with a notable architect. These LAHCOMs are regulated by the city's Cultural Heritage Commission, which reviews permits to alter, relocate, or demolish these landmarks.

Existing Conditions

Historic resources fall within the jurisdiction of several levels of government. Federal laws provide the framework for the identification and, in certain instances, protection of historic resources. In addition, states and local jurisdictions play active roles in the identification, documentation, and protection of such resources. The NHPA, NEPA, CEQA, California Register, PRC Section 5024, and the City of Los Angeles Cultural Heritage Ordinance (Los Angeles Administrative Code Section 22.130) are the primary federal and state laws that govern and affect the preservation of historic resources of national, state, regional, and local significance.

Prehistoric-Era Overview

The prehistoric occupation of southern California is divided chronologically into four temporal phases or horizons.⁵² Horizon I, or the Early Man Horizon, began at the first appearance of people in the region (approximately 12,000 years ago) and continued until about 5000 B.C. Although little is known about these people, it is assumed that they were semi-nomadic and subsisted primarily on game.

Horizon II, also known as the Millingstone Horizon or Encinitas Tradition, began around 5000 B.C. and continued until about 1500 B.C. The Millingstone Horizon is characterized by widespread use of milling stones (manos and metates), core tools, and few projectile points or bone and shell artifacts. This horizon appears to represent a diversification of subsistence activities and a more sedentary settlement pattern. Archaeological evidence suggests that hunting became less important and reliance on collecting shellfish and vegetal resources increased.⁵³

Horizon III, the Intermediate Horizon or Campbell Tradition, began around 1500 B.C. and continued until about A.D. 600–800. Horizon III is defined by a shift from the use of milling stones to increased use of mortar and pestle, possibly indicating a greater reliance on acorns as a food source. Projectile points become more abundant and, together with faunal remains, indicate increased use of both land and sea mammals.⁵⁴

Horizon IV, the Late Horizon, which began around A.D. 600–800 and terminated with the arrival of Europeans, is characterized by dense

⁵² Moratto, M. J. 1984. *California Archaeology*. Orlando, FL: Academic Press.

⁵³ *Ibid.*

⁵⁴ *Ibid.*

populations; diversified hunting and gathering subsistence strategies, including intensive fishing and sea mammal hunting; extensive trade networks; use of the bow and arrow; and a general cultural elaboration.⁵⁵

The project area lies within the territory of the Gabrieleno Native American people.⁵⁶ The Gabrieleno are characterized as one of the most complex societies in native southern California, second perhaps only to the Chumash, their coastal neighbors to the northwest. This complexity derives from their overall economic, ritual, and social organization.^{57 58}

The Gabrieleno, a Uto-Aztecan (or Shoshonean) group, may have entered the Los Angeles Basin as recently as 1500 B.P. In early protohistoric times, the Gabrieleno occupied a large territory, including the entire Los Angeles Basin. This region encompasses the coast from Malibu to Aliso Creek, parts of the Santa Monica Mountains, the San Fernando Valley, the San Gabriel Valley, the San Bernardino Valley, the northern parts of the Santa Ana Mountains, and much of the middle to lower Santa Ana River. The Gabrieleno also occupied the islands of Santa Catalina, San Clemente, and San Nicolas. Within this large territory were more than 50 residential communities, with populations ranging from 50 to 150 individuals. The Gabrieleno had access to a broad and diverse resource base. This wealth of resources, coupled with an effective subsistence technology, well-developed trade network, and ritual system, resulted in a society that was among one of the most materially wealthy and culturally sophisticated cultural groups in California at the time of contact.

The Gabrielino community of Yaanga is popularly regarded as the Indian precursor of modern Los Angeles. However, the exact site of Yaanga is uncertain. The original community was abandoned sometime prior to 1836 and succeeded by a series of later rancherias inhabited by Gabrielino and other Indian refugees. Yaanga was “adjacent to” the pueblo of Los Angeles. Indians from Yaanga supplied the pueblo with cheap labor as well as many of the material goods used by the settlers. This interdependency undoubtedly helped Yaanga to survive longer than most other Gabrielino communities.⁵⁹ In 1836, public pressure forced the relocation of Yaanga to a new district near the southeast corner of present Commercial and Alameda streets. The new community was called Rancheria de Poblanos. The rancheria lasted only 10 years. Citizens of the pueblo complained that the Indians were bathing in the zanja, the main canal that supplied the pueblo drinking water, and in June 1845, the settlement was relocated across the river. Indians were not the only ones guilty of this offense, and the relocation may have been politically motivated. A local landowner, Juan Domingo, desired the property occupied by the rancheria. Once the Indians were removed, Governor Pio Pico sold the

⁵⁵ *Ibid.*

⁵⁶ Bean, L. J., and C. R. Smith. 1978. Gabrielino. In *Handbook of North American Indians*, Vol. 8, California, R. F. Heizer (ed.), pp. 538–549. Washington, DC: Smithsonian Institution.

⁵⁷ *Ibid.*

⁵⁸ Kroeber, A. L. 1925. *Handbook of the Indians of California*. Berkeley, CA: California Book Company.

⁵⁹ McCawley, William. 1996. *The First Angelinos: The Gabrielino Indians of Los Angeles*. Banning, CA: Malki Museum Press; Novato, CA: Ballena Press.

property to Juan Domingo for \$200. The new settlement, known as Pueblito, had an even shorter life. For a time it was a favorite gathering spot for American soldiers garrisoned in Los Angeles following the takeover of California; the resentment that this aroused among the Mexican population soon brought such activities to an end. In November 1847, Pueblito was razed to end “disorderly gatherings.” A sum total of \$24.00 was paid to compensate the Indians for their homes. Thereafter, all employers were required to provide shelter and care for their Indian laborers.⁶⁰

Historic-Era Overview

As it extends westward from downtown Los Angeles, the proposed project route along Wilshire Boulevard crosses through several former rancho areas, the boundaries of which still influence the Los Angeles landscape. These ranchos include Rancho Las Cienegas, Rancho La Brea, Rancho Rodeo de Las Aguas, and Rancho San Jose de Buenos Ayres.

Rancho Las Cienegas. In 1823, Rancho Las Cienegas was granted to the one-time mayor of the pueblo of Los Angeles, Don Francisco Avila. The rancho consisted of 4,439 acres of land near La Brea Tar Pits, approximately 7 miles southwest of the pueblo. Avila grazed cattle here and turned it into a profitable venture. Before 1824, the Los Angeles River flowed southwesterly from the pueblo, following a course through the plains to La Ballona Creek and eventually emptying into Santa Monica Bay. As the river flooded, it diverted water into the low grassy plains through Avila’s rancho. This converted much of the area to marshland. The Avila land grant became known as Rancho Las Cienegas, which translates as “Ranch of the Marshlands.”⁶¹ Don Avila’s rancho was bordered on three sides by four other ranchos, which in later years led to many boundary disputes involving Avila and the other owners. Rancho La Brea shared a property line to the north. Rancho La Cienega ó Paso de la Tijera was situated to the south. Ranchos Rodeo de Las Aguas and San Jose de Buenos Ayres were adjacent to Avila on the west. Public land belonging to the pueblo was located on Avila’s eastern border.⁶²

Rancho La Brea. The first known account of La Brea Tar Pits was recorded in the summer of 1769, when scouts from the Portola expedition passed by. Gaspar de Portola led an overland expedition from Sonora, Mexico, to Monterey for the purpose of colonizing Alta California. After leaving the area that was later to become the Los Angeles Civic Center, they crossed the plains to the west, and on the evening of August 3, 1769, Portola’s party camped in the vicinity of today’s Venice Boulevard and La Brea Avenue. Father Juan Crespi, one of the diarists of the expedition, wrote the following:

While crossing the basin, the scouts reported having seen some geysers of tar issuing from the ground like springs; it boils up molten, and the water runs to one side and the tar to the other. The scouts reported that they had come across many of these springs and had seen large swamps of them, enough, they said,

⁶⁰ *Ibid.*

⁶¹ Kielbasa, John. 1997. *Historic Adobes of Los Angeles County*. Pittsburgh, PA: Dorrance Publishing Co., Inc.

⁶² *Ibid.*

to caulk many vessels. We were not so lucky ourselves as to see these tar geysers, much though we wished it, as it was some distance out of the way we were to take; the Governor (Portola) did not want us to go past them. We christened them Los Bolcanes de Brea (the Geysers of Tar).

The tar pits were first mapped in 1849 by Lieutenant E. O. C. Ord, the United States surveyor who was first to chart Los Angeles officially. Ord included the springs on a topographical map of the plains around Los Angeles. He indicated that the pits were several miles west of the pueblo, just south of Cahuenga Pass.⁶³

Originally, Indians used the asphalt from the petroleum pools to seal the seams of their canoes. When the pueblo of Los Angeles was founded in 1781, the inhabitants made the trek out to the tar pits and brought back pitch to caulk the flat roofs of their crude adobe dwellings. The heavy tar was spread over “tules” (reeds of swamp grass) or wood planks to seal crevices in roofs.

On January 6, 1828, Rancho La Brea was granted to Antonio Jose Rocha and Nemisio Dominguez by Jose Antonio Carrillo, the Alcalde of Los Angeles. The grant included a stipulation that made the tar pits within the rancho open and available to all the citizens of the pueblo for their use. The title was confirmed by Jose Echeandia, who was the Governor of Alta California at the time. Later, in 1840, title was reconfirmed by Governor Juan B. Alvarado. Rancho La Brea consisted of one square league of land (4,439 acres) within what is now Wilshire’s Miracle Mile, Hollywood, and parts of West Hollywood.⁶⁴

Between 1828 and 1831, Rocha built a single story L-shaped adobe hacienda in the southwest quadrant of Rancho La Brea. The original roof of this adobe was flat; there is little doubt that pitch from the tar geysers, located less than 1 mile to the south, was used to cover it. Although Rocha built this beautiful home on his rancho, he may have never lived there. He preferred his larger house in town, as did many other rancheros. Adobes were built on the ranchos to comply with the Mexican law that required a structure to be built upon a given property within a year of its granting. These rancho adobes were usually occupied by the mayordomos (ranch managers).

In the early 1850s, the rancheros who received their land grants during the Mexican and Spanish occupation of California were required to prove their claims for the new American government. They filed claims with the United States Land Commission and were required to have their properties surveyed and mapped by government surveyors. Although the Rochas made improvements to the land and lived on Rancho La Brea for more than 20 years, they had a difficult time proving their claim because the old description of the grant was too vague. Subsequently, the commission ruled against them due to unacceptable proof for the boundary lines. The boundaries were described merely as follows:

⁶³ *Ibid.*

⁶⁴ *Ibid.*

Rancho Los Feliz on the north, lands of the City of Los Angeles on the east, Rancho Las Cienegas on the south, and Rancho Rodeo de Las Aguas on the west.

The Rocha Family received help from Henry Hancock, a lawyer, who aided them in their efforts to prove their claim to Rancho La Brea. Hancock appealed to a higher court on behalf of the heirs of the Rochas and presented the crudely drawn “diseno,” a rough sketch of a rancho that usually was not to scale. Disenos were acceptable to the previous Mexican government, but they fell far short of acceptance in the American system. The diseno included identifiable landmarks along the boundaries of Rancho La Brea, and Hancock called in many of the old rancheros to corroborate the validity of those important markers. The court decided to accept the diseno as the legal description of the rancho and reversed the commission’s ruling. The Rochas won their claim, but like so many other rancheros, their legal expenses left them broke. They owed Hancock so much money that they offered some of their La Brea interests to the attorney and his brother at no cost. On November 16, 1860, Rancho La Brea was deeded to Henry Hancock and his brother John Hancock.⁶⁵

Rancho Rodeo de Las Aguas. Sometime between 1821 and 1822, Vicente Villa and his wife, Maria Rita Villa Valdez, occupied the 4,500-acre Rancho Rodeo de Las Aguas, which is now known as the City of Beverly Hills. The name of the rancho means “the gathering of the waters,” a name derived from the meeting of the streams that, in rainy months, rush down Coldwater and Benedict Canyons, creating a chain of lakes and swamps in the lower lands that extended across the plain.⁶⁶ On the current Beverly Hills and Hollywood 7.5-minute USGS topographic maps, the land between Rancho La Brea and Rancho San Jose de Buenos Ayres is labeled San Antonio or Rancho Rodeo De Las Aguas. The reason for the two titles is because, after Vicente passed away in 1828, the widow Maria Rita signed a joint grant for a tract of land with her kinsman, Luciano Valdez, in 1831. This tract was called San Antonio. However, only 3 years later, Maria Rita lodged a complaint against her kinsman with Governor Figueroa. The complaint held that Luciano was harassing Maria Rita by 1) moving his house closer to hers, within 70 feet, thereby obstructing the front of her home; 2) running off her cattle from the only watering place on the ranch; 3) claiming ownership of a certain canada that she had spent 3 months clearing; and 4) and not letting her plant vines when she wanted to (Robinson 1939). The 10-year dispute ended when the complaint was turned over to the Los Angeles City Council, which promptly ordered Luciano to vacate the premises. The order to vacate stemmed not only from the discord between Maria Rita and Luciano but also from his lacking the required number of cattle to entitle him to ownership.

In 1854, Benjamin D. Wilson (Don Benito), who owned the Rancho San Jose de Buenos Ayres, located to the west, and Henry Hancock, who owned Rancho La Brea, located to the east, bought Villa Ranch, as it was then called. In 1862, approximately 2,000 acres of wheat were planted. The first season

⁶⁵ *Ibid.*

⁶⁶ Robinson, W. W. 1939. *Ranchos Become Cities*. Pasadena, CA: San Pasqual Press.

went well, but the following two seasons were dry and the wheat did not fare well. There was a brief oil boom in 1865, and the Los Angeles Pioneer Oil Company bought oil rights on the rancho and drilled wells. During the 1870s, nearly the entire ranch was divided into 75-acre lots, with the center reserved for the “Town of Santa Maria.” There were 36 blocks in the town site, with highways running east/west and north/south. Los Angeles Avenue was renamed Wilshire Boulevard. On November 14, 1906, the “Beverly” subdivision was recorded, covering the land bounded by Wilshire and Santa Monica Boulevards.⁶⁷ On January 23, 1907, the “Beverly Hills” subdivision was recorded, covering the land that sloped up from Santa Monica Boulevard toward the hills. When the population reached 500, an election was held regarding the incorporation of Beverly Hills. On January 28, 1914, the City of Beverly Hills was officially incorporated.

Hancock Park and La Brea Tar Pits. In the mid-1800s, Major Henry Hancock, ‘49er, lawyer, mapmaker and land surveyor arrived in Los Angeles.⁶⁸ Earlier, he had sailed around the Cape from his family home in Bath, New Hampshire, to San Francisco and staked a claim in the mountains of northern California, where he mined a sizeable gold strike during the California gold rush. Tiring of gold mining, he decided to leave the gold fields in favor of Los Angeles, where he planned to put his long-ignored Harvard law degree to good use.⁶⁹ In 1850, he decided to turn to land surveying. He was hired by the City of Los Angeles to conduct a survey, for which he was paid \$300 cash, plus one 35-acre lot in every block of eight lots surveyed. In 1853, Hancock prepared the second survey of the City of Los Angeles, and in the following years, he surveyed most of the large ranchos between Los Angeles and San Diego. By the time the survey work was completed, he had amassed the beginning of the real estate empire that would make the Hancock’s one of the most influential families in California.

In the 1860s, Major Henry Hancock served in the California militia. When the Civil War broke out, the state remained loyal to the Union but had large numbers of Confederate sympathizers, especially in Los Angeles. Camp Drumm was established in Wilmington to help strengthen the Union hold in southern California. Major Hancock was the commanding officer of this Union outpost in March 1863. On April 4, 1863, he was transferred to the Benicia Barracks, which was a Union supply installation in northern California. While there, he married Ida Haraszthy in 1863. Miss Haraszthy was the daughter of San Francisco pioneer Colonel Augustin Haraszthy. Hancock was transferred back to Wilmington and placed in charge of troops from Company “C.” In August 1865, Hancock led 20 of his troops to El

⁶⁷ *Ibid.*

⁶⁸ Newmark, Harris. 1984. *Sixty Years in Southern California*. Los Angeles, CA: Dawson’s Book Shop.

⁶⁹ Robinson, W. W. 1959. *Lawyers of Los Angeles: A History of the Los Angeles Bar Association and of the Bar of Los Angeles County*. Los Angeles Bar Association. Los Angeles, CA: The Ward Ritchie Press.

Monte where they stopped a minor uprising of the Knights of the Golden Circle, an outlaw secessionist group.⁷⁰

Henry Hancock and his wife, Ida, lived in a wood-frame house they built near the tar pits on their section of Rancho La Brea. Hancock began to take commercial advantage of the beds of petroleum deposits. He built a refinery that prepared the tar for sale to both the Los Angeles and San Francisco markets. Five tons of La Brea asphalt were produced daily and continued to be produced until 1887. This was the beginning of the Hancock Oil Company. During the 1870s, Hancock's employees began finding prehistoric animal bones in the asphalt beds, but their archeological importance was not considered until 30 years later.

The 1880s brought oil men as well as subdivision to Rancho La Brea. Major Hancock, who had died in 1883, left his widow in charge of ranch operations. In October 1885, Mrs. Ida Hancock leased part of the rancho to Lyman Stewart, Wallace Hardison, and Dan McFarland. They formed the Hardison and Stewart Company and began oil exploration under a lease from the Pacific Coast Oil Company. These oil men from Pennsylvania wanted to drill wildcat wells on Hancock property near the tar pits. Mrs. Hancock agreed to lease the land providing she received one-eighth of the oil profits and that she could still access the asphalt pools, which she used as her primary source of income. The first well drilled was a bust. Out of three additional wells drilled, only one yielded oil but only a small quantity. By 1888, the venture proved to be a failure, and eventually the Hardison and Stewart Company went bankrupt.

In 1901, William W. Orcutt, a respected geologist and Union Oil executive, went to La Brea Tar Pits to investigate why Hardison and Stewart were unable find oil in the area when geological evidence indicated otherwise. The tar pits were the strongest evidence of all because they consisted of large petroleum deposits. While exploring the bogs of tar, Orcutt discovered unusual dark bones that had been stained by the asphaltum. The geologist brought his find to Dr. John C. Merriam of the University of California. Dr. Merriam, a paleontologist, determined that the bones were from a saber tooth tiger, which had long been extinct. This find sparked the archeological importance of these springs of pitch.

By the turn of the century, oil development on the subdivided portions of the rancho increased. Twenty-five-year-old George Allan Hancock, the son of Major Henry Hancock, took an interest in oil production and went to work for the Salt Lake Oil Company. While so employed, he learned more about the industry and oil exploration. In 1902, Mrs. Ida Hancock leased a part of her interest in Rancho La Brea to the Salt Lake Oil Company. Soon, they struck "black gold," and the Salt Lake Field was born. The Salt Lake Field was bounded by Wilshire Boulevard, La Brea Boulevard, Beverly Boulevard, and Fairfax Avenue. By 1910, the company had drilled nearly 250 wells, which produced more than 3,800,000 barrels of oil annually.

⁷⁰ Kielbasa, *Historic Adobes of Los Angeles County*.

In 1906, George Allan Hancock wanted to apply his newly acquired oil expertise and decided to go at it on his own. He borrowed \$10,000 from his mother to finance the business, known as La Brea Oil Company, and soon started drilling. His venture paid off, and by February 1907, he had more than 70 wells, producing close to 300 barrels of oil a day. This made the Hancocks one of the wealthiest families in California.

As George Allan Hancock was producing oil, employees of his La Brea Oil Company were frequently finding skeletal remains of prehistoric animals. In 1906, Hancock gave permission to Dr. John C. Merriam to conduct archeological digs at the tar pits. Later, Hancock allowed a few select educational institutions to proceed with further excavations for the purpose of study. In 1913, he gave Los Angeles County exclusive rights to excavate the pits. On December 11, 1916, Hancock donated the 35 acres surrounding the tar pits to the county, provided the land would be used as a park and dedicated to the memory of his parents. This, along with La Brea Tar Pits, became Hancock Park.⁷¹

In later years, the area surrounding the asphalt pools were left unsupervised. Tall weeds grew wildly along the banks of the pits, and the place, with its stench from the oil slumps, became unsightly. When a young boy fell into one of the pits and nearly died, chain link fences were placed around the perimeter of each pit. In the early 1950s, the park underwent a major landscaping effort, which included tearing down the old Hancock ranch house.

In 1911, two residential subdivisions designed for the Los Angeles elite were established within the southeast section of Rancho La Brea. One was Windsor Square, developed by Robert A. Rowan, which had Victorian-style thoroughfares and lofty, spacious mansions. It was the first subdivision in Los Angeles to have underground utilities. The other was Fremont Place, a 48 acre plan with sprawling villas. Martin Henry Mosier, owner of Signal Oil Company, and silent screen star, Mary Pickford, were among the first to build mansions there.

George Allan Hancock was an exceptional oil man, but he also had success in the banking business as founder of California Bank, predecessor to United California Bank. He tried his hand at real estate subdivision as well and, in 1919, developed Hancock Park on the southeastern portion of his Rancho La Brea. Hancock Park was a lavish suburban community with grand mansions and long curving streets, which were the first concrete roadways in Los Angeles. To the north, Hancock leased some of his land to a group of businessmen for the development of a golf course. There, the exclusive Wilshire Country Club opened in December 1920.⁷²

Historic Context Overview

The project corridor spans a significant east-west portion of the City of Los Angeles along Wilshire Boulevard from the Westlake district at Valencia Street on the east to the City of Santa Monica at Centinela Avenue on the

⁷¹ *Ibid.*

⁷² *Ibid.*

west, interrupted by a sizeable gap containing the City of Beverly Hills. Wilshire Boulevard has a long and storied history that reaches back to 1895 when Henry Gaylord Wilshire converted a barley field west of downtown Los Angeles into 400 yards of road he named after himself. The 20th century history of the boulevard as the unofficial “Main Street of Los Angeles”⁷³ is fascinating and complex. Given the exhaustive breadth of the subject it seemed reasonable to focus the historic context portion of this report on the segments of Wilshire Boulevard where changes would occur that might directly or indirectly impact historic resources. As a result, this eliminates from the context discussion the section of the project route that goes from Los Angeles’ Westlake district on the east to the City of Beverly Hills on the west. In addition, the segment of the project route that bisects the Los Angeles Country Club west of Beverly Hills is not included because it, too, involves no potential impacts to historic resources. Therefore, the bulk of the historic context relevant to the aspects of the project where ground disturbing construction work will occur, such as to curbs and sidewalks, primarily involves the history of Los Angeles’ Westwood district.

The Rancho San Jose de Buenos Ayres. The community of Westwood in which the survey area is located lies within the historic boundaries of the Rancho San Jose de Buenos Ayres, originally comprising 4,400 acres and extending from present-day Pico Boulevard on the south, Sepulveda Boulevard on the west, the foothills on the north, and Beverly Hills to the east. It is characterized by flat lands on the south and hilly topography on the north. The Los Angeles Country Club runs north/south along its eastern boundary north of Santa Monica Boulevard; Wilshire Boulevard, the thoroughfare that is the nexus of the survey area, bisects the original Rancho San Jose de Buenos Ayres tract boundaries. Century City, Twentieth Century Fox Studios, and Rancho Park are located at its southeastern corner.

The Rancho San Jose de Buenos Ayres was granted to Don Maximo Alanis, a military officer, by a judge at the Pueblo of Monterey in 1826. He named the hilly landscape, dotted with sycamore trees, the “ranch of the beautiful breezes” and resided on the rancho until his death in 1851.⁷⁴

Following Don Maximo Alanis’ death, the rancho passed to his five children, who sold their interests to American businessmen.⁷⁵ With the rancho valued at \$600 in 1851, and following several transfers of ownership, pioneer John Wolfskill purchased the rancho in 1884 for “\$40,000 in gold coin.”⁷⁶

Three years after purchasing the rancho, John Wolfskill deeded 300 acres of the Rancho San Jose de Buenos Ayres to the federal government to construct the Old Soldier’s Home, a site that today contains buildings that are relevant to the proposed project.⁷⁷ He sold the remaining land to the Santa Monica

⁷³ Roderick, Kevin, and J. Eric Lynxwiler. 2005. *Wilshire Boulevard: Grand Concourse of Los Angeles*. Los Angeles: Angel City Press, Introduction.

⁷⁴ Westwood-Holmby Historical Society. 1989. *Westwood-Holmby Hills Community, History of Westwood* (included in brochure celebrating the 60th anniversary of Westwood).

⁷⁵ *Ibid.*

⁷⁶ Clary, William H. 1966. *History of the Law Firm of O’Melveny & Myers: 1885–1965*, vol. II, p. 499.

⁷⁷ Janss, Harold. 1940. *History of the Janss Family*. Katy Lain collection.

Land & Water Company, an important real estate developer in the area. However, the company's attempt to subdivide the property in the creation of the new city of "Sunset" failed. In 1902, a portion of the lands were sold to the Los Angeles Country Club situated on the east boundary of the survey area and to Alphonso Bell, developer of Bel Air. The remaining 3,300 acres of Santa Monica Land & Water Company's Sunset holdings reverted to Wolfskill,⁷⁸ who constructed a house near what is the present-day site of the Mormon Temple, at Santa Monica Boulevard and Overland Avenue. At Wolfskill's death in 1913, the 3,300-acre Wolfskill Ranch was the largest remaining undeveloped tract of land in west Los Angeles. "This land out here was the cream of all left unsubdivided," remembered Harold Wilkins, vice-president of Janss Investment Corporation, the land developer that would have a substantial impact on the destiny of the Westside.⁷⁹

Wilshire Boulevard History. Wilshire Boulevard, the main thoroughfare of Los Angeles that passes through the former rancho, was imagined on a grand scale, but had a slow start and developed in stages that reflected the mood and temperament of the city. The originators of the boulevard were Henry Gaylord Wilshire and his brother, William. In 1887, Gaylord bought a 35-acre barley field located on the western town boundary of Los Angeles that overlooked Westlake Park. The property lay untouched until 1895, when William and Gaylord decided to develop the 35-acre site. They filed subdivision papers and announced plans to develop the Wilshire Boulevard Tract named after the wide boulevard that they intended to construct within its boundaries. The brothers proposed to grade a 120-foot-wide graveled boulevard that stretched four blocks between Sunset Park (Lafayette Park) and Westlake Park (MacArthur Park). They lobbied to encircle the tract with special streetcar lines, but insisted that the city council forever forbid the laying of tracks on their boulevard. In return, they would build a second, intersecting boulevard alongside Sunset Park, if the City would provide the land. The land was provided and the road connecting the parks was named Wilshire Boulevard. The Wilshire Boulevard neighborhood was planned to be residential and exclusive, appealing to the upper strata of Los Angeles society.

In 1898, Harrison Gray Otis, publisher of the Los Angeles Times, became the first tycoon to embrace the tract by building a two-story Mission Revival residence at Wilshire Boulevard and Park View Street. Following Otis's lead, upper echelon Angelinos also began purchasing lots on Wilshire such that owning a residence on the Boulevard soon became a status symbol. The Wilshire brothers helped initiate the westward migration from downtown Los Angeles, but it took other influential Angelinos and the automobile age to keep the momentum of development rolling forward, extending the reach of Wilshire Boulevard to the Pacific coast.

The route of the proposed project continues west from the Wilshire Boulevard Tract through the Westlake District, an area that was subdivided in the mid-

⁷⁸ Westwood-Holmby Historical Society, *Westwood-Holmby Hills Community*.

⁷⁹ Faris, Gerald. 1963. Pioneer A. H. Wilkins Recalls Dynamic History of "Village." *West Los Angeles Citizen*. January 10 (Clipping from the Los Angeles Public Library's California Index Database. Available: <<http://www.lapl.org>>).

1880s as the city expanded westward following a population boom. In 1886, parkland acquired by the city in the district was named Westlake Park, which was enlarged in 1890. As one of Los Angeles' first streetcar suburbs, Westlake Park welcomed the city's affluent residents who were departing the city center for new suburban residential developments on the city's periphery. Streetcars provided residents easy access to the central business district, while allowing them to escape the congestion and moldering living conditions of the urban center.

During the 1920s, Westlake was composed of single-family and multi-family residential buildings with local commercial businesses serving the neighborhoods. Westlake was originally connected to downtown via Orange Street, but by the 1920s, Wilshire Boulevard was extended through the park and Orange Street was renamed Wilshire Boulevard. This transformed the perception of Westlake from a fashionable downtown suburb to a destination for business and entertainment. Westlake Park was renamed MacArthur Park after World War II in honor of General Douglas MacArthur.

Traveling further west along the project route, the Miracle Mile historic district along Wilshire Boulevard was developed as a shopping district between La Brea Boulevard and Fairfax Avenue. A.W. Ross, a realtor from Iowa, was inspired to create the shopping district after the successful opening of the Ambassador Hotel in 1921. Ross's new retail center was intended to cater to upscale residents in the Beverly Hills and Hancock Park areas so that they could avoid increasing automobile congestion and lack of parking that was plaguing downtown. Ross felt that four miles was the "magic" distance that a shopper would travel; therefore, he drew circles on a map that were four miles in diameter around the new residential communities of Beverly Hills and Hancock Park and bought land where the circles intersected Wilshire Boulevard.

At the outset, Ross did not have many supporters for his project because his chosen four-mile stretch of Wilshire Boulevard included the La Brea Tar Pits that oozed asphalt and belched sulfurous fumes with many oil derricks working full time in the area. Paleontologically, the La Brea Tar Pits are an important source of prehistoric specimens that are addressed in the environmental analysis of the project area. Ross' faith in the westward growth of Los Angeles and the primacy of the automobile in this growth meant that his vision was quickly realized. His "Miracle Mile" soon filled with commercial buildings that ranged from one- and two-story retail stores to towering skyscrapers.

Further west, the City of Beverly Hills emerged in the 1920s as a popular residential community for stars and executives of the local motion picture industry. The portion of Wilshire Boulevard that passes through Beverly Hills is not part of the project area.

Subdividing Wolfskill's Ranch: Arthur Letts and Janss Investment Corporation. After John Wolfskill's death in 1913, his heirs sold the remaining 3,300 acres of his ranch to retailer Arthur Letts, founder of Los Angeles's famous Broadway and Bullock's department stores. In addition

to his retail empire, Letts was a real estate investor and developer as well as a prominent civic leader and philanthropist. He served on the board of the Los Angeles Normal School, which would become the University of California Southern Branch, and ultimately, the University of California Los Angeles. As a trustee, Letts had envisioned Wolfskill's ranch as the location of the new University of California, with new subdivisions attracting the city's middle- and upper-class residents away from existing neighborhoods located near downtown.⁸⁰ Letts had played a similar role in the westward expansion of Los Angeles by financing the Bullock's Wilshire building, which would lure shoppers away from downtown and herald a new commercial era along Wilshire Boulevard after it was built in 1926. Before Letts's death in 1923, he chose the Janss Investment Corporation to subdivide the Wolfskill ranch.

Arthur Letts's youngest daughter, Gladys, had married Harold Janss in 1911.⁸¹ Although related by marriage to Letts, and thus positioned well to subdivide his holdings, the Janss brothers were an established real estate development entity in Los Angeles by 1919. Founded by Dr. Peter Janss in 1899, the Janss Investment Company transitioned from developers of Los Angeles' early streetcar suburbs in Boyle Heights and Owensmouth, among others, to community builders in Westwood during the first decades of the twentieth century, a trajectory that is illustrative of transportation and suburbanization patterns in Los Angeles.⁸²

In subdividing Wolfskill's ranch, the Janss' incorporated various companies to manage specific aspects of the venture. These included Janss Company, Janss Investment Company, Westwood Mortgage and Investment Company, Fox Realty Company, Fox-Westwood Realty Company, and Westwood Hills Federal Savings & Loan Company. Later, the various companies merged into Janss Investment Corporation.⁸³

The former Wolfskill's ranch was separated into three separate and distinct districts—Westwood, Westwood Hills, and Holmby Hills—with each dovetailing into one of the most ambitious community-development programs the West had seen up to that point.⁸⁴ Westwood would be a model residential community, Westwood Hills would be the area surrounding the

⁸⁰ Kilner, William H. B. 1927. *Arthur Letts, A Biography*. Los Angeles: Young and McCallister, Inc., pp. 176–177. A scholarly article, published in the *Southern California Quarterly* in spring 2006, raises questions about this Letts/Janss narrative of UCLA history. Authors of UCLA's Forgotten Forefather argue that in his efforts on behalf of the Los Angeles State Normal School, Senator Reginald Francisco del Valle created the "institutional platform from which grew and developed the UCLA campus" (see Hayes-Bautista, David E., Marco Antonio Firebaugh, Cynthia L. Chamberlin, and Christina Gamboa. 2006. Reginald Francisco del Valle: UCLA's Forgotten Forefather. In *Southern California Quarterly* 88, no. 1, pp. 1–35).

⁸¹ Janss, *History of the Janss Family*, p. 1.

⁸² McClelland, Linda Flint, and David L. Ames. 2002. *Historical Residential Suburbs in the United States, 1830–1960*. Historic context statement for multiple property documentation form. September. Prepared on behalf of the National Park Service. Identifies four subtypes: Subtype 1: Railroad and Horsecar Suburbs, 1830–1890; Subtype II: Streetcars Suburbs, 1888–1928; Subtype III: Early Automobile Suburbs, 1908–1945; and Subtype IV: Post-World War II and Early Freeway Suburbs, 1945–1960. Over its 100-year history in Los Angeles, Janss developed three of these four subtypes.

⁸³ Janss, *History of the Janss Family*, p. 2.

⁸⁴ Janss Investment Corporation. n.d. *A Short History of Los Angeles*, 25th-Anniversary Brochure.

University of California campus site, and Holmby Hills would become an exclusive area of residential estates.

Between 1924 and 1925, Janss developed the land between Wilshire Boulevard and Santa Monica, and in 1926 broke ground north of Wilshire Boulevard. According to Janss Co. Vice President, Harold Wilkins, “The north sold very fast...people wanted those high-priced homes. Beverly Hills was well developed by this time, and Bel Air started after we did.” In 1926 Westwood Hills was annexed to the City of Los Angeles, and Westwood Village “opened up” in 1928.⁸⁵ During the development of Westwood, Janss Investment Company stamped its hallmark into the concrete of the streets it created. Many of these imprints remain. Other developers and contractors also left their mark in sidewalks and curbs in the area.

Westwood Village, through which Wilshire Boulevard and the project area passes, is considered to be a national example of excellence in community planning, particularly for its time. After the University of California announced its intentions to locate its new campus there, Janss planned for the community’s “exceptional character,” establishing design guidelines and enlisting prominent architects, such as Allison & Allison, Gordon Kaufman, S. Charles Lee, and Paul Williams.⁸⁶ A nationally significant urban planner was hired, Harland Bartholomew, who worked for three years on project development in concert with the director of the Los Angeles City Planning Department, Gordon Whitnall.

The heart of the village lay with the Janss Building, located at the conjunction of Westwood, Broxton, and Kinross, and the first building to be constructed in Westwood in 1929. Janss retained control over the choice of merchants and where they would be located. According to architectural historian Richard Longstreth, “Janss’ remarkable conception did more than validate the efficacy of planned business development. The complex proved among the most successful ventures in the commercial expansion of Los Angeles during the interwar decades, despite a generally poor economic climate.”⁸⁷

In the 1930s during the Great Depression, the federal government formed the Works Progress Administration (WPA), one of the alphabet soup agencies established by the Roosevelt Administration, to employ thousands of America’s unemployed desperate for paid work. In contrast with the Progress Works Administration that was organized to fund massive infrastructure projects, the WPA was tasked with employing hundreds of thousands of out of work Americans in constructing public buildings such as public schools, post offices, and courthouses, as well as building roads and bridges. Almost every community in the United States including Los Angeles had a park, bridge or school constructed by the agency. In Westwood, a humble reminder of the WPA’s efforts is a small stamp on the

⁸⁵ Faris, *Pioneer A. H. Wilkins*.

⁸⁶ Longstreth, Richard. 1997. *City Center to Regional Mall: Architecture, the Automobile, and Retailing in Los Angeles*. Cambridge, MA: MIT Press, pp. 115–118.

⁸⁷ *Ibid*, p. 170.

curb in front of 10635 Wilshire Boulevard indicating that WPA funds paid for the roadwork.

Westwood Development in the 1950s and 1960s. Like most of the Los Angeles region during the 1950s, Westwood Village experienced substantial development pressure in the postwar period. What was originally intended as a low-density, Mediterranean themed village increasingly gave way to multi-story offices, hotels, and apartments along Wilshire Boulevard by the early 1960s. The sale of \$6.5 million worth of Westwood commercial real estate by the Janss Family to Arnold Kirkeby marked a watershed period in village development. The sale included 20 buildings, 50 stores, and 14 parking lots that had formerly been part of the Janss family holdings. The Janss family had maintained the low-density built environment of Westwood since they originally developed the community in the late 1920s. With the sale of their holdings to Kirkeby, the village was now open to more intense development and a move away from the original community layout.⁸⁸

During the 1950s, a number of multi-story hotels and apartments were constructed along Wilshire Boulevard and many ranged from five to 15 stories in height. Architects typically designed these buildings in the Modern architectural style, a design style popular at the time for large commercial and residential buildings. Although high-rise buildings over 20 stories wouldn't appear in Westwood until the 1960s, the tone was being set for increased density in Westwood in the preceding decade.

Some of the multi-story construction along the Wilshire Boulevard project area included an 8-story apartment building (10717 Wilshire Blvd.) designed by Maurice H. Fleishman in 1950, an 11-story (10401 Wilshire Blvd.) apartment building designed by Martin Stern Jr. in 1951, and the 14-story Wilshire Terrace apartments designed by Victor Gruen in 1958.⁸⁹ Although off of Wilshire Boulevard, the Bullock's Westwood department store on Weyburn Avenue, built in 1951, serves as another Modern style architectural contribution to Westwood during this period.⁹⁰

After purchasing fifty percent of the Janss' Village properties in 1955,⁹¹ businessman Arnold Kirkeby commissioned the construction of his namesake building on Wilshire Boulevard in Westwood, designed by Claude Beelman, in 1961. "Beginning in the early 1960s, the scale of Westwood Village was destroyed," wrote David Gephard and Robert Winter.⁹² Further zoning changes along Wilshire Boulevard permitted the construction of modern high rise apartment buildings, continuing through to the present day, altering the neighborhood's identity permanently.

⁸⁸ *Los Angeles Times*. 1999. Building on the Past for a Future Westwood. December 26.

⁸⁹ *Los Angeles Times*. 1950. Large Apartment Structure Being Built in Westwood. August 13.

⁹⁰ *Los Angeles Times*. 1960. Scarcity of Land for Urban Use Stresses Need of Proper Planning. February 7.

⁹¹ Allen, Patricia A. 1978. *Janss: A Brief History*. Thousand Oaks, CA: Janss Recognition Committee, p. 6; Clary, *History of the Law Firm of O'Melveny & Myers*, p. 495.

⁹² Gebhard, David, and Robert Winter. 2003. *An Architectural Guidebook to Los Angeles*. Salt Lake City: Gibbs Smith, p. 136.

West Los Angeles Veterans Administration Campus. On May 1, 1888, the Pacific Branch National Home for Disabled Volunteers (now the Veterans Administration) opened on a 600-acre site where present-day Wilshire Boulevard meets the San Diego Freeway. It is within this large federal property that several historic resources within the survey area are located for which project impacts are evaluated below.

In obtaining the Disabled Veterans property, the federal government was promised \$50,000 and 300 acres of land from the holdings of Colonel Robert S. Baker, Nevada Senator John P. Jones, and the Santa Monica Land and Water Company.⁹³ Baker and Jones hoped the presence of the Old Soldier's Home (as it became known) would boost land sales and boost the economy of their town site of Santa Monica.⁹⁴ Rancher John Wolfskill, owner of the adjoining Rancho San Jose de Buenos Ayres to the east, now Westwood, donated the remaining 300 acres.⁹⁵

Prominent New York architect Stanford White designed the original campus. Amidst orchards and bean fields, he constructed barracks, called "domiciliaries," designed in the Shingle style.⁹⁶ Cottages along what is now Wilshire Boulevard housed veterans' widows, earning the nickname "Widow's Row." On land to the south of the Old Soldier's Home, Jones and Baker created the town of Sawtelle in 1896. Arrangements with Moses Sherman and H. P. Clark brought the Pacific Electric streetcar line to Santa Monica Boulevard, and a small depot was built on the Old Soldier's Home grounds.⁹⁷ Most of the original White-era buildings were torn down in the late 1960s. The streetcar depot and the Catholic and Protestant chapels, both designed in 1900 by J. Lee Burton, remain and were individually listed on the National Register in 1972.

Several of the buildings located on the West LA Veterans Administration campus, primarily north of Wilshire Boulevard, are part of a historic district listed on the National Register of Historic Places. Among these buildings is the Wadsworth Chapel that is situated within the boundaries of the survey area and remains the oldest church fronting the entire length of Wilshire Boulevard. The chapel is listed in the National Register and California Register and is an identified historic resource.

Paleontological Context Overview⁹⁸

Paleontology is a branch of geology that studies the life forms of the past, particularly prehistoric life forms, through the study of plant and animal fossils. Paleontological resources represent a limited, non-renewable, and impact-sensitive scientific and educational resource. As defined in this section, paleontological resources are fossilized remains or traces of multi-

⁹³ Brentwood Branch Library (Library Staff). n.d. *Brentwood*, p. 2.

⁹⁴ Rasmussen, Cecilia. 1994. L.A. Scene. *Los Angeles Times*. August 29, p. B3.

⁹⁵ Newmark, *Sixty Years in Southern California*, p. 586.

⁹⁶ Gebhard and Winter, *An Architectural Guidebook to Los Angeles*, p. 123.

⁹⁷ Pitt, Leonard. 2000. *Los Angeles A to Z*. Berkeley and Los Angeles: UC Press, p. 457.

⁹⁸ McLeod, Samuel A., Ph.D. 2009. *Report of Paleontological Resources for the Proposed Wilshire Boulevard Bus-Only Lane Project in Los Angeles, Los Angeles County, Project Area*. December 21.

cellular invertebrate and vertebrate animals and multi-cellular plants, including their imprints from a previous geologic period. Fossil remains such as bones, teeth, shells, and leaves are found in the geologic deposits (rock formations) where they were originally buried. Paleontological resources include not only the actual fossil remains, but also the collecting localities and the geologic formations containing those localities. The following is a geologic and paleontologic overview in context to the proposed project area.

The project area is located within the Los Angeles Basin, a broad, level expanse of land comprising more than 800 square miles that extends from Cahuenga Peak south to the Pacific coast and from Topanga Canyon southeast to the vicinity of Aliso Creek. Prior to historical settlement of the area, the basin was characterized by extensive inland prairies and a lengthy coastal strand, with elevations approximately 500 feet above mean sea level (amsl). The Los Angeles Basin is traversed by several large watercourses, most notably the Los Angeles, Rio Hondo, San Gabriel, and Santa Ana rivers. Marshlands fed by fresh water or saltwater also once covered many portions of the area. To the west, the coastal region encompasses approximately 375 square miles of varied terrain. West of Topanga Canyon, the terrain is rugged; the steep, westward slopes of the Santa Monica Mountains reach 1,000 feet or more in elevation, except where stream-cut ravines and canyons drain onto narrow beaches at the water's edge. From Topanga Canyon southward to the Palos Verdes Peninsula, a distance of roughly 22 miles, the coast is flat and level; extensive marshlands once existed near the mouth of Ballona Creek in the area now known as Playa del Rey. The terrain becomes rugged once again as the coast follows Palos Verdes Peninsula for a distance of approximately 12 miles before reaching San Pedro Bay, which in prehistoric times was characterized by extensive mud flats and sand bars. The entire proposed project area has surficial deposits of younger Quaternary alluvium, derived as alluvial and fluvial deposits from the Los Angeles River and Ballona Creek.

From the western terminus of the proposed project route area eastward to just west of the intersection of Wilshire Boulevard and Santa Monica Boulevard, the surficial deposits consist mostly of older Quaternary Alluvium. Eastward to just west of the intersection of Wilshire Boulevard with San Vicente Boulevard the surficial deposits along the proposed project route area consist entirely of younger Quaternary Alluvium. Further eastward to the eastern terminus of the proposed project route area the surficial deposits consist mostly of older Quaternary Alluvium. The drainages and lower lying terrain otherwise within the proposed project route area have surficial deposits of younger Quaternary Alluvium. Immediately north of the eastern terminus of the proposed project route area there are exposures of the marine late Miocene Puente Formation [also may be called the Upper Modelo Formation in this area] and immediately east of the eastern terminus there are exposures of the marine Pliocene Fernando Formation. Both of these older rock units may be found along the proposed project route area at depth.

Study Area Defined

An evaluation of the impacts that a proposed project may have on properties listed in or eligible for listing in the NRHP, CRHP, or for local designation begins with the identification of the project's study area.

Given the linear alignment of the 12.5-mile length of the proposed Wilshire Bus Rapid Transit Project it was determined that, for the purposes of CEQA compliance, the study area would be based upon those portions of the Wilshire corridor where the project might have direct or indirect impacts on identified historic resources. For archeological and paleontological (but not historic) resources where impacts might occur, one study area was located within the vicinity of the La Brea Tar Pits. The other study area was identified as being located on Los Angeles' Westside where changes to curbs and sidewalks along that portion of the alignment might potentially impact both archaeological and historic resources.⁹⁹

Figure 2-2 in Chapter 2 presents an aerial view of the study areas.

Identification and Evaluation of Cultural Resources within Study Areas

As an initial step in the cultural resources survey process, a records search was conducted by ICF International staff at the South Central Coastal Information Center (SCCIC) on July 24, 2008. The records search included a review of all available archaeological and historical resources reports and site records concerning properties directly bordering the entire project route on both sides of the street. The City of Beverly Hills was not included in this records search since proposed project activities will not occur within that city. A total of 58 surveys had been conducted of properties along the project route, and 81 cultural resource sites, primarily historic resources, had been previously identified. The La Brea Tar Pits and Park is listed as California Historical Landmark #170 and has been determined eligible for listing in the National Register.

The cultural resources survey process undertaken for the proposed project was conducted per OHP instructions, which gives a 45-year threshold for surveying properties for significance. Those properties that were of post-1964 construction (under 45 years of age) were not documented unless they potentially exhibited "exceptional" importance.¹⁰⁰

Archaeological Resources. Regarding archaeological resources, the SCCIC records search identified only five previously recorded archaeological sites (19-000159/19-171007, 19-001063, 19-001261, 19-003301, and 19-003336) that might be affected by the proposed project given that proposed ground disturbance would be very limited during implementation of the proposed project. An ICF archaeologist surveyed the project area on October 16, 2008.

⁹⁹ The APE does not include the north side of Wilshire Boulevard between Bonsall Avenue and Federal Avenue; therefore, the Veterans Administration land, which includes the Wadsworth Theater and Chapel, were not surveyed.

¹⁰⁰ As defined in the *National Register Bulletin*, p. 42 (Criterion Consideration G: Properties That Have Achieved Significance within the Past Fifty Years).

The archaeological survey focused on only those areas where construction-related work is proposed. While walking the project corridor, it was observed that the area is heavily urbanized and surrounded by residential and commercial complexes and light manufacturing. The only visible ground surface was in the few areas with landscaped vegetation and the La Brea Tar Pits area. These properties are listed in Table 4.3-1.

Table 4.3-1. Archaeological Resources Recorded in the Survey Area

Primary Number	Description	Status
19-000159 and 19-171007	La Brea Tar Pits 5800 Wilshire Blvd.	7L/3S (State Historical Landmark#170; eligible for listing in the NRHP)
19-001063	Prehistoric midden and lithic scatter	7N
19-001261	Historic refuse deposit at Hancock Park 5800 Wilshire Blvd.	7N
19-003301	Historic refuse deposit	7N
19-003336	Historic refuse deposit	7N
Key. 7N: Needs to be reevaluated. 7L: State Historical Landmark that needs to be reevaluated. 3S: Appears eligible for National Register as an individual property through survey evaluation		

Source: ICF International.

La Brea Tar Pits Area. La Brea Tar Pits (19-000159/19-171007) is located on the north side of Wilshire Boulevard, within the vicinity of the proposed construction. In 1935, La Brea Tar Pits was listed as California Historical Landmark #170. In 1949, La Brea Tar Pits was described as “asphalt seeps with faunal and floral remains.” A “human skull and other human parts” were identified between 6 and 9 feet below surface in Pit 10. Other human-related artifacts identified included wooden and stone tools. In 1984, the park was deemed eligible for listing in the National Register of Historic Places. In addition, a historic trash midden (19-001261) was identified in Hancock Park and may be associated with the Hancock family’s occupation of the area.

Historic Resources. Within the Westwood study area only two cultural resources – Chateau Colline (10335 Wilshire Boulevard) and the VA National Home Branch historic district – were identified as listed in the National Register, as identified in Table 4.3-2.¹⁰¹

¹⁰¹ The VA National Home Branch historic district is composed of five determined-eligible buildings south of Wilshire Boulevard. North of Wilshire Boulevard, there are 18 determined-eligible buildings and two listed buildings: the Wadsworth Chapel and the Los Angeles Pacific Waiting Shelter.

Table 4.3-2. Historic Properties Identified within the Study Area^a

Site #	Name	Address/Location	Community	Date Constructed	OHP Status Code
1	Chateau Colline	10335 Wilshire Blvd	Los Angeles	1935	NR #03000426 LAHCM #703
2	Veterans Administration Medical Center	Unavailable	Los Angeles	Various	NR #65001079
3	United States Army Reserve Center/ Sadao Munemori Hall	1250 Federal Ave	Los Angeles	1957	3S
4	Wilshire Terrace Luxury Apartments	10375 Wilshire Blvd	Los Angeles	1957	3S
5	N/A	10401 Wilshire Blvd	Los Angeles	1951	3S
6	Sinai Temple	10416 Wilshire Blvd	Los Angeles	1959	3S
7	Westwood United Methodist Church	10497 Wilshire Blvd	Los Angeles	1929, 1951	3S
8	Westwood Presbyterian Church	10822 Wilshire Blvd	Los Angeles	1938, 1949	3S

^a These properties were evaluated in detail on Department of Parks and Recreation Historical Resources Inventory Forms (series DPR 523). The buildings located on the Veterans Administration Medical Center parcel were divided onto separate forms in order to identify the three government buildings located on the parcel.

Key. 3S: Appears eligible for National Register as an individual property through survey evaluation.

Source: ICF International.

In addition to the two properties listed in the National Register, ICF International staff identified six more historic properties that appeared eligible for listing in the National Register as part of the survey process. Further, these six historic properties, plus the two properties listed in the National Register, were found to be listed or eligible for listing in the California Register and are, therefore, historical resources for the purposes of CEQA.

Paleontological Resources.¹⁰² According to the records search results provided by the County of Los Angeles Natural History Museum, significant vertebrate fossils are typically not found in the younger Quaternary Alluvium, at least in the uppermost layers, and there are no vertebrate fossil localities anywhere nearby from such deposits. But older Quaternary deposits underlie the younger Quaternary Alluvium even at shallow depth in the proposed project route area. In the westernmost portion of the proposed project route area the closest vertebrate fossil locality in these older Quaternary deposits is LACM 5462, almost due south of the western terminus of the proposed project route area along Michigan Avenue east of Cloverfield Boulevard between Olympic Boulevard and the Santa Monica Freeway (I-10), and is

¹⁰² McLeod, *Report of Paleontological Resources*.

particularly noteworthy because a specimen of extinct lion (*Felis atrox*) was recovered from this locality at a depth of only six feet below the surface. Further east in Westwood a fossil vertebrate locality in older Quaternary deposits, LACM 5833, occurs along the proposed project route area on the south side of Wilshire Boulevard between Thayer and Westholme Avenues, and produced fossil specimens of horse (*Equus*), kangaroo rat (*Dipodomys*), wood rat (*Neotoma*), meadow vole (*Microtus*), and pocket gopher (*Thomomys*) at shallow but unstated depth. Further eastward in Century City, a vertebrate fossil locality LACM 5501, south of the proposed project route area south of Olympic Boulevard between Avenue of the Stars and Century Park East, produced fossil specimens of pond turtle (*Clemmys marmorata*), dog (*Canis*), and horse (*Equus*), also at shallow but unstated depth. Further eastward in Beverly Hills, and adjacent to the proposed project route area, near the intersection of Wilshire Boulevard and Bedford Drive, vertebrate fossil localities LACM 3355 and 3821 produced specimens of fossil horse (*Equus*), and even-toed ungulates (*Artiodactyla*) at a depth of 40 feet below the surface.

Further to the east and adjacent to the proposed project route area, along Wilshire Boulevard between La Cienega Boulevard and Sweetzer Avenue, vertebrate fossil localities LACM 3176, and 7669-7670 produced fossil specimens of ground sloth (*Xenarthra*), mammoth (*Mammuthus*), and bison (*Bison*) at depths as shallow as ten feet below the surface. Just south of there, along Olympic Boulevard from just east of La Cienega Boulevard eastward to Alvira Street, vertebrate fossil localities LACM 3329 and 1238 produced fossil specimens of mammoth (*Mammuthus*), bison (*Bison*), and horse (*Equus*) at depths of 13 to 16 feet below the surface.

In the middle of the proposed project route area, from just west of La Cienega Boulevard to just east of La Brea Boulevard, there are a great number of vertebrate fossil localities adjacent to or near the proposed project route area, especially from asphaltic deposits in and around the famous Rancho La Brea tar pits in Hancock Park. In the most immediate vicinity of Hancock Park, from Fairfax Avenue to Hauser Boulevard between 6th Street and 8th Street, these localities all occur in asphaltic sands from the ground surface to depths of at least 20 feet. These deposits are perhaps the densest accumulation of vertebrate fossils in the world, and are unique in their occurrence in a major urban area and still being productive after more than 100 years of excavation. In fact, one localized deposit designated as Pit 91, locality LACM 6909, is still being actively excavated.

The Rancho La Brea asphalt deposits are also unusual in preserving a substantial portion of the total biota, including an extensive list of fossil plants, insects, and invertebrates in addition to the justly renowned vertebrate fauna. Over 200 species of fossil vertebrates are represented in these deposits, including extinct forms of bison, camel, horse, mammoth, mastodon, ground sloths, dire wolf, lion, condor, eagle, turkey, etc. One of the earliest human skeletal remains has also been recovered from these deposits. Numerous holotypes (name bearing specimens for species new to science) have come from the Rancho La Brea deposits, including the holotype of the sabre-toothed tiger (*Smilodon californicus* = *Smilodon fatalis*), designated as the California state fossil. The Rancho La Brea paleobiota

documents climatic change in the Los Angeles Basin during the latest Pleistocene and earliest Holocene, including the last “ice age.” It is so significant that this deposit served as the basis for designating the Late Pleistocene as the North American Land Mammal Age called the Rancholabrean.

In addition to the extensive fossil vertebrate collections amassed from within Hancock Park, excavations in various areas surrounding the park have also uncovered fossil vertebrate remains, most from asphaltic sands and sometimes in dense accumulations. The closest vertebrate fossil localities immediately outside of Hancock Park are LACM 1724, 4204, 4590, 5481, 6345, 7247, and 7297-7298, all producing specimens similar to those from the Hancock Park localities. Localities LACM 6345, 4204, 7247, and 5481 are adjacent to the proposed project route area along Wilshire Boulevard.

Further eastward, just east of La Brea Avenue to Tremaine Avenue south of Wilshire Boulevard to just south of Olympic Boulevard, there are additional vertebrate fossil localities from asphaltic sands. Locality LACM 1198 produced fossil mastodon (*Mammuth*) at a depth of 17 feet, LACM 1814 produced a specimen of fossil bovid (*Preptoceras sinclairi*) at a depth of only six feet, and locality LACM 5599 produced fossil camel (*Camelops*) at a depth of 12 feet.

In the eastern portion of the proposed project route area, the closest vertebrate fossil locality from older Quaternary deposits is LACM 6204, along Wilshire Boulevard near the intersection with Serrano Avenue, that produced a fossil specimen of mammoth (*Mammuthus*) at unknown depth. Further north, however, near the intersection of Western Avenue and Council Street, the vertebrate fossil locality LACM 5845, also from these older Quaternary sediments, produced a specimen of fossil mastodon (*Mammuthidae*) at a depth of only five to six feet below the surface, and further eastward, just north of the Hollywood Freeway (U.S. 101) at about the intersection of Madison Avenue and Middlebury Street, the vertebrate fossil locality LACM 3250 produced a fossil specimen of mammoth (*Mammuthus*) at a depth of about eight feet below street level.

From Fernando Formation deposits, the closest vertebrate fossil locality is LACM 3868, just southeast of the eastern terminus of the proposed project route area from Wilshire Boulevard north to 6th Street between Bixel Street and Lucas Avenue, that produced fossil specimens of white sharks (*Carcharocles* and *Carcharodon sulcidens*). Other nearby vertebrate fossil localities from the Fernando Formation are LACM 6971, near the corner of 6th and Flower Streets, and LACM 4726, at the corner of 4th and Hill Streets, both further east-southeast of the eastern terminus of the proposed project route area, that produced fossil specimens of eagle ray (*Myliobatis*), white sharks (*Carcharocles* and *Carcharodon sulcidens*), and sheephead (*Semicossyphus*). Specimens from locality LACM 6971 were collected at a depth of 60 feet below street level, but the collecting depth for localities LACM 3868 and 4726 are unknown.

The closest vertebrate fossil localities from the Puente Formation were all recovered during excavations for the LACMTA Red Line. Directly along the

proposed project route area around the MacArthur Park Metro station, along Wilshire Boulevard between Alvarado Street and Coronado Street, the vertebrate fossil localities LACM 6198-6199, 6200-6201, and 6254 produced fossil fish specimens of the families Bathylagidae, deep sea smelt, Belonidae, needlefishes, Moridae, moras, Myctophidae, lanternfishes, and Scombridae, mackerels, as well as a fossil whale rib fragment at depths between 40 and eighty feet below the surface. Slightly farther west around the LACMTA rail station at Vermont Avenue and Wilshire Boulevard are the localities LACM 6202 and 6203 from the Puente Formation at a depth of 60 to 80 feet beneath the surface. Fossil specimens of eels, Anguilliformes, and needlefishes, Belonidae, were recovered at LACM 6203. Locality LACM 6202, however, was an extremely productive locality that contained an extensive fauna of fossil fish.

4.3.2 Thresholds of Significance

The CEQA Guidelines state that a project involves a “substantial adverse change” when one or more of the following occurs:

- Substantial adverse change in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired.
- The significance of a historical resource is materially impaired when a project:
 - a. Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources;
 - b. Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the PRC or its identification in a historical resources survey meeting the requirements of section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
 - c. Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

The Secretary of the Interior’s Standards for Rehabilitation (Standards) are codified at 36 Code of Federal Regulations (CFR) Section 67.7. The Standards are designed to ensure that rehabilitation does not impair the significance of a historic property. In most circumstances, the Standards are relevant in assessing whether there is a substantial adverse change under CEQA. Section 15064.5b(3) of the CEQA Guidelines states in part that “...a project

that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995), Weeks and Grimmer, shall be considered as mitigated to a level of less than a significant impact on the historic resource."

4.3.3 Environmental Impacts

Methodology

Archaeological Resources

The project route was divided into segments of non-construction related work, such as the repaving and/or restriping of Wilshire Boulevard, and ground disturbing construction work, such as the selective widening of Wilshire Boulevard and reconstruction of curb lanes. A records search was conducted at the SCCIC in July 2008 in order to identify any archaeological resources that have been previously identified in the vicinity of the project area. In addition, a field survey of the project area was conducted in October 2008, focusing on only those areas where construction-related work is proposed. While walking the project corridor, it was observed that the area is heavily urbanized and surrounded by residential and commercial complexes and light manufacturing. The only visible ground surface was in the few areas with landscaped vegetation and the La Brea Tar Pits area.

Historic Resources

In order to identify and evaluate historic resources, a multi-step methodology was utilized. Record searches for previous documentation of identified historic resources were conducted, including listings in the National Register of Historic Places, determinations of eligibility for National Register listings, the California Historical Resources Inventory database and the City of Pasadena's historic resource inventories. A site inspection was made to document existing conditions, identify character-defining features of those properties evaluated as significant, and define the historic resources study area. A reconnaissance survey, including photography and background research, was then made of the area. Additional background and site-specific research was conducted in order to evaluate the properties within their historic context. National Register, California Register, and City of Los Angeles criteria were employed to assess the significance of the properties.

Paleontological Resources

In order to identify known paleontological resources in the vicinity of the project area, a request was made by ICF to Dr. Samuel A. McLeod of the Los Angeles County Museum of Natural History's Vertebrate Paleontology Section. In a letter dated December 21, 2009, Dr. McLeod summarized his findings of known paleontological locality and specimen data in the vicinity of the proposed project. Dr. McLeod's letter is included in Appendix E.

Analysis of Project Impacts

Impact CR-1: Potential impacts on archaeological resources.

A less-than-significant impact on archaeological resources would occur.

La Brea Tar Pits Study Area. During the archaeological field survey, it was observed that the majority of this area is paved and developed, with few open spaces for landscape vegetation. The curb lanes on Wilshire Boulevard in the area near the La Brea Tar Pits have parking restrictions, allowing them to be used by traffic during peak hours. These lanes, however, are in extremely poor condition and are not used by buses and other vehicles to a high degree. As such, drivers tend to use the number one and number two lanes instead. Reconstruction of the roadway base (i.e., below the surface of the pavement) as well as curbs and gutters, where damaged, are proposed for this segment of the alignment. Despite heavy urbanization, buried cultural resources have been identified in the vicinity of the proposed construction zone. Accordingly, there is the potential for buried archaeological deposits to exist beneath previously disturbed and developed land surfaces in this portion of the project area. For purposes of this project, pavement replacement is not considered a ground-disturbing activity. Therefore, the proposed improvements would have no direct or indirect impact on archaeological resources, particularly the La Brea Tar Pits in the project area. However, in compliance with Section 15064.5(c) of the CEQA Guidelines, if cultural materials (prehistoric or historic artifacts) are encountered during construction, work shall stop in the vicinity of the find until a qualified archaeologist can assess the material and recommend further action, if necessary. Design of a treatment plan and consultation with the State Historic Preservation Officer may be required to appropriately mitigate any unanticipated discoveries. Treatment measures typically include development of avoidance strategies, capping with fill material, or the mitigation of impacts through data recovery programs that include excavation or detailed documentation, or other mitigation measures, following standard archaeological procedures.

Westside Study Area. During the archaeological field survey, it was observed that the majority of this area is paved and developed, with few open spaces for landscape vegetation. No surficial archaeological resources were observed during the survey. For purposes of this project, curb or pavement replacement is not considered a ground-disturbing activity. As a result, based on field observations and a review of the proposed project, the removal of existing “jut-outs” and alignment of curbs would have no direct or indirect impact on archaeological resources.

Impact CR-2: Impacts on historic resources.

A less-than-significant impact on historic resources would occur.

The proposed project reduces the sidewalk widths on the north and south sides of Wilshire Boulevard between Federal Avenue and Barrington Avenue, as well as on both sides of Wilshire Boulevard between Bonsall Avenue and Federal Avenue. Of the eight buildings that were identified as historical resources under the CEQA Guidelines, none were found to be affected by the proposed project. Although an identified resource located at 1250 Federal Avenue (United States Army Reserve Center/Sadao Munemori Hall) is located along a stretch of curb cut, this action would not have a direct or indirect impact on the historic resource. As a result, based on field observations and a review of the proposed project, modifications to the sidewalks adjacent to the eight historic resources would have no direct or indirect impact on the characteristics that qualify those resources for inclusion in the National Register or the California Register.

Impact CR-3: Impacts on paleontological resources.

A less-than-significant impact on paleontological resources would occur.

A thorough examination of paleontological locality and specimen data of the Los Angeles County Natural History Museum's Vertebrate Paleontology Section reveal that several fossil vertebrate localities lie directly along the proposed project route area, and there are other localities nearby that occur in the same sedimentary deposits as are exposed or occur at depth in the proposed project route area. Excavations in the older Quaternary deposits throughout the entire proposed project route area, at depths as shallow as six feet, have a good chance of uncovering significant fossil vertebrate remains. Deeper excavations in the eastern portion of the proposed project route area that extend down into older marine deposits of the Fernando Formation or the Puente Formation likewise have a good chance of encountering significant vertebrate fossils. Following the Society of Vertebrate Paleontology guidelines, the paleontological sensitivity of the proposed project route area is rated high.

However, given that most of the construction of the proposed project would be surface changes to pavement, sidewalks, and curbs, there is little potential to affect previously undisturbed paleontological resources. In those instances where sidewalk widths would be reduced, roadway base or curb lanes reconstructed, or turn pockets altered, the projected depths of subsurface work are anticipated to be very shallow with no excavation or disturbance of sub-grade below two feet. Given that the shallowest depth where significant fossil vertebrate remains may be encountered is six feet, it is anticipated that the proposed project would result in no direct or indirect impacts on paleontological resources. Nevertheless, compliance with Section 15064.5(d) of the CEQA Guidelines would ensure that no significant impact would occur. CEQA Guidelines provide that if paleontological resources are discovered during construction-related ground-disturbing activities, work shall stop in that area and within 50 feet of the find until a qualified paleontologist can assess the

significance of the find and, if necessary, develop appropriate treatment measures. Treatment measures may include monitoring by a qualified paleontologist during construction-related ground-disturbing activities. The qualified paleontological monitor shall retain the option of reducing monitoring if, in his or her professional opinion, the sediments being monitored were previously disturbed. Monitoring may also be reduced if the potentially fossiliferous units, previously described, are not present or, if present, are determined by qualified paleontological personnel to have a low potential to contain fossil resources. The monitor shall be equipped to salvage fossils and samples of sediments as they are unearthed to avoid construction delays and empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens. Recovered specimens shall be prepared to a point of identification and permanent preservation, including the washing of sediments to recover small invertebrates and vertebrates. Specimens shall be curated into a professional, accredited museum repository with permanent retrievable storage. A report of findings, with an appended itemized inventory of specimens, shall be prepared, which will signify completion of the program to mitigate impacts on paleontological resources.

As detailed in Section 15064.5(e) of the CEQA Guidelines, if human remains are exposed during construction, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. Construction must halt in the area of the discovery of human remains, the area must be protected, and consultation and treatment shall occur as prescribed by law. If the coroner determines the remains to be Native American, the coroner must contact the NAHC within 24 hours. If Native American human remains are discovered during project construction, it will be necessary to comply with state laws relating to the disposition of Native American burials, which are under the jurisdiction of the NAHC (PRC Section 5097). For remains of Native American origin, no further excavation or disturbance shall take place until the most likely descendant of the deceased Native American(s) has made a recommendation to the landowner or the person responsible for the excavation work regarding the means of treating or disposing of the human remains and any associated grave goods, with appropriate dignity, as provided in PRC Section 5097.98, or the NAHC is unable to identify a most likely descendant or the descendant fails to make a recommendation within 48 hours after being notified by the commission. In consultation with the most likely descendant, the project archaeologist and the project proponent will determine a course of action regarding preservation or excavation of Native American human remains, and this recommendation will be implemented expeditiously. If a most likely descendent cannot be located or does not make a recommendation, the project archaeologist and the project proponent will determine a course of action regarding preservation or excavation of Native American human remains, which will be submitted to the NAHC for review prior to implementation.

4.3.4 Mitigation Measures

Archaeological Resources

The ICF survey did not result in the identification of any surficial prehistoric or historic archaeological sites or features. Therefore, no impacts would occur, and no mitigation measures are required.

Historic Resources

No impacts on historic properties or historical resources were identified; therefore, no mitigation measures are required.

Paleontological Resources

For purposes of this project, pavement replacement is not considered a ground-disturbing activity. In addition, due to previous complications of encountering tar seepage during construction related activities in this area, the proposed ground disturbance for this project is anticipated not to go beyond two feet below the surface. Therefore, no impacts would be anticipated to occur, and no mitigation measures are required.

4.3.5 Level of Significance After Mitigation

Compliance with Section 15064.5 of the CEQA Guidelines would ensure that significant impacts are avoided, and adverse effects would be minimized. Compliance with these guidelines would ensure that any impacts of the project to identified archaeological and/or paleontological resources, particularly in the area of the La Brea Tar Pits, would be less than significant.

4.4 Noise

4.4.1 Environmental Setting

Introduction

This section describes the existing setting and noise conditions within the study corridor and evaluates potential construction, direct, indirect, and cumulative noise impacts of the proposed project.

Noise Terminology

Noise is generally defined as unwanted sound. It may be loud, unpleasant, unexpected, or undesired sound typically associated with human activity that interferes with or disrupts the normal noise-sensitive on-going activities of others. Although exposure to high noise levels has been demonstrated to cause hearing loss, the principal human response to environmental noise is annoyance. The response of individuals to similar noise events is diverse and influenced by the type of noise, the perceived importance and suitability of the noise in a particular setting, the time of day and type of activity during which the noise occurs, and the sensitivity of the individual. The response to vibration is similar. First, the vibration needs to be of sufficient magnitude to be perceived, and, second, it typically would have to interfere with a desirable activity to cause annoyance.

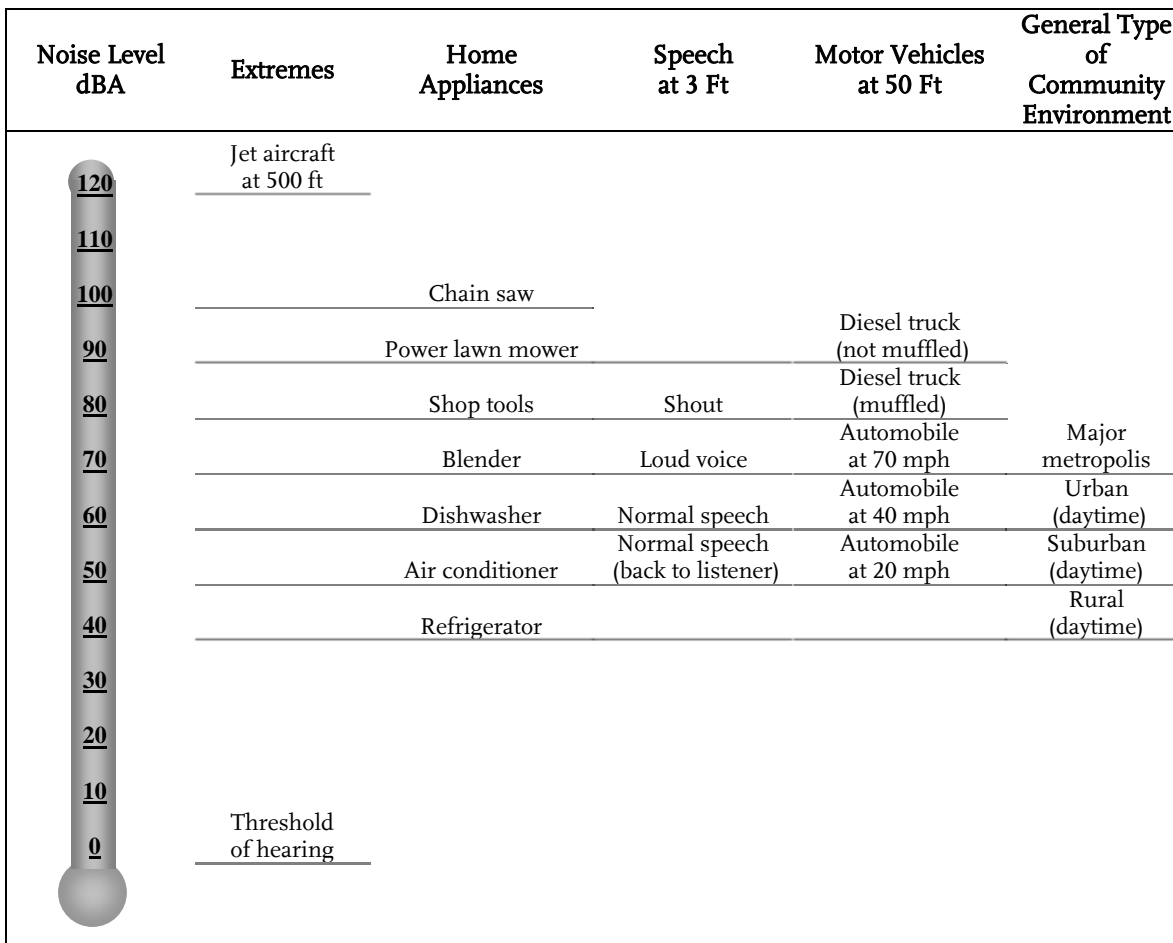
Sound is a physical phenomenon consisting of minute vibrations that travel through a medium such as air that are sensed by the human ear. Sound is generally characterized by frequency and intensity. Frequency describes the sound's pitch and is measured in hertz (Hz); intensity describes the sound's level, volume, or loudness and is measured in decibels (dB). Sound frequency is a measure of how many times each second the crest of a sound pressure wave passes a fixed point. For example, when a drummer beats a drum, the skin of the drum vibrates at a certain number of times per second. Vibration of the drum skin at a rate of 100 times (or cycles) per second generates a sound pressure wave that is said to be oscillating at 100 Hz, and this pressure oscillation is perceived as a tonal pitch of 100 Hz. Sound frequencies between 20 Hz and 20,000 Hz are within the range of sensitivity of the best human ear.

Sound from a tuning fork contains a single frequency and may, therefore, be referred to as a *pure tone*. However, most sounds heard in the environment do not consist of a single frequency but rather a broad band of frequencies differing in individual sound levels. The method commonly used to quantify environmental sounds consists of evaluating all the frequencies of a sound according to a weighting system that reflects that human hearing is less sensitive at low frequencies and extremely high frequencies than at the mid-range frequencies. This frequency-dependent modification is called A-weighting, and the decibel level measured is called the A-weighted sound level (dBA). In practice, the level of a noise source is conveniently measured

using a sound level meter that includes a filter corresponding to the dBA curve.

For informational purposes, typical community sound levels are presented in Figure 4.4-1.

Figure 4.4-1. Sound Levels of Typical Noise Sources



Source: Harris Miller Miller & Hanson, Inc. 2003. Noise and Vibration Impact Assessment for the San Francisco Bay Area Rapid Transit District (BART) Warm Springs Extension Project. Draft report. February. (HMMH Report No. 298760-01.) Burlington, MA. Prepared for ICF.

A sound level of 0 dBA is approximately the threshold of human hearing and is barely audible under extremely quiet listening conditions. Normal speech has a sound level of approximately 60 dBA. Sound levels above about 120 dBA begin to be felt inside the human ear as discomfort and eventually pain at still higher levels.

In general, human sound perception in a community environment is such that a change in sound level of 3 dB is just noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving the sound level; this relation holds true for loud sounds and for quiet sounds. Because of the logarithmic scale of the decibel unit, sound levels cannot be

added or subtracted arithmetically and are somewhat cumbersome to handle mathematically. However, a simple rule of thumb is useful in dealing with sound levels: if a sound's physical intensity is doubled, the sound level increases by 3 dB, regardless of the initial sound level. For example, 60 dB plus 60 dB equals 63 dB, and 80 dB plus 80 dB equals 83 dB. As mentioned earlier, however, a perception of doubling of sound level requires about a 10-decibel increase.

Although the A-weighted sound level may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise includes a mixture of noise from distant sources that create a relatively steady background noise in which no particular source is identifiable. A single descriptor called the L_{eq} (equivalent sound level) is used to describe the average acoustical energy in a time-varying sound. L_{eq} is the energy-mean A-weighted sound level present or predicted to occur during a specified interval. It is the "equivalent" constant sound level that a given source would need to produce to equal the fluctuating level of measured sound. It is often desirable to also know the range of acoustic levels of the noise source being measured. This is accomplished through the L_{max} and L_{min} noise descriptors. They represent the root-mean-square maximum and minimum obtainable noise levels measured during the monitoring interval. The L_{min} value obtained for a particular monitoring location represents the quietest moment occurring during the measurement period and is often called the *acoustic floor* for that location. Likewise, the loudest momentary sound during the measurement is represented by L_{max} .

To describe the time-varying character of environmental noise, the statistical noise descriptors L_{10} , L_{50} , and L_{90} (or other percentile values) may be used. They are the noise levels equaled or exceeded 10, 50, and 90 percent, respectively, of the time during the measured interval. The percentile descriptors are most commonly found in nuisance noise ordinances to allow for different noise levels for various portions of an hour. For example, the L_{50} value would represent 30 minutes of an hour period, the L_{25} would be associated with 15 minutes of an hour, and so on.

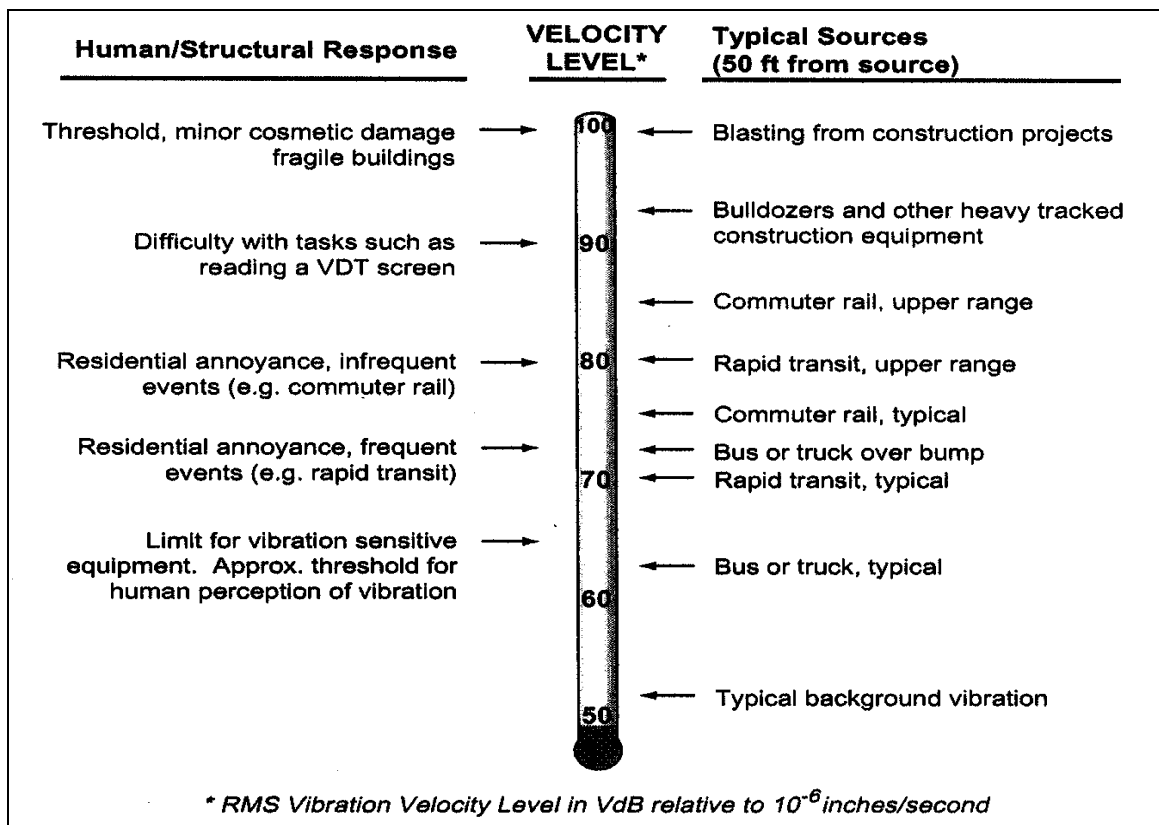
Other descriptors of noise are commonly used to help determine noise/land use compatibility and to predict an average community reaction to adverse effects of environmental noise, including traffic-generated and industrial noise. One of the most universal descriptors is the Day-Night Average Sound Level (DNL or L_{dn}). The L_{dn} noise metric represents a 24-hour period and applies a time-weighted factor designed to penalize noise events that occur during nighttime hours, when relaxation and sleep disturbance is of more concern than during daytime hours. Noise occurring during the daytime hours between 7:00 a.m. and 10:00 p.m. receives no penalty. Noise occurring between 10:00 p.m. and 7:00 a.m. is penalized by adding 10 dB to the measured level. In California, the use of the Community Noise Equivalent Level (CNEL) descriptor is also permitted (and is used by the City of Los Angeles and County of Los Angeles). CNEL is similar to L_{dn} , except CNEL adds a 5-dB penalty for noise occurring during evening hours between 7:00 p.m. and 10:00 p.m. and adds a 10-dBA penalty for noise occurring during the hours of 10:00 p.m. to 7:00 a.m.

Vibration Terminology

Groundborne vibration is a small, rapidly fluctuating motion transmitted through the ground. The strength of groundborne vibration diminishes (or “attenuates”) fairly rapidly over distance. Some soil types transmit vibration quite efficiently; other types (primarily “sandy” soils) do not. There are several basic measurement units commonly used to describe the intensity of ground vibration. The descriptors used by the Federal Transit Administration (FTA), one of the agencies which has thoroughly examined and set forth criteria and methodologies for community vibration analysis, are peak particle velocity, abbreviated PPV, in units of inches per second (IPS) and the velocity decibel, abbreviated VdB. The velocity parameter (rather than acceleration or displacement) best correlates with human perception of vibration. Thus, the response of humans, buildings and sensitive equipment to vibration is described in this section in terms of the root-mean square (RMS) velocity level in VdB units relative to one micro-inch per second. As a point of reference, the average person can just barely perceive vibration velocity levels below 70 VdB (typically in the vertical direction).

A comparison of common groundborne vibration levels is shown in Figure 4.4-2. Typical background vibration levels are between 50 and 60 VdB, whereas the levels for minor cosmetic damage to fragile buildings or blasting are generally 100 VdB.

Figure 4.4-2. Typical Levels of Groundborne Vibration



Source: FTA, 2006.

Physical Setting

The proposed project would take place along Wilshire Boulevard between Valencia Street and Centinela Avenue in the City of Los Angeles, including the portion between Veteran Avenue and Federal Avenue (0.8 mile) that is under the jurisdiction of the County of Los Angeles. The portion of Wilshire Boulevard within the City of Beverly Hills (between San Vicente Boulevard and one block west of Whittier Drive) is not included as part of the proposed project. The project corridor location (total of 9.9 miles long) is shown in Figures 2-1 and 2-2 in Chapter 2.0.

Existing Land Use

A variety of land uses are located adjacent to the Wilshire corridor. The corridor is densely developed with an abundance of various commercial uses. The majority of land uses located adjacent to the Wilshire corridor consist of parcels zoned for office, retail, commercial, residential, or institutional uses (e.g., museums). Commercial development and some multi-family residential uses front both sides of the corridor and the intersecting north/south streets.

The eastern portion of the Wilshire corridor, which is located in the Westlake community of the City of Los Angeles includes mainly commercial office and retail (small businesses and strip malls) uses, interspersed with some residential uses, parking lots and community facilities. This portion of the segment also includes MacArthur Park and Lafayette Park. This segment also consists of a mix of mid-rise (8 to 10 stories) and low-rise buildings.

A long, narrow corridor of commercial activity exists along Wilshire Boulevard in the Wilshire Community Plan Area. The commercial activities along this corridor are comprised of professional offices and retail (strip mall and small businesses), interspersed with a few multi-family residential areas. Additionally, the corridor includes public attractions, such as Museum Row, Hancock Park, and the La Brea Tar Pits. The structures fronting Wilshire Boulevard contain numerous high-rise (20 stories) and mid-rise office buildings.

The segment of the Wilshire corridor located within the community of Westwood consists of multi-family housing, both high-medium and medium density residential uses. High-rise condominium towers are located along Wilshire Boulevard between the Los Angeles Country Club and Malcolm Avenue. Near Westwood Boulevard, the high-rise office corridor along Wilshire Boulevard serves as a regional business center with financial institutions and corporate headquarters.

The segment of the Wilshire corridor within the West Los Angeles community consists of commercial land uses, primarily strip mall development. The majority of commercial facilities are either small-scale and free standing or mini-mall type buildings designed to primarily serve local neighborhoods. The Los Angeles Veterans Administration and Hospital

Complex and the Los Angeles National Cemetery are located to the south and north of this segment of the corridor, respectively.

Ambient Noise Levels

A sound level survey was conducted on December 4, 2009 to evaluate existing sound levels and assess potential project noise impacts on the surrounding area. Short-term sound levels were measured at existing and future noise-sensitive receptors adjacent to the project area, as shown in Figures 4.4-3 and 4.4-4.

Short-term (one hour or less) attended sound level measurements were taken with a Rion NL-21 Sound Level Meter (SLM). This instrument is categorized as Type 2, Precision Grade. Noise was measured at eight representative locations (ST-1 through ST-8) along the project alignment. Noise measurements were taken at or adjacent to several schools (ST-1, ST-3, ST-4) located along Wilshire Boulevard, adjacent to nearby residences (ST-2, ST-5, ST-7, ST-8) along Wilshire Boulevard, and at a park on the north side of Wilshire Boulevard (ST-6).

The sound-measuring instrument used for the survey was set to the *Slow* time response and the dBA scale for all of the noise measurements. To ensure accuracy, the laboratory calibration of the instrument was field checked before and after each measurement period using an acoustical calibrator. The accuracy of the acoustical calibrator is maintained through a program established through the manufacturer and traceable to the National Institute of Standards and Technology. The sound measurement instrument meets the requirements of the American National Standard S 1.4-1983 and the International Electrotechnical Commission Publications 804 and 651. In all cases, the microphone height was five feet above the ground and the microphone was equipped with a windscreen.

During the field measurements, physical observations of the predominant noise sources were noted. The noise sources in the project area typically consisted of traffic sounds, distant children playing, distant people talking, and other community noises. The results of the sound level measurements are summarized in Table 4.4-1. As shown in Table 4.4-1, measured noise levels varied from 63 dBA L_{eq} at ST-6 to 76 dBA L_{eq} at ST-8, when rounded to whole numbers as is customary for community noise measurements.¹⁰³

¹⁰³ Noise measurements and most noise modeling calculations are conducted using instrumentation and models that provide data to the tenth of a decibel. However, it is generally the state of the practice to round to whole numbers in recognition of the fact that the actual level of scientific precision which can be relied upon in the community noise setting is on the order of whole decibels.

Figure 4.4-3. Noise Measurement/Modeling Locations East

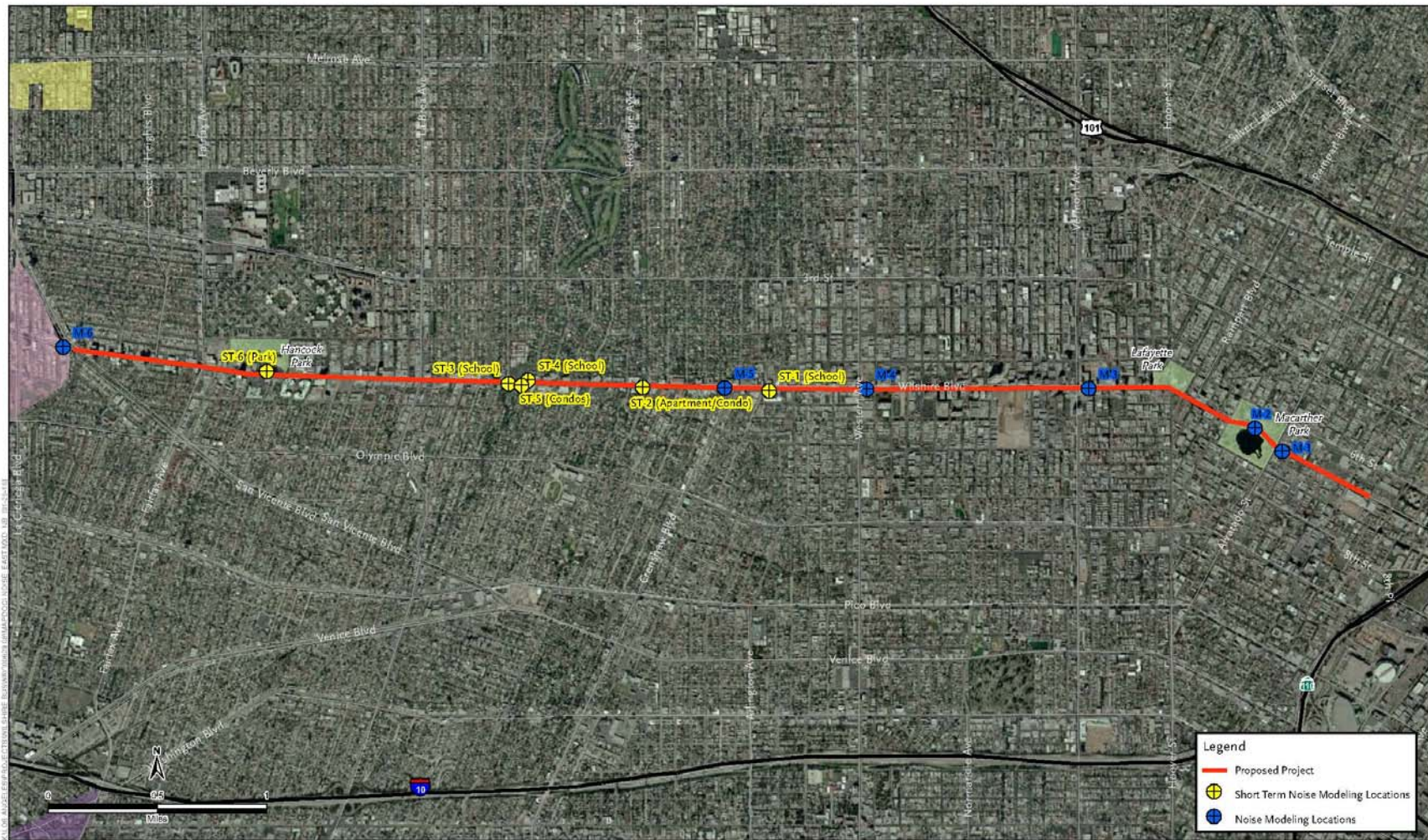
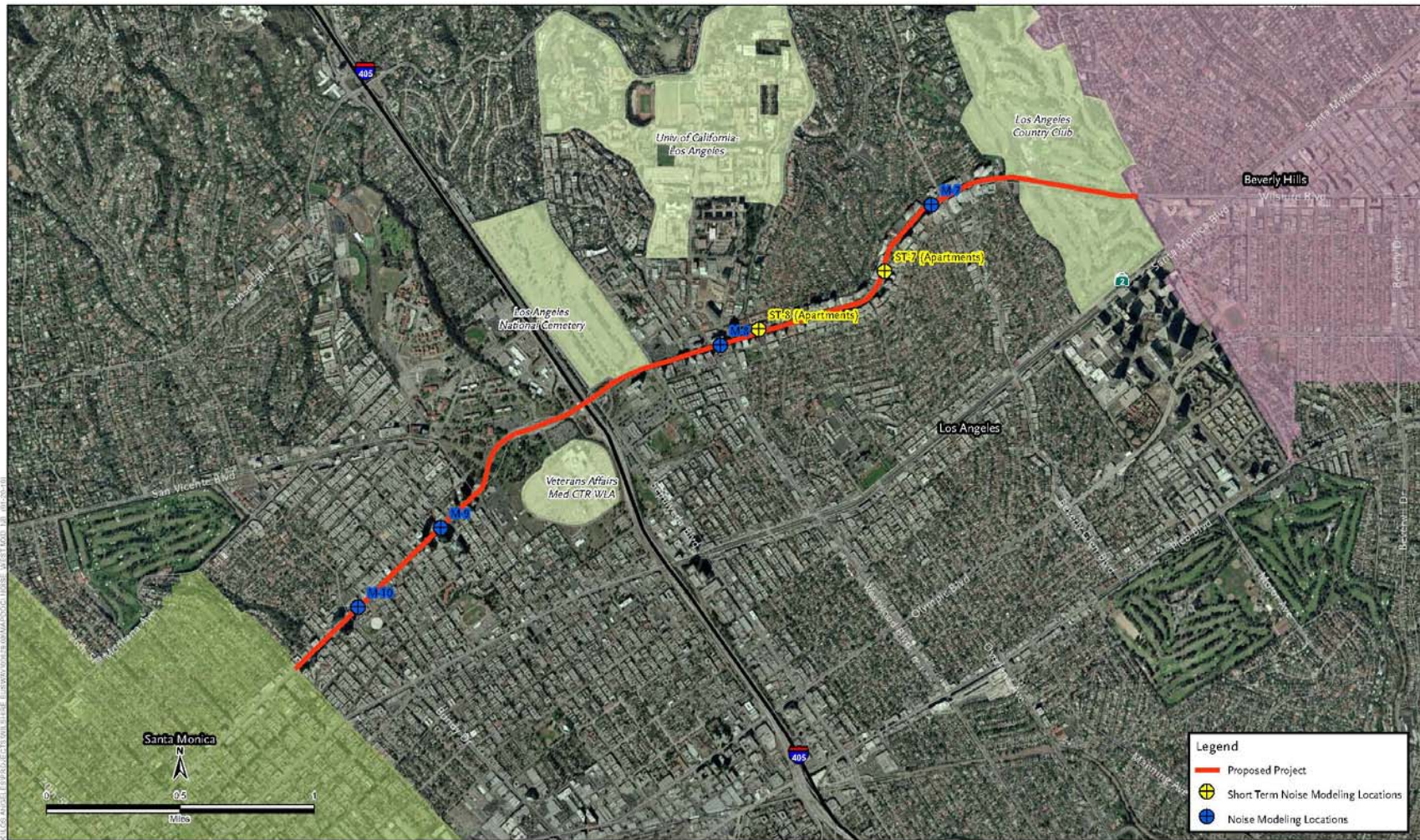


Figure 4.4-4. Noise Measurement/Modeling Locations West



SOURCE: ESRI Streetmap USA (2007), ESRI USA Imagery (2005)

Table 4.4-1: Short-Term Sound Level Measurement Results

Site ID	Measurement Location	Measurement Period			Noise Sources	Measurement Results (dBA)					
		Date	Start Time	Duration (mm:ss)		L _{eq}	L _{max}	L _{min}	L ₉₀	L ₅₀	L ₁₀
ST-1	Across from 4049 Wilshire Blvd., in front of Wilshire Park Elementary; set back approx. 50' from centerline of Wilshire Boulevard.	12-4-09	10:28	15:00	Traffic, distant children playing	71.4	82.6	58.3	63.7	70.4	74.4
ST-2	4460 Wilshire (residential building); set back approx. 75' from centerline of Wilshire Boulevard.	12-4-09	11:56	15:00	Traffic	75.1	85.1	53.8	64.5	73.7	78.3
ST-3	In front of 4900 Wilshire (Wilshire Private School); set back approx. 40' from centerline of Wilshire Boulevard.	12-4-09	12:56	15:00	Traffic, distant children playing	72.8	85.7	53	65.1	71.1	76
ST-4	Southeast corner of John Burroughs Middle School campus; set back approx. 60' from centerline of Wilshire Boulevard	12-4-09	13:45	15:00	Traffic	70.1	83.1	56.9	62.6	69.3	72.7
ST-5	4848 Wilshire (residential building); set back approx. 80' from centerline of Wilshire Boulevard.	12-4-09	14:39	15:00	Traffic, distant children playing	71.9	81.6	52.6	66.4	70.7	74.6

Table 4.4-1: Short-Term Sound Level Measurement Results (Continued)

Site ID	Measurement Location	Measurement Period			Noise Sources	Measurement Results (dBA)					
		Date	Start Time	Duration (mm:ss)		L _{eq}	L _{max}	L _{min}	L ₉₀	L ₅₀	L ₁₀
ST-6	Southern portion of Hancock Park and La Brea Tar Pits, north of Wilshire; set back approx. 100' from centerline of Wilshire Boulevard.	12-4-09	15:38	15:00	Traffic, distant people talking	63.2	77.3	52.8	57.4	61.3	66.1
ST-7	10530 Wilshire Blvd. (residential building); set back approx. 75' from centerline of Wilshire Boulevard.	12-4-09	17:10	15:00	Traffic	75	84.1	57.5	66.5	74.3	77.9
ST-8	10833 Wilshire Blvd. (residential building); set back approx. 75' from centerline of Wilshire Boulevard.	12-4-09	18:43	15:00	Traffic, distant people talking	75.8	84.2	60.1	69.8	75.2	78.3

Source: ICF, 2009.

During the field measurements, physical observations of the predominant noise sources were noted. The noise sources in the project area typically consisted of traffic sounds, distant children playing, distant people talking, and other community noises. The results of the sound level measurements are summarized in Table 4.4-1. As shown in Table 4.4-1, measured noise levels varied from 63 dBA L_{eq} at ST-6 to 76 dBA L_{eq} at ST-8, when rounded to whole numbers as is customary for community noise measurements.¹⁰⁴

Existing Vibration Setting

Similar to the environmental setting for noise, the vibration environment is dominated by traffic-related vibration from nearby sources. Heavy trucks or other vehicles can generate groundborne vibration of varying magnitude, depending on vehicle type, weight, pavement and geological conditions.

¹⁰⁴ Noise measurements and most noise modeling calculations are conducted using instrumentation and models that provide data to the tenth of a decibel. However, it is generally the state of the practice to round to whole numbers in recognition of the fact that the actual level of scientific precision which can be relied upon in the community noise setting is on the order of whole decibels.

Vibration levels were not readily perceptible at noise/vibration-sensitive land uses in the project vicinity.

4.4.2 Regulatory Setting

Federal

While there are no federal noise requirements or regulations applicable to the local actions of the City or County of Los Angeles, the FTA and Federal Railroad Administration (FRA) both recommend thorough noise and vibration assessments through comprehensive guidelines for any mass transit or high-speed railroad projects that would pass by residential areas. Since FTA is the lead agency under NEPA for the proposed project, a noise and vibration assessment per federal NEPA guidelines is included in Chapter 7 of this document.

State

The State of California, Governor's Office of Planning and Research has published recommended guidelines for the preparation and content of the noise element of a general plan. Each jurisdiction is required to consider these guidelines when developing the general plan noise element and determining acceptable noise levels within the community. The purpose of the noise element is to limit the exposure of the community to excessive noise levels.

A noise element must identify and appraise noise problems in the community by analyzing and quantifying current and projected noise levels for all stationary and mobile noise sources in the community. Noise contours are then developed and shown for all the noise sources in the community and are eventually used as a guide for establishing a pattern of land uses that minimizes the exposure of community residents to excessive noise.

California Department of Transportation

Because neither the state nor the local municipalities maintain regulatory standards for vibration sources, potential structural damage and human annoyance associated with vibration from construction activities were evaluated based on Caltrans vibration limits (see Table 4.4-2). A vibration level of 0.10 inches per second peak particle velocity (PPV) was used to evaluate impacts on nearby receptors since this level represents the boundary between barely perceptible and distinctly perceptible vibration as recognized by Caltrans and others.

Table 4.4-2. Reaction of People and Damage to Buildings at Various Continuous Vibration Levels

Vibration Level - Peak Particle Velocity (ppv) (in/sec)	Human Reaction	Effect on Buildings
0.006–0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of “architectural” damage to normal buildings
0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibration)	Threshold at which there is a risk of “architectural” damage to normal dwelling-houses with plastered walls and ceilings; special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize “architectural” damage
0.4–0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause “architectural” damage and possibly minor structural damage

Source: California Department of Transportation, *Transportation- and Construction-Induced Vibration Guidance Manual*, 2004.

Local

The proposed project lies primarily within the jurisdiction of the City of Los Angeles, with the exception of the 0.8 mile segment of Wilshire Boulevard between Veteran Avenue and Federal Avenue within the jurisdiction of the County of Los Angeles. The City and County of Los Angeles have established policies and regulations concerning the generation and control of noise that could adversely affect its citizens and noise-sensitive land uses.

The following noise regulations are nonetheless provided as information about the existing local regulatory framework in the City and County of Los Angeles with regards to noise.

City of Los Angeles Noise Ordinance (Municipal Code)

The Los Angeles Noise Ordinance is part of the Los Angeles Municipal Code, which specifies hours for construction activities.¹⁰⁵ The Los Angeles Noise Ordinance states that construction or other noise-generating activity shall not disturb the occupied sleeping quarters of any dwelling, hotel, apartment, or other place of residence between 9:00 p.m. and 7:00 a.m., or occur on or within

¹⁰⁵ City of Los Angeles. 2004. *Municipal Code*. Chapter IV, Article 1, Section 41.40, Construction Activities. October 24. Available: <<http://lacodes.lacity.org/NXT/gateway.dll?f=templates&fn=default.htm>>.

500 feet of residential property between 6:00 p.m. and 8:00 a.m. on Saturdays or federal holidays or at any time on Sundays.¹⁰⁶ Additionally, the operation, repair, or servicing of construction equipment, as well as the job-site delivery of construction materials, is prohibited between 6:00 p.m. and 8:00 a.m. on Saturdays and anytime on Sundays.¹⁰⁷ Los Angeles noise standards are applied to actions related to conditional use activities and when considering certain noisy commercial uses, such as automobile repair businesses, cleaning establishments, and carpentry shops.¹⁰⁸ Daytime noise limits apply from 7:00 a.m. to 10:00 p.m., and nighttime noise limits apply from 10:00 p.m. to 7:00 a.m.¹⁰⁹ The Los Angeles Municipal Code states that “between the hours of 10:00 p.m. and 7:00 a.m. of the following day, no person shall operate any lawn mower, backpack blower, lawn edger, riding tractor, or any other machinery, equipment, or other mechanical or electrical device, or any hand tool, which creates a loud, raucous or impulsive sound, within any residential zone or within 500 feet of a residence.”¹¹⁰ Further, the code states that “no person shall operate or cause to be operated any machinery, equipment, tools, or other mechanical or electrical device, or engage in any other activity in such manner as to create any noise which would cause the noise level on the premises of any other occupied property, or, if a condominium, apartment house, duplex, or attached business, within any adjoining unit, to exceed the ambient noise level by more than five (5) decibels.”¹¹¹

The noise ordinance also specifies the maximum noise level for powered equipment or powered hand tools.¹¹² Any powered equipment or powered hand tool that produces a maximum noise level exceeding 75 dBA at a distance of 50 feet from construction and industrial machinery is prohibited. However, the above noise limitation shall not apply where compliance is technically infeasible.

Public entertainment and loudspeakers/amplification equipment are also regulated for maximum noise levels. No sound may be generated by sound-amplifying equipment that exceeds 95 dBA unless a conspicuous and legible sign is located on the outside of each public entrance that warns of the high sound levels and the danger to hearing that may occur.¹¹³ Furthermore, no sound-amplifying equipment may be used within 500 feet of a residential zone, except when used by a school for regularly scheduled operative functions or by a church for customary purposes, between the hours of 4:30 p.m. and 9:00 a.m. the next day. In areas zoned for uses other than residential uses, sound-amplifying equipment may not be used for commercial purposes between the hours of 9:00 p.m. and 8:00 a.m. the next day and for non-commercial purposes between the hours of 10:00 p.m. and

¹⁰⁶ *Ibid.* Chapter XI, Noise Standards. October 24. Available:

<<http://lacodes.lacity.org/NXT/gateway.dll?f=templates&fn=default.htm>>.

¹⁰⁷ *Ibid.* Chapter IV, Article 1, Section 41.40 – Construction Activities. October 24. Available:

<<http://lacodes.lacity.org/NXT/gateway.dll?f=templates&fn=default.htm>>.

¹⁰⁸ *Ibid.*

¹⁰⁹ *Ibid.*

¹¹⁰ *Ibid.* Chapter IX, Section 112.04. October 24. Available:

<<http://lacodes.lacity.org/NXT/gateway.dll?f=templates&fn=default.htm>>.

¹¹¹ *Ibid.*

¹¹² *Ibid.*, Section 112.05.

¹¹³ *Ibid.*, Section 112.06.

7:00 a.m. the next day. The only sounds allowed to be generated by sound-amplifying equipment shall be human speech, music, or both, and no sound equipment may be operated upon any property adjacent to or within 200 feet of any school, church, or hospital while in use.¹¹⁴ Governmental agencies and permittees are exempt from this section of the City’s municipal code.

City of Los Angeles Noise Element

The City of Los Angeles General Plan Noise Element establishes standards for exterior sound levels based on land use categories.¹¹⁵ The noise element states that the maximum acceptable outdoor noise exposure level for residential, hospital, and school zones is 65 dBA CNEL and that silencers and mufflers are required on intake and exhaust openings for all construction equipment. Table 4.4-3 summarizes the City’s noise compatibility guidelines.

Table 4.4-3. City of Los Angeles Guidelines for Noise Compatible Land Use

Land Use Category	Day-Night Avg. Exterior Sound Level (CNEL dB)						
	50	55	60	65	70	75	80
Residential – Single Family, Duplex, Mobile Home	A	C	C	C	N	U	U
Residential – Multifamily	A	A	C	C	N	U	U
Transient lodging – Motel, Hotel	A	A	C	C	N	U	U
School, Library, Church, Hospital, Nursing Home	A	A	C	C	N	N	U
Auditorium, Concert Hall, Amphitheater	C	C	C	C/N	U	U	U
Sports Arena, Outdoor Spectator Sports	C	C	C	C	C/U	U	U
Playground, Neighborhood Park	A	A	A	A/N	N	N/U	U
Golf Course, Riding Stable, Water Recreation, Cemetery	A	A	A	A	N	A/N	U
Office Building, Business, Commercial, Professional	A	A	A	A/C	C	C/N	N
Agriculture, Industrial, Manufacturing, Utilities	A	A	A	A	A/C	C/N	N

Notes:

A = Normally acceptable. Specified land use is satisfactory, based upon assumption that the buildings involved are conventional construction, without any special noise insulation.

C = Conditionally acceptable. New construction or development only after a detailed analysis of noise mitigation is made and needed noise insulation features are included in the project design. Conventional construction, but with closed windows and fresh air supply systems or air-conditioning, normally will suffice.

N = Normally unacceptable. New construction or development generally should be discouraged. A detailed analysis of noise reduction requirements must be made and noise insulation features included in the design of the project.

U = Clearly unacceptable. New construction or development generally should not be undertaken.

Source: City of Los Angeles General Plan, Noise Element, 1999.

¹¹⁴ *Ibid.* Chapter XI, Article 5, Section 115.02. October 24. Available:

<<http://lacodes.lacity.org/NXT/gateway.dll?f=templates&fn=default.htm>>.

¹¹⁵ City of Los Angeles. 1999. *City of Los Angeles General Plan*, Noise Element. Los Angeles, CA.

County of Los Angeles Noise Control Ordinance (Municipal Code)

The County of Los Angeles is chiefly involved in maintaining the health and welfare of its residents in respect to noise through nuisance abatement ordinances and land use planning. The County Noise Control Ordinance, Title 12 of the County Municipal Code, was adopted by the Board of Supervisors in 1977 "...to control unnecessary, excessive, and annoying noise and vibration in the County of Los Angeles..." It declared that County policy was to "...maintain quiet in those areas which exhibit low noise levels and to implement programs aimed at reducing noise in those areas within the county where noise levels are above acceptable values."¹¹⁶ On August 14, 2001, the Board of Supervisors approved an ordinance amending Title 12 of the County Code to prohibit loud, unnecessary, and unusual noise that disturbs the peace and/or quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitivity residing in the area. Regulations can include requirements for sound barriers, mitigation measures to reduce excessive noise, or the placement and orientation of buildings, and can specify the compatibility of different uses with varying noise levels,¹¹⁷ as shown in Table 4.4-4.

Table 4.4-4. County of Los Angeles Exterior Noise Standards

Noise Zone	Designated Noise Zone Land Use (Receptor Property)	Time Interval	Exterior Noise Level (dB)
I	Noise-sensitive area, designated to ensure exceptional quiet	Anytime	45
II	Residential properties, zoned as such in the County Code Title 22	10:00 p.m. to 7:00 a.m. (nighttime)	45
		7:00 a.m. to 10:00 p.m. (daytime)	50
III	Commercial properties, zoned as such in the County Code Title 22	10:00 p.m. to 7:00 a.m. (nighttime)	55
		7:00 a.m. to 10:00 p.m. (daytime)	60
IV	Industrial properties, zoned as such in the County Code Title 22	Anytime	70

Source: Section 12.08.390 of Los Angeles County Municipal Code (a portion of the Noise Control Ordinance).

Operating or causing the operation of any tools or equipment in construction, drilling, repair, alteration or demolition work between weekday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial real-property line, except for emergency work of public service utilities or by variance issued by the health officer, is prohibited. The contractor shall conduct construction activities in such a manner that the

¹¹⁶ County of Los Angeles Noise Control Ordinance (Municipal Code). Section 12.08.010.

¹¹⁷ County of Los Angeles. 1975. *City of Los Angeles General Plan*, Noise Element. Los Angeles, CA.

maximum noise levels at the affected buildings will not exceed those listed in Tables 4.4-5 and 4.4-6.

Table 4.4-5. County of Los Angeles Maximum Noise Levels for Short-term Operation (less than 10 days) of Mobile Equipment

	Single-family Residential	Multi-family Residential	Semiresidential/Commercial
Daily, except Sundays and legal holidays, 7:00 a.m. to 8:00 p.m.	75dBA	80dBA	85dBA
Daily, except 8:00 p.m. to 7:00 a.m. and all day Sunday and legal holidays	60dBA	65dBA	70dBA

Source: Section 12.08.440 of Los Angeles County Municipal Code (a portion of the Noise Control Ordinance).

Table 4.4-6. County of Los Angeles Maximum Noise Levels for Long-Term Operation (periods of 10 days or more) of Stationary Equipment

	Single-family Residential	Multi-family Residential	Semiresidential/Commercial
Daily, except Sundays and legal holidays, 7:00 a.m. to 8:00 p.m.	60dBA	65dBA	70dBA
Daily, 8:00 p.m. to 7:00 a.m. and all day Sunday and legal holidays	50dBA	55dBA	60dBA

Source: Section 12.08.440 of Los Angeles County Municipal Code (a portion of the Noise Control Ordinance).

Operating or permitting the operation of any device that creates vibration which is above the vibration perception of any individual at or beyond the property boundary of the source if on private property, or at 150 feet (46 meters) from the source if on a public space or public right-of-way, is prohibited. The perception threshold shall be a motion velocity of 0.01 inches/second over the range of 1 to 100 Hertz.¹¹⁸

County of Los Angeles Noise Element

The County of Los Angeles General Plan Noise Element was first adopted by the County Board of Supervisors in 1974, and was updated in 1975. The Noise Element sets the goals and policy direction for the management of noise in Los Angeles County, to limit the exposure of the general public to excessive noise levels. The Noise Element incorporates the standards in the County Noise Ordinance of the Municipal Code and is the policy and planning tool for regulating noise in the County’s area of jurisdiction. As

¹¹⁸ County of Los Angeles Noise Control Ordinance (Municipal Code). Section 12.08.560.

such, the County's goals, policies, and implementation actions which apply to noise regulation are the following:

Goal N-1 is to have an environment that is protected from unacceptable levels of noise through the following policies:

- **Policy N 1.1:** Ensure the compatibility of land uses throughout the County to minimize the exposure to excessive noise levels.
- **Policy N 1.2:** Employ effective noise abatement measures to achieve acceptable levels of noise as defined by the Los Angeles County Exterior Noise Standards.
- **Policy N 1.3:** Ensure cumulative impacts related to noise do not exceed excessive levels.

In turn, the following implementation action has been identified to carry out these policies:

Implementation Action N 1.1

Identify significant noise issues in the County and create a working project list. Examples will include the need for sound walls and noise barriers, buffering, etc. This list can be used to identify funding sources and for grant applications.

4.4.3 Thresholds of Significance

The CEQA Guidelines and the corresponding Appendix G checklist were used to determine whether constructing and operating the project would result in a significant noise impact. Accordingly, for the purposes of this EIR, a noise impact generated by constructing or operating the project would be considered significant if it would result in:

- exposure of persons to, or generation of, noise levels in excess of standards established in local general plans (i.e., 65 dBA CNEL exterior (50 dBA CNEL for County)/45 dBA CNEL interior for long-term, operational noise) or noise ordinances;
- a substantial permanent increase in ambient noise in the project vicinity (an increase of 5 to 10 dBA is generally considered substantial) that adversely affects noise-sensitive uses or activities;
- a substantial temporary or periodic increase in ambient noise levels in the project vicinity (an increase of 15 dBA is generally considered substantial for this type of noise increase) that adversely affects noise-sensitive uses or activities; or
- exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels (i.e., groundborne vibration in excess of 0.2 inch PPV is considered significant).

Generally, exposure of persons to noise increases in excess of the thresholds above has the greatest potential for resulting in a significant impact when

normal noise-sensitive activities, such as sleep or relaxation, are disturbed or disrupted.

4.4.4 Environmental Impacts

Methodology

Potential impacts from short-term and long-term stationary and mobile noise sources associated with the proposed project were quantitatively assessed. The sources included on-site construction activities and on-site and off-site activities associated with the project. Changes in noise level at adjacent noise-sensitive land uses attributable to the project were evaluated.

The expected traffic noise levels at existing noise-sensitive receptors were predicted using the Federal Highway Administration's (FHWA's) Traffic Noise Model (TNM®). TNM® is the FHWA's computer program for highway traffic noise prediction and analysis. The most current version of TNM® (Version 2.5) was used for this project. The parameters used to estimate vehicular traffic noise were the typical distance between roadway centerline and receiver; typical average daily traffic (ADT) volumes and posted speed limits; percentages of automobiles, medium trucks, and heavy trucks; roadway grade; and site conditions (terrain or structural shielding and ground propagation characteristics).¹¹⁹

Impact N1: Exposure to noise levels in excess of applicable standards and to substantial permanent increase in ambient noise in the project vicinity.

The proposed project would result in less-than-significant noise impacts as a result of construction activities and projected operational conditions.

Construction Impacts

The results of the short-term noise level measurements taken to assess existing conditions show that the existing noise levels are higher than the recommended levels for sensitive receptors by the City or County. The dominant noise source in the project area is vehicular traffic. All of the noise measurements exceeded 65 dBA L_{eq} , with the exception of site ST-6, where the receiver was 100 feet from the roadway centerline.

The proposed project would increase noise temporarily along the corridor during construction. Noise during construction would primarily be generated from construction equipment. The elements of the project that would involve construction activity consist of the following:

- From Valencia Street to Western Avenue (approximately 2.5 miles), existing curb lanes would be converted to peak period bus lanes with the

¹¹⁹ Federal Highway Administration. 2004. *Traffic Noise Model* (TNM®), Version 2.5.

installation of signage indicating access for buses and right-turns only, during peak periods.

- From Western Avenue to Fairfax Avenue (approximately 3.0 miles), curb lanes would be reconstructed/resurfaced and converted to peak period bus lanes. The curb lanes in this segment have deteriorated to the point that both buses and vehicles seldom use the lanes because of extreme rough and uneven pavement conditions. The curb lanes would undergo reconstruction of the roadway base (below the pavement surface), curb and gutters, where damaged, would be repaved/resurfaced, and new signage installed signaling the use of the curb lanes for buses and right-turns only, during peak periods.
- From Fairfax Avenue to the Beverly Hills city limits at the intersection of San Vicente Boulevard and Wilshire Boulevard (approximately 0.6 mile), existing curb lanes would be converted to peak period bus lanes with the installation of signage indicating access for buses and right-turns only during peak periods. The lanes in this segment need only minor surface repairs.
- From the Beverly Hills city limits, west of the intersection of Wilshire Boulevard and Santa Monica Boulevard, to Comstock Avenue (approximately 0.5 mile), existing curb lanes would be converted to peak period bus lanes with the installation of signage indicating access for buses and right-turns only, during peak periods.
- From Comstock Avenue to Malcolm Avenue (approximately 1.0 miles), various curb improvements, including jut-out removal and realignment of curbs, would be necessary. This would allow the realignment of curbs to create new curb lanes, thereby adding peak period bus lanes, with accompanying signage indicating access for buses and right-turns only during peak periods.
- From Malcolm Avenue to Sepulveda Boulevard (approximately 0.8 mile), existing curb lanes would be converted to peak period bus lanes with the installation of signage indicating access for buses and right-turns only, during peak periods.
- From Sepulveda Boulevard to Bonsall Avenue (approximately 0.2 mile), no bus lanes would be implemented. However, at Sepulveda Boulevard, the eastbound left-turn pocket would be lengthened by approximately 470 feet to accommodate a greater number of vehicles that are currently queued in the No. 1 eastbound traffic lane, resulting in full use of the No. 1 lane for through traffic movements.
- From Bonsall Avenue to Federal Avenue (approximately 0.4 mile), in order to accommodate an eastbound peak period bus lane, the sidewalk widths on both sides of Wilshire Boulevard would be reduced to a uniform width. Both eastbound and westbound lanes would be restriped. Wilshire Boulevard between Interstate 405 and Federal Avenue is bordered by the Veterans Administration (VA) property. The sidewalk widths on both sides of Wilshire Boulevard in this segment vary between 10 and 15 feet.

- From Federal Avenue to Barrington Avenue (approximately 0.1 mile), both sides of Wilshire Boulevard would be widened by reducing the sidewalk widths on the north and south sides, allowing restriping of the street and creation of a new eastbound peak period bus lane and conversion of the westbound curb lane to a peak period bus lane. The intersection of Wilshire Boulevard and Federal Avenue is extremely congested in the eastbound direction. The widening of this two-block segment would allow buses to pass safely and quickly through the intersection of Wilshire Boulevard and Federal Avenue and provide a contiguous eastbound bus lane from Centinela Avenue to Bonsall Avenue.
- From Barrington Avenue to Centinela Avenue (approximately 0.8 mile), existing curb lanes would be converted to peak period bus lanes with the installation of signage indicating access for buses and right-turns only, during peak periods.

Project construction would increase noise levels temporarily at noise-sensitive locations near the project site. The magnitude of the increases would depend on the type of construction activity, the noise level generated by various pieces of construction equipment, site geometry (i.e., shielding from intervening terrain or other structures), and the distance between the noise source and receiver.

Noise from construction activity is generated by the broad array of powered, noise-producing mechanical equipment used in the construction process. This equipment ranges from hand-held pneumatic tools used for installation of signage and traffic signals, to jack-hammers, rock drills, and pile drivers to break the sidewalk and roadway surface, to compactors, graders, scrapers, and pavers used in roadway reconstruction. The exact complement of noise-producing equipment that would be in use during any particular period has not yet been determined. However, the noise levels from construction activity during various phases of a typical public works and roadway construction project have been evaluated, and their use provides an acceptable prediction of a project's potential noise impacts.

In order to assess the potential noise effects of construction, this noise analysis used data from an extensive field study of various types of industrial and commercial construction projects (U.S. Environmental Protection Agency 1971). Noise levels associated with various construction equipment used for different construction activities required for the proposed project, at a reference distance of 50 feet, are shown in Table 4.4-7. Because of vehicle technology improvements and stricter noise regulations since the field study was published, this analysis will use the average noise levels shown in Table 4.4-8 for the loudest construction phase. This information indicates that the overall average noise level generated on a construction site could be 89 dBA at a distance of 50 feet during the excavation phase. Activities classified as part of the excavation and finishing phases would be part of the project. Specifically, excavation and finishing activities would occur in the following project corridor segments:

Table 4.4-7. Construction Equipment Noise Ranges

		Noise Level (dBA) at 50 feet	
Equipment Powered By Internal Combustion Engines	Earth Moving	Compactors (Rollers)	74-75
		Front Loaders	73-85
		Backhoes	73-93
		Tractors	77-95
		Scrapers, Graders	80-93
		Pavers	87-88
		Trucks	83-94
	Materials Handling	Concrete Mixers	75-88
		Concrete Pumps	81-83
		Cranes (Movable)	76-87
		Cranes (Derrick)	86-88
	Stationary	Pumps	70-72
		Generators	70-80
Compressors		70-80	
Impact Equipment		Pneumatic Wrenches	84-88
		Jack Hammers and Rock Drills	80-97
		Pile Drivers (Peaks)	95-105
Other		Vibrator	69-81
		Saws	72-81

Source: U.S. Environmental Protection Agency, 1971.

Table 4.4-8. Typical Noise Levels from Construction Activities for Public Works Roads & Highways, Sewers, and Trenches Projects in Typical Urban Areas

Construction Activity	Average Sound Level at 50 feet (dBA L_{eq}) ^a	Standard Deviation (dB)
Ground Clearing	84	6
Excavation	89	6
Foundations	88	8
Erection	79	3
Finishing	84	6

^a Sound level with all pertinent equipment operating.

Source: U.S. Environmental Protection Agency, 1971.

- From Western Avenue to Fairfax Avenue, the curb lanes in this segment would undergo reconstruction of the roadway base (below the pavement surface) and resurfaced, and curb and gutters, where damaged, would be reconstructed.
- From Fairfax Avenue to the Beverly Hills city limits at the intersection of San Vicente Boulevard and Wilshire Boulevard, existing curb lanes in this segment need only minor excavation and finishing for surface repairs.
- From Comstock Avenue to Malcolm Avenue, various curb improvements, including jut-out removal excavation for realignment of curbs, would be necessary. Finishing activities for the newly created curb lanes would also be necessary.
- From Sepulveda Boulevard to Federal Avenue, excavation activities would include widening Wilshire Boulevard between Bonsall Avenue and Federal Avenue by reducing the sidewalk widths on both sides of Wilshire Boulevard to a uniform width, and extending the eastbound left-turn pocket at Sepulveda Boulevard by approximately 470 feet. Finishing activities would include the restriping of all east and westbound lanes.
- From Federal Avenue to Barrington Avenue, excavation activities include widening Wilshire Boulevard by reducing the sidewalk widths on the north and south sides, and finishing activities would include the restriping of the street in order to create a new eastbound peak period bus lane and convert the existing westbound curb lane into a peak period bus lane.

The noise levels presented are value ranges; the magnitude of construction noise emission typically varies over time because construction activity is intermittent and the power demands on construction equipment (and the resulting noise output) are cyclical.

Noise levels generated by construction equipment (or by any point source) decrease at a rate of approximately 6 dBA per doubling of distance from the source.¹²⁰ Therefore, if a particular construction activity generated average noise levels of 89 dBA at 50 feet, the L_{eq} would be 83 dBA at 100 feet, 77 dBA at 200 feet, 71 dBA at 400 feet, and so on. This calculated reduction in noise level is based on the loss of energy resulting from the geometric spreading of the sound wave as it leaves the source and travels outward. Intervening structures that block the line of sight, such as buildings, would further decrease the resultant noise level by a minimum of 5 dBA. The effects of molecular air absorption and anomalous excess attenuation would reduce the noise level from construction activities at more distant locations at the rates of 0.7 dBA and 1.0 dBA per 1,000 feet, respectively.

Assuming an average noise level of 89 dBA (at 50 feet distance from roadway centerline) during excavation activities for roadway reconstruction of the curb lanes in the segment between Western Avenue and Fairfax Avenue, noise levels would temporarily increase by more than 15 decibels from the typical ambient daytime noise levels measured in the area at four of the six

¹²⁰ Harris, Cyril M. 1979. *Handbook of Noise Control*, Second Edition. McGraw-Hill Book Co.

measurement locations (ST-1, ST-3, ST-4, and ST-6). Although the increases in noise levels would be substantial, the increases would be intermittent and temporary during daytime hours as permitted by the City's Noise Ordinance (i.e., 7:00 a.m. to 9:00 p.m. during weekdays, and 8:00 a.m. to 6:00 p.m. on Saturdays). Therefore, it is unlikely that significant impacts on noise-sensitive uses or activities would occur. The other corridor segments with sensitive receptors, including residences in the Westwood area, that would require roadway and/or curb reconstruction or jut-out removal, would not result in an increase in noise from existing levels above the 15-decibel threshold of significance. The existing ambient noise levels in the Westwood area have been measured to be as high as 84.2 dBA (see Table 4.4-1).

Although a less than significant impact would occur, noise control measures are recommended during construction (see Section 4.4.5 below) to reduce the noise levels to the extent practicable in order to minimize the impact on nearby sensitive receptors.

Operational Impacts

The proposed project would convert existing curb lanes on Wilshire Boulevard to bus and right-turn only operation in the peak periods on weekdays. To implement the proposed project, curb lanes would be repaired or reconstructed, where necessary, and restriped and signed as peak period bus lanes. In other areas, curbside bus lanes would be added as new lanes to Wilshire Boulevard by widening or jut-out removal. There are no proposed improvements that would result in a change in operational noise output, excluding changes related to traffic noise. Traffic noise impacts are discussed below.

Project-Related Traffic Noise

Project-related traffic could alter noise levels in the surrounding area. Noise from motor vehicle traffic associated with the proposed project was analyzed using the data from the project's traffic study¹²¹. The worst-case scenario with regards to traffic volumes were input into the TNM model. ADT volumes for the Existing Year, Opening Year Without Project, Opening Year With Project, Horizon Year Without Project, and Horizon Year With Project scenarios were used to predict the changes in traffic noise at selected roadway segments. The segments in the traffic analysis and modeled in this noise analysis include the following:

- Wilshire Boulevard between Westlake Avenue and Alvarado Street;
- Wilshire Boulevard between Alvarado Street and Park View Street;
- Wilshire Boulevard between Shatto Place and Vermont Avenue;
- Wilshire Boulevard between Oxford Avenue and Western Avenue;
- Wilshire Boulevard between Crenshaw Boulevard and Lorraine Boulevard;
- Wilshire Boulevard between San Vicente Boulevard and Tower Drive;

¹²¹ Iteris. 2010. *Wilshire Boulevard Bus Rapid Transit Project Traffic Impact Analysis*.

- Wilshire Boulevard between Beverly Glen Boulevard and Holmby Avenue;
- Wilshire Boulevard between Glendon Avenue and Westwood Boulevard;
- Wilshire Boulevard between Barrington Avenue and Stoner Avenue; and
- Wilshire Boulevard between Saltair Avenue and Bundy Drive.

The modeled locations (M-1 through M-10) were selected in order to assess changes in noise levels along the project corridor on Wilshire Boulevard.

The predicted traffic noise levels for the Existing scenario are presented in Table 4.4-9. The existing traffic noise levels at noise-sensitive land uses were found to range from approximately 68 dBA CNEL at M-1 and M-2 to approximately 71 dBA CNEL at M-7 at a reference distance of 75 feet.

Opening Year Without Project and Opening Year With Project traffic noise levels were predicted using TNM[®] and are presented in Table 4.4-9. As the table shows, opening year traffic noise levels (without the project) are predicted to increase from approximately 0 to 2 dBA compared to existing levels as a result of changes in future traffic volumes. Opening Year Without Project traffic noise levels would range from approximately 67 dBA CNEL at M-2 to 71dBA CNEL at M-7 at a distance of 75 feet. Under Opening Year With Project conditions, predicted noise levels would range from approximately 67 dBA CNEL at M-2 to 71 dBA CNEL at M-7 at a distance of 75 feet.

Horizon Year Without Project and Horizon Year With Project traffic noise levels were also predicted using TNM[®] and are presented in Table 4.4-9. As the table shows, horizon year traffic noise levels without the project are predicted to increase from 0 to 2 dBA compared to existing levels as a result of changes in future traffic volumes. Horizon Year Without Project traffic noise levels would range from approximately 69 dBA CNEL at M-2 to 72 dBA CNEL at M-7 at a distance of 75 feet. Under Horizon Year With Project conditions, predicted noise levels would range from approximately 67dBA CNEL at M-1 and M-2 to 71 dBA CNEL at M-7 at a distance of 75 feet.

According to the noise modeling results, the proposed project would not cause an exceedance of City of Los Angeles or County of Los Angeles noise standards or materially worsen an existing standard violation. With Project noise levels in both the opening year and horizon year are predicted to decrease from what they would be Without Project at most locations, and increase only slightly in others. Therefore, traffic noise associated with the proposed project would be considered a less than significant impact.

The CNEL metric was used as it is the metric used by the City of Los Angeles and County of Los Angeles with regards to noise thresholds. In addition, it should be noted that the above analysis is conservative since by using the CNEL metric, a worst-case scenario assumption of noise changes during the 24-hour period is used; however, the proposed project would only have a potential to affect conditions during a.m. and p.m. peak periods. The CNEL metric used by the City and County of Los Angeles also applies a more stringent requirement during evening and late night hours, and the proposed project would not change overnight noise conditions.

Table 4.4-9. Predicted Traffic Noise Levels – Proposed Project

Receptor #	Receptor Location	Modeled Existing Noise Level (dBA CNEL)	Modeled Opening Year (2010) without Project Noise Level (dBA CNEL)	Modeled Opening Year (2010) with Project Noise Level (dBA CNEL)	Modeled Horizon Year (2020) without Project Noise Level (dBA CNEL)	Modeled Horizon Year (2020) with Project Noise Level (dBA CNEL)	Estimated Maximum Increase Over Existing Noise Level With Project (dBA)	Criterion Noise Level (dBA CNEL)	Future Traffic Noise Level Exceeds Local General Plan Guidelines?
M-1	Wilshire Blvd between Westlake Ave to Alvarado St	68	69	67	69	67	-1	Permanent Increase of 5 to10 dBA from existing dBA	No
M-2	Wilshire Blvd between Alvarado St to Park View St	68	69	67	69	67	-1	Permanent Increase of 5 to10 dBA from existing dBA	No
M-3	Wilshire Blvd between Shatto Pl to Vermont Ave	69	70	69	70	70	0	Permanent Increase of 5 to10 dBA from existing dBA	No
M-4	Wilshire Blvd between Oxford Ave to Western Ave	69	69	69	70	69	0	Permanent Increase of 5 to10 dBA from existing dBA	No
M-5	Wilshire Blvd between Crenshaw Blvd to Lorraine Blvd	70	71	70	71	70	0	Permanent Increase of 5 to10 dBA from existing dBA	No
M-6	Wilshire Blvd between San Vicente Blvd to Tower Dr	70	71	71	71	71	0	Permanent Increase of 5 to10 dBA from existing dBA	No

Table 4.4-9. Predicted Traffic Noise Levels – Proposed Project (Continued)

Receptor #	Receptor Location	Modeled Existing Noise Level (dBA CNEL)	Modeled Opening Year (2010) without Project Noise Level (dBA CNEL)	Modeled Opening Year (2010) with Project Noise Level (dBA CNEL)	Modeled Horizon Year (2020) without Project Noise Level (dBA CNEL)	Modeled Horizon Year (2020) with Project Noise Level (dBA CNEL)	Estimated Maximum Increase Over Existing Noise Level With Project (dBA)	Criterion Noise Level (dBA CNEL)	Future Traffic Noise Level Exceeds Local General Plan Guidelines?
M-7	Wilshire Blvd between Beverly Glen Blvd to Holmby Ave	71	71	71	72	71	0	Permanent Increase of 5 to10 dBA from existing dBA	No
M-8	Wilshire Blvd between Glendon Ave to Westwood Blvd	70	71	71	71	71	1	Permanent Increase of 5 to10 dBA from existing dBA	No
M-9	Wilshire Blvd from Barrington Ave to Stoner Ave	70	70	70	70	70	0	Permanent Increase of 5 to10 dBA from existing dBA	No
M-10	Olympic Blvd between Saltair Ave to Bundy Dr	70	70	70	70	70	0	Permanent Increase of 5 to10 dBA from existing dBA	No

Source: ICF International, 2010.

Impact N2: Exposure to excessive groundborne vibration or groundborne noise levels.

The proposed project would result in less-than-significant groundborne vibration or groundborne noise impacts as a result of construction activities and projected operational conditions.

Construction Impacts

Both construction and operation of roadway and transit projects can generate groundborne vibration. Vibratory compactors or rollers, pile drivers and pavement breakers can generate perceptible vibration. Heavy trucks can also

generate groundborne vibration, which vary depending on vehicle type, weight, and pavement conditions. The FTA has published standard vibration levels and peak particle velocities for construction equipment operations. The RMS velocity level and peak particle velocities for construction equipment are listed in Table 4.4-10.

Table 4.4-10. Vibration Velocities for Construction Equipment¹²²

Equipment	Approximate RMS Velocity Level at 25 ft, (VdB)	Approximate Peak Particle Velocity at 25 ft, (inch/second)	Approximate Peak Particle Velocity at 100 ft, (inch/second)
Large Bulldozer	87	0.089	0.011
Caisson drilling	87	0.089	0.011
Loaded trucks	86	0.076	0.010
Jackhammer	79	0.035	0.004
Small bulldozer	58	0.003	0.0004

Source: FTA, 1995.

Vibration levels due to construction activity at nearby sensitive receptors would be temporary and would be well below the significance criteria of 0.2 inches per second Peak Particle Velocity as demonstrated in Table 4.4-10; thus, construction vibration and groundborne noise impacts would be less than significant.

Operational Impacts

With regards to operational impacts under the proposed project, groundborne vibration in the project vicinity would continue to be generated by vehicles traveling along the local roadways, as they do in the existing condition. Vibration from a typical bus or truck would be approximately 65 VdB at a reference distance of 50 feet (as shown in Figure 4.4-2), or approximately 56 VdB at a distance of 100 feet. The threshold of perception for groundborne vibration is 65 VdB.

Only the following three segments of the project corridor would result in a change in the distance from the nearest travel lanes to the adjacent land uses:

- From Comstock Avenue to Malcolm Avenue (approximately 1.0 miles), various curb improvements, including jut-out removal and realignment of curbs, would be necessary. This would allow the realignment of curbs to create new curb lanes, thereby adding peak period bus lanes, with accompanying signage to indicate that the use of the curb lanes would be for buses and right-turns only during peak periods.
- From Bonsall Avenue to Federal Avenue (approximately 0.4 mile), in order to accommodate an eastbound peak period bus lane, the sidewalk widths on both sides of Wilshire Boulevard would be reduced to a uniform width. Both eastbound and westbound lanes would be restriped.

¹²² Federal Transit Administration. 1995. *Transit Noise and Vibration Impact Assessment*, p. 12-9.

Wilshire Boulevard between Interstate 405 and Federal Avenue is bordered by the Veterans Administration (VA) property. The sidewalk widths on both sides of Wilshire Boulevard in this segment vary between 10 and 15 feet.

- From Federal Avenue to Barrington Avenue (approximately 0.1 mile), both sides of Wilshire Boulevard would be widened by reducing the sidewalk widths on the north and south sides, allowing restriping of the street and creation of a new eastbound peak period bus lane and conversion of the existing westbound curb lane into a peak period bus lane. The intersection of Wilshire Boulevard and Federal Avenue is extremely congested in the eastbound direction. The widening of this two-block segment would allow buses to pass safely and quickly through the intersection of Wilshire Boulevard and Federal Avenue and provide a contiguous eastbound bus lane from Centinela Avenue to Bonsall Avenue.

There are no sensitive-receptors adjacent to the south side of Wilshire Boulevard between Sepulveda Boulevard and Federal Avenue. There are also no sensitive receptors adjacent to either side of Wilshire Boulevard between Federal Avenue and Barrington Avenue. The only sensitive receptors adjacent to Wilshire Boulevard within these segments are those located in the segment between Comstock Avenue and Malcolm Avenue.

A doubling of the distance between the vibration source and the sensitive receptor results in a decrease of approximately 9 VdB. Most of the residences and other sensitive-receptors on Wilshire Boulevard between Comstock Avenue and Malcolm Avenue are located approximately 40-50 feet from the nearest travel lane on Wilshire Boulevard. Since the proposed project would only bring the closest travel lane 5 to 10 feet closer to the receptors, the change in vibration levels would not be readily perceivable. Therefore, the proposed project would result in less than significant operational vibration impacts.

4.4.5 Mitigation Measures

Construction

Although construction noise impacts would be less than significant as detailed above in Section 4.4.3, construction noise is unavoidable and could adversely affect nearby residents. However, the noise would be temporary and limited to the duration of the construction. Nonetheless, the following recommended measures may be incorporated into the project contract specifications to minimize construction noise impacts:

- N-1 To the extent applicable, practicable, and feasible, all noise-producing construction equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specification. Mobile or fixed “package” equipment (e.g., arc-

welders, air compressors) may be equipped with shrouds and noise control features that are readily available for that type of equipment.

- N-2** To the extent applicable, practicable, and feasible, electrically powered equipment shall be used instead of pneumatic or internal combustion powered equipment.
- N-3** The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.
- N-4** No project-related public address or music system shall be audible at any adjacent receptor.

The noise control measures listed above would help in reducing the annoyance of high noise levels at adjacent noise-sensitive land uses to the extent practicable during construction.

4.4.6 Level of Significance After Mitigation

All noise impacts were determined to be less than significant without mitigation.

This page left intentionally blank.

4.5 Land Use

This section describes the existing land uses and plans within the study area and identifies construction, direct, indirect, and cumulative land use impacts of the proposed project. This section also identifies any necessary mitigation and evaluates the residual impacts after mitigation.

4.5.1 Environmental Setting

Development and land use planning of the project corridor and its vicinity are guided by several adopted land use plans and policies that are intended to provide guidance as to how development could occur within the project corridor, as well as within several broader geographic contexts (e.g., the surrounding communities, the County, and the Southern California region).

The project corridor consists of 9.9 miles of Wilshire Boulevard located in the City of Los Angeles and the County of Los Angeles. Wilshire Boulevard is under the jurisdiction of the City of Los Angeles through most of the corridor (approximately 9.1 miles). Adjacent to the Veterans Administration facilities between Veteran Avenue and Federal Avenue (approximately 0.8 mile), Wilshire Boulevard is under the jurisdiction of the County of Los Angeles (County).

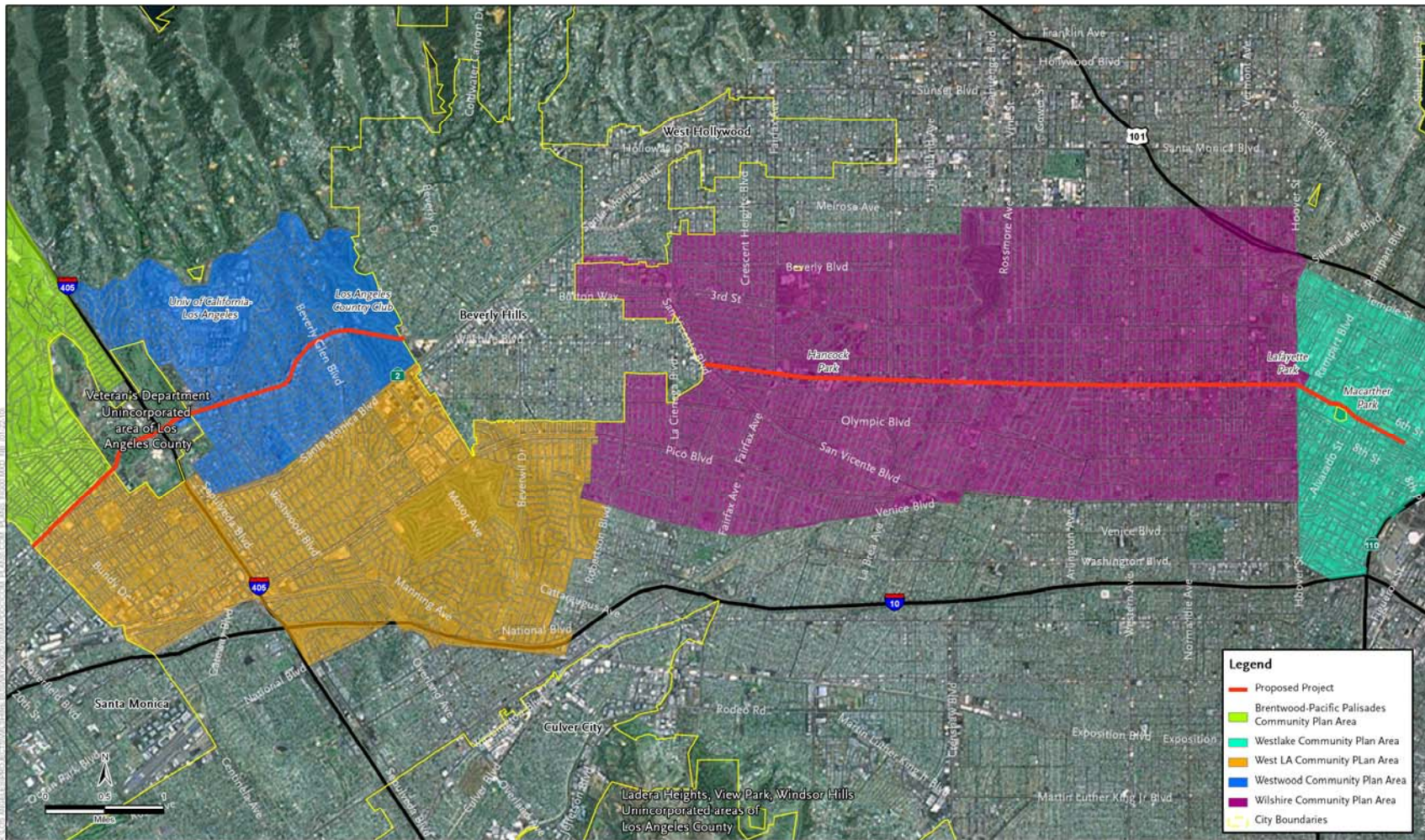
Figure 4.5-1 shows the jurisdictional boundaries of the Wilshire corridor within the City of Los Angeles, including the 0.8-mile segment located in the County of Los Angeles. As shown in the figure, the 9.9-mile corridor traverses through five City of Los Angeles Community Plan Areas. For purposes of the proposed project, segments of the corridor are located in the following community planning areas:

- Westlake Community Plan Area;
- Wilshire Community Plan Area;
- Westwood Community Plan Area;
- West Los Angeles Community Plan Area; and
- Brentwood-Pacific Palisades Community Plan Area.

Approximately 2.6 miles of Wilshire Boulevard are under the jurisdiction of the City of Beverly Hills, between San Vicente Boulevard and just to the west of North Whittier Drive. This portion of Wilshire Boulevard is not part of the project corridor.

The Wilshire corridor is a densely populated, highly developed inner urban region with extensive commercial and residential uses. The corridor runs through the densely populated mid-western portion of the City of Los Angeles, from the western edge of downtown Los Angeles at Valencia Street to the east to the eastern boundary of the City of Santa Monica at Centinela Avenue to the west.

Figure 4.5.1. Jurisdictional Boundaries of Community Planning Areas



SOURCE: ESRI (2008), City of LA GIS (2010)

Existing Land Use

A variety of land uses are located adjacent to the approximately 9.9-mile long Wilshire corridor. The corridor is densely developed with an abundance of various commercial uses. The majority of land uses located adjacent to the Wilshire corridor consist of parcels zoned for office, retail, commercial, residential, or institutional uses (e.g., museums). Commercial development and some multi-family residential uses front both sides of the corridor and the intersecting north/south streets.

The Wilshire corridor forms a central area for commercial activity for a number of neighborhoods, including the Westlake/MacArthur Park, Lafayette Park, Koreatown, Wilshire Center, Mid-Wilshire, Miracle Mile, Carthay Circle, Carthay Square, South Beverly Roxbury, Westwood, Boulevard Heights, West Los Angeles, and Brentwood Village.

The eastern portion of the Wilshire corridor, which is located in the Westlake community of the City of Los Angeles, includes mainly commercial office and retail (small businesses and strip malls) uses, interspersed with some residential uses, parking lots and community facilities. This portion of the segment also includes MacArthur Park and Lafayette Park. This segment also consists of a mix of mid-rise (8 to 10 stories) and low-rise buildings.

A long, narrow corridor of commercial activity exists along Wilshire Boulevard in the Wilshire Community Plan Area. The commercial activities along this corridor are comprised of professional offices and retail (strip mall and small businesses), interspersed with a few multi-family residential areas. Additionally, the corridor includes public attractions, such as Museum Row, Hancock Park, and the La Brea Tar Pits. The structures fronting Wilshire Boulevard contain numerous high-rise (20 stories) and mid-rise office buildings.

The segment of the Wilshire corridor located within the community of Westwood consists of multi-family housing, both high-medium and medium density residential uses. High-rise condominium towers are located along Wilshire Boulevard between the Los Angeles Country Club and Malcolm Avenue. Near Westwood Boulevard, the high-rise office corridor along Wilshire Boulevard serves as a regional business center with financial institutions and corporate headquarters.

The segment of the Wilshire corridor within the West Los Angeles community consists of commercial land uses, primarily strip mall development. The majority of commercial facilities are either small-scale and free standing or mini-mall type buildings designed to primarily serve local neighborhoods. The Los Angeles Veterans Administration and Hospital Complex and the Los Angeles National Cemetery are located to the south and north of this segment of the corridor, respectively.

Table 4.5-1 summarizes the types of land uses located along the corridor. As shown in the table, the most common land uses located along the corridor are commercial office and retail uses.

Relationship to Regional and/or Local Plans

The proposed project is subject to the requirements and policies of the following regional and local plans.

Southern California Association of Governments

The SCAG Regional Comprehensive Plan (RCP) was adopted in 2008 by the member agencies of SCAG to set broad goals for the southern California region and identify strategies for agencies at all levels of government to use in guiding their decision-making. With input from each of the subregions that make up the SCAG district (comprised of Los Angeles, Orange, San Bernardino, Riverside, Imperial and Ventura Counties), the RCP provides guidance on growth management to government agencies in the southern California region. To achieve adequate growth management, the plan encourages local land use actions as opposed to regional land use actions to stimulate urban development. The RCP recommends that projects meet the following goals: increased mixed land uses, more efficient use of existing infrastructure, reduced environmental impacts, more transit use, higher densities in mass transit and urban centers, and increased affordable housing.

The SCAG Regional Transportation Plan (RTP) was adopted in May 2008. All regional transportation plans, programs, and projects that receive state and federal funding must conform to the policies set out in the RTP, which are consistent with SCAG RCP. Listed below are applicable 2008 RTP goals:

- RTP G1: Maximize mobility and accessibility for all people and goods in the region.
- RTP G2: Ensure travel safety and reliability for all people and goods in the region.
- RTP G3: Preserve and ensure a sustainable regional transportation system
- RTP G4: Maximize the productivity of our transportation system.
- RTP G5: Protect the environment, improve air quality and promote energy efficiency.
- RTP G6: Encourage land use and growth patterns that complement our transportation investments.
- RTP G7: Maximize the security of our transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.

Table 4.5-1. Description of Land Uses, Activity Centers, and Community Facilities

Corridor Segment	Land Uses along Corridor	Destination and Activity Centers	Community Facilities within 0.25 Mile	Neighborhoods
Valencia Street to Alvarado Street	Office, Retail (Strip Malls), Parking Lots, Multi-Family Residential	Los Angeles Medical Center, Nuestra Alvarado Medical Center, MacArthur Park Redline/Purple Line Station	John H. Liechty Middle School, Esperanza Elementary, Mid-City Adult Learning Center, Los Angeles Early Intervention Center, LAFD Fire station No. 11, and Los Angeles Medical Center. More than ten churches, including, but not limited to, United Presbyterian Church, Harvest Church of Los Angeles, Council of Korean Unification, Harvest Church of Los Angeles	Westlake/MacArthur Park
Alvarado Street to Vermont Avenue	Office, Retail, Educational, Multi-Family Residential	MacArthur Park, Lafayette Multipurpose Community Center, Vermont Redline/Purple Line Station	College of Southern California, Southwestern Law School, Charles White Elementary School, Harold Mac Allister High School, Metropolitan Skills Center, Gabriella Charter School, Shriner's Hospital for Children. More than ten churches, including, but not limited to, Cana Presbyterian Church, Miju Sungmoon Presbyterian Church	Lafayette Park, Koreatown
Vermont Avenue to Normandie Avenue	Office, Retail, Multi-Family Residential	Former Ambassador Hotel Site, Normandie Redline/Purple Line Station, Koreatown, Wiltern Theatre	Los Angeles Leadership Academy, Cheerful Helpers Family and Study Center. More than ten churches, including, but not limited to, Wilshire Christian Church, American Baptist Church, Founders Church, Light of Glory Church	Koreatown
Normandie Avenue to Western Avenue	Office, Retail	Western Purple Line Station	Hobart Blvd Elementary, Camino Nuevo Charter School, Pio Pico Public Library, St. Basil's Catholic Church, Korean Evangelical Church, International Presbyterian Church, Calvary Faith Church, Doulos Mission Church, Nasung Yang Moon Church, Mijoo Yang Kog Presbyterian Church, Wilshire Boulevard Temple	Koreatown

Table 4.5-1. Description of Land Uses, Activity Centers, and Community Facilities (Continued)

Corridor Segment	Land Uses along Corridor	Destination and Activity Centers	Community Facilities within 0.25 Mile	Neighborhoods
Western Avenue to Crenshaw Boulevard	Office, Retail, Multi-Family Residential	Getty House	Wilton Place Elementary, Wilshire Park Elementary, Excel Education Academy LAFD Fire Station No. 29, St. James Episcopal School. St James Episcopal Church. More than ten churches, including, but not limited to, Christ Church, St. James Episcopal Church, Our Savior's Lutheran Church, California Calvary Church, etc.	Koreatown, Wilshire Center, Mid-Wilshire
Crenshaw Boulevard to La Brea Avenue	Office, Retail, Multi-Family Residential		Burroughs Middle School, Wilshire Private School, Meridian Institute. More than ten churches, including, but not limited to, God's People Church, Hon-Michi Congregation of Los Angeles, Oasis Christian Center, Iglesia De Jesucristo, Guadalupe Missioners, Wilshire United Methodist Church	Mid-Wilshire, Miracle Mile, Hancock Park
La Brea Avenue to Fairfax Avenue	Office Retail, Multi-Family Residential, Museum District	Museum Row, LACMA, Petersen Automotive Museum, Simon Wiesenthal Center Museum of Tolerance, George C. Page Museum of La Brea Discoveries, Museum of Television and Radio, Craft and Folk Art Museum, Hancock Park, Miracle Mile, La Brea Tar Pits	Cathedral Chapel School, Shalhavet School, Museums, West Bethel Presbyterian Church, Cathedral Chapel of St Vibiana, Jewish Historical Society of Southern California, Chabad Synagogue	Mid-Wilshire, Miracle Mile
Fairfax Avenue to La Cienega Boulevard/ Los Angeles City Border	Retail, Office	Museum of Tolerance	La Cienega Park, Temple of the Arts, Congregation Torah V Chesed, Los Angeles Church-Religious, Scottish Rite Temple-LA, Christ Citadel International Church, Church of Religious Science, Ohev Shalom Congregation	Miracle Mile, Carthay Square South, Carthay Circle

Table 4.5-1. Description of Land Uses, Activity Centers, and Community Facilities (Continued)

Corridor Segment	Land Uses along Corridor	Destination and Activity Centers	Community Facilities within 0.25 Mile	Neighborhoods
Beverly Hills City Border to Westwood Boulevard	Open Space, Office, High-Rise Residential	Westwood Village	Sinai Akiba Academy, Westwood United Methodist Pre-school, Los Angeles Country Club, Fairburn Avenue Elementary School, Westwood Presbyterian School, Sephardic Temple Tifereth, Westwood Presbyterian Church, University Bible Church, 28th Church-Christ Scientist, University Presbyterian Church, Westwood Hills Christian Church	Westwood, Boulevard Heights
Westwood Boulevard to Bonsall Avenue	Institutional, Retail, Office	Westwood Village, UCLA and UCLA Medical Center, Veterans Administration and Hospital, Los Angeles National Cemetery	UCLA Medical Center, Westwood Charter Elementary, Los Angeles National Cemetery	Westwood, West Los Angeles
Bonsall Avenue to Barrington Avenue	Institutional, Retail, Office	Veterans Administration and Hospital, Wadsworth Theatre and Chapel, West Wilshire Medical Center	Westwood Park, Westside Shepherd of the Hills Church	West Los Angeles, Brentwood
Barrington Avenue to Centinela Avenue	Office, Retail	Bel Air Surgical Center	University High/ Indian Springs Continuation School, Brockton Avenue Elementary, Church of Jesus Christ of LDS, Christian Science Church	West Los Angeles, Brentwood

Source: Mid-City/Westside Transit Draft EIS/EIR, 2001; Google Earth, 2008; compiled by ICF International, 2009.

County of Los Angeles General Plan

Approximately 0.8 mile of the project segment (between Veteran Avenue and Federal Avenue near the Veterans Administration facilities) lies within the jurisdiction of the County of Los Angeles and is subject to the policies and designations of the County of Los Angeles General Plan. The County General Plan is the guide for growth and development in the unincorporated areas of Los Angeles County. The General Plan is designed to guide the long-term physical development and conservation of the County's land and environment through a framework of goals, policies, and implementation programs. The General Plan also provides a foundation for more detailed plans and implementation programs to be conducted, such as area or community plans, zoning ordinances, and specific plans. The County of Los Angeles General Plan was adopted in 1980 and is currently being updated.

City of Los Angeles General Plan

The majority of the project corridor (9.1 miles) lies within the jurisdiction of the City of Los Angeles and is subject to the policies and designations of the City of Los Angeles General Plan. The City of Los Angeles General Plan is comprised of 11 citywide elements: transportation, infrastructure systems, housing, noise, air quality, conservation, open space, historic preservation and cultural resources, safety, and public facilities and services, and the land use.

According to the City of Los Angeles General Plan Transportation Element, Wilshire Boulevard is designated as a Major Highway - Class II, which can accommodate transit priority treatment without lane or roadway modifications. A typical Major Highway - Class II contains four full-time through lanes, two part-time parking lanes, and one center median or left-turn lane. The goals and policies set forth by the City of Los Angeles General Plan Transportation Element are as follows:

Goal A: Adequate accessibility to work opportunities and essential services, and acceptable levels of mobility for all those who live, work, travel, or move goods in Los Angeles.

Objective 2

Mitigate the impacts of traffic growth, reduce congestion, and improve air quality by implementing a comprehensive program of multimodal strategies that encompass physical and operational improvements as well as demand management.

Policy 2.26 – Maximize arterial street peak hour capacity through removal of curb parking during peak hours where such removal creates an additional travel and/or bus lane.

The Land Use Element is composed of 35 local area plans, known as community plans, with associated counterpart plans for the Port of Los Angeles and the Los Angeles International Airport (LAX). Each of the 35 community plans is comprised of individual Land Use Plans (LUPs) that describe land use designations and policies for each community. The project corridor lies within five of the 35 community plan areas outlined in the General Plan; they are the Wilshire, Westlake, Brentwood-Pacific Palisades, Westwood, and the West Los Angeles Community Planning Areas.

Wilshire Community Plan. The Wilshire Community Planning Area is located approximately six miles west of downtown Los Angeles and is generally considered to be the “Mid-City” section of the City of Los Angeles. The community is bounded by the City of Los Angeles Community Plan Areas of Hollywood to the north, South Central Los Angeles and West Adams-Leimert-Baldwin Hills to the south, Silverlake-Echo Park and Westlake to the east, and West Los Angeles and the City of Beverly Hills to the west.

According to the Wilshire Community Plan, adjacent land uses to the project corridor include single and multiple density residential, commercial, open space and public facility uses along Wilshire Boulevard.

The following goals, policies and programs outlined by the Wilshire Community Plan apply to the proposed project.

Objective 10-1

Continue to encourage improved and additional local and express bus service and neighborhood shuttles throughout the Wilshire Community Plan Area.

Objective 10-2

Increase work trips and non-work trips made on public transit.

Objective 12-1

Pursue Transportation Demand Management Strategies that maximize vehicle occupancy, minimize average trip length, and reduce the number of vehicle trips.

Objective 13-1

Increase traffic capacity on existing freeways, highways, and streets, through policy changes, and minor physical improvements to existing highways and streets.

Westwood Community Plan. The Westwood Community Planning Area is generally bounded by Sunset Boulevard and the Bel Air Community on the north; the City of Beverly Hills on the east; Santa Monica Boulevard and the West Los Angeles Community on the south; and the Veterans Administration property, the Brentwood-Pacific Palisades Community, and Sepulveda Boulevard on the west. Wilshire Boulevard is designated as a Major Highway (Class II) in the community planning area. According to the Westwood Community Plan, adjacent land uses to the project corridor include medium density residential, commercial, and public facility uses along Wilshire Boulevard.

A Transportation Improvement and Mitigation Plan (TIMP) was prepared for the Westwood Community Plan area that analyzes land use impacts on transportation projected to the year 2010. The TIMP establishes a program of specific measures, which are recommended to be undertaken during the life of the Community Plan. It also takes into account and incorporates local, state and regional programs.

Applicable goals and objectives from the Westwood Community Plan are included below:

Objective 9-1

To encourage improved local and express bus service throughout the Community and encourage park-and-ride facilities that connect with freeways, transit routes and high occupancy vehicle (HOV) lanes.

Objective 9-2

To increase the work trips and non-work trips made on public transit.

Objective 14-1

To increase capacity on existing transportation systems through minor physical improvements.

Brentwood/Pacific Palisades Community Plan. The Brentwood-Pacific Palisades Community Plan Area is located on the westside of Los Angeles. It is bordered on the southwest by the Pacific Ocean, on the south by the City of Santa Monica and Wilshire Boulevard, on the east by the San Diego Freeway (Interstate 405) and an incorporated area of Los Angeles County (Veterans Administration), and on the north by Mulholland Drive. The western border is also the City's western border adjacent to the unincorporated portion of Los Angeles County, which abuts the City of Malibu. A large portion of the acreage contained within the community plan is mountainous with public open space accounting for approximately 55 percent of land area (gross acres).

According to the Brentwood/Pacific Palisades Community Plan, the majority of land uses in the community are commercial uses with multi-family residential uses located in the immediate area.

A TIMP was prepared for the Brentwood-Pacific Palisades Community Plan Area through an analysis of land use impacts on transportation. The TIMP establishes a program of specific measures, which are recommended to be undertaken during the life of the Community Plan.

Objective 10-1

To encourage improved local and express bus service through the community, and encourage park and ride facilities to interface with freeways, transit routes and HOV lanes.

Objective 10-2

To increase the work trips and non-work trips made on public transit.

Objective 11-1

To pursue transportation management strategies that can maximize vehicle occupancy, minimize average trip length and reduce the number of vehicle trips.

Objective 12-1

To increase the capacity of existing transportation systems through minor physical improvements.

Westlake Community Plan. The Westlake Community Plan Area is located south of the Hollywood Freeway (Interstate 101) and north of the Santa Monica Freeway (Interstate 10). The Westlake Community Plan is surrounded by the community of Wilshire, Silverlake-Echo Park, Central City and South Central Los Angeles. The area is comprised of several sub-areas, the most prominent areas being Central City West, Pico-Union, and MacArthur Park.

According to the Westlake Community Plan, the majority of land uses along the project corridor along Wilshire Boulevard consist of commercial and open space uses. The following goals and objectives outlined by the Westlake Community Plan apply to the proposed project:

Objectives

- 1. To maximize the effectiveness of public transportation to meet the travel needs of transit dependent residents.*
- 2. To provide for a circulation system coordinated with land uses and densities in order to accommodate the movement of people and goods.*
- 4. To encourage alternate modes of travel and provide an integrated transportation system that is coordinated with land uses and which can accommodate the total travel needs of the community.*

West Los Angeles Community Plan. The West Los Angeles Community is generally referred to as the “West Side” of the City and is located approximately eight miles west of downtown Los Angeles. The community is bounded by the City of Los Angeles Community Plan Areas of Palms - Mar Vista - Del Rey Community to the south; the West Adams-Baldwin Hills-Leimert, and Wilshire Community Plan Areas to the east; the Cities of Culver City and Santa Monica to the west; and Westwood and Brentwood-Pacific Palisades communities to the north; and the City of Beverly Hills to the east. According to the West Los Angeles Community Plan, the majority of land uses in the community are low density, single family residential uses with strips of commercial land uses along Wilshire Boulevard. The following goals and objectives outlined by the West Los Angeles Community Plan apply to the proposed project.

Objective 10-1

To encourage improved local and express bus service through the West Los Angeles Community area and encourage park-and-ride facilities to connect with freeways and high occupancy vehicle (HOV) facilities.

Objective 10-2

To increase the work trips and non-work trips made on public transit.

Objective 11-1

To pursue transportation management strategies that can maximize vehicle occupancy, minimize average trip length and reduce the number of vehicle trips.

Objective 12-2

To promote pedestrian-oriented mobility for commuter, school, recreational use, economic activity and access to transit facilities.

Objective 15-1

To increase the capacity of existing transportation systems through minor physical improvements.

Transportation Improvement and Mitigation Plans

A TIMP was prepared for four of the five applicable community plan areas (no TIMP was adopted for the Westlake Community Plan Area). The TIMP analyzes land use impacts on transportation in the community, as well as the greater City. The following summarizes the TIMPs for the applicable four community plan areas.

Brentwood-Pacific Palisades Community Plan Area. The TIMP establishes a program of specific measures which are recommended to be undertaken during the life of the Brentwood-Pacific Palisades Community Plan. The TIMP document, which is an implementation program for the circulation needs of the Brentwood-Pacific Palisades Community Plan Area, consists generally of an analysis and evaluation of the following types of measures:

Transit Improvements

- Review of existing Metropolitan Transportation Authority lines
- Proposed new or expanded Los Angeles Department of Transportation Commuter Express Services
- Proposed or expand existing Park-and-Ride lots
- Review existing and proposed new commuter shuttle/DASH lines
- Para Transit (e.g., jitney, dial-a-ride, vanpools, subscription buses)

Capital Improvements

- Freeway Ramps
- Street Widening

Transportation Demand Management (TDM) Strategies

- TDM requirements for new developments
- Bicycle facilities

- Parking management program
- TDM monitoring program

Transportation System Management (TSM)

- Automated Traffic Surveillance and Control System (ATSAC)
- High Occupancy Vehicle (HOV) lanes
- Neighborhood protection (e.g., traffic control measures and plan)

Wilshire Community Plan Area. A TIMP was prepared for the Wilshire Community Plan Area that analyzes land use impacts on transportation, projected to the year 2010. The TIMP establishes a program of specific measures to reduce land use impacts on transportation to be undertaken during the life of the Wilshire Community Plan. The Wilshire TIMP provides an implementation program for the circulation needs of the Wilshire Community Plan Area, which consist of recommendations as follows:

- Street Reclassifications
- Transit Improvements
- Non-Motorized Transportation
- Transportation Demand Management Strategies
- Transportation Systems Management Strategies
- Residential Neighborhood Protection Plans
- Parking
- Capital Improvements

Westwood Community Plan Area. Similar to the Wilshire Community Plan Area TIMP, a TIMP was prepared for the Westwood Community Plan area that analyzes land use impacts on transportation projected to the year 2010. The TIMP establishes a program of specific measures which are recommended to be undertaken during the life of the Westwood Community Plan. It also takes into account and incorporates the local, state and regional programs noted above. Due consideration should be given to individual recommendations regarding residential neighborhoods and adverse impacts on commercial activities. The TIMP document provides an implementation program for the circulation needs of the Westwood Community Plan Area, which consist of recommendations as follows:

- Public Transportation
- Transportation Demand Management strategies
- Residential Neighborhood Protection Plans
- Transportation Systems Management strategies

- Highway Infrastructure Improvements

West Los Angeles Community Plan Area. Similar to the TIMPs described above, a TIMP was prepared for the West Los Angeles Community Plan Area that analyzes land use impacts on transportation projected to the year 2010. The TIMP establishes a program of specific measures to be undertaken during the life of the West Los Angeles Community Plan. The TIMP document provides an implementation program for the circulation needs of the Plan area which consist of recommendations as follows:

- Public Transportation
- Transportation Demand Management strategies
- Residential Neighborhood Protection Plans
- Transportation Systems Management strategies
- Highway Infrastructure Improvements

Overlay Zones

The City of Los Angeles designates Historic Preservation Overlay Zones (HPOZs) to recognize and preserve buildings, structures, Landscaping, Natural Features, and areas within the City of Los Angeles having historic, architectural, cultural or aesthetic significance. These overlay zones, along with Section 12.20.3 of the City of Los Angeles Municipal Code, guide and dictate the ways in which historic and cultural resources can be enhanced, altered, and used in order to preserve the historic and/or cultural characteristics of the City of Los Angeles. Within the Wilshire Community Planning Area, the project corridor is adjacent to the Carthay Circle Historic Preservation Overlay Zone. Bounded on the north by Wilshire Boulevard, on the east by Fairfax Avenue, on the west by the City of Beverly Hills, and on the south by Olympic Boulevard (project corridor), Carthay Circle is one of three historic neighborhoods collectively known as the Carthay Neighborhood District. Carthay Circle is best known for its network of pedestrian pathways and the Los Angeles landmark, Carthay Circle Theater. Today, Carthay Circle is a mostly residential neighborhood, which has a large number of homes and structures built during the 1920s, 1930s and 1940s.

4.5.2 Thresholds of Significance

The Draft City of Los Angeles CEQA Thresholds Guide provides guidance concerning the nature of land use impacts and calls for determining significance in accordance with the individual circumstances of each project on a case-by-case basis. It also calls for determining the significance for land use plan consistency on a case-by-case basis. Consideration is given to the consistency of the project with the adopted land use/density designation in the community plan, redevelopment plan, or specific plan and the consistency of the project with the General Plan or adopted environmental goals or policies contained in other applicable plans.

Therefore, for the purposes of the proposed project, a significant impact associated with land use is considered to occur under the following conditions:

- The interface of physical and operational characteristics of the project would be substantially incompatible with the surrounding land uses;
- The project would result in the division, disruption or isolation of an existing established community or neighborhood; or
- The project would be inconsistent with applicable land use plans and policies including the City of Los Angeles Planning and Zoning Code and the City of Los Angeles General Plan and associated community plans.

4.5.3 Environmental Impacts

Impact LU1: Compatibility with surrounding land uses.

The proposed project would not result in an impact related to compatibility with surrounding land uses.

The proposed project would include general improvements to portions of Wilshire Boulevard. Proposed improvements would include restriping of traffic lanes, as necessary; conversion of existing curb lanes to bus lanes in each direction during peak periods; upgrade of the existing transit signal priority system; selective street widening; reconstruction/resurfacing of curb lanes in select areas; and installation of traffic/transit signage and pavement markings, as necessary, to implement dedicated peak period bus lanes.

Most of the existing curb lanes on Wilshire Boulevard in the City of Los Angeles would be “converted” to a bus and right-turn only operation in the peak periods (7 a.m. to 9 a.m. and 4 p.m. to 7 p.m.) on weekdays. In these segments, the curb lanes would be repaired or reconstructed, where necessary, and restriped and signed as peak period bus lanes. In other areas, curbside bus lanes would be added as new lanes to Wilshire Boulevard by widening or jut-out removal and restriping. Upgrades to the transit signal priority system would also be implemented, including (1) addition of bus signal priority at intersections with near-side bus stops (a recently developed and successfully tested concept), (2) increase in maximum available time for transit signal priority from 10 percent to 15 percent of the traffic signal cycle at minor intersections, and (3) reduction in the number of traffic signal recovery cycles from two to one at key intersections along the corridor.

As previously described, a variety of land uses are located adjacent to the approximately 9.9-mile long Wilshire corridor. The corridor is densely developed with an abundance of various commercial uses. The majority of land uses located adjacent to the Wilshire corridor consist of parcels zoned for office, retail, commercial, residential or institutional (e.g., museums.). Commercial development and some multi-family residential uses front both sides of the corridor and the intersecting north/south streets. Additionally, the corridor contains low-rise to high-rise structures.

No properties would be acquired, and no land use changes would occur under the proposed project. The project components described above would occur within the Wilshire Boulevard right-of-way. The existing transportation use of the corridor would remain under the proposed project. Therefore, the proposed project is not anticipated to result in impacts related to incompatibility with surrounding land uses.

Impact LU2: Division of existing neighborhood.

The proposed project would not result in an impact related to division of an existing neighborhood.

As described in the Project Description, the proposed project would consist of dedicated weekday peak period bus lanes in both the eastbound and westbound directions to be achieved through the conversion of existing curb lanes to peak period bus lanes. The proposed project would include the restriping and widening of some existing portions of the Wilshire corridor. As previously stated, throughout the corridor, Wilshire Boulevard is designated and zoned for transportation uses.

Within the Westlake Community Plan Area, parcels adjacent to Wilshire Boulevard are designated and zoned mainly for commercial use and includes office and retail uses (small businesses and strip malls), interspersed with some residential uses, parking lots, and recreational facilities. In the Wilshire Community Plan Area, parcels adjacent to Wilshire Boulevard are designated and zoned for commercial activities, and land uses are comprised of professional offices that are both high-rise (20 stories) and mid-rise (8-10 stories) and retail (strip mall and small businesses), interspersed with a few multi-family residential areas. The Westwood Community Plan Area portion of the project corridor consists of parcels designated and zoned for multiple-family housing, both high medium and medium density residential. High-rise condominium towers are located along Wilshire Boulevard between the Los Angeles Country Club and Malcolm Avenue along Wilshire Boulevard.

Near Westwood Boulevard, the high-rise office corridor along the corridor serves as a regional business center with financial institutions and corporate headquarters. The West Los Angeles Community Plan Area portion of the project corridor consists of parcels designated and zoned for commercial land use. The majority of commercial facilities are either small-scale and free standing or mini-mall type buildings designed to primarily serve local neighborhoods. The Wilshire Corridor in this community plan area also includes the Los Angeles Veterans Administration and Hospital Complex. The portion of the project corridor that is located in the Brentwood-Pacific Palisades Community Plan area is fairly small. Land uses located in this portion of the corridor include commercial uses located along Wilshire Boulevard and multi-family residential uses in the immediate area.

All proposed improvements would occur along Wilshire Boulevard and would not divide neighborhoods located along the corridor. No impact is anticipated to occur under project implementation.

Impact LU3: Consistency with applicable plans and policies.

The proposed project would not result in an impact related to consistency with applicable plans and policies.

The proposed project consists of dedicated weekday peak period bus lanes in both the eastbound and westbound directions to be achieved through the conversion of existing curb lanes to peak period bus lanes. The proposed project would include the restriping and widening of some existing portions of the Wilshire corridor. However, it would not result in new land uses that would change land use plans, policies, and regulations. The proposed project is anticipated to be consistent with all the local, regional, state, and federal jurisdictions and their plans for the project area. Table 4.5-2 includes a consistency analysis of the proposed project with applicable land use plans and policies. Therefore, no impacts related to consistency are anticipated.

As described in Table 4.5-2, the proposed project would be consistent with applicable City of Los Angeles community plans' objectives.

SCAG Regional Transportation Plan

The proposed project would not conflict with any Regional Transportation Plan goals or policies. Table 4.5-3 provides an analysis of the project's consistency with applicable SCAG planning goals and policies.

As shown in Table 4.5-3, the proposed project would be consistent with the goals of the 2008 RTP.

Table 4.5-2. Proposed Project Consistency with Applicable City of Los Angeles Community Plans

Wilshire Community Plan		
Objective 10-1	Continue to encourage improved and additional local and express bus service and neighborhood shuttles throughout the Wilshire Community Plan Area.	Consistent. The proposed project would include general improvements to the Wilshire corridor, including dedicated weekday peak period bus lanes in both the eastbound and westbound directions to be achieved through the conversion of existing curb lanes to peak period bus lanes. The proposed improvements would encourage the use of bus service in the area as a result of improved bus passenger travel times and bus service reliability.
Objective 10-2	Increase work trips and non-work trips made on public transit.	Consistent. The proposed project would result in improved bus service. Additionally, work and non-work trips would be shifted to bus service. Proposed improvements would include restriping of traffic lanes, as necessary; conversion of existing curb lanes to bus lanes in each direction during peak periods; upgrade of the existing transit signal priority system; and installation of traffic/transit signage and pavement markings, as necessary, to implement dedicated peak period bus lanes.
Objective 12-1	Pursue Transportation Demand Management Strategies that maximize vehicle occupancy, minimize average trip length, and reduce the number of vehicle trips.	Consistent. As described above, the proposed project would improve bus service and would shift work and non-work trips to bus service. The proposed project would improve transit use by the conversion of existing curb lanes to bus lanes in each direction during peak periods; upgrade of the existing transit signal priority system; and installation of traffic/transit signage and pavement markings, as necessary, to implement dedicated peak period bus lanes.
Objective 13-1	Increase traffic capacity on existing freeways, highways, and streets, through policy changes, and minor physical improvements to existing highways and streets.	Consistent. The proposed project would include minor physical improvements to Wilshire Boulevard. Proposed improvements include the conversion of existing curb lanes to bus lanes in each direction during peak periods; upgrade of the existing transit signal priority system; and installation of traffic/transit signage and pavement. The proposed improvements would improve transit (bus) use along the Wilshire Corridor, and is anticipated to result in a mode shift that would reduce reliance on individual automobile use. This could increase traffic capacity.

Table 4.5-2. Proposed Project Consistency with Applicable City of Los Angeles Community Plans (Continued)

Westwood Community Plan		
Objective 9-1	To encourage improved local and express bus service throughout the Community and encourage park-and-ride facilities that connect with freeways, transit routes and high occupancy vehicle (HOV) lanes.	Consistent. See Response to Wilshire Community Plan Objective 10-1.
Objective 9-2	To increase the work trips and non-work trips made on public transit.	Consistent. See Response to Wilshire Community Plan Objective 10-2.
Objective 14-1	Increase capacity on existing transportation systems through minor physical improvements.	Consistent. See Response to Wilshire Community Plan Objective 13-1.
Brentwood/Pacific Palisades Community Plan		
Objective 10-1	To encourage improved local and express bus service through the community, and encourage park and ride facilities to interface with freeways, transit routes and HOV lanes.	Consistent. See Response to Wilshire Community Plan Objective 10-1.
Objective 10-2	To increase the work trips and non-work trips made on public transit.	Consistent. See Response to Wilshire Community Plan Objective 10-2.
Objective 11-1	To pursue transportation management strategies that can maximize vehicle occupancy, minimize average trip length and reduce the number of vehicle trips.	Consistent. See Response to Wilshire Community Plan Objective 12-1.
Objective 12-1	To increase the capacity of existing transportation systems through minor physical improvements.	Consistent. See Response to Wilshire Community Plan Objective 13-1.
Westlake Community Plan		
Objective 1	To maximize the effectiveness of public transportation to meet the travel needs of transit dependent residents.	Consistent. See Response to Wilshire Community Plan Objective 10-1.
Objective 2	To provide for a circulation system coordinated with land uses and densities in order to accommodate the movement of people and goods.	Consistent. See Response to Wilshire Community Plan Objective 10-1.

Table 4.5-2. Proposed Project Consistency with Applicable City of Los Angeles Community Plans (Continued)

Objective 4	To encourage alternate modes of travel and provide an integrated transportation system that is coordinated with land uses and which can accommodate the total travel needs of the community.	Consistent. Bus service along Wilshire Boulevard would improve under the proposed project. Proposed improvements would include restriping of traffic lanes, as necessary; conversion of existing curb lanes to bus lanes in each direction during peak periods; upgrade of the existing transit signal priority system; and installation of traffic/transit signage and pavement markings, as necessary, to implement dedicated peak period bus lanes. The proposed improvements would encourage the use of alternate modes of travel as a result of improved bus passenger travel times and bus service reliability.
West Los Angeles Community Plan		
Objective 10-1	To encourage improved local and express bus service through the West Los Angeles Community area and encourage park-and-ride facilities to connect with freeways and high occupancy vehicle (HOV) facilities.	Consistent. See Response to Wilshire Community Plan Objective 10-1.
Objective 10-2	To increase the work trips and non-work trips made on public transit.	Consistent. See Response to Wilshire Community Plan Objective 10-2.
Objective 11-1	To pursue transportation management strategies that can maximize vehicle occupancy, minimize average trip length and reduce the number of vehicle trips.	Consistent. See Response to Wilshire Community Plan Objective 12-1.
Objective 12-2	To promote pedestrian-oriented mobility for commuter, school, recreational use, economic activity and access to transit facilities.	Consistent. See Response to Westlake Community Plan Objective 3.
Objective 15-1	To increase the capacity of existing transportation systems through minor physical improvements.	Consistent. See Response to Wilshire Community Plan Objective 13-1.

Source: ICF International, 2010.

Table 4.5-3. Proposed Project Consistency with 2008 Regional Transportation Plan Goals

<p>RTP G1</p>	<p>Maximize mobility and accessibility for all people and goods in the region.</p>	<p>Consistent: The proposed project would facilitate improved mobility along Wilshire Boulevard. A series of general improvements would be made to Wilshire Boulevard, including the conversion of existing curb lanes to bus lanes and the upgrading of the existing transit signal priority system.</p>
<p>RTP G2</p>	<p>Ensure travel safety and reliability for all people and goods in the region.</p>	<p>Consistent: The proposed project would include improvements to Wilshire Boulevard to enhance traffic conditions. Proposed improvements include restriping of traffic lanes, as necessary; conversion of existing curb lanes to bus lanes in each direction during peak periods; upgrade of the existing transit signal priority system; and installation of traffic/transit signage and pavement markings, as necessary, to implement dedicated peak period bus lanes. These proposed improvements and upgrades would enhance travel safety and improve reliability.</p>
<p>RTP G3</p>	<p>Preserve and ensure a sustainable regional transportation system.</p>	<p>Consistent: The proposed project would include improvements to Wilshire Boulevard to enhance traffic conditions. Proposed improvements would enhance the regional transportation system by reducing congestion and increasing capacity on major Class II highways, which serve as regional transportation corridors. Specifically, the proposed project would improve bus service, thereby encouraging transit use. Proposed improvements would increase travel safety and improve overall reliability.</p>
<p>RTP G4</p>	<p>Maximize the productivity of our transportation system.</p>	<p>Consistent: The proposed improvements would enhance the regional transportation system by reducing congestion and increasing capacity on major Class II highways, which serve as connectors to the regional freeway system. Under the proposed project, improvements would be made to bus service along the Wilshire corridor. Improvements would include upgrade of the existing transit signal priority system; and installation of traffic/transit signage and pavement markings, as necessary, to implement dedicated peak period bus lanes.</p>

Table 4.5-3. Proposed Project Consistency with 2008 Regional Transportation Plan Goals (Continued)

RTP G5	Protect the environment, improve air quality and promote energy efficiency.	Not Applicable: The proposed project is a transportation improvement project and does not directly contribute to or detract from air quality or energy efficiency. Implementation of the proposed project is anticipated to result in a mode shift to reduce reliance on individual automobile use to reduce congestion leading to reduced emissions.
RTP G6	Encourage land use and growth patterns that complement our transportation investments and improves the cost-effectiveness of expenditures.	Consistent: The proposed project would not alter existing land use patterns. The project would result in improvements to an existing roadway (Wilshire Boulevard) that is consistent with adopted general plan goals and policies aimed at creating priority transit corridors to facilitate east-west regional travel.
RTP G7	Maximize the security of our transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies	Consistent: The proposed project would not affect the security of the local or regional transportation system.

Source: ICF International, 2010.

4.5.4 Mitigation Measures

As noted previously, the proposed project would be consistent with the goals and objectives of the regional land use plans, applicable community plans of the City of Los Angeles General Plan and municipal zoning codes. As project impacts would be less-than-significant, no mitigation measures are required.

4.5.5 Level of Significance After Mitigation

As the proposed project would be consistent with the adopted policies of the General Plan and other applicable land use plans, project impacts with respect to land use would be less-than-significant without mitigation.

4.6 Aesthetics

This section describes the environmental setting (existing conditions and regulatory setting) for aesthetics related to the proposed project, the impacts on aesthetics that may result from the proposed project, and mitigation measures that would be required to reduce these impacts.

The following analysis focuses on the visual character and quality of the project corridor and surroundings, including street trees. Impacts to scenic vistas, scenic resources, views, and lighting are not anticipated to result and are not discussed further.

4.6.1 Environmental Setting

Existing Setting

The project alignment consists of 9.9 miles of the Wilshire corridor, which is a highly developed urban corridor of Los Angeles. Wilshire Boulevard stretches from downtown Los Angeles to the City of Santa Monica and passes through or near many major activity centers and destinations and generally consists of low to high density commercial development, as well as both low and high density multi-family neighborhoods. Wilshire Boulevard contains a variety of architecture styles that contribute to the character of the project corridor.

Sensitive land uses include the mid- and high-rise towers located along Wilshire Boulevard between the Los Angeles Country Club and Malcolm Avenue along Wilshire Boulevard, and portions of Wilshire Boulevard in the Wilshire Community Plan Area, which contains interspersed multi-family residential areas and recreational facilities, such as Museum Row, Hancock Park, and La Brea Tar Pits. These sensitive land uses, particularly those in the Westwood area, have views from various angles of the six historic resources that were determined eligible for listing on the National Register, Chateau Colline (listed on the National Register), and the VA Medical Center (previously determined eligible on the National Register as a historic district). In addition to being visible to these sensitive land uses, these resources are also currently visible from other areas along the corridor and contribute significantly to the visual character of the corridor. Observation of the project corridor suggests that these resources, along with other architecturally, culturally, and socially significant structures and places, are heavily utilized by the public and are likely of high public interest.

Several portions of the project corridor contain street trees and various types of landscaping that line Wilshire Boulevard. The portion of the project corridor that lies in the Westwood community area, near Comstock and Malcolm Avenues, is lined with a maximum of 40 magnolia trees, within existing landscaping features on curb jut-outs, and a maximum of 30 small jacaranda trees within an existing median between I-405 and Federal Avenue

in the County portion of the corridor. Figure 4.6-1 shows the existing landscaping along a typical jut-out located in the Westwood area.

4.6.2 Regulatory Setting

Various plans, policies, standards, and guidelines apply to the aesthetics and visual aspects of development on the project site. These include the City of Los Angeles General Plan and the Los Angeles Municipal Code. A brief summary of these documents is presented below.

City of Los Angeles General Plan

Westwood Community Plan

The majority of the project corridor (9.1 miles) lies within the jurisdiction of the City of Los Angeles and is subject to the policies and designations of the City of Los Angeles General Plan. The portion of the project site that may require removal of up to 40 trees lies in the Westwood Community Plan Area of the City of Los Angeles. For further discussion about the Westwood Community Plan area, see Section 4.5.

The Westwood Community Plan is one of 35 components of the City's General Plan Land Use Element, which is collectively comprised of the City's 35 community plans.

The Westwood Community Plan includes community design and landscaping guidelines and standards that serve to improve the community environment both aesthetically and physically. The guidelines address street trees as follows:

1. Select species which; (a) enhance the pedestrian character, and convey a distinctive high quality visual image (b) are drought and smog tolerant, fire resistant and complement existing trees.
2. Establish a hierarchy for street trees which include:
 - a. Major Accent Trees. These trees should be located at entry points, intersections, and activity centers.
 - b. Ornamental or Special Plantings. At special areas along street frontages, such as linkages to pedestrian walkways and plazas and outdoor dining areas, ornamental trees providing shade and color can emphasize and focus attention on those places.
3. Provide for the installation of street trees along public sidewalks defining the types and spacing in accordance with a Street Tree Master Plan.¹²³

¹²³ City of Los Angeles. n.d. Westwood Community Plan. Available: <<http://cityplanning.lacity.org/complan/pdf/wwdcptxt.pdf>>. Accessed: April 10, 2010.

Figure 4.6-1. Existing Jut-Out and Associated Landscaping Located Along the Wilshire Corridor



Photo: ICF International, 2009

Conservation Element

In addition to the General Plan Framework, the Conservation Element of the City's General Plan also identifies objectives, policies, and programs to address the landforms and scenic vistas, and scenic resources.¹²⁴

Los Angeles Municipal Code

The Los Angeles Municipal Code (LAMC) codifies the regulatory and penal ordinances of the City for the preservation of the public peace, health, and safety. There are several regulations in the LAMC pertaining to visual resources, including removal, relocation, and replacement of street trees.¹²⁵

4.6.2 Thresholds of Significance

Based on Appendix G of the State CEQA Guidelines, the proposed project would have a potentially significant effect on aesthetics if it would substantially degrade the existing visual character or quality of the site and its surroundings.

The *Los Angeles CEQA Thresholds Guide* provides more specific guidance to determine, not just the potential for significance, but to establish thresholds by which a potential aesthetic impact can be measured. The *Los Angeles CEQA Thresholds Guide* recognizes the subjectivity brought to such an analysis and states that a determination of significance is to be made on a case-by-case basis based on the following considerations:¹²⁶

- The amount of relative proportion of existing features or elements that substantially contribute to the valued visual character or image of a neighborhood, community, or localized area, which would be removed, altered, or demolished.

¹²⁴ City of Los Angeles. n.d. *City of Los Angeles General Plan, Conservation Element*. Available: <<http://cityplanning.lacity.org/cwd/gnlpln/consvelt.pdf>>. Accessed: April 10, 2010.

¹²⁵ City of Los Angeles, Special Order (SO18-0372): Policies for the installation and preservation of landscaping and trees on public property. March 27, 1972. Donald C. Tillman, City Engineer, City of Los Angeles. Under Special Order SO18-0372, removed trees should be relocated where possible in the nearby vicinity, and should be replaced on a two to one basis, either locally, or if more appropriate, on an area-wide basis. Discretion is allowed for the responsible agency in applying these Special Order replacement guidelines for any specific project.

¹²⁶ City of Los Angeles. 2006. *L.A. CEQA Thresholds Guide*. Available: <<http://www.ci.la.ca.us/EAD/programs/Thresholds/A-Aesthetics%20and%20Visual%20Resources.pdf>>. Accessed April 10, 2010.

4.6.3 Environmental Impacts

Impact A1: Substantially degrade the existing visual character or quality of the site and its surroundings.

Impacts related to the visual character or quality of the site and its surroundings would be considered less than significant with mitigation incorporated.

The proposed project would convert existing curb lanes on Wilshire Boulevard to bus and right-turn only operation in the peak periods on weekdays. This would result in the repair or reconstruction of curb lanes. All proposed improvements would occur in an existing transportation corridor. The proposed project would not include structures or other elements that would potentially obstruct views of far-off scenic features or structures and places that contribute to the visual character of the corridor, such as the potentially historic or historically significant cultural resources.

A segment of the project site located in the community of Westwood is lined with landscaping and magnolia trees. This area of the project corridor consists of low to high density commercial development, as well as both low and high density multi-family neighborhoods.

Under the proposed project, the removal of jut-outs along the segment of the project corridor between Comstock Avenue and Malcolm Avenue would result in the removal of up to 40 magnolia trees. However, magnolia trees are not designated as protected under City of Los Angeles guidelines. Nevertheless, under the proposed project, a detailed landscape plan would be developed in the Preliminary Engineering phase to identify the trees to be displaced and the location and number of new trees to be replanted along this segment of Wilshire Boulevard. The relocating or replanting of trees would help maintain the existing aesthetic quality of the corridor.

In addition, an existing median immediately west of I-405 supports up to 30 small jacaranda trees. Under the proposed project, the extension of the eastbound left-turn pocket at Sepulveda Boulevard and street widening in the area would result in the removal of these trees.

The proposed improvements would comply with all local construction standards and guidelines, including design guidelines for roadways, streetscape, landscaping, and City/County of Los Angeles requirements for the preservation or replacement of street trees. Implementation of **Mitigation Measure A-1** would result in a less than significant impact.

4.6.4 Mitigation Measures

The proposed project involves the removal of a maximum of 40 magnolia trees along Wilshire Boulevard between Comstock Avenue and Malcolm Avenue and a maximum of 30 small jacaranda trees between I-405 and Federal Avenue. The following mitigation measure shall be implemented to

ensure that the impact related to tree removal would be reduced to a less than significant level:

- A-1** Wherever feasible, trees within the existing jut-outs and median shall be preserved or relocated and incorporated into the landscape plan where space permits.

4.6.6 Level of Significance After Mitigation

The implementation of **Mitigation Measure A-1**, preserving, replacing or moving the affected street trees, would ensure conformity with City and County of Los Angeles requirements for protection and preservation of the street trees. This would ensure a less-than-significant impact would occur relative to potential impacts to the visual character of the project site.

4.7 Biological Resources

This section evaluates the effects of the proposed project on biological resources, specifically related to the effects on migratory species. All other issues related to biological resources are discussed under Chapter 6, Effects Not Found to be Significant.

4.7.1 Environmental Settings

The project corridor runs from the western edge of downtown at Valencia Street to the eastern boundary of the City of Santa Monica at Centinela Avenue (Figure 2-1). The project corridor spans approximately 9.9 miles, excluding the City of Beverly Hills. The Wilshire corridor is a densely populated, highly developed inner urban region with extensive commercial and nearby residential uses.

BRT operations already occur within the project corridor. The project corridor is not within or adjacent to natural open space or significant ecological areas (SEAs) that would support threatened or endangered species. There are no natural or landscaped features in the project corridor that would support any sensitive biological resources. Wildlife use of the project corridor is limited largely to feral cats, rats, mice, and birds, which adapt to urban areas and are not considered sensitive species. No natural streams or waterways are located in the project vicinity that would be considered ecologically sensitive. The nearest concrete-lined stream is the Ballona Creek, located 1.3 miles south of the project corridor.

A search of the California Natural Diversity Database (CNDDDB) was conducted to identify sensitive species historically noted in the project area (consisting of portions of the Hollywood and the Beverly Hills Quadrangles). The following species were found: American badger (*Taxidea taxus*), Braunton's milk-vetch (*Astragalus brauntonii*), Burrowing owl (*Athene cunicularia*), Coast horned lizard (*Phrynosoma blainvillii*), Davidson's saltscale, (*Atriplex serenana* var. *davidsonii*), Gertsch's socialchemmis spider (*Socalchemmis gertschi*), Hoary bat (*Lasiurus cinereus*), Monarch butterfly (*Danaus plexippus*), Mud nama (*Nama stenocarpum*), Silver-haired bat (*Lasionycteris noctivagans*), and Southwestern willow flycatcher (*Empidonax traillii extimus*) (CNDDDB 2010). These species and their specific habitat requirements are outlined in Table 4.7-1 below. Figure 4.7-1 shows the locations where these species potentially occur within the project corridor.

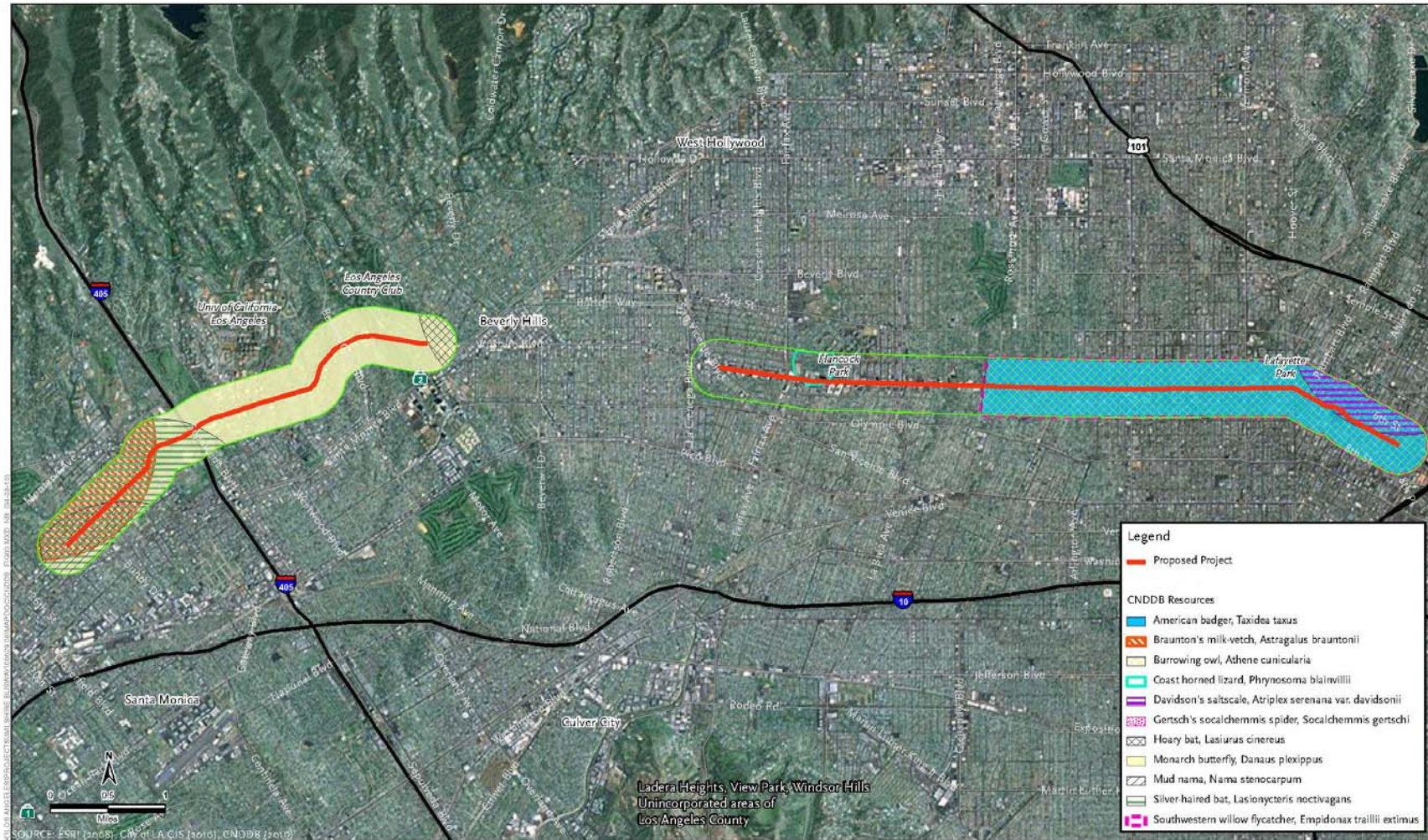
The project corridor is within a highly developed urban area, where the only suitable habitat for wildlife consists of ornamental trees planted along the sidewalk. The project corridor does not provide suitable habitat for the following species: American badger (*Taxidea taxus*), Braunton's milk-vetch (*Astragalus brauntonii*), Burrowing owl (*Athene cunicularia*), Coast horned lizard (*Phrynosoma blainvillii*), Davidson's saltscale, (*Atriplex serenana* var.

Table 4.7-1. Sensitive Species with Potential to Occur in Project Area

Common Name (<i>Scientific Name</i>)	Sensitivity Code and Status	Habitat Preference/Requirements
Plants		
Braunton's milk-vetch (<i>Astragalus brauntonii</i>)	FE/CNPS list 1B.1	Burned or disturbed areas in closed-cone coniferous forest, chaparral, coastal scrub, and valley and foothill grassland habitats.
Davidson's saltscale (<i>Atriplex serenana</i> var. <i>davidsonii</i>)	CNPS List 1B.2	Coastal bluff scrub and coastal scrub habitats (alkaline soil).
Mud nama (<i>Nama stenocarpum</i>)	CNPS List 2.2	Marshes, lakeshores, river banks, intermittently wet areas.
Wildlife		
Silver-haired bat (<i>Lasionycteris noctivagans</i>)	--	Coastal and montane forests; feeds over streams, ponds and open brushy areas; roosts in hollow trees, rarely under rocks.
Hoary bat (<i>Lasiurus cinereus</i>)	--	Roosts in dense foliage of medium to large trees.
American badger (<i>Taxidea taxus</i>)	SSC	Dry, open stages of most shrub, forest and grassland habitats, with friable soils.
Burrowing owl (<i>Athene cunicularia</i>)	SSC	Open, dry, grasslands, deserts, scrublands, with low-growing vegetation; uses ground squirrel burrows.
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	FE/SE	Riparian woodlands in southern California.
Coast horned lizard (<i>Phrynosoma blainvillii</i>)	SSC	Valley-foothill hardwood, conifer, riparian and grassland vegetation; most common in lowlands along sandy washes with scattered low bushes.
Monarch butterfly (<i>Danaus plexippus</i>)	--	Roosts in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nearby water and nectar sources; open fields and meadows in summer.
Gertsch's socialchemmis spider (<i>Socalchemmis gertschi</i>)	--	Known from only 2 localities in Los Angeles county: Brentwood (type locality) and Topanga Canyon.
Federal		State
FE = Endangered		SE = Endangered
FT = Threatened		ST = Threatened
SC = Federal Species of Concern		SR = Rare
		SSC = State Species of Concern
California Native Plant Society (CNPS) Categories		
1A = List 1A species: plants presumed extinct in California.		
1B = List 1B species: rare, threatened, or endangered in California and elsewhere.		
2 = List 2 species: rare, threatened, or endangered in California but more common elsewhere.		
3 = List 3 species: plants for which we need more information – Review List.		
4 = List 4 species: plants of limited distribution – Watch List.		
California Native Plant Society Threat Code extensions		
.1 = Seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat).		
.2 = Fairly threatened in California (20%– 80% of occurrences threatened; moderate degree and immediacy of threat).		
.3 = Not very threatened in California (less than 20% of occurrences threatened or no current threats known).		

Source: California Department of Fish and Game 2010.

Figure 4.7-1. CNDDDB Species Map



Source: CNDDDB 2010

davidsonii), Gertsch's socialchemmis spider (*Socalchemmis gertschi*), Hoary bat (*Lasiurus cinereus*), Monarch butterfly (*Danaus plexippus*), Mud nama (*Nama stenocarpum*), Silver-haired bat (*Lasionycteris noctivagans*), and Southwestern willow flycatcher (*Empidonax traillii extimus*). However, Wilshire Boulevard contains a large number of ornamental trees, which may provide habitat for migratory nesting birds. The segment of the proposed project, where jut-outs are proposed to be removed, contains up to 40 magnolia trees. In addition, the existing median, where the eastbound left-turn pocket at Sepulveda Boulevard is proposed to be extended, contains up to 30 small jacaranda trees.

The project corridor has no known ecologically sensitive areas, or special status species, riparian habitat, or other sensitive natural communities. Due to the highly developed nature of the area, and the fragmented state of remaining open space in the immediate area, the project corridor does not provide readily accessible migration corridors between two or more existing natural open spaces.

4.7.2 Regulatory Setting

Federal, state, and local regulations related to biological resources that would apply to the proposed project are discussed below.

Federal Environmental Regulations

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) was enacted in 1973 to provide protection to threatened and endangered species and their associated ecosystems. "Take" of a listed species is prohibited except when authorization has been granted through a permit under Section 4(d), 7 or 10(a) of the FESA. "Take" is defined as to harass, harm, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any of these activities without a permit.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) was enacted in 1918. Its purpose is to prohibit the kill or transport of native migratory birds, or any part, nest, or egg of any such bird unless allowed by another regulation adopted in accordance with the MBTA.

State Environmental Regulations

California Environmental Quality Act

CEQA requires that biological resources be considered when assessing the environmental impacts resulting from proposed actions. CEQA does not specifically define what constitutes an "adverse effect" on a biological

resource. Instead, lead agencies are charged with determining what specifically should be considered an impact.

California Fish and Game Code

California Endangered Species Act

The California Endangered Species Act (CESA) prohibits the “take” of any species that the California Fish and Game Commission determines to be a threatened or endangered species and is administered by the California Department of Fish and Game (CDFG). Incidental take of these listed species can be approved by the CDFG. “Take” is defined as to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.

Natural Community Conservation Planning Act of 1991

The Natural Community Conservation Planning (NCCP) Act is designed to conserve natural communities at the ecosystem scale while accommodating compatible land use. The CDFG is the principal state agency implementing the NCCP Program. NCCP plans developed in accordance with the act provide for comprehensive management and conservation of multiple wildlife species and identify and provide for the regional or area-wide protection and perpetuation of natural wildlife diversity while allowing compatible and appropriate development and growth.

Local Environmental Regulations

Tree Removal

In response to the declining oak population in the city, the City of Los Angeles enacted an oak tree protection ordinance in 1982. Although the ordinance slowed the oak tree decline, the oak population, and other native tree species, continued to decline. In an effort to further slow the decline of native tree habitat, the City amended the Los Angeles Municipal Code April 23, 2006. The amended Native Tree Protection Ordinance became law on April 23, 2006. The new law includes protection of all native oak tree species (*Quercus spp*), Western sycamore (*Platanus racemosa*), California bay (*Umbellularia californica*), and California black walnut (*Juglans californica*).¹²⁷ Protected tree removal requires a removal permit by the Board of Public Works. Any act that may cause the failure or death of a protected tree requires inspection by the City’s Urban Forest Division. However, there are no City-protected trees within the segments of the project corridor that involve tree removal.

4.7.3 Thresholds of Significance

For the purposes of the analysis in this EIR and in accordance with Appendix G of the State *CEQA Guidelines*, the proposed project would have a significant environmental impact under CEQA if it would:

¹²⁷ City of Los Angeles, Urban Forestry Division, <http://www.ci.la.ca.us/boss/UrbanForestryDivision/index.htm>, accessed May 26, 2010.

- Have a substantial adverse effect, either directly or indirectly or through habitat modification, on any species identified as being a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFG or USFWS;
- Interfere substantially with the movement of any native resident migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites; or
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;

4.7.4 Environmental Impacts

Impact BR1: Have a substantial adverse effect on any sensitive or special-status species.

A less-than-significant impact related to sensitive or special status plant and animal species would occur.

Implementation of the proposed project, which would involve improvements to an existing transportation corridor already used by buses and other vehicles to create peak period curbside bus lanes to accommodate existing buses, would not create any new impacts to existing biological resources, including sensitive or special-status species, in the project corridor and vicinity. Project operation would not create any new impacts related to ecologically sensitive areas and endangered species beyond existing conditions. Therefore, a less-than-significant impact related to sensitive or special status plant and animal species would occur.

Impact BR2: Interfere with wildlife movement.

A significant impact related to interference with wildlife movement would potentially occur before mitigation.

During project construction, there is a moderate potential for violation of the federal Migratory Bird Treaty Act and similar laws in the California Fish and Game Code protecting native birds, if any tree removal or other construction-related activities were to occur during the nesting season. The segment of the proposed project, where jut-outs are proposed to be removed, would involve the removal of a maximum of 40 magnolia trees along Wilshire Boulevard between Comstock Avenue and Malcolm Avenue, which may serve as habitat for migratory birds. This may result in conflict with state and federal laws protecting native birds and their active nests. Implementation of Mitigation Measure BR-1, described below, would ensure that this conflict is avoided.

Similarly, the segment of the proposed project, where an existing eastbound left-turn pocket would be extended and the street widened between Bonsall and Federal Avenues, would involve the removal of a maximum of 30 small jacaranda trees between I-405 and Federal Avenue. However, these trees are

ornamental and would not provide suitable habitat for migratory birds. Therefore, no impacts related to migratory birds are anticipated along this segment.

Impact BR3: Conflict with local policies or ordinances protecting biological resources.

With the incorporation of mitigation, a less-than-significant impact related to the project's consistency with local policies or ordinances protecting biological resources would occur.

The proposed project would remove up to 40 magnolia trees along Wilshire Boulevard, between Comstock Avenue and Malcolm Avenue and up to 30 small jacaranda trees between I-405 and Federal Avenue. This would potentially conflict with City of Los Angeles requirements for the preservation or replacement of street trees. While this City requirement is not necessarily intended to protect biological resources, the protection of trees as part of the visual character definition of the local streetscape also provides protection of potential nesting habitat. As described in Mitigation Measure A-1, trees within the existing jut-outs shall be preserved or relocated and incorporated into the landscape plan, where space permits. In addition, implementation of Mitigation Measure BR-1 described below, would ensure that the conflict with state and federal laws protecting native birds and their active nests is avoided. Therefore, a less than significant impact related to conflicts with local policies or ordinances would occur. No additional mitigation would be required.

4.7.4 Mitigation Measures

The proposed project involves the removal of a maximum of 40 magnolia trees along Wilshire Boulevard between Comstock Avenue and Malcolm Avenue, which may serve as habitat for migratory birds. Accordingly, the following mitigation measures shall be implemented to prevent conflict with existing federal, state, and/or local laws, regulations and/or ordinances protecting biological resources that may be encountered during construction of the proposed project:

BR-1 Prior to the typical breeding/nesting season for birds (February 1 through September 1), trees to be removed as part of the jut-out removal between Comstock Avenue and Malcolm Avenue shall be netted to prevent birds from inhabiting the trees prior to tree removal and construction.

4.7.6 Level of Significance After Mitigation

With the implementation of **Mitigation Measure BR-1** described above, potential impacts to nesting sites for migratory birds would be avoided. Therefore, the proposed project would have a less than significant impact after mitigation.

Similarly, the implementation of **Mitigation Measures A-1** and **BR-1**, preserving, replacing or moving the affected street trees, would ensure conformity with City of Los Angeles requirements, and would ensure that potential migratory nesting birds are not affected by the proposed project.

Chapter 5 Alternatives to the Proposed Project

5.1 Introduction

CEQA requires that an EIR describe a range of reasonable alternatives to the project or to the location of the project that could feasibly avoid or lessen any significant environmental impacts while substantially attaining the basic objectives of the project. An EIR should also evaluate the comparative merits of the alternatives. This chapter describes potential alternatives to the proposed project that were considered but eliminated from further consideration and the reasons for dismissal, as well as those alternatives that have been carried forward for analysis in comparison to the potential environmental impacts associated with the proposed project.

Key provisions of the CEQA Guidelines (Section 15126.6) pertaining to the alternatives analysis are summarized below.

- The discussion of alternatives will focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.
- The No Project Alternative will be evaluated along with its impact. The No Project analysis will discuss existing conditions (2010), as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved based on current plans and consistent with available infrastructure and community services.
- The range of alternatives required in an EIR is governed by a “rule of reason”; therefore, the EIR must evaluate only those alternatives necessary to permit a reasoned choice. The alternatives will be limited to ones that would avoid or substantially lessen any of the significant effects of the project.
- An EIR need not consider an alternative with effects that cannot be reasonably ascertained, when implementation is remote and speculative, and if its selection would not achieve the basic project objectives.

The range of feasible alternatives is selected and discussed in a manner to foster meaningful public participation and informed decision-making. Among the factors that may be taken into account when addressing the feasibility of alternatives, as described in CEQA Guidelines Section 15126.6(f)(1), are environmental impacts, site suitability, economic viability, availability of infrastructure, general plan consistency, regulatory limitations, jurisdictional boundaries, and whether the proponent could reasonably acquire, control, or otherwise have access to the alternative site.

As presented in Chapter 2, Project Description, the goals and objectives of the proposed project are as follows:

- Improve bus passenger travel times by allowing buses to travel in dedicated peak-period bus lanes for the majority of the alignment between Valencia Street to the east and Centinela Avenue to the west;
- Improve bus service reliability by separating buses from the already high levels of corridor traffic congestion;
- Improve traffic flow along Wilshire Boulevard;
- Repave the curb lanes along damaged portions of Wilshire Boulevard to allow their effective use by buses during peak periods and by both buses and automobiles during non-peak periods;
- Encourage shift from automobile use to public transit by continuing to attract new transit riders;
- Improve air quality in Los Angeles County with the reduction in mobile source emissions resulting from a mode shift from automobile use to bus use; and
- Minimize impacts to existing parking.

5.2 Alternatives Considered

5.2.1 No Project Alternative

This alternative is required by Section 15126.6(e) of the CEQA Guidelines and assumes that the proposed project would not occur. Under the No Project Alternative, proposed improvements to 9.9 miles of the Wilshire Corridor included under the proposed project would not be implemented. Specifically, the proposed restriping and widening of some existing portions of the Wilshire corridor would not occur. The No Project Alternative would not include the conversion of existing curb lanes to bus lanes in each direction during peak periods; upgrade of the existing transit signal priority system; selective street widening; reconstruction/resurfacing of curb lanes in select areas; and installation of traffic/transit signage and pavement markings, as necessary, to implement dedicated peak period bus lanes. Existing conditions of the Wilshire Corridor would remain under this alternative. Consequently, the No Project Alternative would not achieve or fulfill any of the goals and objectives of the proposed project.

Impacts

The following environmental impacts would be expected under the No Project Alternative. The respective Environmental Setting discussions for each area of potential impact are addressed in detail throughout Chapter 4 of this document.

Traffic, Circulation, and Parking

No impact on transportation, circulation, or parking would occur under this alternative.

Under the No Project Alternative, no construction activity would occur, no changes in operational conditions would occur, and no new trips or change in existing travel patterns would occur. Existing conditions would continue under this alternative. Impacts anticipated under the proposed project would not occur. No mitigation measures would be required under this alternative.

Air Quality

No air quality impact would occur under this alternative.

Construction activities would not occur within the project corridor under the No Project Alternative. Thus, associated VOC, NO_x, CO, SO_x, PM_{2.5}, and PM₁₀ emissions resulting from construction activity that would occur with the proposed project would not be generated under this alternative.

Existing air quality conditions would continue to occur under this alternative. As included in Table 4.2-3, monitoring data show the following pollutant trends under existing conditions: both State 1-hour and 8-hour O₃ standards were exceeded an average of four times each year at both stations. Particulate (PM₁₀ and PM_{2.5}) concentrations are largely affected by meteorology and show some variability during the 3-year reporting period. The State 24-hour PM₁₀ standard was exceeded three times in 2006, five times in 2007, and twice in 2008, while the national standard was not exceeded during the 3-year reporting period. The national PM_{2.5} standard was exceeded 11 times in 2006, 20 times in 2007, and 10 times in 2008. These trends would continue to occur without the proposed project. No mitigation measures, particularly for project construction, would be required under this alternative.

Cultural Resources (Historical, Archaeological and Paleontological)

No impact on cultural resources would occur under this alternative.

Under the No Project Alternative, the project corridor would remain in its current state. As no construction would occur under the No Project Alternative, there would be no potential for historic or subsurface cultural resources to be disturbed. Therefore, no impacts on historic, archaeological, or paleontological resources would occur. No mitigation measures would be required under this alternative.

Noise and Vibration

No impact due to noise and vibration would occur under this alternative.

Under the No Project Alternative, increased noise levels associated with construction would not occur. Existing noise conditions would continue to occur. Without the proposed project, traffic noise levels are predicted to increase from 0 to 2 dBA. This would be considered a less than significant impact. No construction vibration or groundborne noise impacts would occur. The No Project Alternative would not change vibration or groundborne noise levels from existing conditions along the project corridor.

No impact would occur, and no mitigation measures would be required under this alternative.

Land Use and Planning

No impact on land use and planning would occur under this alternative.

Under the No Project Alternative, transportation improvements to portions of the Wilshire corridor would not occur. The conversion of existing curb lanes to peak period bus lanes and the restriping and widening of some existing portions of the Wilshire corridor would not occur. The Wilshire corridor would remain in its existing condition. No impacts to land use would occur, and no mitigation measures would be required under this alternative.

Aesthetics

No impact on visual resources would occur under this alternative.

Under the No Project Alternative, the improvements under the proposed project would not be implemented. No construction activities would take place, and no street facilities would be altered. Therefore, no visual impacts would occur. No mitigation measures would be required under this alternative.

Biology

No impact on biological resources would occur under this alternative.

Under the No Project Alternative, proposed improvements to 9.9 miles of the Wilshire corridor included under the proposed project would not be implemented. No street trees would be removed as a result of the corresponding jut-out removals that would occur under the proposed project. Therefore, no impacts on trees or on issues related to compliance with the Migratory Bird Treaty Act would occur. No mitigation measures would be required under this alternative.

Mitigation Measures

No significant impacts are expected under the No Project Alternative. Therefore, no mitigation measures are necessary.

5.2.2 Alternative A – Truncated Project Without Jut-out Removal

Alternative A – Truncated Project Without Jut-Out Removal would include the development of an 8.7-mile bus lane from the Wilshire Boulevard/S. Park View Street intersection to the Wilshire Boulevard/Centinela Avenue intersection. This alternative would eliminate the bus lane from Sepulveda Boulevard to mid-block Veteran Avenue/Gayley Avenue, totaling 0.3 mile.

Additionally, this alternative would eliminate the jut-out removal between Comstock Avenue and Malcolm Avenue (1.0 mile). The existing traffic lane would be converted to a bus lane in each direction between Comstock Avenue and Malcolm Avenue. In addition, Alternative A includes an additional 1.8 miles of curb lane reconstruction/resurfacing along Wilshire Boulevard.

The key differences between this alternative and the proposed project are summarized from east to west (in both the eastbound and westbound directions), as follows:

- Elimination of the bus lane between Valencia Street and S. Park View Street;
- Retention of the jut-outs between Comstock Avenue and Malcolm Avenue;
- Elimination of the bus lane from approximately 300 feet east of Veteran Avenue to the I-405 northbound ramps; and
- Additional reconstruction and resurfacing of curb lanes between Fairfax Avenue and San Vicente Boulevard and between the western boundary of the City of Beverly Hills to Westholme Avenue.

Figure 5-1 shows the improvements proposed under Alternative A from S. Park View Street on the eastern end to Centinela Avenue on the western end.

Impacts

Traffic, Circulation, and Parking

Significant unavoidable impacts on nine local intersections would occur under this alternative. However, as with the proposed project, impacts on local residential streets, parking, and emergency access and impacts related to transitional conflict between buses and automobiles would be less than significant.

Levels of Service

A traffic study was prepared by Iteris in March of 2010, which included analysis of Alternative A. The traffic study examined year 2012 and year 2020 with project alternative intersection Level of Service (LOS) conditions during the a.m. and p.m. peak hours at the 74 study intersections, as shown in Tables 5-1 through 5-4.

Figure 5-1: Alternative A – Truncated Project Without Jut-Out Removal

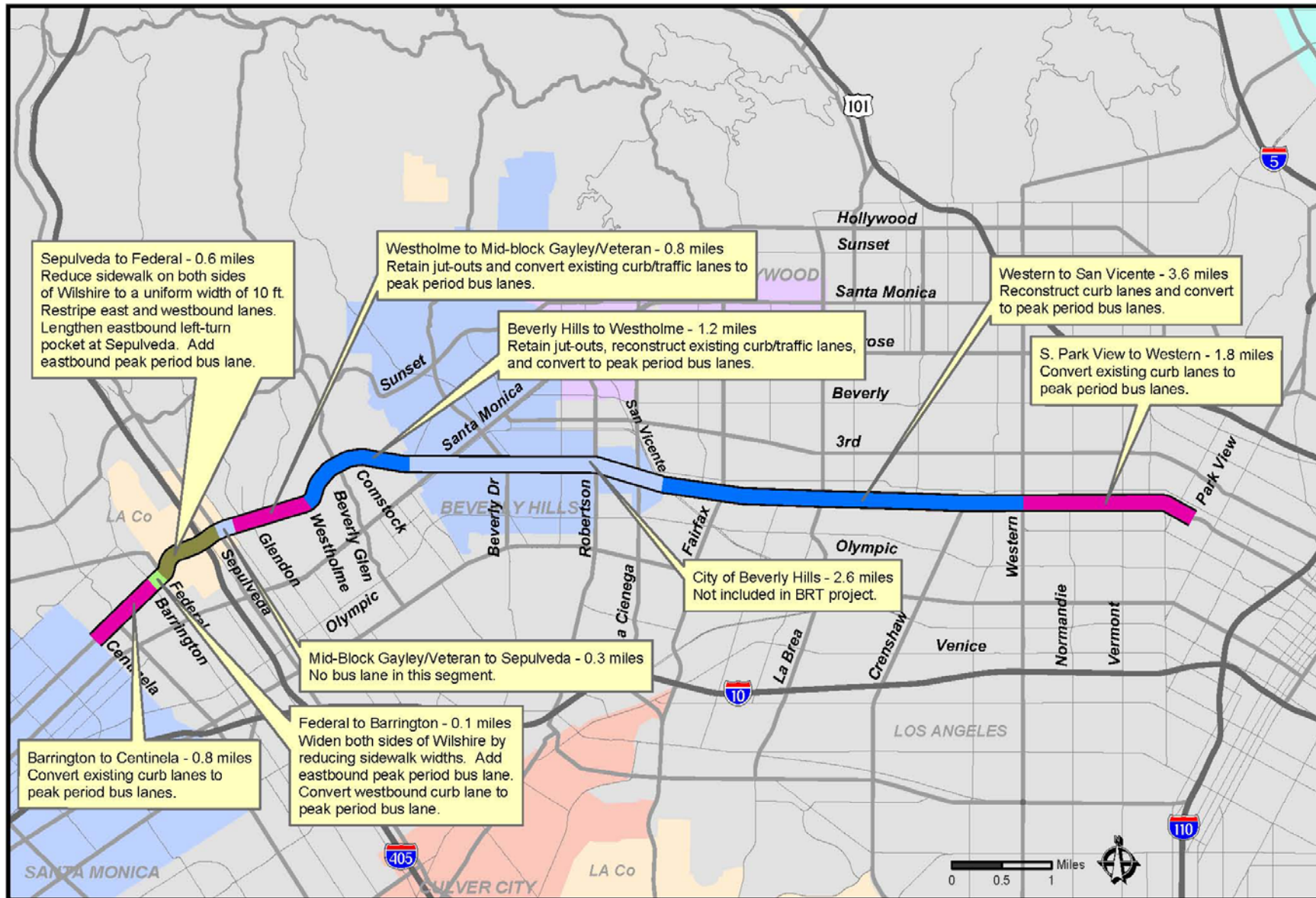


Table 5-1: Year 2012 With Alternative A AM Peak Hour Intersection LOS

Intersection	2012 Without Alternative A		2012 With Alternative A		Change in Delay	Threshold	Significant Impact?
	Delay (sec)	LOS	Delay (sec)	LOS			
1. Veteran Ave/Sunset Blvd	92.3	F	90.8	F	-1.5	2.5	-
2. S Beverly Glen Blvd/Sunset Blvd	26.9	C	26.5	C	-0.4	6.0	-
3. N Beverly Glen Blvd/Sunset Blvd	118.0	F	117.7	F	-0.3	2.5	-
4. Centinela Ave/Wilshire Blvd	8.0	A	9.9	A	1.9	-	-
5. Bundy Dr/Wilshire Blvd	60.3	E	96.9	F	36.6	2.5	Yes
6. Barrington Ave/Wilshire Blvd	38.1	D	45.8	D	7.7	4.0	Yes
7. Federal Ave/Wilshire Blvd	67.8	E	57.4	E	*	2.5	-
8. Sepulveda Blvd/Wilshire Blvd	207.8	F	208.3	F	0.5	2.5	-
9. Veteran Ave/Wilshire Blvd	236.4	F	218.9	F	*	2.5	-
10. Westwood Blvd/Wilshire Blvd	66.8	E	49.7	D	*	4.0	-
11. Beverly Glen Blvd/Wilshire Blvd	34.5	C	38.7	D	4.2	4.0	Yes
12. Comstock Ave/Wilshire Blvd	20.6	C	20.7	C	0.1	6.0	-
13. Santa Monica Blvd/Wilshire Blvd	87.3	F	54.1	D	*	4.0	-
14. Centinela Ave/Santa Monica Blvd	16.6	B	15.6	B	-1.0	-	-
15. Bundy Dr/Santa Monica Blvd	16.9	B	17.1	B	0.2	-	-
16. Barrington Ave/Santa Monica Blvd	16.5	B	16.8	B	0.3	-	-
17. Federal Ave/Santa Monica Blvd	27.8	C	28.4	C	0.6	6.0	-
18. I-405 SB Ramps/Santa Monica Blvd	26.8	C	26.9	C	0.1	6.0	-
19. I-405 NB Ramps/Santa Monica Blvd	48.9	D	47.2	D	-1.7	4.0	-
20. Sepulveda Blvd/Santa Monica Blvd	46.4	D	40.1	D	-6.3	4.0	-
21. Veteran Ave/Santa Monica Blvd	20.6	C	21.7	C	1.1	6.0	-
22. Westwood Blvd/Santa Monica Blvd	122.9	F	122.4	F	-0.5	2.5	-
23. Overland Ave/Santa Monica Blvd	30.0	C	29.6	C	-0.4	6.0	-
24. Beverly Glen Blvd/Santa Monica Blvd	60.7	E	61.2	E	0.5	2.5	-
25. Century Park W/Santa Monica Blvd	20.5	C	20.0	C	-0.5	6.0	-
26. Ave of the Stars/Santa Monica Blvd	46.8	D	47.1	D	0.3	4.0	-
27. Century Park E/Santa Monica Blvd	28.5	C	27.9	C	-0.6	6.0	-
28. Bundy Dr/Olympic Blvd	99.5	F	102.1	F	2.6	2.5	Yes
29. Barrington Ave/Olympic Blvd	51.1	D	51.3	D	0.2	4.0	-
30. Sepulveda Blvd/Olympic Blvd	33.9	C	35.0	C	1.1	6.0	-
31. Veteran Ave/Olympic Blvd	23.8	C	22.8	C	-1.0	6.0	-
32. Westwood Blvd/Olympic Blvd	38.7	D	46.9	D	8.2	4.0	Yes
33. Overland Ave/Olympic Blvd	37.6	D	40.7	D	3.1	4.0	-
34. Beverly Glen Blvd/Olympic Blvd	67.2	E	67.3	E	0.1	2.5	-
35. Century Park W/Olympic Blvd	15.0	B	15.4	B	0.4	-	-
36. Century Park E/Olympic Blvd	42.6	D	42.5	D	-0.1	4.0	-
37. Sepulveda Blvd/Pico Blvd	53.0	D	54.5	D	1.5	4.0	-
38. Veteran Ave/Pico Blvd	12.2	B	11.2	B	-1.0	-	-
39. Westwood Blvd/Pico Blvd	39.1	D	39.4	D	0.3	4.0	-
40. Overland Ave/Pico Blvd	60.1	E	60.0	E	-0.1	2.5	-
41. Fairfax Ave/3 rd St	69.9	E	67.9	E	-2.0	2.5	-

Table 5-1: Year 2012 With Alternative A AM Peak Hour Intersection LOS (Continued)

Intersection	2012 Without Alternative A		2012 With Alternative A		Change in Delay	Threshold	Significant Impact?
	Delay (sec)	LOS	Delay (sec)	LOS			
42. La Brea Ave/3 rd St	34.5	C	34.3	C	-0.2	6.0	-
43. Highland Ave/3 rd St	69.6	E	71.6	E	2.0	2.5	-
44. Western Ave/3 rd St	47.1	D	48.6	D	1.5	4.0	-
45. Vermont Ave/3 rd St	42.3	D	41.8	D	-0.5	4.0	-
46. Fairfax Ave/6 th St	15.5	B	15.4	B	-0.1	-	-
47. La Brea Ave/6 th St	58.9	E	50.2	D	-8.7	4.0	-
48. Highland Ave/6 th St	18.9	B	19.2	B	0.3	-	-
49. Western Ave/6 th St	27.2	C	27.6	C	0.4	6.0	-
50. Vermont Ave/6 th St	39.6	D	41.5	D	1.9	4.0	-
51. Alvarado St/6 th St	17.5	B	17.4	B	-0.1	-	-
52. San Vicente Blvd/Wilshire Blvd	76.2	E	73.1	E	*	2.5	-
53. Fairfax Ave/Wilshire Blvd	104.0	F	119.3	F	15.3	2.5	Yes
54. La Brea Ave/Wilshire Blvd	37.5	D	41.7	D	4.2	4.0	Yes
55. Highland Ave/Wilshire Blvd	44.2	D	49.9	D	5.7	4.0	Yes
56. Crenshaw Blvd/Wilshire Blvd	31.9	C	32.5	C	0.6	6.0	-
57. Western Ave/Wilshire Blvd	51.0	D	47.9	D	*	4.0	-
58. Vermont Ave/Wilshire Blvd	60.1	E	59.1	E	*	2.5	-
59. Alvarado St/Wilshire Blvd	23.0	C	22.0	C	*	6.0	-
60. Fairfax Ave/8 th St	11.7	B	12.2	B	0.5	-	-
61. La Brea Ave/8 th St	8.4	A	10.2	B	1.8	-	-
62. Crenshaw Blvd/8 th St	11.4	B	12.5	B	1.1	-	-
63. Western Ave/8 th St	16.2	B	16.3	B	0.1	-	-
64. Vermont Ave/8 th St	21.4	C	23.1	C	1.7	6.0	-
65. Alvarado St/8 th St	13.4	B	13.5	B	0.1	-	-
66. Fairfax Ave/San Vicente Blvd	27.0	C	29.8	C	2.8	6.0	-
67. Fairfax Ave/Olympic Blvd	37.0	D	42.7	D	5.7	4.0	Yes
68. San Vicente Blvd/Olympic Blvd	31.2	C	30.9	C	-0.3	6.0	-
69. La Brea Ave/Olympic Blvd	46.6	D	46.8	D	0.2	4.0	-
70. Highland Ave/Olympic Blvd	48.2	D	51.1	D	2.9	4.0	-
71. Crenshaw Blvd/Olympic Blvd	68.5	E	71.3	E	2.8	2.5	Yes
72. Western Ave/Olympic Blvd	31.6	C	33.5	C	1.9	6.0	-
73. Vermont Ave/Olympic Blvd	37.5	D	38.9	D	1.4	4.0	-
74. Alvarado St/Olympic Blvd	23.9	C	23.7	C	-0.2	6.0	-

Notes:
 * Average delay reduced, see explanation in "Analysis Methodology" section.
 HCM 2000 Operations Methodology
 Delay = Average Vehicle Delay (Seconds), LOS = Level of Service
 Source: Iteris, Wilshire Boulevard BRT Project-Traffic Impact Analysis, 2010.

Table 5-2: Year 2012 With Alternative A PM Peak Hour Intersection LOS

Intersection	2012 Without Alternative A		2012 With Alternative A		Change in Delay	Threshold	Significant Impact?
	Delay (sec)	LOS	Delay (sec)	LOS			
1. Veteran Ave/Sunset Blvd	41.5	D	34.7	C	-6.8	6.0	-
2. S Beverly Glen Blvd/Sunset Blvd	53.1	D	46.9	D	-6.2	4.0	-
3. N Beverly Glen Blvd/Sunset Blvd	46.0	D	39.4	D	-6.6	4.0	-
4. Centinela Ave/Wilshire Blvd	8.3	A	7.8	A	*	-	-
5. Bundy Dr/Wilshire Blvd	77.2	E	103.9	F	26.7	2.5	Yes
6. Barrington Ave/Wilshire Blvd	32.9	C	30.9	C	*	6.0	-
7. Federal Ave/Wilshire Blvd	49.9	D	46.2	D	*	4.0	-
8. Sepulveda Blvd/Wilshire Blvd	111.5	F	93.0	F	*	2.5	-
9. Veteran Ave/Wilshire Blvd	114.9	F	107.8	F	*	2.5	-
10. Westwood Blvd/Wilshire Blvd	62.7	E	45.7	D	*	4.0	-
11. Beverly Glen Blvd/Wilshire Blvd	38.1	D	41.8	D	3.7	4.0	-
12. Comstock Ave/Wilshire Blvd	25.7	C	25.1	C	*	6.0	-
13. Santa Monica Blvd/Wilshire Blvd	91.6	F	76.4	E	*	2.5	-
14. Centinela Ave/Santa Monica Blvd	16.9	B	17.0	B	0.1	-	-
15. Bundy Dr/Santa Monica Blvd	16.0	B	16.2	B	0.2	-	-
16. Barrington Ave/Santa Monica Blvd	15.1	B	15.1	B	0.0	-	-
17. Federal Ave/Santa Monica Blvd	31.0	C	31.1	C	0.1	6.0	-
18. I-405 SB Ramps/Santa Monica Blvd	26.3	C	26.1	C	-0.2	6.0	-
19. I-405 NB Ramps/Santa Monica Blvd	52.4	D	49.5	D	-2.9	4.0	-
20. Sepulveda Blvd/Santa Monica Blvd	46.6	D	45.1	D	-1.5	4.0	-
21. Veteran Ave/Santa Monica Blvd	61.2	E	67.4	E	6.2	2.5	Yes
22. Westwood Blvd/Santa Monica Blvd	90.7	F	88.6	F	-2.1	2.5	-
23. Overland Ave/Santa Monica Blvd	72.9	E	80.8	F	7.9	2.5	Yes
24. Beverly Glen Blvd/Santa Monica Blvd	48.9	D	53.9	D	5.0	4.0	Yes
25. Century Park W/Santa Monica Blvd	23.2	C	23.1	C	-0.1	6.0	-
26. Ave of the Stars/Santa Monica Blvd	27.8	C	28.0	C	0.2	6.0	-
27. Century Park E/Santa Monica Blvd	18.0	B	18.0	B	0.0	-	-
28. Bundy Dr/Olympic Blvd	73.3	E	74.9	E	1.6	2.5	-
29. Barrington Ave/Olympic Blvd	56.3	E	55.7	E	-0.6	2.5	-
30. Sepulveda Blvd/Olympic Blvd	51.5	D	53.8	D	2.3	4.0	-
31. Veteran Ave/Olympic Blvd	13.6	B	14.1	B	0.5	-	-
32. Westwood Blvd/Olympic Blvd	44.6	D	44.9	D	0.3	4.0	-
33. Overland Ave/Olympic Blvd	65.4	E	66.2	E	0.8	2.5	-
34. Beverly Glen Blvd/Olympic Blvd	49.0	D	53.9	D	4.9	4.0	Yes
35. Century Park W/Olympic Blvd	20.6	C	21.5	C	0.9	6.0	-
36. Century Park E/Olympic Blvd	44.9	D	46.2	D	1.3	4.0	-
37. Sepulveda Blvd/Pico Blvd	65.6	E	65.5	E	-0.1	2.5	-
38. Veteran Ave/Pico Blvd	19.1	B	21.9	C	2.8	6.0	-
39. Westwood Blvd/Pico Blvd	70.1	E	74.6	E	4.5	2.5	Yes
40. Overland Ave/Pico Blvd	122.9	F	119.0	F	-3.9	2.5	-
41. Fairfax Ave/3 rd St	44.8	D	43.8	D	-1.0	4.0	-

Table 5-2: Year 2012 With Alternative A PM Peak Hour Intersection LOS (Continued)

Intersection	2012 Without Alternative A		2012 With Alternative A		Change in Delay	Threshold	Significant Impact?
	Delay (sec)	LOS	Delay (sec)	LOS			
42. La Brea Ave/3 rd St	26.2	C	26.2	C	0.0	6.0	-
43. Highland Ave/3 rd St	29.9	C	30.8	C	0.9	6.0	-
44. Western Ave/3 rd St	54.8	D	54.7	D	-0.1	4.0	-
45. Vermont Ave/3 rd St	43.8	D	43.6	D	-0.2	4.0	-
46. Fairfax Ave/6 th St	13.9	B	13.2	B	-0.7	-	-
47. La Brea Ave/6 th St	78.5	E	72.9	E	-5.6	2.5	-
48. Highland Ave/6 th St	18.2	B	19.0	B	0.8	-	-
49. Western Ave/6 th St	30.8	C	31.2	C	0.4	6.0	-
50. Vermont Ave/6 th St	47.2	D	48.7	D	1.5	4.0	-
51. Alvarado St/6 th St	20.3	C	19.7	B	-0.6	-	-
52. San Vicente Blvd/Wilshire Blvd	116.6	F	101.7	F	*	2.5	-
53. Fairfax Ave/Wilshire Blvd	151.5	F	148.7	F	*	2.5	-
54. La Brea Ave/Wilshire Blvd	34.8	C	37.0	D	2.2	4.0	-
55. Highland Ave/Wilshire Blvd	38.6	D	37.6	D	*	4.0	-
56. Crenshaw Blvd/Wilshire Blvd	21.5	C	24.0	C	2.5	6.0	-
57. Western Ave/Wilshire Blvd	100.0	F	84.4	F	*	2.5	-
58. Vermont Ave/Wilshire Blvd	65.8	E	57.9	E	*	2.5	-
59. Alvarado St/Wilshire Blvd	30.4	C	31.8	C	1.4	6.0	-
60. Fairfax Ave/8 th St	13.6	B	14.9	B	1.3	-	-
61. La Brea Ave/8 th St	10.9	B	10.6	B	-0.3	-	-
62. Crenshaw Blvd/8 th St	15.5	B	17.1	B	1.6	-	-
63. Western Ave/8 th St	16.8	B	16.5	B	-0.3	-	-
64. Vermont Ave/8 th St	30.7	C	32.8	C	2.1	6.0	-
65. Alvarado St/8 th St	14.1	B	14.1	B	0.0	-	-
66. Fairfax Ave/San Vicente Blvd	23.0	C	25.2	C	2.2	6.0	-
67. Fairfax Ave/Olympic Blvd	60.9	E	72.9	E	12.0	2.5	Yes
68. San Vicente Blvd/Olympic Blvd	22.8	C	23.2	C	0.4	6.0	-
69. La Brea Ave/Olympic Blvd	68.0	E	70.3	E	2.3	2.5	-
70. Highland Ave/Olympic Blvd	71.0	E	68.6	E	-2.4	2.5	-
71. Crenshaw Blvd/Olympic Blvd	51.8	D	46.9	D	-4.9	4.0	-
72. Western Ave/Olympic Blvd	48.0	D	49.9	D	1.9	4.0	-
73. Vermont Ave/Olympic Blvd	63.7	E	64.7	E	1.0	2.5	-
74. Alvarado St/Olympic Blvd	33.2	C	35.5	D	2.3	4.0	-

Notes:
 * Average delay reduced, see explanation in "Analysis Methodology" section.
 HCM 2000 Operations Methodology
 Delay = Average Vehicle Delay (Seconds), LOS = Level of Service
 Source: Iteris, Wilshire Boulevard BRT Project-Traffic Impact Analysis, 2010.

Table 5-3: Year 2020 With Alternative A AM Peak Hour Intersection LOS

Intersection	2020 Without Alternative A		2020 With Alternative A		Change in Delay	Threshold	Significant Impact?
	Delay (sec)	LOS	Delay (sec)	LOS			
1. Veteran Ave/Sunset Blvd	103.4	F	107.0	F	3.6	2.5	Yes
2. S Beverly Glen Blvd/Sunset Blvd	26.8	C	26.4	C	-0.4	6.0	-
3. N Beverly Glen Blvd/Sunset Blvd	147.0	F	142.4	F	-4.6	2.5	-
4. Centinela Ave/Wilshire Blvd	8.3	A	11.5	B	3.2	-	-
5. Bundy Dr/Wilshire Blvd	63.7	E	103.6	F	39.9	2.5	Yes
6. Barrington Ave/Wilshire Blvd	38.1	D	48.1	D	10.0	4.0	Yes
7. Federal Ave/Wilshire Blvd	68.4	E	58.3	E	*	2.5	-
8. Sepulveda Blvd/Wilshire Blvd	208.4	F	208.6	F	0.2	2.5	-
9. Veteran Ave/Wilshire Blvd	243.7	F	225.7	F	*	2.5	-
10. Westwood Blvd/Wilshire Blvd	75.2	E	51.4	D	*	4.0	-
11. Beverly Glen Blvd/Wilshire Blvd	36.1	D	41.1	D	5.0	4.0	Yes
12. Comstock Ave/Wilshire Blvd	23.3	C	23.0	C	*	6.0	-
13. Santa Monica Blvd/Wilshire Blvd	88.0	F	53.5	D	*	4.0	-
14. Centinela Ave/Santa Monica Blvd	15.7	B	15.7	B	0.0	-	-
15. Bundy Dr/Santa Monica Blvd	17.0	B	17.7	B	0.7	-	-
16. Barrington Ave/Santa Monica Blvd	17.1	B	17.1	B	0.0	-	-
17. Federal Ave/Santa Monica Blvd	28.5	C	28.6	C	0.1	6.0	-
18. I-405 SB Ramps/Santa Monica Blvd	26.9	C	26.8	C	-0.1	6.0	-
19. I-405 NB Ramps/Santa Monica Blvd	48.0	D	47.2	D	-0.8	4.0	-
20. Sepulveda Blvd/Santa Monica Blvd	39.9	D	41.4	D	1.5	4.0	-
21. Veteran Ave/Santa Monica Blvd	21.7	C	21.6	C	-0.1	6.0	-
22. Westwood Blvd/Santa Monica Blvd	122.2	F	127.2	F	5.0	2.5	Yes
23. Overland Ave/Santa Monica Blvd	32.8	C	33.0	C	0.2	6.0	-
24. Beverly Glen Blvd/Santa Monica Blvd	63.2	E	63.1	E	-0.1	2.5	-
25. Century Park W/Santa Monica Blvd	20.9	C	20.3	C	-0.6	6.0	-
26. Ave of the Stars/Santa Monica Blvd	47.3	D	47.2	D	-0.1	4.0	-
27. Century Park E/Santa Monica Blvd	29.0	C	27.9	C	-1.1	6.0	-
28. Bundy Dr/Olympic Blvd	100.3	F	105.5	F	5.2	2.5	Yes
29. Barrington Ave/Olympic Blvd	52.5	D	53.4	D	0.9	4.0	-
30. Sepulveda Blvd/Olympic Blvd	34.6	C	36.9	D	2.3	4.0	-
31. Veteran Ave/Olympic Blvd	22.7	C	25.7	C	3.0	6.0	-
32. Westwood Blvd/Olympic Blvd	41.3	D	43.8	D	2.5	4.0	-
33. Overland Ave/Olympic Blvd	40.1	D	42.7	D	2.6	4.0	-
34. Beverly Glen Blvd/Olympic Blvd	69.0	E	70.8	E	1.8	2.5	-
35. Century Park W/Olympic Blvd	15.2	B	15.2	B	0.0	-	-
36. Century Park E/Olympic Blvd	41.7	D	43.4	D	1.7	4.0	-
37. Sepulveda Blvd/Pico Blvd	54.4	D	56.0	E	1.6	2.5	-
38. Veteran Ave/Pico Blvd	11.0	B	14.0	B	3.0	-	-
39. Westwood Blvd/Pico Blvd	39.6	D	43.0	D	3.4	4.0	-
40. Overland Ave/Pico Blvd	62.8	E	63.2	E	0.4	2.5	-
41. Fairfax Ave/3 rd St	78.5	E	75.2	E	-3.3	2.5	-

Table 5-3: Year 2020 With Alternative A AM Peak Hour Intersection LOS (Continued)

Intersection	2020 Without Alternative A		2020 With Alternative A		Change in Delay	Threshold	Significant Impact?
	Delay (sec)	LOS	Delay (sec)	LOS			
42. La Brea Ave/3 rd St	34.8	C	35.0	D	0.2	4.0	-
43. Highland Ave/3 rd St	74.2	E	73.4	E	-0.8	2.5	-
44. Western Ave/3 rd St	49.7	D	52.2	D	2.5	4.0	-
45. Vermont Ave/3 rd St	46.3	D	46.5	D	0.2	4.0	-
46. Fairfax Ave/6 th St	16.1	B	15.8	B	-0.3	-	-
47. La Brea Ave/6 th St	71.2	E	69.0	E	-2.2	2.5	-
48. Highland Ave/6 th St	22.2	C	21.2	C	-1.0	6.0	-
49. Western Ave/6 th St	27.9	C	28.4	C	0.5	6.0	-
50. Vermont Ave/6 th St	42.8	D	44.3	D	1.5	4.0	-
51. Alvarado St/6 th St	18.6	B	18.6	B	0.0	-	-
52. San Vicente Blvd/Wilshire Blvd	81.5	F	75.4	E	*	2.5	-
53. Fairfax Ave/Wilshire Blvd	111.2	F	130.1	F	18.9	2.5	Yes
54. La Brea Ave/Wilshire Blvd	39.0	D	50.8	D	11.8	4.0	Yes
55. Highland Ave/Wilshire Blvd	48.2	D	49.1	D	0.9	4.0	-
56. Crenshaw Blvd/Wilshire Blvd	37.4	D	36.4	D	*	4.0	-
57. Western Ave/Wilshire Blvd	59.2	E	56.3	E	*	2.5	-
58. Vermont Ave/Wilshire Blvd	72.5	E	68.4	E	*	2.5	-
59. Alvarado St/Wilshire Blvd	22.9	C	22.6	C	*	6.0	-
60. Fairfax Ave/8 th St	12.5	B	13.5	B	1.0	-	-
61. La Brea Ave/8 th St	10.1	B	11.3	B	1.2	-	-
62. Crenshaw Blvd/8 th St	15.7	B	15.8	B	0.1	-	-
63. Western Ave/8 th St	16.4	B	16.6	B	0.2	-	-
64. Vermont Ave/8 th St	24.7	C	23.4	C	-1.3	6.0	-
65. Alvarado St/8 th St	13.9	B	14.0	B	0.1	-	-
66. Fairfax Ave/San Vicente Blvd	32.4	C	31.9	C	-0.5	6.0	-
67. Fairfax Ave/Olympic Blvd	35.0	D	46.4	D	11.4	4.0	Yes
68. San Vicente Blvd/Olympic Blvd	28.3	C	31.4	C	3.2	6.0	-
69. La Brea Ave/Olympic Blvd	53.7	D	58.4	E	4.7	2.5	Yes
70. Highland Ave/Olympic Blvd	50.7	D	52.0	D	1.3	4.0	-
71. Crenshaw Blvd/Olympic Blvd	73.5	E	79.3	F	5.8	2.5	Yes
72. Western Ave/Olympic Blvd	37.4	D	39.2	D	1.8	4.0	-
73. Vermont Ave/Olympic Blvd	39.8	D	40.1	D	0.3	4.0	-
74. Alvarado St/Olympic Blvd	29.9	C	32.1	C	2.2	6.0	-
Notes: * Average delay reduced, see explanation in "Analysis Methodology" section. HCM 2000 Operations Methodology Delay = Average Vehicle Delay (Seconds), LOS = Level of Service Source: Iteris, Wilshire Boulevard BRT Project-Traffic Impact Analysis, 2010.							

Table 5-4: Year 2020 With Alternative A PM Peak Hour Intersection LOS

Intersection	2020 Without Alternative A		2020 With Alternative At		Change in Delay	Threshold	Significant Impact?
	Delay (sec)	LOS	Delay (sec)	LOS			
1. Veteran Ave/Sunset Blvd	38.2	D	35.7	D	-2.5	4.0	-
2. S Beverly Glen Blvd/Sunset Blvd	50.0	D	53.1	D	3.1	4.0	-
3. N Beverly Glen Blvd/Sunset Blvd	43.6	D	43.5	D	-0.1	4.0	-
4. Centinela Ave/Wilshire Blvd	8.9	A	8.7	A	*	-	-
5. Bundy Dr/Wilshire Blvd	80.4	F	117.4	F	37.0	2.5	Yes
6. Barrington Ave/Wilshire Blvd	33.8	C	32.2	C	*	6.0	-
7. Federal Ave/Wilshire Blvd	49.9	D	47.5	D	*	4.0	-
8. Sepulveda Blvd/Wilshire Blvd	110.0	F	110.2	F	0.2	2.5	-
9. Veteran Ave/Wilshire Blvd	126.6	F	106.9	F	*	2.5	-
10. Westwood Blvd/Wilshire Blvd	64.0	E	49.2	D	*	4.0	-
11. Beverly Glen Blvd/Wilshire Blvd	39.4	D	45.1	D	5.7	4.0	Yes
12. Comstock Ave/Wilshire Blvd	26.9	C	25.5	C	-1.4	6.0	-
13. Santa Monica Blvd/Wilshire Blvd	109.1	F	78.1	E	*	2.5	-
14. Centinela Ave/Santa Monica Blvd	17.5	B	17.4	B	-0.1	-	-
15. Bundy Dr/Santa Monica Blvd	16.1	B	16.3	B	0.2	-	-
16. Barrington Ave/Santa Monica Blvd	15.7	B	15.7	B	0.0	-	-
17. Federal Ave/Santa Monica Blvd	31.3	C	31.2	C	-0.1	6.0	-
18. I-405 SB Ramps/Santa Monica Blvd	25.7	C	25.5	C	-0.2	6.0	-
19. I-405 NB Ramps/Santa Monica Blvd	48.5	D	47.8	D	-0.7	4.0	-
20. Sepulveda Blvd/Santa Monica Blvd	44.6	D	45.2	D	0.6	4.0	-
21. Veteran Ave/Santa Monica Blvd	63.5	E	64.5	E	1.0	2.5	-
22. Westwood Blvd/Santa Monica Blvd	91.3	F	91.3	F	0.0	2.5	-
23. Overland Ave/Santa Monica Blvd	78.9	E	86.2	F	7.3	2.5	Yes
24. Beverly Glen Blvd/Santa Monica Blvd	53.8	D	55.1	E	1.3	2.5	-
25. Century Park W/Santa Monica Blvd	23.3	C	24.0	C	0.7	6.0	-
26. Ave of the Stars/Santa Monica Blvd	28.0	C	28.0	C	0.0	6.0	-
27. Century Park E/Santa Monica Blvd	18.3	B	18.6	B	0.3	-	-
28. Bundy Dr/Olympic Blvd	77.9	E	81.1	F	3.2	2.5	Yes
29. Barrington Ave/Olympic Blvd	56.7	E	57.1	E	0.4	2.5	-
30. Sepulveda Blvd/Olympic Blvd	58.2	E	58.0	E	-0.2	2.5	-
31. Veteran Ave/Olympic Blvd	15.0	B	15.2	B	0.2	-	-
32. Westwood Blvd/Olympic Blvd	47.2	D	50.3	D	3.1	4.0	-
33. Overland Ave/Olympic Blvd	69.0	E	70.3	E	1.3	2.5	-
34. Beverly Glen Blvd/Olympic Blvd	54.7	D	57.4	E	2.7	2.5	Yes
35. Century Park W/Olympic Blvd	20.9	C	21.5	C	0.6	6.0	-
36. Century Park E/Olympic Blvd	46.2	D	48.8	D	2.6	4.0	-
37. Sepulveda Blvd/Pico Blvd	73.8	E	74.0	E	0.2	2.5	-
38. Veteran Ave/Pico Blvd	24.9	C	21.6	C	-3.3	6.0	-
39. Westwood Blvd/Pico Blvd	77.3	E	77.1	E	-0.2	2.5	-
40. Overland Ave/Pico Blvd	122.1	F	119.6	F	-2.5	2.5	-
41. Fairfax Ave/3 rd St	47.4	D	48.8	D	1.4	4.0	-

Table 5-4: Year 2020 With Alternative A PM Peak Hour Intersection LOS (Continued)

Intersection	2020 Without Alternative A		2020 With Alternative At		Change in Delay	Threshold	Significant Impact?
	Delay (sec)	LOS	Delay (sec)	LOS			
42. La Brea Ave/3 rd St	27.4	C	27.7	C	0.3	6.0	-
43. Highland Ave/3 rd St	34.5	C	33.6	C	-0.9	6.0	-
44. Western Ave/3 rd St	56.6	E	55.8	E	-0.8	2.5	-
45. Vermont Ave/3 rd St	45.4	D	45.5	D	0.1	4.0	-
46. Fairfax Ave/6 th St	13.9	B	13.7	B	-0.2	-	-
47. La Brea Ave/6 th St	96.1	F	93.1	F	-3.0	2.5	-
48. Highland Ave/6 th St	20.0	C	20.8	C	0.8	6.0	-
49. Western Ave/6 th St	31.8	C	33.0	C	1.2	6.0	-
50. Vermont Ave/6 th St	50.0	D	49.1	D	-0.9	4.0	-
51. Alvarado St/6 th St	21.9	C	20.8	C	-1.1	6.0	-
52. San Vicente Blvd/Wilshire Blvd	127.9	F	105.5	F	*	2.5	-
53. Fairfax Ave/Wilshire Blvd	158.4	F	159.0	F	0.6	2.5	-
54. La Brea Ave/Wilshire Blvd	40.7	D	40.9	D	0.2	4.0	-
55. Highland Ave/Wilshire Blvd	40.9	D	40.1	D	*	4.0	-
56. Crenshaw Blvd/Wilshire Blvd	24.8	C	25.6	C	0.8	6.0	-
57. Western Ave/Wilshire Blvd	111.1	F	103.7	F	*	2.5	-
58. Vermont Ave/Wilshire Blvd	77.6	E	65.9	E	*	2.5	-
59. Alvarado St/Wilshire Blvd	34.9	C	36.8	D	1.9	4.0	-
60. Fairfax Ave/8 th St	15.1	B	18.3	B	3.2	-	-
61. La Brea Ave/8 th St	11.4	B	11.9	B	0.5	-	-
62. Crenshaw Blvd/8 th St	16.0	B	18.4	B	2.4	-	-
63. Western Ave/8 th St	17.2	B	17.3	B	0.1	-	-
64. Vermont Ave/8 th St	35.2	D	36.3	D	1.1	4.0	-
65. Alvarado St/8 th St	14.7	B	14.7	B	0.0	-	-
66. Fairfax Ave/San Vicente Blvd	24.7	C	24.9	C	0.2	6.0	-
67. Fairfax Ave/Olympic Blvd	67.4	E	77.2	E	9.8	2.5	Yes
68. San Vicente Blvd/Olympic Blvd	26.5	C	27.2	C	0.7	6.0	-
69. La Brea Ave/Olympic Blvd	79.5	E	80.6	F	1.1	2.5	-
70. Highland Ave/Olympic Blvd	67.1	E	71.4	E	4.3	2.5	Yes
71. Crenshaw Blvd/Olympic Blvd	57.2	E	60.5	E	3.3	2.5	Yes
72. Western Ave/Olympic Blvd	53.8	D	54.6	D	0.8	4.0	-
73. Vermont Ave/Olympic Blvd	70.2	E	70.5	E	0.3	2.5	-
74. Alvarado St/Olympic Blvd	37.8	D	38.2	D	0.4	4.0	-
Notes: * Average delay reduced, see explanation in "Analysis Methodology" section. HCM 2000 Operations Methodology Delay = Average Vehicle Delay (Seconds), LOS = Level of Service Source: Iteris, Wilshire Boulevard BRT Project-Traffic Impact Analysis, 2010.							

The following 15 intersections are forecast to be significantly impacted in year 2012 with Alternative A conditions:

- Bundy Drive/Wilshire Boulevard (a.m. and p.m. peak hours);
- Barrington Avenue/Wilshire Boulevard (a.m. peak hour);
- Beverly Glen Boulevard/Wilshire Boulevard (a.m. peak hour);
- Veteran Avenue/Santa Monica Boulevard (p.m. peak hour);
- Overland Avenue/Santa Monica Boulevard (p.m. peak hour);
- Beverly Glen Boulevard/Santa Monica Boulevard (p.m. peak hour);
- Bundy Drive/Olympic Boulevard (a.m. peak hour);
- Westwood Boulevard/Olympic Boulevard (a.m. peak hour);
- Beverly Glen Boulevard/Olympic Boulevard (p.m. peak hour);
- Westwood Boulevard/Pico Boulevard (p.m. peak hour);
- Fairfax Avenue/Wilshire Boulevard (a.m. peak hour);
- La Brea Avenue/Wilshire Boulevard (a.m. peak hour);
- Highland Avenue/Wilshire Boulevard (a.m. peak hour);
- Fairfax Avenue/Olympic Boulevard (a.m. and p.m. peak hours); and
- Crenshaw Boulevard/Olympic Boulevard (a.m. peak hour).

The following 14 intersections are forecast to be significantly impacted in year 2020 with Alternative A conditions:

- Veteran Avenue/Sunset Boulevard (a.m. peak hour);
- Bundy Drive/Wilshire Boulevard (a.m. and p.m. peak hours);
- Barrington Avenue/Wilshire Boulevard (a.m. peak hour);
- Beverly Glen Boulevard/Wilshire Boulevard (a.m. peak hour);
- Westwood Boulevard/Santa Monica Boulevard (a.m. peak hour);
- Overland Avenue/Santa Monica Boulevard (p.m. peak hour);
- Bundy Drive/Olympic Boulevard (a.m. and p.m. peak hours);
- Beverly Glen Boulevard/Olympic Boulevard (p.m. peak hour);
- Fairfax Avenue/Wilshire Boulevard (a.m. peak hour);
- La Brea Avenue/Wilshire Boulevard (a.m. peak hour);
- Fairfax Avenue/Olympic Boulevard (a.m. and p.m. peak hours);
- La Brea Avenue/Olympic Boulevard (a.m. peak hour);
- Highland Avenue/Olympic Boulevard (p.m. peak hour); and
- Crenshaw Boulevard/Olympic Boulevard (a.m. and p.m. peak hours).

Since several intersections are impacted in one year but not in the other, a total of 19 intersections are significantly impacted by Alternative A in at least one of the years, as shown in Tables 5-5 through 5-8. With implementation of **Mitigation Measure T-1**, 10 of the 19 significantly impacted intersections are reduced to less than significant levels under this alternative similar to the proposed project. Improvements at five of the remaining nine significantly impacted intersections further reduce traffic impacts during a.m. and/or p.m. peak hour conditions by an average of 25 percent but not enough to fully mitigate the impacts under this alternative. The following intersections are forecast to remain significantly impacted in either year 2012 or year 2020 under Alternative A since no feasible mitigation measures that fully mitigate impacts at these intersections could be identified:

- Veteran Avenue/Sunset Boulevard;
- Bundy Drive/Wilshire Boulevard (partial mitigation measure);
- Veteran Avenue/Santa Monica Boulevard (partial mitigation measure);
- Overland Avenue/Santa Monica Boulevard;
- Beverly Glen Boulevard/Santa Monica Boulevard;
- Westwood Boulevard/Olympic Boulevard (partial mitigation measure);
- Westwood Boulevard/Pico Boulevard;
- Fairfax Avenue/Wilshire Boulevard (partial mitigation measure); and
- La Brea Avenue/Wilshire Boulevard (partial mitigation measure).

Table 5-5: Year 2012 With-Alternative A AM Peak-Hour Intersection LOS at Impacted Intersections with Mitigation

Intersection	2012 Without Alternative A		Mitigated 2012 With Alternative A		Change in Delay	Threshold	Significant Impact?	Percent Mitigated
	Delay (sec)	LOS	Delay (sec)	LOS				
5. Bundy Dr/Wilshire Blvd	60.3	E	94.4	F	34.1	2.5	Yes	7%
6. Barrington Ave/Wilshire Blvd	38.1	D	41.9	D	3.8	4.0	No	100%
11. Beverly Glen Bl/Wilshire Bl	34.5	C	38.1	D	3.6	4.0	No	100%
21. Veteran Av/ Santa Monica Bl	20.6	C	19.2	B	-1.4	6.0	No	100%
28. Bundy Drive/Olympic Blvd	99.5	F	88.2	F	-11.3	2.5	No	100%
32. Westwood Blvd/Olympic Blvd	38.7	D	44.4	D	5.7	4.0	Yes	60%
34. Beverly Glen Bl/Olympic Bl	67.2	E	66.4	E	-0.8	2.5	No	100%
53. Fairfax Ave/Wilshire Blvd	104.0	F	116.7	F	12.7	2.5	Yes	20%
54. La Brea Ave/Wilshire Blvd	37.5	D	39.2	D	1.7	4.0	No	100%
55. Highland Ave/Wilshire Blvd	44.2	D	39.9	D	-4.3	4.0	No	100%
67. Fairfax Ave/Olympic Blvd	37.0	D	39.4	D	2.4	4.0	No	100%
71. Crenshaw Blvd/Olympic Blvd	68.5	E	63.8	E	-4.7	2.5	No	100%

Notes:
HCM 2000 Operations Methodology
Delay = Average Vehicle Delay (Seconds), LOS = Level of Service

Source: Iteris, Wilshire Boulevard BRT Project-Traffic Impact Analysis, 2010.

Table 5-6: Year 2012 With-Alternative A PM Peak-Hour Intersection LOS at Impacted Intersections with Mitigation

Intersection	2012 Without Alternative A		Mitigated 2012 With Alternative A		Change in Delay	Threshold	Impact?	Percent Mitigated
	Delay (sec)	LOS	Delay (sec)	LOS				
5. Bundy Dr/Wilshire Blvd	77.2	E	101.4	F	24.2	2.5	Yes	10%
6. Barrington Ave/Wilshire Blvd	32.9	C	27.0	C	-5.9	6.0	No	100%
11. Beverly Glen Bl/Wilshire Bl	38.1	D	39.5	D	1.4	4.0	No	100%
21. Veteran Av/Santa Monica Bl	61.2	E	64.9	E	3.7	2.5	Yes	68%
23. Overland Av/Santa Monica Bl	72.9	E	80.8	F	7.9	2.5	Yes	0%
28. Bundy Drive/Olympic Bl	73.3	E	69.2	E	-4.1	2.5	No	100%
32. Westwood Blvd/Olympic Bl	44.6	D	42.3	D	-2.4	4.0	No	100%
34. Beverly Glen Bl/Olympic Bl	49.0	D	47.5	D	-1.5	4.0	No	100%
39. Westwood Blvd/Pico Blvd	70.1	E	74.6	E	4.5	2.5	Yes	0%
53. Fairfax Ave/Wilshire Blvd	151.5	F	146.2	F	-5.3	2.5	No	100%
54. La Brea Ave/Wilshire Blvd	34.8	C	34.5	C	-0.3	4.0	No	100%
55. Highland Ave/Wilshire Blvd	38.6	D	36.3	D	-2.3	4.0	No	100%
67. Fairfax Ave/Olympic Blvd	60.9	E	56.7	E	-4.2	2.5	No	100%
71. Crenshaw Blvd/Olympic Blvd	51.8	D	39.4	D	-12.4	4.0	No	100%

Notes:
HCM 2000 Operations Methodology
Delay = Average Vehicle Delay (Seconds), LOS = Level of Service

Source: Iteris, Wilshire Boulevard BRT Project-Traffic Impact Analysis, 2010.

Table 5-7: Year 2020 With-Alternative A AM Peak-Hour Intersection LOS at Impacted Intersections with Mitigation

Intersection	2020 Without Alternative A		Mitigated 2020 With Alternative A		Change in Delay	Threshold	Impact?	Percent Mitigated
	Delay (sec)	LOS	Delay (sec)	LOS				
1. Veteran Ave/Sunset Bl	103.4	F	107.0	F	3.6	2.5	Yes	0%
5. Bundy Dr/Wilshire Bl	63.7	E	101.1	F	37.4	2.5	Yes	7%
6. Barrington Ave/Wilshire Bl	38.1	D	40.3	D	2.2	4.0	No	100%
11. Beverly Glen Bl/Wilshire Bl	36.1	D	39.9	D	3.8	4.0	No	100%
22. Westwood Bl/Santa Monica Bl	122.2	F	118.1	F	-4.1	2.5	No	100%
28. Bundy Dr/Olympic Bl	100.3	F	90.1	F	-10.2	2.5	No	100%
34. Beverly Glen Bl/Olympic Bl	69.0	E	71.1	E	2.1	2.5	No	100%
53. Fairfax Ave/Wilshire Bl	111.2	F	127.5	F	16.3	2.5	Yes	15%
54. La Brea Ave/Wilshire Bl	39.0	D	48.3	D	9.3	4.0	Yes	32%
67. Fairfax Ave/Olympic Bl	35.0	D	37.8	D	2.8	4.0	No	100%
69. La Brea Ave/Olympic Bl	53.7	D	42.7	D	-11.0	2.5	No	100%
70. Highland Ave/Olympic Bl	50.7	D	33.5	C	-17.2	6.0	No	100%
71. Crenshaw Blvd/Olympic Bl	73.5	E	71.8	E	-1.7	2.5	No	100%

Notes:
HCM 2000 Operations Methodology
Delay = Average Vehicle Delay (Seconds), LOS = Level of Service

Source: Iteris, Wilshire Boulevard BRT Project-Traffic Impact Analysis, 2010.

Table 5-8: Year 2020 With-Alternative A PM Peak-Hour Intersection LOS at Impacted Intersections with Mitigation

Intersection	2020 Without Alternative A		Mitigated 2020 With Alternative A		Change in Delay	Threshold	Impact?	Percent Mitigated
	Delay (sec)	LOS	Delay (sec)	LOS				
5. Bundy Dr/Wilshire Bl	80.4	F	114.9	F	34.5	2.5	Yes	7%
6. Barrington Ave/Wilshire Bl	33.8	C	27.8	C	-6.0	6.0	No	100%
11. Beverly Glen Bl/Wilshire Bl	39.4	D	42.3	D	2.9	4.0	No	100%
22. Westwood Bl/Santa Monica Bl	91.3	F	89.6	F	-1.7	2.5	No	100%
23. Overland Av/Santa Monica Bl	78.9	E	86.2	F	7.3	2.5	Yes	0%
28. Bundy Dr/Olympic Bl	77.9	E	73.5	E	-4.4	2.5	No	100%
34. Beverly Glen Bl/Olympic Bl	54.7	D	50.8	D	-3.9	4.0	No	100%
53. Fairfax Ave/Wilshire Bl	158.4	F	156.6	F	-1.8	2.5	No	100%
54. La Brea Ave/Wilshire Bl	40.7	D	38.4	D	-2.3	4.0	No	100%
67. Fairfax Ave/Olympic Bl	67.4	E	61.4	E	-6.0	2.5	No	100%
69. La Brea Ave/Olympic Bl	79.5	E	55.3	E	-24.2	2.5	No	100%
70. Highland Ave/Olympic Bl	67.1	E	44.5	D	-22.6	4.0	No	100%
71. Crenshaw Blvd/Olympic Bl	57.2	E	53.0	D	-4.2	2.5	No	100%

Notes:
HCM 2000 Operations Methodology
Delay = Average Vehicle Delay (Seconds), LOS = Level of Service

Source: Iteris, Wilshire Boulevard BRT Project-Traffic Impact Analysis, 2010.

Similar to the proposed project, Alternative A would result in significant impacts related to exceedance of LOS criteria for multiple intersections in both 2012 and 2020 project years.

Local Residential Streets

Similar to the proposed project, under Alternative A, study intersections on Wilshire Boulevard in the vicinity of Lindbrook Drive and Ashton Avenue would operate at LOS D or better in 2012 and 2020. Therefore, it is not expected that a significant amount of traffic would divert from Wilshire Boulevard to these local residential streets. In the vicinity of Goshen Avenue, the Bundy Drive/Wilshire Boulevard and Federal Avenue-San Vicente Boulevard/Wilshire Boulevard intersections are projected to operate at LOS E or F in 2012 and 2020. However, traffic diversion onto Goshen Avenue is unlikely since Goshen Avenue runs for only a short distance, eastbound left-turn movements from Wilshire Boulevard to Bundy Drive are relatively high-delay movements during peak hours, and northbound left-turn movements from San Vicente Boulevard to Goshen Avenue are prohibited. Therefore, no significant impacts to local residential streets are expected under Alternative A.

Parking

Similar to the proposed project, under Alternative A, approximately 11 parking spaces between S. Park View Street and Fairfax Avenue (a distance of approximately 4.8 miles) would be removed to accommodate larger or relocated bus stops in order to facilitate bus movements in and out of stops. The removed parking spaces would be spread throughout this segment of the

project, with no more than three spaces being removed on any single block. The removed parking spaces would have a small effect on parking supply during off-peak hours. During peak periods, parking is prohibited under current conditions, so the removal of these parking spaces would not affect parking supply at all.

Under Alternative A, parking supply would be unchanged between Comstock Avenue and Malcolm Avenue since jut-outs in this area would be retained. Therefore, no change in parking would occur in this area, and no impact would occur.

Transitional Conflicts

The following summarizes the automobile/bus transitional locations along the project route in the eastbound and westbound directions under Alternative A conditions:

Eastbound

- East of Veteran Avenue, mixed-flow capacity would drop from four lanes to three lanes as the bus lane occupies the curb lane.
- At Glendon Avenue, the mixed-flow capacity would drop from three lanes of traffic west of Glendon Avenue to two lanes of traffic east at Malcolm Avenue.
- At the western Beverly Hills City limits (approximately 500 feet west of the Whittier Drive/Merv Griffin Way intersection), the bus lane transitions to a mixed-flow lane. Therefore, three eastbound through lanes would remain at the Whittier Drive/Merv Griffin Way intersection. Alternative A would not reduce capacity at this intersection or increase the number of queued vehicles. However, the length of queues might increase because vehicles would be traveling in two lanes instead of three as they enter the City of Beverly Hills.
- East of San Vicente Boulevard (City of Beverly Hills boundary), a transition area of approximately 300 feet would be provided to allow through traffic to exit the bus lane.

Westbound

- At S. Park View Street, it is proposed that appropriate signage be installed along Wilshire Boulevard to inform motorists of bus lane operation during peak hours.
- At the western City of Beverly Hills boundary, the mixed-flow capacity would drop from three lanes of traffic to two lanes of traffic as the bus lane occupies the curb lane.
- Between Federal Avenue and Barrington Avenue, the curb lane would be used as a bus as well as right-turn only lane along the entire segment.

In order to reduce or avoid these conflicts, Alternative A would install appropriate signage along Wilshire Boulevard in the vicinity of these locations, in order to inform motorists of bus lane operation during peak hours.

For potential traffic conflicts in both eastbound and westbound directions along Wilshire Boulevard, this signage would ensure that operation of the project under Alternative A would result in less-than-significant impacts related to automobile/bus transition conflicts.

Emergency Access

Similar to the proposed project, Alternative A would allow emergency vehicles to use the bus lanes when they are in operation. Because these lanes would be free of most other vehicular traffic, emergency response time would likely improve during peak periods. During construction activities, alternative access routes would be utilized, and local emergency access would be retained at all times. Therefore, a less than significant impact would occur.

Air Quality

A less than significant air quality impact would occur under this alternative.

Similar to the proposed project, construction activities would occur under Alternative A. As with the proposed project, Alternative A would be subject to the SCAQMD's AQMP. Alternative A would be consistent with the all local general plans; as well as compatible with the surrounding uses. Because Alternative A would be consistent with the local general plan, pursuant to SCAQMD guidelines, Alternative A is considered consistent with the region's AQMP. As such, construction emissions for Alternative A would be accounted for in the AQMP, which is crafted to bring the Basin into attainment for all criteria pollutants. Accordingly, Alternative A would be consistent with the projections in the AQMP, thus resulting in a less-than-significant impact.

With regard to regional construction-period impacts under Alternative A, impacts would be similar to those disclosed for the proposed project since the construction activity under Alternative A would be comparable to that proposed under the project. There would be no cut-out removal between Comstock Avenue and Malcolm Avenue, and there would be no bus lane-related construction from approximately 300 feet east of Veteran Avenue to the I-405 northbound ramps. However, there would be an additional 1.8 miles of curb lane reconstruction/resurfacing between Fairfax Avenue and San Vicente Boulevard (0.6 mile) and between the City of Beverly Hills and Westholme Avenue (1.2 miles). Similar to the proposed project, criteria pollutant emissions under Alternative A would be less than the applicable SCAQMD significance thresholds, and as such, would result in a less than significant regional air quality impact.

Similarly, with regard to localized construction-period impacts under Alternative A, impacts would be similar to those disclosed for the proposed project. Localized emissions under Alternative A would be less than the applicable SCAQMD LST significance thresholds, and as such, would result in a less than significant localized air quality impact.

Operation period air quality impacts expected under Alternative A would be similar to those under the proposed project. Air quality impacts that would potentially result from traffic impacts during the operation of Alternative A were found to be less than significant, for both criteria pollutants and toxic air contaminants. No violation of air quality standards would occur.

Under Alternative A, CO concentrations for a.m. and p.m. 1- and 8-hour CO levels for build-out year 2012 and horizon year 2020 are presented in Tables 5-9 and 5-10, respectively (see Section 5.2.2). As shown in the tables, Alternative A would not have a substantial adverse effect on 1-hour or 8-hour local CO concentrations due to mobile source emissions. Similar to the proposed project, less than significant impacts would occur at the intersections with the highest traffic volumes located adjacent to sensitive receptors. Therefore, no significant impacts are anticipated to occur at any other locations in the study area because the conditions yielding CO hotspots would not be worse than those concentrations occurring at the analyzed intersections.

Table 5-9. Alternative A (Year 2012)—Local Area Carbon Monoxide Dispersion Analysis

Intersection	Peak Period ^a	Max 1-Hour 2012 Base Concentration (ppm) ^b	Max 1-Hour 2012 w/ Alternative A Concentration (ppm) ^c	Significant 1-Hour Concentration Impact? ^d	Max 8-Hour 2012 Base Concentration (ppm) ^e	Max 8-Hour 2012 w/ Alternative A Concentration (ppm) ^f	Significant 8-Hour Concentration Impact? ^d
Alvarado @ Olympic	AM	7.6	7.6	No	5.0	5.0	No
	PM	7.9	8.0	No	5.3	5.3	No
Alvarado @ Wilshire	AM	7.6	7.5	No	5.0	5.0	No
	PM	7.5	7.5	No	5.0	5.0	No
Barrington @ Wilshire	AM	7.2	7.2	No	4.8	4.8	No
	PM	7.1	7.0	No	4.7	4.6	No
Beverly Glen @ Olympic	AM	8.7	8.7	No	5.8	5.8	No
	PM	8.6	8.7	No	5.7	5.8	No
Beverly Glen @ Santa Monica	AM	8.4	8.4	No	5.6	5.6	No
	PM	8.3	8.4	No	5.5	5.6	No
Beverly Glen @ Wilshire	AM	8.1	7.8	No	5.4	5.2	No
	PM	8.0	7.7	No	5.3	5.1	No
Bundy @ Olympic	AM	8.7	8.8	No	5.8	5.9	No
	PM	8.5	8.6	No	5.7	5.7	No
Bundy @ Wilshire	AM	7.3	7.4	No	4.8	4.9	No
	PM	7.5	7.4	No	5.0	4.9	No
Crenshaw @ Olympic	AM	8.5	8.5	No	5.7	5.7	No
	PM	8.3	8.3	No	5.5	5.5	No
Crenshaw @ Wilshire	AM	7.4	7.2	No	4.9	4.8	No
	PM	7.5	7.2	No	5.0	4.8	No

Table 5-9. Alternative A (Year 2012)—Local Area Carbon Monoxide Dispersion Analysis (Continued)

Intersection	Peak Period ^a	Max 1-Hour 2012 Base Concentration (ppm) ^b	Max 1-Hour 2012 w/ Alternative A Concentration (ppm) ^c	Significant 1-Hour Concentration Impact? ^d	Max 8-Hour 2012 Base Concentration (ppm) ^e	Max 8-Hour 2012 w/ Alternative A Concentration (ppm) ^f	Significant 8-Hour Concentration Impact? ^d
E Century Park @ Olympic	AM	8.8	8.9	No	5.9	6.0	No
	PM	8.4	8.5	No	5.6	5.7	No
Fairfax @ Olympic	AM	7.9	7.9	No	5.3	5.3	No
	PM	7.9	7.9	No	5.3	5.3	No
Fairfax @ San Vicente	AM	7.7	7.9	No	5.1	5.3	No
	PM	7.3	7.4	No	4.8	4.9	No
Fairfax @ Wilshire	AM	8.2	8.0	No	5.5	5.3	No
	PM	8.2	8.4	No	5.5	5.6	No
Federal @ Santa Monica	AM	6.5	6.6	No	4.3	4.3	No
	PM	6.4	6.4	No	4.2	4.2	No
Highland @ 3rd	AM	7.8	7.9	No	5.2	5.3	No
	PM	7.6	7.7	No	5.0	5.1	No
Highland @ Olympic	AM	7.5	7.5	No	5.0	5.0	No
	PM	7.6	7.5	No	5.0	5.0	No
Highland @ Wilshire	AM	7.9	7.7	No	5.3	5.1	No
	PM	7.8	7.7	No	5.2	5.1	No
I-405 SB Ramps @ Santa Monica	AM	7.4	7.4	No	4.9	4.9	No
	PM	7.4	7.5	No	4.9	5.0	No
La Brea @ Olympic	AM	8.4	8.4	No	5.6	5.6	No
	PM	8.6	8.7	No	5.7	5.8	No
La Brea @ Wilshire	AM	7.8	8.1	No	5.2	5.4	No
	PM	8.3	8.1	No	5.5	5.4	No
Overland @ Olympic	AM	7.9	7.9	No	5.3	5.3	No
	PM	8.4	8.5	No	5.6	5.7	No
Overland @ Santa Monica	AM	7.3	7.3	No	4.8	4.8	No
	PM	7.4	7.4	No	4.9	4.9	No
San Vicente @ Wilshire	AM	8.4	8.4	No	5.6	5.6	No
	PM	8.8	8.7	No	5.9	5.8	No
Sepulveda @ Olympic	AM	8.2	8.2	No	5.5	5.5	No
	PM	8.8	8.8	No	5.9	5.9	No
Sepulveda @ Pico	AM	8.2	8.2	No	5.5	5.5	No
	PM	8.2	8.3	No	5.5	5.5	No
Vermont @ 6th	AM	7.8	7.8	No	5.2	5.2	No
	PM	8.4	8.4	No	5.6	5.6	No

Table 5-9. Alternative A (Year 2012)—Local Area Carbon Monoxide Dispersion Analysis (Continued)

Intersection	Peak Period ^a	Max 1-Hour 2012 Base Concentration (ppm) ^b	Max 1-Hour 2012 w/ Alternative A Concentration (ppm) ^c	Significant 1-Hour Concentration Impact? ^d	Max 8-Hour 2012 Base Concentration (ppm) ^e	Max 8-Hour 2012 w/ Alternative A Concentration (ppm) ^f	Significant 8-Hour Concentration Impact? ^d
Vermont @ 8th	AM	7.2	7.2	No	4.8	4.8	No
	PM	7.8	7.8	No	5.2	5.2	No
Vermont @ Olympic	AM	8.1	8.1	No	5.4	5.4	No
	PM	8.4	8.4	No	5.6	5.6	No
Veteran @ Pico	AM	7.0	7.1	No	4.6	4.7	No
	PM	7.3	7.3	No	4.8	4.8	No
Veteran @ Santa Monica	AM	7.3	7.3	No	4.8	4.8	No
	PM	7.3	7.4	No	4.8	4.9	No
W Century Park @ Olympic	AM	8.5	8.5	No	5.7	5.7	No
	PM	7.7	7.8	No	5.1	5.2	No
Western @ 3rd	AM	7.6	7.6	No	5.0	5.0	No
	PM	7.7	7.7	No	5.1	5.1	No
Western @ Olympic	AM	8.0	8.1	No	5.3	5.4	No
	PM	8.1	8.2	No	5.4	5.5	No
Westwood @ Olympic	AM	8.1	8.2	No	5.4	5.5	No
	PM	9.3	9.3	No	6.2	6.2	No
Westwood @ Pico	AM	7.7	7.8	No	5.1	5.2	No
	PM	8.2	8.3	No	5.5	5.5	No

Notes:

CALINE4 dispersion model output sheets and Emfac2007 emission factors are provided in Appendix C.

ppm = parts per million

^aPeak hour traffic volumes are based on the *Wilshire Boulevard Bus Rapid Transit Project Traffic Impact Analysis* prepared for the project by Iteris, 2009..

^bSCAQMD 2012 1-hour ambient background concentration (4.4 ppm) + 2012 base traffic CO 1-hour contribution.

^cSCAQMD 2012 1-hour ambient background concentration (4.4 ppm) + 2012 with-alternative traffic CO 1-hour contribution.

^dThe State standard for the 1-hour average CO concentration is 20 ppm, and the 8-hour average concentration is 9.0 ppm.

^eSCAQMD 2012 8-hour ambient background concentration (2.8 ppm) + 2012 base traffic CO 8-hour contribution.

^fSCAQMD 2012 8-hour ambient background concentration (2.8 ppm) + 2012 with-alternative traffic CO 8-hour contribution.

Source: ICF International, January 2010.

Table 5-10. Alternative A (Year 2020)—Local Area Carbon Monoxide Dispersion Analysis

Intersection	Peak Period ^a	Max 1-Hour 2020 Base Concentration (ppm) ^b	Max 1-Hour 2020 w/ Alternative A Concentration (ppm) ^c	Significant 1-Hour Concentration Impact? ^d	Max 8-Hour 2020 Base Concentration (ppm) ^e	Max 8-Hour 2020 w/ Alternative A Concentration (ppm) ^f	Significant 8-Hour Concentration Impact? ^d
Alvarado @ Olympic	AM	6.2	6.1	No	4.1	4.0	No
	PM	6.3	6.3	No	4.1	4.1	No
Alvarado @ Wilshire	AM	6.1	6.1	No	4.0	4.0	No
	PM	6.1	6.1	No	4.0	4.0	No
Barrington @ Wilshire	AM	5.9	5.9	No	3.9	3.9	No
	PM	5.9	5.8	No	3.9	3.8	No
Beverly Glen @ Olympic	AM	6.7	6.7	No	4.4	4.4	No
	PM	6.7	6.7	No	4.4	4.4	No
Beverly Glen @ Santa Monica	AM	6.5	6.5	No	4.3	4.3	No
	PM	6.5	6.2	No	4.3	4.1	No
Bundy @ Olympic	AM	6.7	6.7	No	4.4	4.4	No
	PM	6.6	6.6	No	4.3	4.3	No
Bundy @ Wilshire	AM	6.0	6.0	No	3.9	3.9	No
	PM	6.0	6.0	No	3.9	3.9	No
Century Park W @ Santa Monica	AM	6.2	6.2	No	4.1	4.1	No
	PM	6.0	6.0	No	3.9	3.9	No
Crenshaw @ Olympic	AM	6.6	6.6	No	4.3	4.3	No
	PM	6.5	6.5	No	4.3	4.3	No
Crenshaw @ Wilshire	AM	6.0	5.9	No	3.9	3.9	No
	PM	6.1	6.0	No	4.0	3.9	No
E Century Park @ Olympic	AM	6.8	6.9	No	4.5	4.6	No
	PM	6.6	6.6	No	4.3	4.3	No
Fairfax @ 3rd	AM	6.2	6.2	No	4.1	4.1	No
	PM	6.2	6.2	No	4.1	4.1	No
Fairfax @ Olympic	AM	6.9	6.3	No	4.6	4.1	No
	PM	6.3	6.3	No	4.1	4.1	No
Fairfax @ Wilshire	AM	6.4	6.3	No	4.2	4.1	No
	PM	6.6	6.5	No	4.3	4.3	No
Highland @ 6th	AM	5.8	6.1	No	3.8	4.0	No
	PM	6.1	6.1	No	4.0	4.0	No
Highland @ Olympic	AM	6.1	6.0	No	4.0	3.9	No
	PM	6.1	6.1	No	4.0	4.0	No
La Brea @ Olympic	AM	6.5	6.5	No	4.3	4.3	No
	PM	6.7	6.7	No	4.4	4.4	No
La Brea @ Wilshire	AM	6.5	6.4	No	4.3	4.2	No
	PM	6.5	6.4	No	4.3	4.2	No
Overland @ Olympic	AM	6.3	6.3	No	4.1	4.1	No
	PM	6.6	6.6	No	4.3	4.3	No
Overland @ Santa Monica	AM	6.0	6.0	No	3.9	3.9	No
	PM	6.0	6.0	No	3.9	3.9	No
S. Beverly Glen @ Sunset	AM	5.9	5.9	No	3.9	3.9	No
	PM	5.9	5.9	No	3.9	3.9	No
S. Beverly Glen @ Wilshire	AM	6.4	6.8	No	4.2	4.5	No
	PM	6.3	6.2	No	4.1	4.1	No
San Vicente @ Olympic	AM	6.5	6.6	No	4.3	4.3	No
	PM	6.3	6.3	No	4.1	4.1	No

**Table 5-10. Alternative A (Year 2020)—Local Area Carbon Monoxide Dispersion Analysis
(Continued)**

Intersection	Peak Period ^a	Max 1-Hour 2020 Base Concentration (ppm) ^b	Max 1-Hour 2020 w/ Alternative A Concentration (ppm) ^c	Significant 1-Hour Concentration Impact? ^d	Max 8-Hour 2020 Base Concentration (ppm) ^e	Max 8-Hour 2020 w/ Alternative A Concentration (ppm) ^f	Significant 8-Hour Concentration Impact? ^d
Sepulveda @ Olympic	AM	6.4	6.4	No	4.2	4.2	No
	PM	6.8	6.8	No	4.5	4.5	No
Sepulveda @ Pico	AM	6.4	6.4	No	4.2	4.2	No
	PM	6.4	6.4	No	4.2	4.2	No
Sepulveda @ Santa Monica	AM	6.2	6.2	No	4.1	4.1	No
	PM	6.2	6.2	No	4.1	4.1	No
Vermont @ 6th	AM	6.3	6.2	No	4.1	4.1	No
	PM	6.5	6.5	No	4.3	4.3	No
Vermont @ 8th	AM	5.9	5.9	No	3.9	3.9	No
	PM	6.2	6.2	No	4.1	4.1	No
Veteran @ Olympic	AM	6.1	6.1	No	4.0	4.0	No
	PM	6.4	6.4	No	4.2	4.2	No
Veteran @ Sunset	AM	6.1	6.1	No	4.0	4.0	No
	PM	5.9	5.9	No	3.9	3.9	No
W Century Park @ Olympic	AM	6.6	6.6	No	4.3	4.3	No
	PM	6.2	6.2	No	4.1	4.1	No
Western @ 3rd	AM	6.1	6.1	No	4.0	4.0	No
	PM	6.1	6.2	No	4.0	4.1	No
Western @ 6th	AM	5.9	6.0	No	3.9	3.9	No
	PM	6.1	6.1	No	4.0	4.0	No
Western @ Olympic	AM	6.3	6.3	No	4.1	4.1	No
	PM	6.4	6.4	No	4.2	4.2	No
Westwood @ Olympic	AM	6.4	6.4	No	4.2	4.2	No
	PM	7.0	7.1	No	4.6	4.7	No
Westwood @ Pico	AM	6.2	6.2	No	4.1	4.1	No
	PM	6.5	6.5	No	4.3	4.3	No
Westwood @ Santa Monica	AM	6.4	6.4	No	4.2	4.2	No
	PM	6.5	6.6	No	4.3	4.3	No

Notes:

CALINE4 dispersion model output sheets and Emfac2007 emission factors are provided in Appendix C.

ppm = parts per million

^aPeak hour traffic volumes are based on the *Wilshire Boulevard Bus Rapid Transit Project Traffic Impact Analysis* prepared for the project by Iteris, 2009..

^bSCAQMD 2020 1-hour ambient background concentration (4.4 ppm) + 2020 base traffic CO 1-hour contribution.

^cSCAQMD 2020 1-hour ambient background concentration (4.4 ppm) + 2020 with-alternative traffic CO 1-hour contribution.

^dThe State standard for the 1-hour average CO concentration is 20 ppm, and the 8-hour average concentration is 9.0 ppm.

^eSCAQMD 2020 8-hour ambient background concentration (2.8 ppm) + 2020 base traffic CO 8-hour contribution.

^fSCAQMD 2020 8-hour ambient background concentration (2.8 ppm) + 2020 with-alternative traffic CO 8-hour contribution.

Source: ICF International, January 2010.

Similar to the proposed project, greenhouse gas emissions due to construction and operation of Alternative A would also result in less than significant impacts. **Mitigation Measures AQ-1 through AQ-4** would ensure that any impacts related to GHG emissions are reduced or avoided as much as possible.

Cultural Resources (Historical, Archaeological and Paleontological)

A less-than-significant impact on cultural resources would occur under this alternative.

Similar to the proposed project, Alternative A would convert existing curb lanes on Wilshire Boulevard to bus and right-turn only operation in the peak periods on weekdays. To implement this alternative, curb lanes would be repaired or reconstructed, where necessary, and restriped and signed as peak period bus lanes. In other areas, curbside bus lanes would be added as new lanes to Wilshire Boulevard by widening and restriping. As a result of consultation with the California State Historic Preservation Officer (SHPO) on April 3, 2008, for the purposes of the built environment survey, only those areas where changes would occur to curbs and sidewalks would be included in the Area of Potential Effects (APE). This area is bounded by Bonsall Avenue to the east to Barrington Avenue to the west, extending one parcel on each side of Wilshire Boulevard excluding the north side of Wilshire between Bonsall Avenue and Federal Avenue (see map in Appendix C). The remainder of the proposed project alignment involves lane repaving and/or restriping, would not involve any physical changes to any architectural resources or sidewalk, has no potential to affect historic properties, and is excluded from the APE. Of the eight buildings that were identified as historical resources under the CEQA Guidelines, none were found to be affected by Alternative A. Although an identified resource located at 1250 Federal Avenue (United States Army Reserve Center/Sadao Munemori Hall) is located immediately adjacent to where the widening would occur, the improvements proposed under Alternative A would not have a direct or indirect impact on the historic resource. As a result, based on field observations and a review of the proposed improvements under Alternative A, modifications to the sidewalks adjacent to the eight historic resources would have no direct or indirect impact on the characteristics that qualify those resources for inclusion in the National Register or the California Register.

Similar to the proposed project, Alternative A would require construction activities. However, as with the proposed project, the bulk of the project involves activities, such as sidewalk removal, pavement replacement, or restriping, which are not ground disturbing. For purposes of this project, pavement replacement is not considered a ground-disturbing activity. In those instances where sidewalk widths would be reduced or turn pockets altered, the projected depths of subsurface work are anticipated to be very shallow. As with the proposed project, due to previous complications of encountering tar seepage during construction related activities in portions of the project corridor, the ground disturbance proposed for this alternative is not anticipated to go beyond two feet below the surface. Given that the shallowest depth where archaeological and paleontological resources may be encountered is six feet, it is anticipated that this alternative would not result in any direct or indirect impacts on archaeological

and paleontological resources.¹²⁸ Therefore, there would be no adverse effects on archaeological and paleontological resources.

Noise and Vibration

A less-than-significant impact due to noise and vibration would occur under this alternative.

Construction

Noise impacts from construction of Alternative A are expected to be similar to those of the proposed project since the same excavation and finishing activities for the reconstruction of the roadway base and the curbs are required for Alternative A as for the proposed project. The only differences are that under Alternative A, there would be no jut-out removal activities for realignment of the curbs from Comstock Avenue to Malcolm Avenue and additional resurfacing/ reconstruction of the curb lanes between Fairfax Avenue and San Vicente Boulevard and between the western boundary of the City of Beverly Hills to Westholme Avenue would occur. Construction noise impacts would be less along the stretch of Wilshire Boulevard between Comstock Avenue and Malcolm Avenue under Alternative A than under the proposed project since the removal of jut-outs to create a curb lane would not occur. However, noise impacts from Western Avenue to Fairfax Avenue would be extended from Western Avenue to San Vicente Boulevard under Alternative A. In addition, reconstruction of curb lanes would also occur from the Beverly Hills western city limit to Westholme Avenue under Alternative A, where only the installation of signage to convert existing curb lanes to peak period bus lanes would occur under the proposed project. Therefore, noise control measures (Mitigation Measures N-1 and N-2) are also recommended during construction of Alternative A to reduce the noise levels to the extent practicable in order to minimize the impact on nearby sensitive receptors.

Vibration levels due to Alternative A construction activity at nearby sensitive receptors would be temporary and would be well below the significance criteria of 0.2 inches per second Peak Particle Velocity, as demonstrated in Table 4.4-10. In addition, Alternative A would not require jut-out removal activities as under the proposed project. Therefore, construction vibration and groundborne noise impacts would be less than significant.

Operation

Alternative A would convert existing curb lanes on Wilshire Boulevard to bus and right-turn only operation in the peak periods on weekdays. Similar to the proposed project, for Alternative A curb lanes would be repaired or reconstructed where necessary, and restriped and signed as peak period bus lanes. In other areas, curbside bus lanes would be added as new lanes to Wilshire Boulevard by widening and restriping. There are no proposed improvements that would result in a change in operational noise output, excluding changes related to traffic noise. Traffic noise impacts are discussed below.

¹²⁸ ICF International, *Archaeological Survey Report for the Wilshire Bus Rapid Transit Project, Los Angeles, California*, April 2010.

According to the noise modeling results, since Alternative A would have a similar impact on traffic in the region, this alternative would not cause an exceedance of City of Los Angeles or County of Los Angeles noise standards or materially worsen an existing standard violation. Noise levels under Alternative A in both 2012 and 2020 are predicted to result in no net change from those predicted under the base scenario at half of the locations and increase only slightly (1 dBA) at others (Table 5-11). Since traffic noise levels would not increase by more than 1 dBA, traffic noise associated with Alternative A would result in less than significant impacts.

Table 5-11: Predicted Traffic Noise Levels – Alternative A

Receptor #	Receptor Location	Modeled Existing Noise Level (dBA CNEL)	Modeled Opening Year (2010) without Alternative A Noise Level (dBA CNEL)	Modeled Opening Year (2010) with Alternative A Noise Level (dBA CNEL)	Modeled Horizon Year (2020) without Alternative A Noise Level (dBA CNEL)	Modeled Horizon Year (2020) with Alternative A Noise Level (dBA CNEL)	Estimated Maximum Increase Over Existing Noise Level With Alternative A (dBA)	Criterion Noise Level (dBA CNEL)	Future Traffic Noise Level Exceeds Local General Plan Guidelines?
M-1	Wilshire Blvd between Westlake Ave to Alvarado St	68	69	69	69	69	1	Permanent Increase of 5 to10 dBA from existing dBA	No
M-2	Wilshire Blvd between Alvarado St to Park View St	68	69	69	69	69	1	Permanent Increase of 5 to10 dBA from existing dBA	No
M-3	Wilshire Blvd between Shatto Pl to Vermont Ave	69	70	69	70	70	1	Permanent Increase of 5 to10 dBA from existing dBA	No
M-4	Wilshire Blvd between Oxford Ave to Western Ave	69	69	69	70	69	0	Permanent Increase of 5 to10 dBA from existing dBA	No
M-5	Wilshire Blvd between Crenshaw Blvd to Lorraine Blvd	70	71	70	71	70	0	Permanent Increase of 5 to10 dBA from existing dBA	No
M-6	Wilshire Blvd between San Vicente Blvd to Tower Dr	70	71	71	71	71	1	Permanent Increase of 5 to10 dBA from existing dBA	No
M-7	Wilshire Blvd between Beverly Glen Blvd to Holmby Ave	71	71	71	72	71	0	Permanent Increase of 5 to10 dBA from existing dBA	No
M-8	Wilshire Blvd between Glendon Ave to Westwood Blvd	70	71	71	71	71	1	Permanent Increase of 5 to10 dBA from existing dBA	No
M-9	Wilshire Blvd from Barrington Ave to Stoner Ave	70	70	70	70	70	0	Permanent Increase of 5 to10 dBA from existing dBA	No
M-10	Olympic Blvd between Saltair Ave to Bundy Dr	70	70	70	70	70	0	Permanent Increase of 5 to10 dBA from existing dBA	No

Source: ICF International, 2010.

The CNEL metric was used as it is the metric used by the City of Los Angeles and County of Los Angeles with regards to noise thresholds. In addition, it should be noted that the analysis performed for the proposed project is conservative since by using the CNEL metric, a worst-case scenario assumption of noise changes during the 24-hour period is used; however, Alternative A would only have a potential to affect conditions during a.m. and p.m. peak periods. The CNEL metric used by the City and County of Los Angeles also applies a more stringent requirement during evening and late night hours. Alternative A would not change overnight noise conditions.

Similar to the proposed project, groundborne vibration in the project vicinity would continue to be generated by vehicles traveling along the local roadways under Alternative A as they do in the existing condition. For Alternative A, only the following two segments of the project corridor would result in a change in the distance from the nearest travel lanes to the adjacent land uses:

- From Bonsall Avenue to Federal Avenue (approximately 0.4 mile), in order to accommodate an eastbound peak period bus lane, the sidewalk widths on both sides of Wilshire Boulevard would be reduced to a uniform width. Both eastbound and westbound lanes would be restriped. Wilshire Boulevard between Interstate 405 and Federal Avenue is bordered by the Veterans Administration (VA) property. The sidewalk widths on both sides of Wilshire Boulevard in this segment vary between 10 and 15 feet.
- From Federal Avenue to Barrington Avenue (approximately 0.1 mile), both sides of Wilshire Boulevard would be widened by reducing the sidewalk widths on both the north and south sides, allowing restriping of the street and creation of a new eastbound peak period bus lane and conversion of the westbound curb lane to a peak period bus lane. The intersection of Wilshire Boulevard and Federal Avenue is extremely congested in the eastbound direction. The widening of this two-block segment would allow buses to pass safely and quickly through the intersection of Wilshire Boulevard and Federal Avenue and provide a contiguous eastbound bus lane from Bonsall Avenue to Centinela Avenue.

There are no sensitive-receptors adjacent to the south side of Wilshire Boulevard between Sepulveda Boulevard and Federal Avenue. There are also no sensitive receptors adjacent to either side of Wilshire Boulevard between Federal Avenue and Barrington Avenue. Therefore, Alternative A would result in less than significant operational vibration impacts, and no mitigation would be required.

Land Use

No impact on land use and planning would occur under this alternative.

Similar to the proposed project, this alternative would include transportation improvements to portions of the Wilshire Corridor, an existing transportation corridor. No land uses would be acquired, and no land uses would be converted to transportation uses under this alternative. Similar to the proposed

project, no impacts on land use or compatibility with surrounding land uses would occur. No mitigation measures would be required.

Aesthetics

A less-than-significant impact would occur relative to the visual character, integrity, and quality of the project corridor under Alternative A.

Similar to the proposed project, this alternative would not include structures or other elements that would potentially obstruct views of far-off scenic features or structures and places that contribute to the visual character of the corridor, such as the potentially historic or historically significant cultural resources. The jut-outs would not be removed between Comstock Avenue and Malcolm Avenue, and, therefore, no trees would be removed in this area. However, Alternative A would also involve the extension of the eastbound left-turn pocket at Sepulveda Boulevard and street widening between Bonsall and Federal Avenues, which would affect the existing median, resulting in the removal of a number of small jacaranda trees. This alternative would comply with all local construction standards and guidelines, and as such, would not significantly affect the visual integrity of the surrounding neighborhood and streetscape/landscape along Wilshire Boulevard. Similar to the proposed project, this alternative would not result in a substantial new amount of lighting, or shadow effects, along Wilshire Boulevard. Because this alternative involves a smaller project area and does not include the removal of jut-outs and street trees, fewer visual changes would occur than under the proposed project. Therefore, less than significant visual impacts would result under Alternative A.

Biology

A less-than-significant impact would occur relative to biological resources under Alternative A.

As discussed for the proposed project, Alternative A is entirely within the Wilshire corridor. The project corridor is already used by buses and other vehicles. To create peak period curbside bus lanes to accommodate existing buses would not create any new impacts to existing biological resources, including sensitive or special-status species, in the project corridor and vicinity. In addition, the urban setting of the Wilshire corridor provides no opportunity for accessible movement between two or more existing open spaces. Operation of Alternative A would not create any new impacts related to ecologically sensitive areas and endangered species beyond existing conditions. Therefore, no adverse effects related to sensitive biological resources are anticipated to occur. Furthermore, Alternative A would avoid impacts to existing street trees on the jut-out sidewalk areas between Comstock Avenue and Malcolm Avenue that have been identified as potential migratory bird nesting habitat. Therefore, a less than significant impact would occur under Alternative A.

5.3 Alternatives Considered But Rejected

Section 15126.6(c) of the CEQA Guidelines states that alternatives may be eliminated from detailed consideration in the EIR if they fail to meet most of the project objectives, are infeasible, or do not avoid any significant environmental effects.

The following sections identify the alternatives that were considered but rejected from further consideration.

5.3.1 Alternative B – Truncated Project Alternative

The Truncated Project Alternative would include a shortened bus route (8.7 miles) compared to the 9.7 miles of exclusive bus lanes included under the proposed project. Specifically, this alternative would eliminate a bus lane from Valencia Street to S. Park View Street, totaling 0.7 mile. Additionally, under this alternative, a bus lane from mid-block Veteran Avenue/Gayley Avenue to Sepulveda Boulevard, totaling 0.3 mile, would be eliminated.

This alternative is not being evaluated further because most public comment supported either the implementation of the bus lanes for the entire length of the project corridor or the retention of the jut-outs and existing landscape in the Westwood area between Comstock Avenue and Malcolm Avenue. Although this project would meet the project's objectives, the cost of this alternative would exceed the per-mile amount allowed under the Federal Very Small Starts Program because it reduces the project length but retains the expense of the jut-out removal. Accordingly, this project alternative would not qualify for the federal funding that has been allocated to the project. Without this funding, LACMTA and LADOT would not have adequate funds to implement this alternative.

In addition, this alternative would neither avoid nor substantially lessen any of the significant effects identified for the proposed project. As such, this project alternative was considered infeasible and eliminated from further analysis in this section of the EIR, consistent with State CEQA Guidelines Section 15126.6(c).

5.3.2 Alternative C – Mini-Bus Lanes Alternative

The Mini-Bus Lanes Alternative would include 2.5-miles of bus lanes compared to the 9.7 miles that would be included under the proposed project. This alternative would include bus lanes in selected segments plus street improvements and engineering enhancements.

This alternative is not being evaluated further because, while it would improve bus travel time through several congested locations, it would not substantially improve schedule reliability and reduce bus "bunching" due to congested conditions elsewhere in the corridor. One of the goals of the project is to increase transit ridership by providing more reliable bus service, and this alternative would not meet that goal. This alternative would also be

very difficult to enforce because of the intermittent nature of the bus lanes, as well as their short length, and would require an intensive enforcement approach. Additionally, since this alternative would not create a continuous BRT corridor, it would not be eligible for federal funding as part of the Very Small Starts Program. Finally, this alternative would require physical widening of Wilshire Boulevard within the Wilshire Community Plan Area, which the Community Plan prohibits. As such, this project alternative was considered infeasible and eliminated from further analysis in this section of the EIR, consistent with State CEQA Guidelines Section 15126.6(c).

5.4 Environmentally Superior Alternative

The environmentally superior alternative would be the No Project Alternative because it would result in no direct environmental impacts. However, as discussed previously, the No Project would not fulfill any of the project objectives. Under the No Project Alternative, no improvement to the Wilshire corridor would be made, and consequently, none of the benefits of the proposed project, including improvements to bus passenger travel times, bus service reliability, traffic congestion, curb lane conditions, and air quality, would be realized.

According to the CEQA Guidelines, if the environmentally superior alternative is the No Project Alternative, the EIR shall identify an environmentally superior alternative among the other alternatives. The analysis presented above and summarized in Table 5-12 indicates that Alternative A (Truncated Project Without Jut-Out Removal) would be the environmentally superior alternative. More specifically, Alternative A would have similar impacts to the proposed project with regards to air quality, cultural resources, noise, and land use but would have slightly lesser impacts related to traffic due to fewer intersections in 2020 that would not be mitigated to less than significant levels. In addition, Alternative A would have lesser impacts on aesthetics and biological resources due to the retention of trees associated with the elimination of the jut-out removal between Comstock Avenue and Malcolm Avenue in the Westwood area. Accordingly, Alternative A is considered the environmentally superior alternative.

Table 5-12: Comparison of Proposed Project, Alternative A, and No Project Alternative

Environmental Topic	Proposed Project	Alternative A – Truncated Project Without Jut-Out Removal	No Project Alternative
Traffic, Circulation, and Parking	Significant Unavoidable Impact on LOS; (8 intersections, year 2012); (9 intersections, year 2020); Mitigation Measure T-1	Significant Unavoidable Impact on LOS; (8 intersections year 2012); (5 intersections year 2020); Mitigation Measure T-1; lesser impacts than the proposed project (fewer intersections in 2020 that would not be mitigated to less than significant levels).	No Impact
Air Quality	Less-Than-Significant Impact	Less-Than-Significant Impact; similar impacts to the proposed project.	No Impact
Cultural Resources	Less-Than-Significant Impact	Less-Than-Significant Impact: similar impacts to the proposed project.	No Impact
Noise	Less-Than-Significant Impact	Less-Than-Significant Impact; similar impacts to the proposed project.	No Impact
Land Use	No Impact	No Impact; similar impacts to the proposed project.	No Impact
Aesthetics	Less-Than-Significant Impact with Mitigation (Mitigation Measure A-1)	Less-Than-Significant Impact: lesser impacts than the proposed project since no trees would be removed between Comstock Avenue and Malcolm Avenue due to the elimination of jut-out removal in the Westwood area.	No Impact
Biology	Less-Than-Significant with Mitigation Measures (Mitigation Measures BR-1 and A-1)	Less-Than-Significant Impact: lesser impacts than the proposed project since no trees would be removed between Comstock Avenue and Malcolm Avenue due to the elimination of jut-out removal in the Westwood area.	No Impact

Source: ICF International, 2010

This page left intentionally blank.

Chapter 6 Other CEQA Considerations

6.1 Cumulative Impacts

6.1.1 Regulatory Setting

Section 15355 of the CEQA guidelines (2005) defines cumulative impacts as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. Cumulative effects can result from individually minor, but collectively significant actions that take place over a period of time (40 CFR 1508.7). The analysis in this chapter is consistent with CEQA guidelines, Section 15130(b)(1), which directs cumulative impact analyses to include “a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact.”

6.1.2 Study Area

The Wilshire Bus Rapid Transit Project would take place along Wilshire Boulevard between Valencia Street and Centinela Avenue in the City of Los Angeles, including the portion between Veteran Avenue and Federal Avenue (0.8 mile) that is under the jurisdiction of the County of Los Angeles. The portion of Wilshire Boulevard within the City of Beverly Hills (between San Vicente Boulevard and one block west of Whittier Drive) is not included as part of the proposed project.

6.1.3 Impact Assessment

Methodology

“Cumulative impacts” refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects, whereas the cumulative impact is the change in the environment from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor, but collectively significant, projects taking place over a period of time.

CEQA requires that the discussion of cumulative impacts reflects the severity of the impacts, as well as the likelihood of their occurrence; however, the discussion need not be as detailed as the discussion of environmental impacts attributable to the proposed project alone. Further, the discussion is intended to be guided by the standards of practicality and reasonableness.

CEQA also requires an EIR to explore the long-term effects of a proposed project, those impacts which may not be tangible in the near term, but may ultimately evolve into significant adverse environmental impacts in the long term. Issues to be addressed in the EIR include the growth-inducing impacts of the proposed project and significant irreversible effects. The CEQA Guidelines state that the discussion of growth-inducing impacts should focus on the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment.

An adequate discussion of significant cumulative impacts involves analyzing either (1) “a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency,” or (2) “a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact.”

This cumulative impact analysis relies on method (2) described above. This cumulative impact analysis incorporates the regional projections from the SCAG RTP. The Wilshire Bus Rapid Transit Project is located within the City of Los Angeles Subregion (the portion of Wilshire Boulevard within the City of Beverly Hills is not included as part of the proposed project). The RTP reflects transportation, population, employment, and land use data for the six-county SCAG area through the year 2035 and, thus, is an appropriate basis for the analysis of cumulative impacts.

The region wide impact analysis conducted in the RTP PEIR (SCH No. 2007061126, May 2008), serves as the basis for this analysis of cumulative impacts, per Section 15150 of the CEQA guidelines. SCAG states that lead agencies, such as the Los Angeles County Metropolitan Transportation Authority (LACMTA), may use the region-wide impact analysis contained in the RTP PEIR as the basis of their cumulative impact analysis. The RTP PEIR contains a thorough analysis of environmental impacts resulting from implementation of various transportation projects throughout SCAG’s six county region that encompasses approximately 38,000 square miles. Therefore, the RTP PEIR is used as the basis of this cumulative impact analysis and is hereby incorporated by reference per Section 15150 of CEQA guidelines.

As described in the Traffic Study, traffic volume forecasts are based upon the results of the SCAG RTP travel demand model. The model was updated and refined specifically for use in this study. The socioeconomic data in the model, for example, were refined to include large known future development projects provided by LADOT. These projects are listed in Table 6-1.

Table 6-1: Future Development Projects

Area	Location	Project Description
West LA	11122 W Pico Blvd	538 Apartments, 212,000 sf Target, 54,000 sf Supermarket
Westwood	Glendon Ave/Kinross Ave	50,000 sf Shopping Center, 350 Apartments
Central LA	Wilshire Blvd/Hoover St	156,000 tsf Shopping Center
Downtown	Figueroa St/8th Pl	836 Condos, 988,255 sf Office, 480 Hotel Rooms, 46,000 sf Retail
Downtown	Figueroa St/7th St	Korean Air project to replace Wilshire Grand Hotel with new Hotel and Office space
sf = square feet.		

Source: Iteris 2010

The cumulative impacts analysis examines the impacts of the proposed project as discussed in Sections 4.1 to 4.7 within the framework of the cumulative regional transportation analysis contained in the RTP PEIR. These impacts are summarized below.

Traffic

The proposed project and Alternative A would result in regionally beneficial cumulative impacts on traffic circulation. However, both the proposed project and Alternative A would also result in cumulatively significant localized traffic impacts under CEQA. The No Project Alternative would not result in cumulative impacts.

The RTP PEIR indicates that the region is expected to grow in both population and vehicle miles traveled (VMT). Development and redevelopment would result in increased traffic congestion, including along Wilshire Boulevard. The proposed project and Alternative A would improve the efficiency of existing transit services, which would expand regional transportation choices. The proposed project and Alternative A are aimed at improving regional quality of life and overall mobility. The proposed project and Alternative A would result in a decrease in VMT due to the increased use of transit. Therefore, the proposed project and Alternative A would result in a beneficial cumulative effect on regional traffic circulation. The No Project Alternative would neither directly affect nor contribute to a cumulative impact on regional traffic circulation nor result in any possible beneficial cumulative effect.

However, in terms of impacts of the proposed project on local traffic circulation, the proposed project and Alternative A would result in significant and unavoidable impacts related to the exceedance of LOS criteria for

multiple intersections in both years 2012 and 2020. As described in the Traffic Study and as summarized in Section 4.1, traffic volume forecasts are based upon the results of the SCAG RTP travel demand model, which was updated and refined specifically for use in this study. As discussed in Section 4.1, eight intersections within the project study area are forecast to remain significantly affected under 2012 project conditions because no feasible mitigation measure could be identified. In addition, nine intersections are forecast to remain significantly affected under 2020 project conditions because no feasible mitigation measure could be identified. Under Alternative A, as described in Section 5.2.2, eight intersections within the project study area are forecast to remain significantly affected under 2012 conditions, and five intersections are forecast to remain significantly affected under 2020 conditions. As a result of the significant and unavoidable impacts to these local intersections, the proposed project and Alternative A would also result in significant and unavoidable cumulative impacts in terms of localized traffic circulation at these intersections. The No Project Alternative would not result in any changes to traffic and would not contribute to a cumulative impact on local traffic circulation.

Air Quality

The proposed project and Alternative A would result in cumulatively beneficial air quality impacts. Less than significant cumulative impacts related to criteria pollutants, and GHGs would result. The No Project Alternative would not result in cumulative impacts.

The implementation of public transit projects, such as the proposed project or Alternative A, would enhance the efficiency of existing transit services and help to remove vehicles from roadways and freeways, decreasing the VMT and the usage of fuels. Lower automobile VMT corresponds to a reduction of criteria pollutant emissions from the vehicles. Consistent with the RTP PEIR air quality analysis, the proposed project and Alternative A would result in a net cumulative beneficial effect to regional air quality resulting from the increased transit ridership and the anticipated reduction in automobile use. The No Project Alternative would neither affect nor contribute to a cumulative impact on air quality nor result in any possible beneficial cumulative effect.

The Wilshire Bus Rapid Transit Project and Alternative A would contribute to the implementation of the adopted Air Quality Management Plan. The SCAQMD's approach for assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the federal and State Clean Air Acts. As discussed in Section 4.2, the proposed project would be consistent with the AQMP, which is intended to bring the Basin into attainment for all

criteria pollutants.¹²⁹ Similarly, Alternative A would also be consistent with the AQMP.

In addition, the mass regional emissions calculated for the proposed project and presented in Table 4.2-4 (regional construction emissions) would not exceed applicable SCAQMD daily significance thresholds, which are designed to assist the region in attaining the applicable state and national ambient air quality standards. The proposed project would comply with the SCAQMD's Rule 403 (fugitive dust control) during construction, as well as all other adopted AQMP emissions control measures. Per SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on all projects Basin-wide. As such, cumulative impacts with respect to criteria pollutant emissions would be less than significant. Similar to the proposed project, emissions associated with Alternative A would not exceed SCAQMD daily significance thresholds and would comply with the emissions control measures described above. Therefore, cumulative impacts with respect to criteria pollutants for Alternative A would be less than significant.

As described in Section 4.2, the proposed project would serve to reduce GHG emissions, in comparison to existing conditions, by improving existing traffic circulation and relieving existing local congestion. Implementation of prescribed mitigation measures during construction would further reduce the proposed project's GHG emissions. As described in Section 5.2.2, Alternative A would also serve to reduce GHG emissions. As such, the proposed project and Alternative A would not conflict with the State's goal of reducing GHG emissions to 1990 levels by 2020. Impacts relative to GHG emissions and climate change would be less than significant. Accordingly, the contribution of either the proposed project or Alternative A to climate change/worldwide GHG emissions would be less than significant.

Cultural Resources

The proposed project and Alternative A would result in less than significant cumulative impacts on cultural resources. The No Project Alternative would not result in cumulative impacts.

The RTP PEIR indicates that a significant cumulative impact to cultural resources would result due to a substantial increase in urbanization in the

¹²⁹ CEQA Guidelines Section 15064(h)(3) states "A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem (e.g. water quality control plan, air quality plan, integrated waste management plan) within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency."

SCAG region. Certain transportation improvements in the RTP would result in significant impacts to historic, archaeological, and paleontological resources. Impacts to cultural resources resulting from the Wilshire Bus Rapid Transit Project and Alternative A would be mitigated to less than significant levels; the proposed project and Alternative A, therefore, would not contribute to the adverse cumulative cultural resources impacts detailed in the RTP PEIR. Under the No Project Alternative, the project corridor would remain in its current state. As no construction would occur under the No Project Alternative, there would be no potential for historic or subsurface cultural resources to be disturbed.

As described in Section 4.3, no surficial prehistoric or historic archaeological sites or features were identified in the study area. Further, no impacts on historic properties or historical resources were identified. Therefore, the proposed project would not contribute to cumulative impacts in these categories.

Regarding archaeological resources, two previously recorded historic sites, as well as the archaeological/paleontological La Brea Tar Pits site, are located in areas where construction-related activities are proposed. Even though the project area is heavily urbanized, buried cultural resources have been identified during previous construction-related ground-disturbing activities in proximity to the project route. Therefore, there is the potential for buried cultural resource deposits to exist beneath previously disturbed and developed land surfaces. However, as described in Section 4.3, compliance with Section 15064.5(c) of the CEQA Guidelines will ensure that no adverse significant impacts would occur.

In terms of potential impacts to paleontological resources resulting from the proposed project, pavement replacement is not considered a ground-disturbing activity. In addition, due to previous complications of encountering tar seepage during construction related activities in this area, the proposed ground disturbance for this project is anticipated not go beyond two feet below the surface. Therefore, no impacts would be anticipated to occur. Nevertheless, compliance with Section 15064.5(d) of the CEQA Guidelines would further ensure that no adverse significant impact would occur. Also, compliance with Section 15064.5(e) of the CEQA Guidelines would ensure that impacts to human remains would be less than significant.

As described in Section 5.2.2, Alternative A would not require construction activities that would result in the potential for subsurface cultural resources to be disturbed. Similar to the proposed project, this alternative would result in less than significant impacts.

Impacts on cultural resources, as identified above, would be avoided or reduced to a level of less than significant, in accordance with CEQA Guidelines. Therefore, the impacts would be on individual resources and would not be cumulatively considerable.

Noise

The proposed project and Alternative A would result in less than significant cumulative noise impacts. The No Project Alternative would not result in cumulative impacts.

The proposed project would convert existing curb lanes on Wilshire Boulevard to bus and right-turn only operation in the peak periods on weekdays. To implement the proposed project, curb lanes would be repaired or reconstructed, where necessary, and restriped and signed as peak period bus lanes. In other areas, curbside bus lanes would be added as new lanes to Wilshire Boulevard by widening or removing jut-outs. These project elements, however, would not require major construction work, and construction vibration and groundborne noise impacts would be less than significant. Therefore, the proposed project would not contribute to cumulative noise and vibration impacts. Noise impacts from construction of Alternative A are expected to be similar to those of the proposed project. The only difference is that under Alternative A, there would be no jut-out removal activities for realignment of the curbs from Comstock Avenue to Malcolm Avenue and there would be some additional curb lane reconstruction/resurfacing. Therefore, construction noise impacts would be less along this stretch of Wilshire Boulevard under Alternative A than under the proposed project. As with the proposed project, Alternative A would not contribute to cumulative noise and vibration impacts.

The No Project Alternative would not change vibration or groundborne noise levels from existing conditions along the project corridor. Therefore, no impact would occur.

As described in Section 4.4, the proposed project is not expected to generate substantial noise above existing ambient noise levels in the project area, which is attributed mainly to traffic on Wilshire Boulevard. The only element of the project that would have the potential to change the existing noise setting would be any changes to traffic that result from the proposed project. The traffic noise analysis conducted for the proposed project was based on cumulative traffic conditions predicted to occur in the project area. The proposed project would not increase traffic noise by more than 1 dB along Wilshire Boulevard within the project corridor, and, thus, the City of Los Angeles and County of Los Angeles noise compatibility standard would not be exceeded (See Table 4.4-9). Similarly, since traffic noise levels would not increase by more than 1 dBA for Alternative A, traffic noise associated with this alternative would also result in less than significant impacts. Therefore, the proposed project and Alternative A are not considered to contribute to a significant cumulative noise impact during operation.

Land Use

The proposed project, Alternative A, and the No Project Alternative would not result in cumulative impacts related to land use.

Projects included in the RTP are intended to increase the overall accessibility and mobility of persons within the SCAG region. The Wilshire Bus Rapid Transit Project would contribute to the beneficial impact of increased accessibility to community resources, businesses, and residences and increased mobility along Wilshire Boulevard.

A series of general improvements would be made to Wilshire Boulevard, including the conversion of existing curb lanes to bus lanes and the upgrading of the existing transit signal priority system. These project elements, however, would not require major construction work. The proposed project would not result in divisions of existing communities or significant conflicts with any applicable land use plan, policy, regulation, habitat conservation plan, or natural community conservation plan. In addition, the proposed project would not result in any land use compatibility conflicts, which could have the potential to result in significant changes to the existing land use pattern. Alternative A would include transportation improvements to portions of the Wilshire Corridor that are similar to the proposed project. Therefore, there are no cumulative impacts to local land use plans or policies resulting from the Alternative A.

The No Project Alternative would not implement any of the improvements proposed by the project or under Alternative A. Therefore, the No Project Alternative would neither directly affect nor contribute to a cumulative impact on land use nor result in any possible beneficial cumulative effect.

Aesthetics (Loss of Trees)

The proposed project and Alternative A would result in less than significant cumulative impacts related to visual quality and character. The No Project Alternative would not result in cumulative impacts.

As described in Section 4.6, the implementation of **Mitigation Measure A-1** would ensure that no significant cumulative visual impacts resulting from the proposed project would occur due to the loss of landscaping and trees associated with the removal of jut-outs between Comstock Avenue and Malcolm Avenue and the roadway widening between Sepulveda Boulevard and Federal Avenue. Under Alternative A, the jut-outs would not be removed between Comstock Avenue and Malcolm Avenue, and, therefore, no trees would be removed in this area. BRT operations are already occurring along the project alignment. The proposed project and Alternative A would create peak period bus lanes to accommodate existing buses. Accordingly, no significant adverse changes to the visual character or the visual quality of the Wilshire corridor would occur either individually or cumulatively.

Under the No Project Alternative, the improvements under the proposed project would not be implemented. No construction activities would take

place, no street facilities would be altered, and, therefore, no cumulative visual impacts would occur.

Biological Resources (Loss of Trees)

The proposed project would result in less-than-significant cumulative impacts to biological resources after mitigation. Alternative A would result in less than significant cumulative impacts related to biological resources. The No Project Alternative would not result in cumulative impacts.

Tree removal along the project corridor could result in impacts to migratory birds and their active nests. Construction activities as a result of the proposed project and other projects in the area could potentially result in significant cumulative impacts to migratory birds. As described in Section 4.7, **Mitigation Measure BR-1** has been identified to ensure that impacts to nesting birds are reduced to less than significant levels. Therefore, a cumulatively significant impact to nesting birds, or their habitat, would not be expected to occur.

As stated in Section 5.2.2, operation of Alternative A would not create any new impacts related to ecologically sensitive areas and endangered species beyond existing conditions. Furthermore, Alternative A would avoid impacts to existing street trees on the jut-outs between Comstock Avenue and Malcolm Avenue that have been identified as potential migratory bird nesting habitat. Therefore, a less-than-significant cumulative impact would occur under Alternative A.

6.2 Summary of Significant Unavoidable Impacts

Section 15126.2(b) of the CEQA Guidelines requires an EIR to document significant environmental effects which cannot be avoided if the proposed project is implemented. Specifically, Section 15126.2(b) states that the EIR should:

Describe any significant impacts, including those, which can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reasons why the project is being proposed, notwithstanding their effect, should be described.

Environmental impacts associated with implementation of a project may not always be mitigated to a level that is considered less than significant (either through the imposition of project-specific mitigation measures or through the imposition of an alternative project design). In such cases, a Statement of Overriding Considerations must be prepared prior to approval of the project, in accordance with CEQA Guidelines Sections 15090 and 15093. Because implementation of the proposed project would create significant, unavoidable impacts, a Statement of Overriding Considerations is required to describe specific reasons for approving the project, based on information contained

within the Final EIR, as well as any other information in the public record. Based on information contained in this EIR, the following are the significant and unavoidable impacts of the proposed project:

As discussed in Section 4.1, the following eight intersections are forecast to remain significantly affected under 2012 project conditions because no feasible mitigation measures that would fully reduce impacts to less than significant levels could be identified:

- Veteran Avenue/Sunset Boulevard;
- Bundy Drive/Wilshire Boulevard;
- Veteran Avenue/Santa Monica Boulevard;
- Overland Avenue/Santa Monica Boulevard;
- Westwood Boulevard/Pico Boulevard;
- Overland Avenue/Pico Boulevard;
- Fairfax Avenue/Wilshire Boulevard; and
- La Brea Avenue/Wilshire Boulevard.

The following nine intersections are forecast to remain significantly affected under 2020 project conditions because no feasible mitigation measures that would fully reduce impacts to less than significant levels could be identified:

- Veteran Avenue/Sunset Boulevard;
- Bundy Drive/Wilshire Boulevard;
- Veteran Avenue/Santa Monica Boulevard;
- Overland Avenue/Santa Monica Boulevard;
- Westwood Boulevard/Olympic Boulevard;
- Westwood Boulevard/Pico Boulevard;
- Overland Avenue/Pico Boulevard;
- Fairfax Avenue/Wilshire Boulevard; and
- La Brea Avenue/Wilshire Boulevard.

As a result of the significant and unavoidable impacts to these local intersections within the project study area, the proposed project would also result in significant and unavoidable cumulative impacts in terms of localized traffic circulation at these intersections.

Similarly, as discussed in the Traffic Study, and in Section 5.2.2, Alternative A would result in significant unavoidable impacts at eight intersections in year 2012, and five intersections in year 2020. Therefore, Alternative A would have a lesser but still significant unavoidable impact on localized traffic circulation.

6.3 Significant Irreversible Environmental Changes

Section 15126.2(c) of the State CEQA Guidelines requires an EIR to consider any significant irreversible environmental changes that would be caused by the proposed project should it be implemented. Specifically, Section 15126.2(c) states that:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as a highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

The implementation of public transit improvement projects, such as the proposed project or Alternative A, would help to remove vehicles from roadways and freeways, easing the increase in VMT and the usage of fuels. The proposed project or Alternative A would result in less energy consumption and, as such, would result in a beneficial energy impact.

However, the construction and implementation of the proposed project or Alternative A would entail the irreversible and irretrievable commitment of some energy and human resources, including labor required for the planning, design, construction and operation of the proposed project or Alternative A. These resources include the following:

- Consumption of nonrenewable energy resources as a result of operation and maintenance of the proposed transportation improvements, even if energy rates do not exceed existing use rates;
- Commitment of natural resources during minor construction activities associated with the proposed project or Alternative A, including the consumption of fossil fuels and the use of construction materials, and
- Removal of a maximum of 40 street trees along Wilshire Boulevard, between Comstock Avenue and Malcolm Avenue, and up to 30 small jacaranda trees in the median of Wilshire Boulevard between I-405 and Federal Avenue during construction of the proposed project. However, as described in Section 4.7, required mitigation would ensure that new street trees shall be planted nearby within the project area to replace those removed during construction.

6.4 Growth-Inducing Impacts

The projects outlined in the RTP would contribute to new growth or the intensity of development within the SCAG region. The SCAG region is expected to grow in population by 33 percent (or 5.9 million persons) between 2005 and 2035. Likewise, employment in the region is expected to grow by 32 percent during the same time period. The proposed project or Alternative A, however, is a transportation enhancement project aimed at improving the efficiency of an existing transit system; it is not a significant new development project. Also, the proposed project or Alternative A involves minimal construction activities and is not anticipated to create a significant number of permanent jobs. The proposed project or Alternative A would, therefore, not spur new regional growth in terms of population or employment and would not result in significant growth-inducing impacts.

6.5 Effects Not Found to Be Significant

CEQA Guidelines requires that an EIR contain discussion indicating the reasons that certain possible significant effects of a project were determined to be less than significant and thus, were not analyzed in the EIR. Discussions of those impacts found not to be significant are provided below:

6.5.1 Aesthetics

Scenic vistas and views, including the Hollywood Hills, the Santa Monica Mountains, and the downtown Los Angeles skyline are visible from portions of the Wilshire corridor. However, the proposed project or Alternative A would not include construction of any structures or other elements that would result in the obstruction of these views and vistas. Therefore, these potential aesthetic impacts were not found to be significant.

The project corridor is located in a developed urban area with a number of historically significant structures. Of the 18 resources that were identified in the historic survey, six were determined eligible for listing on the National Register of Historic Places. However, the proposed project or Alternative A would not include elements, such as structures or other vertical visual features, that would significantly affect or visually obstruct scenic resources in the project area. Additionally, the proposed project or Alternative A would not include elements that would potentially obstruct views of far-off scenic features or structures and places or introduce a substantial new amount of lighting on Wilshire Boulevard. Impacts to views and scenic vistas and lighting would be considered less than significant.

Under the proposed project, the proposed curb improvements between Comstock Avenue and Malcolm Avenue along the portion of the corridor in the Westwood area could result in the removal of a maximum of 25 magnolia trees. See Section 4.6 for discussion of potential aesthetic impacts related to visual quality and character resulting from proposed tree removal.

6.5.2 Agriculture

The proposed project or Alternative A would be implemented along the Wilshire corridor. The Wilshire corridor is not zoned for agricultural uses or subject to any Williamson Act contracts. The proposed project or Alternative A would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses. Therefore, agricultural impacts were not found to be significant.

6.5.3 Biological Resources

The project corridor is located within a highly developed urban area, where there are few suitable habitats for wildlife. As such, there are no expected impacts related to ecologically sensitive areas, sensitive or special-status species, or riparian habitats. The project corridor is not located within or adjacent to any areas that would be considered a wetland as defined by Section 404 of the Clean Water Act. Therefore, these potential biological resource impacts were not found to be significant.

The segment of the proposed project, where jut-outs are proposed to be removed, would involve the removal of a maximum of 40 magnolia trees along Wilshire Boulevard between Comstock Avenue and Malcolm Avenue, which may serve as habitat for migratory birds. According to the Migratory Bird Treaty Act (MBTA), it is unlawful at any time, by any means, or in any manner to pursue, hunt, take, capture, or kill migratory birds. The law applies to the removal of nests occupied by migratory birds during the breeding season. See Section 4.7 for discussion of potential impacts to migratory birds that could result from proposed tree removal.

6.5.4 Geology/Soils

The proposed project or Alternative A would involve improvements to an existing transportation corridor already used by buses and other vehicles. Implementation of the proposed project or Alternative A would not create any new impacts related to fault rupture and seismic ground shaking beyond existing conditions. No new structures would be exposed to fault rupture or liquefaction.

As the project corridor is currently paved, the potential for soil erosion is low. Additionally, the project corridor is not located in a landslide area. Implementation of the proposed project or Alternative A would not create any new impacts related to lateral spreading, subsidence, liquefaction, collapse, or expansive soils beyond existing conditions. Septic tanks would not be used under the proposed project or Alternative A. Therefore, geological impacts were not found to be significant.

6.5.5 Hazards and Hazardous Materials

The proposed project or Alternative A would not require the removal of significant (greater than 2 feet below the surface) soil or ground excavation.

Based on the historic commercial use, there is a potential that some soils and/or groundwater may be contaminated below the surface of the corridor. However, based on the extent of proposed excavation, it is not likely that any potentially contaminated soil and/or groundwater would be disturbed.

No new hazards or hazardous materials would be introduced under the proposed project or Alternative A since the same types and numbers of buses would continue to operate. As such, project operation would not create any new impacts to schools related to the use of hazardous materials beyond existing conditions.

The Cortese list was reviewed for any sites located within or in the vicinity of the project corridor, and no such sites were identified. However, a review of the list of Leaking Underground Storage Tanks (LUST) and other cleanup sites identified 12 sites that are located along the project corridor.

However, it is highly unlikely based on the extent of ground disturbance required for the project that any potentially contaminated soil and/or groundwater would be disturbed as a result of the construction for the proposed project or Alternative A. It is also not likely that methane gas would be encountered. No impact related to emergency response or evacuation plans is anticipated to occur. Therefore, any potential hazard/hazardous materials impacts were not found to be significant.

6.5.6 Hydrology/Water Quality

The proposed project or Alternative A would neither create nor contribute to water quality degradation. Project construction would comply with applicable federal, State, and local regulations, as well as other code requirements and permit provisions to prevent any violation of water quality standards or waste discharge requirements.

The Wilshire corridor is entirely paved and does not allow groundwater recharge. Therefore, the proposed project or Alternative A would not deplete or degrade groundwater resources or result in any reduction in groundwater. Project operation would not create any new impacts related to stormwater quality and storm drainage system capacity beyond existing conditions. . Implementation of the proposed project or Alternative A would not create any new impacts related to flooding due to dam failure beyond existing conditions. Therefore, any potential hydrology or water quality impacts were not found to be significant.

6.5.7 Mineral Resources

According to the City of Los Angeles General Plan Safety Element Appendix E, portions of the Wilshire corridor are underlain with oil resources. These include the area in the vicinity of the intersection of Wilshire Boulevard and Hoover Street, the area between La Brea Avenue and Fairfax Avenue, and the area just west of the Beverly Hills/Los Angeles city boundary.¹³⁰ Project

¹³⁰ City of Los Angeles. Los Angeles General Plan Safety Element, Appendix E. May, 1994.

construction would not increase the rates of existing oil extraction or affect production and abandonment plans for any of the oil resources in the project area. Therefore, mineral resource impacts were not found to be significant.

6.5.8 Population and Housing

The proposed project or Alternative A would not include a housing element. It is not anticipated that the proposed project or Alternative A would induce a direct substantial population growth as it would not provide additional housing units to the area. Project operation would not create any new impacts related to population and housing beyond existing conditions. Therefore, impacts related to population growth were not found to be significant.

6.5.9 Public Services

Temporary police and fire access impacts would be minimized with the implementation of a Traffic Management Plan (TMP) during the construction period of the proposed project or Alternative A. The proposed project or Alternative A would not result in the acquisition of any parcels and, as such, would not result in the displacement of existing LAPD or LAFD facilities. Additionally, the proposed project or Alternative A could result in a beneficial impact to fire and police services by converting two existing lanes used for mixed-flow or, in some cases, for parking. The proposed project or Alternative A would not cause an additional demand on local schools, libraries, or parks. Therefore, impacts related to public services were not found to be significant.

6.5.10 Recreation

The proposed project or Alternative A would not include a housing component, and, therefore, increased demand on existing neighborhood and regional parks or other recreational facilities is not anticipated to occur. The current existing bus routes serving the Wilshire corridor would continue to operate and would not require new or additional employees. Therefore, impacts related to recreation were not found to be significant.

6.5.11 Utilities

The proposed project or Alternative A would not create additional land uses that would require additional water consumption or generate additional wastewater, and as such, would not require additional water or wastewater utility infrastructure. The proposed project or Alternative A would neither create nor contribute to any new impacts related to water consumption or wastewater generation and treatment beyond existing conditions. Additionally, the proposed project or Alternative A would neither create nor contribute to any increase in stormwater runoff that would exceed the storm drain system capacity. Similarly, the proposed project or Alternative A would neither create nor contribute to any new impacts related to solid waste

disposal beyond existing conditions. Therefore, impacts related to utilities were not found to be significant.

Chapter 7 Environmental Assessment

7.1 Introduction

This section reviews the relationship of the proposed action to a series of environmental topics, federal legislation, and executive orders that address all major areas of the physical environment, as defined by the Federal Transit Administration (FTA). The Code of Federal Regulations, which outlines FTA policies and procedures for implementing NEPA, states that an Environmental Assessment (EA) should “determine which aspects of the proposed action have potential for social, economic, or environmental impact.”¹³¹ The environmental assessment discussion below briefly describes the affected environment, potential environmental effects, and cumulative impacts related to each topic area. Where potential effects are identified, mitigation measures are provided to minimize or avoid social, economic, or environmental harm.

7.2 Environmental Assessment

7.2.1 Zoning and Land Use

Affected Environment

The Wilshire corridor is a densely developed corridor with an abundance of commercial land uses. The majority of land uses adjacent to the Wilshire corridor consist of parcels zoned for office, retail, commercial, residential or institutional uses (e.g., museums). Commercial development and some multi-family residences front both sides of the project corridor and the intersecting north/south streets. In addition, the Wilshire corridor forms a central area for commercial activity for a number of neighborhoods, including Westlake/MacArthur Park, Lafayette Park, Koreatown, Wilshire Center, Mid-Wilshire, Miracle Mile, Carthay Circle, Carthay Square, South Beverly Roxbury, Westwood, Boulevard Heights, West Los Angeles, and Brentwood Village.

The project site is located within five community plan areas in the City of Los Angeles. These community plan areas include Westlake, Wilshire, Westwood, West Los Angeles, and Brentwood-Pacific Palisades and are briefly described below.

The Wilshire corridor within the Westlake Community Plan Area is mainly commercial and includes office and retail (small businesses and strip malls), interspersed with some residential uses, parking lots and recreational facilities, such as MacArthur Park and Lafayette Park. The area consists of a mix of mid-rise (8-10 stories) and low-rise buildings.

¹³¹ Code of Federal Regulations, Title 23 Section 771.119(b) *Environmental Assessments*.

In the Wilshire Community Plan Area, a long, narrow corridor of commercial activity exists along Wilshire Boulevard, comprised of professional offices and retail (strip mall and small businesses), and interspersed with a few multi-family residential areas. Additionally, the corridor includes Museum Row, Hancock Park, and the La Brea Tar Pits. Both high and mid-size buildings front Wilshire Boulevard in this area.

The Westwood Community Plan Area portion of the project site consists of multiple-family housing, both high-medium and medium density residential. High-rise towers are located along Wilshire Boulevard between the Los Angeles Country Club and Malcolm Avenue along Wilshire Boulevard. Near Westwood Boulevard, the high-rise office corridor along Wilshire serves as a regional business center with financial institutions and corporate headquarters. The community plan area includes destinations, such as the Los Angeles Country Club and the Los Angeles National Cemetery. The buildings along Wilshire Boulevard contains numerous high-rise (20 stories) and mid-rise (8-10 stories) office buildings.

The West Los Angeles Community Plan Area portion of the project site consists of commercial land use, primarily consisting of strip development. The majority of commercial facilities are either small-scale and free standing or mini-mall type buildings designed to primarily serve local neighborhoods. The Wilshire corridor in this community plan area also includes destinations, such as the Los Angeles Veterans Administration and Hospital Complex. The area consists of a mix of mid-rise (8 to 10 stories) and low-rise buildings.

The portion of the Wilshire corridor in the Brentwood-Pacific Palisades Community Plan Area is mainly comprised of commercial uses, such as offices and small-scale and free standing or mini-mall type commercial developments. The area consists of a mix of mid-rise (8-10 stories) and low-rise buildings.

Impacts

No Project Alternative

Under the No Project Alternative, proposed improvements to 9.9 miles of the Wilshire corridor included under the proposed action would not be implemented. No construction activities would take place. Existing land uses would not be affected.

No adverse effects related to consistency with applicable land use plans and policies would occur under the No Project Alternative.

Proposed Action

The proposed action consists of dedicated weekday peak period bus lanes in both the eastbound and westbound directions, to be achieved through the conversion of the existing curb lanes. In the Westlake, Wilshire, and Westwood Community Plan Areas, the proposed action would convert existing curb lanes to weekday peak period bus lanes for an already existing

transit route between Valencia Street and Fairfax Avenue, the Beverly Hills City limits and Comstock Avenue, Malcolm Avenue and Sepulveda Boulevard, Bonsall Avenue and Federal Avenue, and Barrington Avenue and Centinela Avenue. In addition, the proposed action would include the removal of jut outs, realignment of curbs and creation of peak period bus lanes between Comstock Avenue and Malcolm Avenue. A portion of the project corridor is under County jurisdiction between Veteran Avenue and Federal Avenue (approximately 0.8 mile). The project elements in this portion of the corridor include creating bus lanes by reducing the sidewalk widths on both sides of Wilshire Boulevard to a uniform width, restriping of lanes, and lengthening the eastbound left-turn pocket at Sepulveda Boulevard.

In the West Los Angeles and Brentwood-Pacific Palisades Community Plan Areas, both sides of Wilshire Boulevard would be widened by reducing the sidewalk widths on both the north and south sides to accommodate a new eastbound peak period bus lane between Federal Avenue and Barrington Avenue and conversion of the westbound curbside lane to a peak hour bus lane. No properties would be acquired, and no land use changes would occur.

Construction impacts anticipated under the proposed action would be not be adverse and would be considered temporary. The proposed action would not require any land use changes along the project corridor. Accordingly, no adverse impacts to surrounding land uses would occur.

The proposed action would be consistent with local plans and policies identified in the Westlake, Wilshire, Westwood, Brentwood-Pacific Palisades, and West Los Angeles Community Plan. No adverse effects would occur.

Alternative A – Truncated Project Without Jut-Out Removal

Alternative A consists of dedicated weekday peak period curbside bus lanes in both the eastbound and westbound directions similar to those identified under the proposed action. However, the alignment would terminate at S. Park View Street on the eastern end instead of Valencia Street. Furthermore, the jut-outs between Comstock Avenue and Malcolm Avenue would be retained, but additional reconstruction and resurfacing of 1.8 miles of curb lanes from Fairfax Avenue to San Vicente Boulevard and from the western boundary of the City of Beverly Hills to Westholme Avenue would occur.

However, similar to the proposed action, land use impacts anticipated under this alternative would not be considered adverse. This alternative would not require any land use changes along the project corridor. In the West Los Angeles and Brentwood-Pacific Palisades Community Plan Areas, both sides of Wilshire Boulevard would be widened by reducing the sidewalk widths and restriping to accommodate a new eastbound bus lane between Federal Avenue and Barrington Avenue. No properties would be acquired, and no land use changes would occur.

Alternative A would be consistent with local plans and policies identified in the Westlake, Wilshire, Westwood, Brentwood-Pacific Palisades, and West Los Angeles Community Plan. No adverse effects would occur.

Measures to Minimize Harm

No Project Alternative

No mitigation measures would be required.

Proposed Action

No mitigation measures would be required.

Alternative A – Truncated Project Without Jut-Out Removal

No mitigation measures would be required.

Cumulative Impacts

No Project Alternative

Land uses would remain in their existing conditions. No improvements to mobility along Wilshire Boulevard would occur under this alternative.

No cumulatively adverse effects to surrounding land uses or to local land use plans or policies would result from the No Project Alternative.

Proposed Action

No adverse cumulative impacts to local land use plans or policies are anticipated to occur under the proposed action. The proposed action would facilitate improved mobility along Wilshire Boulevard. A series of general improvements would be made to Wilshire Boulevard. These would include the conversion of existing curb lanes to bus lanes and the upgrading of the existing transit signal priority system. These project elements would not require major construction work. The proposed action would not result in conflicts with any applicable land use plan, policy, or regulation. In addition, the proposed action would not result in any land use compatibility conflicts, which could have the potential to result in significant adverse changes to the existing land use pattern.

No cumulatively adverse effects to surrounding land uses or to local land use plans or policies would result from the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, no adverse cumulative impacts to local land use plans or policies would occur under Alternative A. This alternative would

facilitate improved mobility along Wilshire Boulevard. A series of general improvements would be made to Wilshire Boulevard. These would include the conversion of existing curb lanes to bus lanes and the upgrading of the existing transit signal priority system. These project elements would not require major construction work. This alternative would not result in conflicts with any applicable land use plan, policy, or regulation. In addition, the alternative would not result in any adverse cumulative land use compatibility conflicts, which could have the potential to result in significant adverse changes to the existing land use pattern.

No cumulatively adverse effects to surrounding land uses or to local land use plans or policies would result from Alternative A.

7.2.2 Traffic and Parking

Affected Environment

Most daily travel (in terms of VMT) in the study area occurs on surface streets. The project corridor is within the jurisdictions of the City of Los Angeles, the County of Los Angeles, and the City of Beverly Hills. Roadways in these jurisdictions have functional classifications that include Major Highway, Secondary Highway, Collector Street, and Local Street.

Wilshire Boulevard is a Major Highway (Class II) with three lanes in each direction in most areas. In the Westwood area between I-405 and Glendon Avenue, Wilshire Boulevard has four lanes in each direction. In the Westlake area east of Park View Street, Wilshire Boulevard has two lanes in each direction. Within the City of Los Angeles, on-street parking is permitted on both sides of the street except during peak periods (7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 7:00 p.m.) in most areas along Wilshire Boulevard. A brief description of other streets and roadways in the project area, including, but not limited to, Santa Monica Boulevard, Olympic Boulevard, Alvarado Street, Crenshaw Boulevard, Beverly Glen Boulevard, Sepulveda Boulevard, I-405, is presented in Section 4.1 of this document and in the traffic report prepared by Iteris in March 2010 (Appendix B).

Impacts

No Project Alternative

No construction activities or change in operational conditions would occur within the Wilshire corridor. Therefore, the No Project Alternative would not result in an adverse effect related to traffic.

No adverse effects related to traffic impacts would occur.

Proposed Action

Traffic

The proposed action generally consists of converting the existing eastbound and westbound curb lanes along Wilshire Boulevard to weekday peak-period bus lanes, thus restricting these lanes to buses and right-turning vehicles only, within the Los Angeles City limits from Valencia Street on the east to Centinela Avenue on the west, as well as within Los Angeles County limits from Veteran Avenue on the east to Federal Avenue on the west, excluding the City of Beverly Hills. The bus lane is expected to begin operations in 2012; therefore, the year 2012 was chosen to represent opening year conditions. Traffic volume forecasts for year 2012 and 2020 conditions (without project and with project scenarios) were based upon the results of the SCAG 2008 RTP travel demand model.

The proposed action would result in unacceptable levels of service and exceed local criteria for determining traffic impacts as a result of increased delays at 18 of 74 studied intersections in 2012 and 19 of 74 intersections in 2020. Most of the delays would be 15 seconds or less, but because the intersections are already operating at unacceptable levels of service, the established local threshold is very low and triggers a significant local impact resulting from delays as low as 2.5 seconds (see Section 4.1 or Appendix B). The proposed action would include **Mitigation Measure T-1** in order to reduce or avoid these impacts. After mitigation, unavoidable impacts would remain at 8 of 74 intersections in 2012 and 9 of 74 intersections in 2020. However, delays of over 15 seconds would occur at only 3 of the 74 intersections in 2012 and at only 2 of 74 intersections in 2020.

Beyond the Wilshire corridor, the proposed action would be expected to result in a beneficial effect on traffic in the metropolitan Los Angeles, particularly within the Mid-City and Westside areas, through the increased efficiency and public utilization of the Wilshire BRT system. Therefore, despite any localized traffic impacts discussed above, within the larger context of the Wilshire corridor and the City of Los Angeles, the proposed action would not have an adverse effect on traffic and circulation.

No adverse effects related to traffic impacts would occur under the proposed action.

Parking

The proposed action would result in the removal of approximately 11 parking spaces between Valencia Street and Fairfax Avenue ((a distance of approximately 5.5 miles) to accommodate larger or relocated bus stops for facilitating bus movements in and out of stops. The removed parking spaces would be spread throughout this segment of the project, with no more than three spaces being removed on any single block. The removed parking spaces would have a small effect on parking supply to serve local businesses during off-peak hours. During peak periods, parking is prohibited under current conditions; as such, the removal of these parking spaces would not affect parking supply at all.

In addition to the 11 parking spaces discussed above, under the proposed action, parking in approximately 85 existing on-street parking spaces between Selby Avenue and Comstock Avenue would be prohibited during peak hours. As a result, guests of certain residents may be required to either park in spaces on adjacent streets within a preferential parking district or use off-street visitor parking spaces. However, a project's potential impact on parking supply is considered a *social* impact, not an environmental impact. Therefore, the removal or restriction of parking spaces on Wilshire Boulevard would not result in adverse effects related to parking.

No adverse effects related to parking would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Traffic

Similar to the proposed action, Alternative A would involve improvements to the Wilshire BRT system. Alternative A would not include the removal of jut-outs between Malcolm Avenue and Comstock Avenue and include an additional 1.8 miles of curb lane reconstruction/resurfacing.

Alternative A would result in unacceptable levels of service and exceed local criteria for determining traffic impacts as a result of increased delays at 15 of 74 studied intersections in 2012 and 14 of 74 intersections in 2020. Similar to the proposed action, most of the delays would be 15 seconds or less, but because the intersections are already operating at unacceptable levels of service, the established local threshold is very low and triggers a significant local impact resulting from delays as low as 2.5 seconds (see Section 4.1 or Appendix B). Accordingly, Alternative A would include **Mitigation Measure T-1**, in order to reduce or avoid these impacts. After mitigation, unavoidable impacts would occur at 8 of 74 intersections in 2012, and 5 of 74 intersections in 2020. However, delays of over 15 seconds would occur at only 2 of the 74 intersections in 2012 and 2020.

Beyond the Wilshire corridor, Alternative A would be expected to result in a beneficial effect on traffic in the metropolitan Los Angeles, particularly within the Mid-City and Westside areas, through the increased efficiency and public utilization of the Wilshire BRT system. Therefore, despite localized traffic impacts, within the larger context of the Wilshire corridor and the City of Los Angeles, Alternative A would not have an adverse effect on traffic and circulation.

No adverse effects related to traffic impacts would occur under Alternative A.

Parking

Similar to the proposed action, Alternative A would result in the removal of approximately 11 parking spaces between S. Park View Street and Fairfax Avenue (a distance of approximately 4.8 miles) to accommodate larger or relocated bus stops for facilitating bus movements in and out of stops. The removed parking spaces would be spread throughout this segment of the project, with no more than three spaces being removed on any single block. The removed parking spaces would have a small effect on parking supply to

serve local businesses during off-peak hours. During peak periods, parking is prohibited under current conditions; as such, the removal of these parking spaces would not affect parking supply at all.

Under Alternative A, parking supply would be unchanged between Comstock Avenue and Malcolm Avenue since jut-outs in this area would be retained. Therefore, no impact on parking would occur in this area.

No adverse effects related to parking would occur under Alternative A.

Measures to Minimize Harm

No Project Alternative

No adverse effects on traffic and parking would occur under the No Project Alternative; therefore, no mitigation is necessary.

Proposed Action

Although no adverse effects related to regional traffic impacts would occur under the proposed action, as discussed in the Traffic Study and in Section 4.1, **Mitigation Measure T-1** would be implemented in order to avoid or reduce some of the expected localized traffic impacts. No adverse effects on parking would occur.

Alternative A – Truncated Project Without Jut-Out Removal

Although no adverse effects related to regional traffic impacts would occur under Alternative A, as discussed in the Traffic Study, and in Section 4.1, **Mitigation Measure T-1** would be implemented in order to avoid or reduce some of the expected localized traffic impacts. No adverse effects on parking would occur.

Cumulative Impacts

No Project Alternative

No adverse effects on traffic and parking would occur under the No Project Alternative; therefore, no cumulatively adverse effects would be expected to occur. The No Project Alternative would neither directly affect nor contribute to a cumulative impact on regional traffic circulation and parking nor result in any possible beneficial cumulative effect.

No adverse effects would occur, and, therefore, no cumulatively adverse effects would occur.

Proposed Action

The RTP PEIR indicates that the region is expected to grow in both population and vehicle miles traveled (VMT). Development and redevelopment would result in increased traffic congestion, including along Wilshire Boulevard. The proposed action would improve the efficiency of existing transit services, which would expand regional transportation choices. The proposed action is aimed at improving regional quality of life and overall mobility. The proposed action may assist in the reduction in VMT due to the increased use of transit associated with the shift from automobile use to public transit by continuing to attract new transit riders through improved bus travel times and service reliability. Therefore, the proposed action would not result in an adverse cumulative effect on regional traffic circulation.

In terms of impacts of the proposed action on local traffic circulation, the proposed action would result in significant and unavoidable impacts related to the exceedance of LOS criteria for multiple intersections in both years 2012 and 2020, as discussed above. However, these impacts would not be considered adverse under NEPA as they are localized impacts and do not constitute a regionally substantial adverse effect. Furthermore, **Mitigation Measure T-1** would be implemented in order to avoid or reduce these localized impacts. Therefore, in consideration of the cumulatively beneficial effects that would result from the operation of the proposed action, the cumulative effect of the localized traffic impacts would be not be considered adverse under NEPA.

No adverse effects related to parking would occur individually or cumulatively.

The proposed action would result in regionally beneficial cumulative effects on traffic circulation, despite localized traffic impacts. No cumulative adverse effects would occur.

Alternative A – Truncated Project Without Jut-Out Removal

As discussed for the proposed action, the RTP PEIR indicates that the region is expected to grow in both population and vehicle miles traveled (VMT). Development and redevelopment would result in increased traffic congestion, including along Wilshire Boulevard. As with the proposed action, Alternative A would improve the efficiency of existing transit services, which would expand regional transportation choices.

However, in terms of impacts of Alternative A on local traffic circulation, Alternative A would result in significant and unavoidable impacts related to the exceedance of LOS criteria for multiple intersections in both years 2012 and 2020, as discussed above. However, these impacts would not be considered adverse under NEPA as they are localized impacts and do not constitute a regionally substantial adverse effect. Furthermore, **Mitigation Measure T-1** would be implemented in order to avoid or reduce these localized impacts. Therefore, in consideration of the cumulatively beneficial effect that would result from the operation of Alternative A, the cumulative

effect of the localized traffic impacts would not be considered adverse under NEPA.

No adverse effects related to parking would occur individually or cumulatively.

Alternative A would result in regionally beneficial cumulative impacts on traffic circulation, despite localized traffic impacts. No cumulative adverse effects would occur.

7.2.3 Air Quality

Affected Environment

As discussed in the Air Quality Assessment Report (Appendix C), the South Coast Air Quality Management District (SCAQMD) has jurisdiction over an area of approximately 10,743 square miles. This area includes all of Orange County, all of Los Angeles County except for the Antelope Valley, the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County.

The project corridor is located within the South Coast Air Basin (Basin), an approximately 6,745-square-mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The terrain and geographical location determine the distinctive climate of the Basin, which is a coastal plain with connecting broad valleys and low hills. The Basin is a subregion of the SCAQMD jurisdiction. While air quality in this area has improved, the Basin requires continued diligence to meet air quality standards.

The SCAQMD has divided the Basin into air monitoring areas and maintains a network of air quality monitoring stations located throughout the Basin. The project corridor's eastern half is located in the Central Los Angeles County Monitoring Area (i.e., Source Receptor Area [SRA] Number 1), while the western half is located in the Northwest Los Angeles County Coastal Monitoring Area (SRA 2). The nearest monitoring stations to the project corridor are the Los Angeles – North Main Street station to the east and the West Los Angeles – VA Hospital station near the western portion of the project corridor. The North Main Street station monitors O₃, PM₁₀, and PM_{2.5}, while the VA Hospital station monitors only O₃.

The Air Quality Assessment Report discusses the following pollutant trends: both State 1-hour and 8-hour O₃ standards were exceeded an average of four times each year at both stations. Particulate (PM₁₀ and PM_{2.5}) concentrations are largely affected by meteorology and show some variability during the 3-year reporting period. The State 24-hour PM₁₀ standard was exceeded three times in 2006, five times in 2007, and twice in 2008, while the national standard was not exceeded during the 3-year reporting period. The national PM_{2.5} standard was exceeded 11 times in 2006, 20 times in 2007, and 10 times in 2008.

According to the most current SCAQMD inhalation cancer risk data, the project corridor is located within a cancer risk zone of approximately 800 to 1,100 in one million.¹³² This is largely due to the project area's proximity to I-10 that is located just south of the project corridor. In addition, the I-405 freeway, which runs perpendicular to the project corridor in West Los Angeles, also contributes to the project area's baseline cancer risk. For comparison, the average cancer risk in the Basin at large is 1,194 per million.

Some population groups, such as children, the elderly, and acutely and chronically ill persons, especially those with cardio-respiratory diseases, are considered more sensitive to air pollution than others. Sensitive receptors within the project vicinity include multi-family residential land uses and schools located along the alignment.

Impacts

No Project Alternative

No construction activities or change in operational conditions would occur within the Wilshire corridor. Therefore, the No Project Alternative would not result in an adverse effect related to air quality impacts.

No adverse effects related to air quality impacts would occur.

Proposed Action

Criteria Pollutants

As detailed in the Air Quality Assessment Report, during project operation, traffic congestion would be the greatest potential contributor to criteria pollutants, particularly carbon monoxide (CO). However, adverse effects in the form of CO hotspots would not occur at the intersections with the highest traffic volumes located adjacent to sensitive receptors. Therefore, no adverse effects are anticipated to occur at any other locations in the study area because the conditions yielding CO hotspots would not be worse than those concentrations occurring at the analyzed intersections. Consequently, the sensitive receptors that are included in this analysis would not be adversely affected by CO emissions generated by the net increase in traffic that would occur under the proposed action. The proposed action would not cause an exceedance or exacerbate an existing exceedance of federal or state ambient air quality standards. Therefore, localized operational air quality impacts related to criteria pollutants, would not be considered substantially adverse.

Toxic Air Contaminants

The proposed action would likely have a beneficial effect on air quality by increasing public transit operational efficiency for the Wilshire BRT system. The proposed action would be expected to reduce air pollutant emissions by encouraging more commuters to leave their cars and ride the CNG powered buses.

¹³² South Coast Air Quality Management District, MATES III Carcinogenic Risk Interactive Map, available: <http://www2.aqmd.gov/webappl/matesiii/>, accessed July 25, 2008.

Regarding potential TAC emissions associated with the buildout and long-term operation of the proposed action, SCAQMD recommends that a health risk assessment (HRA) be conducted for projects that emit substantial diesel particulate emissions (e.g., truck stops and warehouse distribution facilities) or certain industrial projects that result in the emitting of acute and/or chronically hazardous TAC pollutants. Since the proposed action would operate CNG buses rather than diesel buses and would not result in the emission of acute and/or chronically hazardous TAC pollutants, an air toxics HRA is not warranted. Potential project-generated air toxic impacts on surrounding land uses would not be considered substantially adverse.

Operation of the proposed action would not result in a substantial adverse effect related to criteria pollutants or toxic air contaminants.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, Alternative A would not result in substantial adverse effects related to criteria pollutant emissions or toxic air contaminants. Similar to the proposed action, adverse effects would not occur at the intersections with the highest traffic volumes located adjacent to sensitive receptors. Therefore, no substantial adverse effects are anticipated to occur at any other locations in the study area because the conditions yielding CO hotspots would not be worse than those concentrations occurring at the analyzed intersections.

Regarding TACs, as with the proposed action, Alternative A would operate CNG buses rather than diesel buses and would not result in the emission of acute and/or chronically hazardous TAC pollutants. No substantial adverse effects related to toxic air contaminant impacts on surrounding land uses would occur.

Operation of Alternative A would not result in a substantial adverse effect related to criteria pollutants or toxic air contaminants.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur; therefore, no mitigation measures would be required.

Proposed Action

No substantial adverse effects would occur. Therefore, no mitigation measures would be required.

Alternative A – Truncated Project Without Jut-Out Removal

No substantial adverse effects would occur. Therefore, no mitigation measures would be required.

Cumulative Impacts

No Project Alternative

No construction activities or change in operational conditions would occur along the project corridor. Therefore no adverse effects would occur, and no cumulative impacts would result.

No adverse effects would occur, and, therefore, no cumulatively adverse effects would occur.

Proposed Action

The SCAQMD's approach for assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the federal and State Clean Air Acts. As previously discussed, the proposed action would be consistent with the AQMP, which is intended to bring the Basin into attainment for all criteria pollutants.

In addition, the mass regional emissions calculated for the proposed action (regional construction emissions) would not exceed applicable SCAQMD daily significance thresholds, which are designed to assist the region in attaining the applicable state and national ambient air quality standards. The proposed action would comply with the SCAQMD's Rule 403 (fugitive dust control) during construction, as well as all other adopted AQMP emissions control measures. Per SCAQMD rules and mandates, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on all projects Basin-wide, which would include all related projects. As such, cumulative impacts with respect to criteria pollutant emissions would be less than significant.

Cumulatively adverse effects would not occur related to criteria pollutant emissions under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, Alternative A would be consistent with the AQMP due to similar or lesser impacts than the proposed action. Therefore, cumulatively adverse effects related to criteria pollutant emissions would not occur.

Cumulatively adverse effects would not occur related to criteria pollutant emissions under Alternative A.

7.2.4 Metropolitan Planning and Air Quality Conformity

Affected Environment

The project corridor is located in the South Coast Air Basin (Basin). The South Coast Air Quality Management District (SCAQMD) is required, pursuant to the Federal Clean Air Act (CAA), to reduce emissions of criteria pollutants for which the Basin is in non-attainment (i.e., O₃, PM₁₀, and PM_{2.5}). The proposed action would be subject to SCAQMD's AQMP. The AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. These strategies are developed, in part, based on regional population, housing, and employment projections prepared by SCAG.

Impacts

No Project Alternative

No construction activities would occur related to the proposed action, and no change or improvement in operational conditions along the Wilshire corridor would occur. Therefore, the No Project Alternative would not result in an adverse effect related to metropolitan planning or air quality conformity.

No adverse effects related to planning or air quality conformity would result from the No Project Alternative.

Proposed Action

The proposed project is included in the Southern California Association of Governments (SCAG) Final 2008 Regional Transportation Plan (RTP) and SCAG Final Adopted 2008 Regional Transportation Improvement Program (RTIP) including Amendment 1-32, under project identification number LA29202W. The Final 2008 RTP and Final 2008 RTIP were found to be conforming by Federal Highway Administration (FHWA) on June 6, 2008 and November 17, 2008, respectively. The project design concept and scope as described in this Air Quality Report is consistent with the project description in the currently conforming RTP and RTIP. As such, the project's operational emissions, which include the ozone (O₃) precursors reactive organic gases (ROG) and nitrogen oxides (NO_x), meet regional transportation conformity determination requirements imposed by the U.S. Environmental Protection Agency (EPA). In addition, the project qualifies for an exemption from the requirement to determine conformity per 23 CFR 93.126. As such, the project does not require a project-level conformity analysis..

No adverse effects related to planning or air quality conformity would result from the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, Alternative A qualifies for an exemption from the requirement to determine conformity per 23 CFR 93.126. As such, the project does not require a project-level conformity analysis.

No adverse effects related to planning or air quality conformity would result from Alternative A.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no mitigation measures are necessary.

Proposed Action

No adverse effects would occur related to planning or air quality conformity under the proposed action. Therefore, no mitigation measures are necessary.

However, the SCAQMD is required, pursuant to the Clean Air Act, to reduce emissions of criteria pollutants for which the Basin is in non-attainment (i.e., O₃, PM₁₀, and PM_{2.5}). The proposed action would be subject to the SCAQMD's AQMP. The AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. These strategies are developed, in part, based on regional population, housing, and employment projections prepared by SCAG.

Furthermore, as standard practice for all LACMTA projects, the proposed action would comply with SCAQMD rules, including Rule 403 (Fugitive Dust), which would minimize fugitive dust emissions during construction.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, no adverse effects would occur related to planning or air quality conformity under the proposed action. Therefore, no mitigation measures are necessary.

As with the propose action, Alternative A would similarly conform to all required SCAQMDs pollution control strategies.

Cumulative Impacts

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no cumulative adverse effects would occur.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

No adverse effects related to metropolitan planning or air quality conformity would occur under the proposed action; therefore, no cumulative adverse effects would occur.

No cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, no adverse effects related to metropolitan planning or air quality conformity would occur under this alternative. Alternative A would involve a smaller project area and, therefore, would result in lower potential for air quality impacts. No adverse effects would be anticipated.

No cumulatively adverse effects would occur under Alternative A.

7.2.5 Carbon Monoxide Hot Spots

Affected Environment

As discussed in the Air Quality Assessment Report (Appendix C), within an urban setting, vehicle exhaust is the primary source of CO. Consequently, the highest CO concentrations are generally found close to congested intersections. Under typical meteorological conditions, CO concentrations tend to decrease as the distance from the emissions source (i.e., congested intersection) increases. For purposes of providing a conservative worst-case impact analysis, CO concentrations are typically analyzed at congested intersection locations. If impacts are less than significant close to congested intersections, impacts will also be less than significant at more distant sensitive-receptor locations. The Air Quality Assessment Report, in conjunction with the Traffic Impact Assessment, analyzed 74 key intersection locations along routes that accommodate much of the traffic traveling within the project area.

Impacts

No Project Alternative

No change or improvement in operational conditions along the Wilshire corridor would occur. Therefore, the No Project Alternative would not result in an adverse effect related to carbon monoxide hotspots.

No adverse effects related to carbon monoxide hotspots would result from the No Project Alternative.

Proposed Action

Traffic generated during the operational phase of the proposed action would have the potential to create local area CO impacts. To ascertain the proposed action's potential to generate localized air quality impacts, the Traffic Impact Assessment prepared for the project was reviewed to determine the potential for the creation of localized carbon monoxide (CO) hot spots at congested intersection locations. The SCAQMD recommends a hot spot evaluation of potential localized CO impacts when vehicle to capacity (V/C) ratios are increased by two percent or more at intersections with a level of service (LOS) of C or worse.

According to the Air Quality Assessment Report, of the 74 key intersection locations analyzed for the year 2012, 38 intersections could potentially create a localized CO hot spot with the proposed project. For the year 2020, it was concluded that 43 intersections could potentially create a localized CO hot spot with the proposed project.¹³³

Local area CO concentrations were projected using the CALINE 4 traffic pollutant dispersion model. The analysis of CO impacts followed the protocol recommended by the California Department of Transportation, published as *Transportation Project-Level Carbon Monoxide Protocol*, December 1997. It is also consistent with procedures identified through the SCAQMD's CO modeling protocol, with all four corners of each intersection analyzed to determine whether project development would result in a CO concentration that exceeds federal or state CO standards.

The proposed action's CO concentrations for a.m. and p.m. 1- and 8-hour CO levels for project build-out year 2012, and horizon year 2020 are presented in Tables 4.2-6 and 4.2-7, respectively (see Section 4.2). As shown therein, the proposed action would not have a substantial adverse effect on 1-hour or 8-hour local CO concentrations due to mobile source emissions.

Adverse effects would not occur at the intersections with the highest traffic volumes located adjacent to sensitive receptors. Therefore, no adverse effects are anticipated to occur at any other locations in the study area because the

¹³³ Based on SCAQMD-recommended screening criteria, any intersection that 1) operates at LOS C or worse, and 2) would experience an increase in peak-hour volume to capacity ratio of 2% or more as a result of project-related traffic, should be evaluated for potential to create a localized CO hotspot.

conditions yielding CO hotspots would not be worse than those concentrations occurring at the analyzed intersections. Consequently, the sensitive receptors that are included in this analysis would not be adversely affected by CO emissions generated by the net increase in traffic that would occur under the proposed action. The proposed action would not cause an exceedance or exacerbate an existing exceedance of a federal or state ambient air quality standards. Therefore, localized operational air quality impacts related to criteria pollutants, would not be considered substantially adverse.

No substantial adverse effect related to carbon monoxide hotspots would occur for any of the study area intersection locations under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, traffic generated during the operational phase of this alternative would have the potential to create local area CO impacts. According the Air Quality Assessment Report, of the 74 key intersection locations analyzed for the year 2012, 36 intersections could potentially create a localized CO hot spot under Alternative A. For the year 2020, it was concluded that 37 intersections could potentially create a localized CO hot spot under Alternative A.¹³⁴

As discussed for the proposed action above, under Alternative A, CO concentrations for a.m. and p.m. 1- and 8-hour CO levels for project build-out year 2012, and horizon year 2020 are presented in Tables 5-9 and 5-10, respectively (see Section 5.2.2). As shown therein, Alternative A would not have a substantial adverse effect on 1-hour or 8-hour local CO concentrations due to mobile source emissions. Similar to the proposed action, adverse effects would not occur at the intersections with the highest traffic volumes located adjacent to sensitive receptors. Therefore, no substantial adverse effects are anticipated to occur at any other locations in the study area because the conditions yielding CO hotspots would not be worse than those concentrations occurring at the analyzed intersections.

No substantial adverse effect related to carbon monoxide hotspots would occur for any of the study area intersection locations under Alternative A.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no mitigation measures are necessary.

¹³⁴ Based on SCAQMD-recommended screening criteria, any intersection that 1) operates at LOS C or worse, and 2) would experience an increase in peak-hour volume to capacity ratio of 2% or more as a result of project-related traffic, should be evaluated for potential to create a localized CO hotspot.

Proposed Action

No substantial adverse effect would occur related to carbon monoxide hotspots under the proposed action. Therefore, no mitigation measures are necessary.

Alternative A – Truncated Project Without Jut-Out Removal

No substantial adverse effect would occur related to carbon monoxide hotspots under Alternative A. Therefore, no mitigation measures are necessary.

Cumulative Impacts

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no cumulatively adverse effects would occur.

Cumulatively adverse effects would not occur related to carbon monoxide hotspots under the No Project Alternative.

Proposed Action

No substantial adverse effect would occur related to carbon monoxide hotspots under the proposed action. The sensitive receptors that are included in this analysis would not be adversely affected by CO emissions generated by the net increase in traffic that would occur under the proposed action, as shown in Tables 4.2-6 and 4.2-7 in Section 4.2 of this document. Therefore, no cumulatively adverse effects would be likely.

Per SCAQMD rules and mandates, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on all projects Basin-wide, which would include all related projects. As such, cumulative impacts with respect to carbon monoxide hotspots would not be considered adverse.

Cumulatively adverse effects would not occur related to carbon monoxide hotspots under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

No substantial adverse effect would occur related to carbon monoxide hotspots under this alternative. The sensitive receptors that are included in this analysis would not be adversely affected by CO emissions generated by the net increase in traffic that would occur under Alternative A, as shown in Tables 5-9 and 5-10 in Chapter 5 of this document. Therefore, no cumulatively adverse effects would be likely.

Cumulatively adverse effects would not occur related to carbon monoxide hotspots under Alternative A.

7.2.6 Greenhouse Gas Emissions

Affected Environment

Global climate change is caused by combined worldwide greenhouse gas (GHG) emissions, and mitigating global climate change will require worldwide solutions. GHGs play a critical role in the Earth's radiation budget by trapping infrared radiation emitted from the Earth's surface, which could have otherwise escaped to space. Prominent GHGs contributing to this process include water vapor, carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄), ozone (O₃), and certain hydro- and fluorocarbons. This phenomenon, known as the "greenhouse effect," keeps the Earth's atmosphere near the surface warmer than it would be otherwise and allows for successful habitation by humans and other forms of life. Increases in these gases lead to more absorption of radiation and warm the lower atmosphere further, thereby increasing evaporation rates and temperatures near the surface. Emissions of GHGs in excess of natural ambient concentrations are thought to be responsible for the enhancement of the greenhouse effect and to contribute to what is termed "global warming," a trend of unnatural warming of the Earth's natural climate. Climate change is a global problem, and GHGs are global pollutants, unlike criteria air pollutants (such as O₃ precursors) and TACs, which are pollutants of regional and local concern.

Impacts

No Project Alternative

No construction activities or changes in operational conditions along the Wilshire corridor would occur under the No Project Alternative; therefore, no adverse effect would occur related to GHGs.

No adverse effect related to GHG emissions would occur under the No Project Alternative.

Proposed Action

As detailed in the Air Quality Assessment Report (Appendix C), the proposed action's contribution to GHG emissions during short-term construction activities is estimated to be 62 metric tons. In an effort to put this number into perspective, statewide carbon dioxide equivalent (CO₂e) emissions for year 2006 were estimated to be 479.8 million metric tons. The proposed action's amount of emissions, without considering other cumulative global emissions, would be insufficient to cause substantial climate change directly. Thus, project emissions, in isolation, are not considered adverse. However, climate change is a global cumulative impact, and the proper context for

analysis of this issue is not a project's emissions in isolation, but rather as a contribution to cumulative GHG emissions.

During operation of the proposed action, it would be expected that a beneficial impact on GHG emissions would occur due to decreased traffic congestion along the Wilshire corridor, increased efficiency and use of the CNG-fueled Wilshire BRT, and decreased personal vehicle VMTs.

No substantial adverse effect related to GHG emissions would result under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Alternative A would have similar or lesser GHG emissions from construction activities, due to the smaller extent of proposed improvements and construction activities under Alternative A. Similar to the proposed action, Alternative A would also be expected to result in a beneficial impact on GHG emissions due to decreased traffic congestion along the Wilshire corridor, increased efficiency and use of the CNG-fueled Wilshire BRT, and decreased personal vehicle VMTs. Nevertheless, mitigation measures to reduce project-related GHG emissions by the greatest extent feasible are prescribed below.

No substantial adverse effect related to GHG emissions would result under the proposed action.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no mitigation measures are necessary.

Proposed Action

The proposed action would reduce GHG emissions, compared with existing conditions, by improving traffic circulation and relieving local congestion. Implementation of the prescribed mitigation measures during construction (**Mitigation Measures AQ-1** through **AQ-4** described in detail in Section 4,2) would further reduce the proposed action's GHG emissions.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action described above, Alternative A would reduce GHG emissions, compared with existing conditions, by improving traffic circulation and relieving local congestion. Implementation of the prescribed mitigation measures during construction (**Mitigation Measures AQ-1** through **AQ-4** described in detail in Section 4,2) would further reduce the GHG emissions generated by Alternative A.

Cumulative Impacts

No Project Alternative

No construction activities or changes in operational conditions along the Wilshire corridor would occur under the No Project Alternative; therefore, no adverse cumulative effect would occur related to GHGs.

No cumulative adverse effect related to GHG emissions would occur under the No Project Alternative.

Proposed Action

Because quantitative GHG guidelines, including relevant thresholds, have not been developed by the SCAQMD, emissions estimate provided by the Air Quality Assessment Report (Appendix C) are provided for information purposes only. According to a recent white paper by the Association of Environmental Professionals, “an individual project does not generate enough GHG emissions to significantly influence global climate change. Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHG emissions.” Project-related impacts are not expected to be adverse because climate change would not occur directly from project emissions. Nevertheless, implementation of the prescribed mitigation measures during construction (**Mitigation Measures AQ-1** through **AQ-4** described in detail in Section 4.2) would further reduce the proposed action’s GHG emissions contribution.

No substantial cumulative adverse effect related to GHG emissions would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed project, Alternative A would not result in a substantial adverse effect related to GHG emissions or global climate change. However, global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHG emissions.” Impacts resulting from Alternative A are not expected to be adverse because climate change would not occur directly from project emissions. Nevertheless, implementation of the prescribed mitigation measures during construction (**Mitigation Measures AQ-1** through **AQ-4** described in detail in Section 4.2) would further reduce the GHG emissions contribution generated by Alternative A.

No substantial cumulative adverse effect related to GHG emissions would occur under Alternative A.

7.2.7 Historic, Archaeological, and Paleontological Resources

This section summarizes cultural resources present within the project area, evaluates the potential project-related impacts to these resources, and provides mitigation measures, as applicable. The information provided herein is based upon the results and recommendations from reports prepared by ICF, Historic Resources Technical Report for the Wilshire Bus Rapid Transit Project and the Archaeological Survey Report for the Wilshire Bus Rapid Transit Project, both of which were prepared in January 2010 for the Los Angeles County Metropolitan Transportation Authority (LACMTA). The ICF reports are included in their entirety in Appendices D and E of this environmental document. The survey study of cultural resources was conducted under the provisions of Section 106 of the National Historic Preservation Act (NHPA).

National Historic Preservation Act of 1966 – Section 106

Enacted in 1966 and amended in 2000, the National Historic Preservation Act (NHPA) declared a national policy of historic preservation and instituted a multifaceted program, administered by the Secretary of the Interior, to encourage the achievement of preservation goals at the federal, state, and local levels. The NHPA authorized the expansion and maintenance of the National Register of Historic Places, established the position of State Historic Preservation Officer (SHPO), and provided for the designation of State Review Boards, set up a mechanism to certify local governments to carry out the purposes of the NHPA, assisted Native American tribes to preserve their cultural heritage, and created the Advisory Council on Historic Preservation (ACHP).

Section 106 of the NHPA states that federal agencies with direct and indirect jurisdiction over federally funded, assisted, or licensed undertakings (projects) must take into account the effect of the undertaking on any historic property that is included in, or is eligible for inclusion in, the NRHP and that the ACHP must be afforded an opportunity to comment through a process outlined in the ACHP regulations in 36 Code of Federal Regulations (CFR) Part 800, on such undertakings. For the proposed action, there is Federal involvement; therefore, the Section 106 compliance is required as part of the environmental review process.

Affected Environment

Historic Resources

An Architectural Resources Technical Report (ARTR) for the Wilshire BRT Project was prepared in January 2010 to fulfill the requirements of the Section 106 review of the proposed action (Appendix D). As part of the ARTR, a records search and Cultural Resources Survey were completed for the project area. As a result of consultation with the California State Historic

Preservation Officer (SHPO) in April 2008, for the purposes of the historic resources survey, only those areas where changes would occur to curbs and sidewalks were included in the Area of Potential Effect (APE)(included in Appendix C of the ARTR). This area is bounded by Comstock Avenue to the east and Malcolm Avenue to the west and continues between Bonsall Avenue to the east to Barrington Avenue to the west, extending one parcel on each side of Wilshire Boulevard, excluding the north side of Wilshire between Bonsall Avenue and Federal Avenue.¹³⁵

National, state, and local inventories of architectural and historic resources were reviewed to determine the location of previously documented historic and architectural resources proximate to the project corridor. These included standard sources of information, such as the National Register of Historic Places (National Register) and the California Register of Historical Resources (California Register).

The Cultural Resources Survey identified 21 architectural resources in the APE that required application of the National Register Criteria for Evaluation. Of the 21 resources, 6 were determined eligible for listing on the National Register during the current survey process, as shown in Table 7-1. These properties consist of 1250 Federal Avenue, 10375 Wilshire Boulevard, 10401 Wilshire Boulevard, 10416 Wilshire Boulevard, 10497 Wilshire Boulevard, and 10822 Wilshire Boulevard. These properties were found to be eligible for the National Register under Criterion C at a local level of significance. In addition, two previously recorded historic properties are located in the APE, Chateau Colline at 10335 Wilshire Boulevard, which was listed in the National Register on May 22, 2003, and the Veterans Administration (VA) Medical Center, which was determined eligible for the National Register as a historic district on November 11, 1980. As a result, both of these properties are also listed on the California Register.

Archaeological Resources

An Archaeological Survey Report (ASR) for the Wilshire BRT Project was conducted to determine whether prehistoric or historic resources are present along the Wilshire corridor (Appendix E). As part of the ASR, a records search was conducted at the South Central Coastal Information Center at California State University, Fullerton. This search determined that portions of the project corridor have been surveyed previously, and a total of 81 cultural resource sites, which include prehistoric sites, historic sites, and structures, have been recorded within the boundaries of the project route. The Native American Heritage Commission (NAHC) was also contacted. Subsequently, the NAHC provided a list of five Native American contacts in Los Angeles County. Letters describing the proposed action and indicating the project location were sent to the five Native American contacts.

¹³⁵ The APE does not include the north side of Wilshire Boulevard between Bonsall Avenue and Federal Avenue; therefore, the Veterans Administration land that includes the Wadsworth Theater and Chapel were not surveyed.

Table 7-1: Properties Listed in or Determined Eligible for Listing in the National Register of Historic Places

Property Name	Address/Location	Listed in the National Register?	Details
1. Chateau Colline	10335 Wilshire Bl.	Yes	Recorded as National Register item #03000426 on May 22, 2003.
2. Wilshire Terrace Luxury Apartments	10375 Wilshire Bl.	Potentially Eligible	Potentially eligible for the National Register under Criterion C at a local level of significance (pending State Historic Preservation Officer [SHPO] consultation).
3. 10401 Wilshire Apartments	10401 Wilshire Bl.	Potentially Eligible	Potentially eligible for the National Register under Criterion C at a local level of significance (pending SHPO consultation).
4. Sinai Temple	10416 Wilshire Bl.	Potentially Eligible	Potentially eligible for the National Register under Criterion C at a local level of significance (pending SHPO consultation).
5. Westwood United Methodist Church	10497 Wilshire Bl.	Potentially Eligible	Potentially eligible for the National Register under Criterion C at a local level of significance (pending SHPO consultation).
6. Westwood Presbyterian Church	10822 Wilshire Bl.	Potentially Eligible	Potentially eligible for the National Register under Criterion C at a local level of significance (pending SHPO consultation).
7. Veterans Administration Medical Center	11301 Wilshire Bl.	Yes	Determined eligible for the National Register as a historic district on November 11, 1980. It is recorded as National Register item #65001079
8. U.S. Army Reserve Center/Sadao Munemori Hall	1250 Federal Ave.	Potentially Eligible	Potentially eligible for the National Register under Criterion C at a local level of significance (pending SHPO consultation).

Source: ICF, 2010; National Register, 2010.

An archaeological field survey of the project corridor was conducted in October 2008. The archaeological field survey did not result in the identification of any superficial prehistoric or historic archaeological sites or features. However, there are three pre-recorded sites located in the areas where construction-related activities are proposed. One of these sites is the La Brea Tar Pits. Even though the project corridor is heavily urbanized, buried cultural resources have been identified during previous construction ground-disturbing activities in proximity to the project corridor. Consequently, there is the potential for buried cultural resource deposits to exist beneath previously disturbed and developed land surfaces.

Paleontological Resources

As part of the ASR (Appendix E), a paleontological assessment report and a Los Angeles County Museum of Natural History records search were completed, which identified the project corridor and vicinity as a highly sensitive paleontological area. Even though the proposed corridor is heavily

urbanized, buried cultural and paleontological resources have been identified in the vicinity of the project corridor. Therefore, there is the potential for buried cultural and paleontological deposits to exist beneath previously disturbed and developed land surfaces.

Impacts

No Project Alternative

Under the No Project Alternative, the project corridor would remain in its current state. As no construction would occur under the No Project Alternative, there would be no potential disturbance of historic or cultural resources.

No adverse effects would occur related to cultural resources under the No Project Alternative.

Proposed Action

Historic Resources

The proposed action would convert existing curb lanes on Wilshire Boulevard to bus and right-turn only operation in the peak periods on weekdays. To implement the proposed action, curb lanes would be repaired or reconstructed, where necessary, and restriped and signed as peak period bus lanes. In other areas, curbside bus lanes would be added as new lanes to Wilshire Boulevard by widening, jut-out removal, or restriping. Although eight buildings within the APE are historic properties under Section 106, the proposed action would not include structures or other elements that could adversely affect these resources. In addition, based on field observations and review of the proposed changes to the sidewalks adjacent to the eight historic properties, none of the characteristics that qualify those historic properties for inclusion in the National Register would be affected. As a result, there would be no adverse effects on historic resources.

Archaeological and Paleontological Resources

The bulk of the project involves activities such as sidewalk removal, pavement replacement, or restriping, which are not ground disturbing. For purposes of the proposed action, pavement replacement is not considered a ground-disturbing activity. In those instances where sidewalk widths would be reduced, roadway base or curb lanes reconstructed, or turn pockets altered, the projected depths of subsurface work are anticipated to be very shallow. Due to previous complications of encountering tar seepage during construction related activities in portions of the project corridor, the ground disturbance proposed for the project is not anticipated to go beyond two feet below the surface. Given that the shallowest depth where archaeological and paleontological resources may be encountered is six feet¹³⁶, it is anticipated that the proposed action would result in no direct or indirect impacts on

¹³⁶ ICF International, Archaeological Survey Report for the Wilshire Bus Rapid Transit Project Los Angeles, California, April 2010.

archaeological and paleontological resources. Therefore, there would be no adverse effects on archaeological and paleontological resources.

No adverse effects would occur related to cultural resources under the proposed action.

Alternative A – Truncated Project Without Jut-out Removal

Similar to the proposed action, this alternative would require construction activities, although within a smaller project area. However, as with the proposed action, the bulk of the project involves activities such as sidewalk removal, pavement replacement, or restriping, which are not ground disturbing. For purposes of the proposed action, pavement replacement is not considered a ground-disturbing activity. In those instances where sidewalk widths would be reduced or turn pockets altered, the projected depths of subsurface work are anticipated to be very shallow. Due to previous complications of encountering tar seepage during construction related activities in portions of the project corridor, the ground disturbance proposed for this alternative is not anticipated to go beyond two feet below the surface. Given that the shallowest depth where archaeological and paleontological resources may be encountered is six feet¹³⁷, it is anticipated that this alternative would result in no direct or indirect impacts on archaeological and paleontological resources. Therefore, there would be no adverse effects on archaeological and paleontological resources.

No adverse effects would occur related to cultural resources under Alternative A.

Measures to Minimize Harm

No Project Alternative

Under the No Project Alternative, the project corridor would remain in its current state, and no historic, archaeological, paleontological or other cultural resource impacts would occur. Therefore, no mitigation measures are required.

Proposed Action

Historic Resources

No effects on historic properties or historical resources were identified; therefore, no mitigation measures are required.

Archaeological and Paleontological Resources

The ICF survey did not result in the identification of any surficial prehistoric or historic archaeological sites or features. For purposes of this project, pavement replacement is not considered a ground-disturbing activity. In addition, due to previous complications of encountering tar seepage during

¹³⁷ *Ibid.*

construction related activities in this area, the proposed ground disturbance for this project is not anticipated to go beyond two feet below the surface. Therefore, no adverse effects related to archaeological or paleontological resources would be anticipated to occur, and no mitigation measures are required.

Alternative A – Truncated Project Without Jut-out Removal

Similar to the proposed action, no adverse effects related to archaeological or paleontological resources would be anticipated to occur, and no mitigation measures are required.

Cumulative Impacts

No Project Alternative

Under the No Project Alternative, the project corridor would remain in its current state, and no cultural resource impacts would occur.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

No historical resources were identified within the APE established for the project that would be adversely affected by the implementation of the new bus lanes. Therefore, the proposed action would not contribute to any cumulative impacts to historical resources in the proposed corridor.

Similarly, due to previous complications of encountering tar seepage during construction related activities in portions of the project corridor, the ground disturbance proposed for the project is not anticipated to go beyond two feet below the surface. Given that the shallowest depth where archaeological and paleontological resources may be encountered is six feet, it is anticipated that the proposed action would result in no direct or indirect impacts on archaeological and paleontological resources. Therefore, there would be no adverse effects on archaeological and paleontological resources. Accordingly, the proposed action would not contribute to any cumulative impacts to archaeological and paleontological resources in the proposed corridor.

No cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-out Removal

No historical resources were identified within the APE established for this alternative that would be adversely affected by the implementation of the new bus lanes. Therefore, this alternative would not contribute to any cumulative impacts to historical resources in the proposed corridor.

Similarly, due to previous complications of encountering tar seepage during construction related activities in portions of the project corridor, the ground disturbance proposed for this alternative is not anticipated to go beyond two feet below the surface. Given that the shallowest depth where archaeological and paleontological resources may be encountered is six feet, it is anticipated that this alternative would result in no direct or indirect impacts on archaeological and paleontological resources. Therefore, there would be no adverse effects on archaeological and paleontological resources. Accordingly, this alternative would not contribute to any cumulative impacts to archaeological and paleontological resources in the proposed corridor.

No cumulatively adverse effects would occur under Alternative A.

7.2.8 Visual Quality

Affected Environment

Wilshire Boulevard stretches from downtown Los Angeles to the City of Santa Monica and passes through or near many major activity centers and destinations and generally consists of low to high density commercial development, as well as both low and high density multi-family neighborhoods. Wilshire Boulevard contains a variety of architecture styles that contribute to the character of the project corridor. The existing visual characteristics of the project corridor are discussed in detail below.

Views and Vistas

The corridor contains significant far-off views of the Hollywood Hills, the Santa Monica Mountains, and the downtown skyline. In general, the Wilshire corridor is fronted by commercial and retail uses and some medium- to high-density residential buildings, including several new developments along Wilshire Boulevard near Highland Avenue, between La Brea Avenue and Fairfax Avenue, and near Vermont Avenue and Western Avenue. For a more detailed description of land uses, see Table 4.5-1 (Description of Land Uses, Activity Centers, and Community Facilities) in Section 4.5 of this document.

Visual Character

Visual character and resource assessment for FTA projects typically follow the Visual Resource Inventory Manual published by the U.S. Department of the Interior, Bureau of Land Management. Impacts are determined by how visually sensitive the study area and the public may be to new development. In general, the Wilshire corridor is located in a highly urbanized area of Los Angeles and it is fronted by commercial and retail uses and some low to medium residential buildings. Sensitive land uses include the mid- and high-rise towers located along Wilshire Boulevard between the Los Angeles Country Club and Malcolm Avenue along Wilshire Boulevard, and portions of Wilshire Boulevard in the Wilshire Community Plan Area, which contains interspersed multi-family residential areas and recreational facilities, such as

Museum Row, Hancock Park, and La Brea Tar Pits. These sensitive land uses, particularly those in the Westwood area, have views from various angles of the six historic resources that were determined eligible for listing on the National Register, Chateau Colline (listed on the National Register), and the VA Medical Center (previously determined eligible on the National Register as a historic district). In addition to being visible to these sensitive land uses, these resources are also currently visible from other areas along the corridor and contribute significantly to the visual character of the corridor. Observation of the project corridor suggests that these resources, along with other architecturally, culturally, and socially significant structures and places, are heavily utilized by the public and are likely of high public interest. Therefore, the project corridor has a high visual sensitivity level.

Light and Glare

The Wilshire corridor is located in an urban setting adjacent to retail commercial, office commercial, public facilities, and residential uses that emit relatively high levels of ambient lighting. In addition, the project corridor contains standard street lights that are located within the sidewalks on both sides of Wilshire Boulevard. Glare is a common phenomenon due mainly to the occurrence of a high number of days per year with direct sunlight and the highly urbanized nature of the region, which result in a large concentration of potentially reflective surfaces. Most glare in the project corridor is generated by reflective materials on the surrounding mid- to high-rise buildings and glare from vehicles passing along the Wilshire corridor and on the surrounding major north/south streets. The closest light and glare sensitive uses to the project corridor include the mid- and high-rise towers located along Wilshire Boulevard between the Los Angeles Country Club and Malcolm Avenue and portions of Wilshire Boulevard in the Wilshire Community Plan Area, which contains interspersed multi-family residential areas and recreational facilities.

Shadows

The prevalence of shadows is directly attributable to building heights, the angle of the sun and the location of a project relative to off-site shadow sensitive land uses. Shadow sensitive uses include routinely useable outdoor spaces associated with residential, recreational, or institutional land uses; commercial uses, such as pedestrian-oriented outdoor spaces or restaurants with outdoor seating areas; nurseries; and existing solar collectors. Currently, land uses along the Wilshire corridor cast shadows on other surrounding land uses and on the project corridor itself.

Impacts

No Project Alternative

Under the No Project Alternative, the improvements under the proposed action would not be implemented. No construction activities would take place, no street facilities would be altered, and, therefore, no visual impacts would occur.

No adverse effects related to visual resources would occur under the No Project Alternative.

Proposed Action

The proposed action would convert existing curb lanes on Wilshire Boulevard to bus and right-turn only operation in the peak periods on weekdays. To implement the proposed action, curb lanes would be repaired or reconstructed, where necessary, and restriped and signed as peak period bus lanes. In other areas, curbside bus lanes would be added as new lanes to Wilshire Boulevard by widening or removing jut-outs. The proposed action would not include structures or other elements that would potentially obstruct views of far-off scenic features or structures and places that contribute to the visual character of the corridor, such as the potentially historic or historically significant cultural resources.

The proposed removal of jut-outs along the segment of the project corridor between Comstock Avenue and Malcolm Avenue, the extension of the eastbound left-turn pocket at Sepulveda Boulevard and the widening of Wilshire Boulevard between Bonsall and Federal Avenues, which would affect the existing median, would result in the removal of a number of street trees. However, a more detailed landscape plan would be developed in the Preliminary Engineering phase to identify the trees to be displaced and the location and number of new trees to be replanted along this segment of Wilshire Boulevard. The proposed improvements would comply with all local construction standards and guidelines, including design guidelines for roadways, streetscape, and landscaping. As such, with the inclusion of **Mitigation Measure A-1** below, the proposed action would not adversely affect the visual integrity of the surrounding neighborhood and streetscape/landscape along Wilshire Boulevard.

The proposed action would not result in a substantial new amount of lighting on Wilshire Boulevard. Some light posts may need to be replaced as a result of curb improvements on Wilshire Boulevard between Comstock Avenue and Malcolm Avenue. However, new lighting associated with the proposed action would be installed in compliance with all applicable lighting standards to contribute minimally to the visual contrast of the proposed action with surrounding land uses during the nighttime hours. In addition, because the proposed action would mainly involve the street rehabilitation of Wilshire Boulevard and the striping of new bus lanes, the proposed action would result in minimal, if any, shadow effects.

*Under the proposed action, with the incorporation of the identified mitigation measure (**Mitigation Measure A-1**), no substantial adverse effects are anticipated related to the visual character, integrity, and quality of the project corridor. No adverse effects would occur related to light, glare and shadows.*

Alternative A – Truncated Project Without Jut-out Removal

Similar to the proposed action, this alternative would not include structures or other elements that would potentially obstruct views of far-off scenic

features or structures and places that contribute to the visual character of the corridor, such as the potentially historic or historically significant cultural resources. The jut-outs would not be removed between Comstock Avenue and Malcolm Avenue, and, therefore, no trees would be removed in this area. However, Alternative A would also involve the extension of the eastbound left-turn pocket at Sepulveda Boulevard and street widening between Bonsall and Federal Avenues, which would affect the existing median, resulting in the removal of a number of small jacaranda trees. This alternative would comply with all local construction standards and guidelines, including design guidelines for roadways, streetscape, and landscaping, and as such, would not adversely affect the visual integrity of the surrounding neighborhood and streetscape/landscape along Wilshire Boulevard. Similar to the proposed action, this alternative would not result in a substantial new amount of lighting, or shadow effects, along Wilshire Boulevard. Because this alternative does not include the removal of jut-outs and street trees between Comstock Avenue and Malcolm Avenue, fewer visual changes would occur. Therefore, no adverse visual effects are anticipated.

Under Alternative A, no adverse effects are anticipated related to the visual character, integrity, and quality of the project corridor. Furthermore, no adverse effects would occur related to light, glare and shadows.

Measures to Minimize Harm

No Project Alternative

No visual changes would occur, therefore, no mitigation measures are necessary under the No Project Alternative.

Proposed Action

In order to ensure that adverse impacts related to tree removal are minimized, the following mitigation measure is recommended:

- A-1 Wherever feasible, trees within the existing jut-outs shall be preserved or relocated and incorporated into the landscape plan where space permits.

Alternative A – Truncated Project Without Jut-out Removal

No adverse visual effects would occur; therefore, no mitigation measures are required under Alternative A.

Cumulative Impacts

No Project Alternative

No visual changes would occur; therefore, no adverse cumulative impacts would occur under the No Project Alternative.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

The proposed Wilshire BRT Project would not result in the obstruction or modification of background views of the Hollywood Hills, Santa Monica Mountains, or the downtown skyline or the degradation of the visual quality of the surrounding communities along the project corridor. Therefore, the proposed action would not contribute to any cumulative impacts related to visual quality in the project corridor. The implementation of mitigation measure A-1 above will ensure that no adverse cumulative visual impacts occur due to the loss of landscaping between Comstock Avenue and Malcolm Avenue. BRT operations are already occurring along the project alignment. The proposed action would create peak period bus lanes to accommodate existing buses. Accordingly, no adverse changes to the visual character or the visual quality of the Wilshire corridor would occur either individually or cumulatively.

No cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-out Removal

Similar to the proposed action, this alternative would not result in new structures that would obstruct existing vistas or degrade the visual quality of the surrounding communities along the project corridor. No existing trees between Comstock Avenue and Malcolm Avenue would be removed or affected under this alternative. BRT operations are already occurring along the project alignment. This alternative would also create peak period bus lanes to accommodate existing buses although within a smaller area than for the proposed action. Accordingly, no adverse changes to the visual character or the visual quality of the Wilshire corridor would occur either individually or cumulatively.

No cumulatively adverse effects would occur under Alternative A.

7.2.9 Noise

Affected Environment

The project site is located in a developed, urban area. Existing noise levels in the project vicinity are generally high due to noise from vehicles on Wilshire Boulevard. There are several sensitive receptors, such as residences, schools, and other sensitive uses, along each side of Wilshire Boulevard.

Measurements of existing noise levels were made on December 4, 2009. Short-term noise measurements (15 minutes) were made at sites ST-1 through ST-8. See Figures 4.4-3 and 4.4-4 (in Section 4.4 of this document) for the specific locations of these sites.

Table 4.4-1 (in Section 4.4 of this document) shows a summary of the noise measurement results. The short-term measurement results shown in Table 4.4-1 include the measured L_{eq} and the maximum and minimum 1-second L_{eq} . The aim of the short-term measurements was to obtain the noise levels from vehicular traffic in the area at representative sensitive receptors adjacent to the Wilshire Boulevard corridor.

The measured L_{eq} for the short-term measurement sites ranges from 63 dBA at ST-6 to 76 dBA at ST-8. Vehicles on Wilshire Boulevard are the main source of noise at the measurement sites.

Impacts

Operational Noise

No Project Alternative

Under the No Project Alternative, proposed improvements to the Wilshire corridor included under the proposed action would not be implemented. No change to existing bus operation or to existing operational noise from traffic on Wilshire Boulevard is expected to occur.

No adverse effects related to operational noise would occur under the No Project Alternative.

Proposed Action

Figure 3-2 of FTA's Transit Noise and Vibration Impact Assessment, FTA's guidance manual for predicting and assessing noise and vibration impacts of proposed mass transit projects, shows the noise impact criteria for Category 1 and 2 land uses (the most noise-sensitive land use categories) in terms of the allowable increase in the cumulative noise exposure. The project corridor has an average existing noise exposure of approximately 71-72 dBA. According to FTA's guidance, a noise exposure increase as a result of project operations would have to be of 1 dBA or below in order to have no impact on adjacent sensitive receptors.

Noise from motor vehicle traffic associated with the proposed action was analyzed using the data from the project's traffic study (Appendix B).¹³⁸ The worst-case scenario with regards to traffic volumes were input into the Federal Highway Administration's (FHWA) TNM[®] model. Average daily traffic (ADT) volumes for the Existing Year, Opening Year Without Project, Opening Year With Project, Horizon Year Without Project, and Horizon Year With Project scenarios were used to predict the changes in traffic noise at selected roadway segments. According to the noise modeling results, as presented in Table 4.4-9 in Section 4.4 of this document), project noise levels in both the opening year and horizon year are predicted to decrease from what they would be without the proposed action at most locations, and increase only slightly, and by no more than 1 dBA at other locations.

¹³⁸ Iteris. 2010. Wilshire Boulevard Bus Rapid Transit Project Traffic Impact Analysis.

Accordingly, the proposed action would not result in long-term adverse traffic noise effects on the surrounding area.

No adverse effects related to operational noise would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, noise from motor vehicle traffic associated with Alternative A was also analyzed using the data from the project's traffic study (Appendix B).¹³⁹ The worst-case scenario with regards to traffic volumes were input into the FHWA TNM[®] model. Operational noise impacts anticipated under this alternative would not be considered adverse. This alternative would include mobility improvements along 8.7 miles of Wilshire Boulevard. These improvements would consist of converting existing curb lanes to dedicated weekday peak period bus lanes in both the eastbound and westbound directions.

This alternative would be truncated at S. Park View Street and would not convert existing curb lanes into bus lanes east to Valencia Street. Alternative A would eliminate the bus lane from approximately 300 feet east of Veteran Avenue to the I-405 northbound ramps and also require reconstruction and resurfacing of an additional 1.8 miles of existing curb lanes between Western Avenue and San Vicente Boulevard and between the western boundary of the City of Beverly Hills and Westholme Avenue. In addition, jut-out removal between Comstock Avenue and Malcolm Avenue would not occur under this alternative. According to the noise modeling results, as shown in Table 5-11 (in Chapter 5.0 of this document), increases in operational traffic noise are not expected to exceed 1 dBA. Therefore, no adverse effect would occur as a result of operational noise for Alternative A.

No adverse effects related to operational noise would occur under Alternative A.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur; therefore, no mitigation measures are required.

Proposed Action

No adverse effects would occur; therefore, no mitigation measures are required.

Alternative A – Truncated Project Without Jut-Out Removal

No adverse effects would occur; therefore, no mitigation measures are required.

¹³⁹ *Ibid.*

Cumulative Impacts

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no cumulative adverse effects would occur.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

The project corridor is located in a highly developed area of the City of Los Angeles, with the segment between Veteran Avenue and Federal Avenue within the County of Los Angeles. Ambient noise levels along the project corridor and in the project vicinity are dominated by traffic noise on Wilshire Boulevard. This condition would continue to be the case without or with implementation of the proposed action. As mentioned above, project noise levels in both the opening year and horizon year are predicted to decrease at most locations and increase only slightly at other locations. The proposed action would not create substantial noise impacts to alter the existing ambient noise levels in the surrounding areas when combined with existing uses. Therefore, no cumulative adverse effects regarding noise would occur as a result of the proposed action.

No cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, Alternative A would not create substantial noise impacts to alter the existing ambient noise levels in the surrounding areas when combined with existing uses. Therefore, adverse effects would not occur either individually or cumulatively under Alternative A.

No cumulatively adverse effects would occur under Alternative A.

7.2.10 Vibration

Affected Environment

Similar to the environmental setting for noise, the vibration environment is dominated by traffic-related vibration from nearby sources. Heavy trucks or other vehicles can generate groundborne vibration of varying magnitude, depending on vehicle type, weight, pavement and geological conditions. Vibration levels were not readily perceptible at noise/vibration-sensitive land uses in the project vicinity.

Impacts

No Project Alternative

Under the No Project Alternative, proposed improvements to the Wilshire corridor included under the proposed action would not be implemented. No change to existing bus operation or to existing operational groundborne vibration resulting from traffic on Wilshire Boulevard is expected to occur.

No adverse effects related to operational vibration would occur.

Proposed Action

According to FTA's Vibration Screening Procedure, included as Chapter 9 of the 2006 Traffic Noise and Vibration Impact Assessment, for projects that involve rubber-tire vehicles, vibration impact is unlikely except in unusual situations. The following three specific factors in the Vibration Screening Process Flow Chart, shown in Figure 7-1, should be checked to determine if there is potential vibration impact from bus projects or any other projects that involve rubber-tire vehicles:

1. Will there be expansion joints, speed bumps, or other design features that result in unevenness in the road surface near vibration-sensitive buildings? Such irregularities can result in perceptible ground-borne vibration at distances up to 75 feet away.
2. Will buses, trucks or other heavy vehicles be operating close to a sensitive building? Research using electron microscopes and manufacturing of computer chips are examples of vibration-sensitive activities.
3. Does the project include operation of vehicles inside or directly underneath buildings that are vibration-sensitive? Special considerations are often required for shared-use facilities such as a bus station located inside an office building complex.

As demonstrated by the Vibration Screening Process Flow Chart, including the three specific factors listed above, no vibration impact is likely to occur as a result of the proposed action. One of the project elements involves the reconstruction and smoothing of the roadway surface, where it is deteriorated, resulting in holes, dips, and bumps. By smoothing these irregular portions of Wilshire Boulevard, the proposed action would result in a benefit due to the net reduction in vibration from roadway surface irregularities affecting buses along the project corridor. Therefore, no adverse effects would occur during operation of the proposed action.

No adverse effects related to operational vibration would occur.

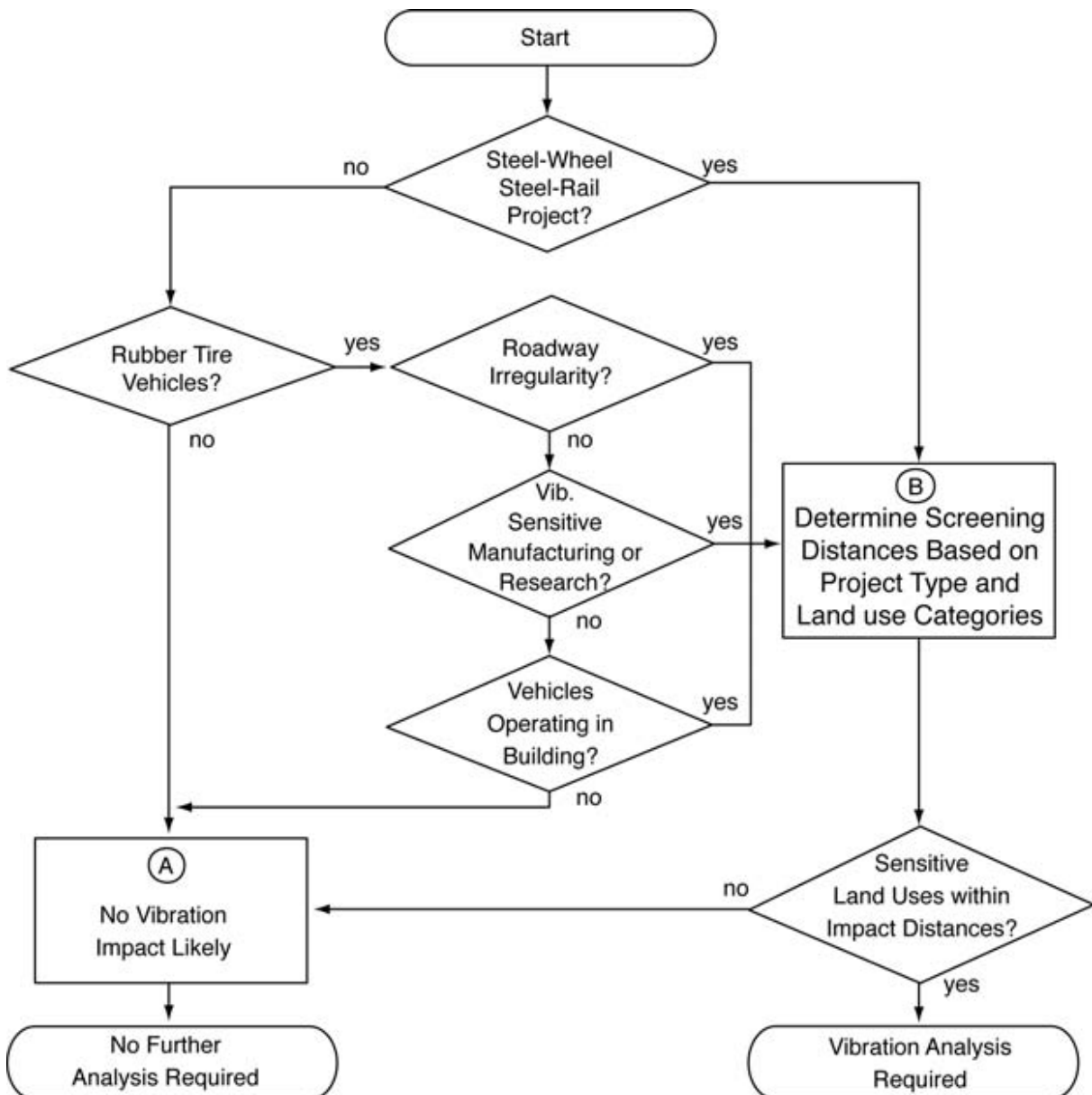
Alternative A – Truncated Project Without Jut-Out Removal

Operational impacts with regards to vibration in Alternative A are similar to those under the proposed action. As demonstrated by the Vibration

Screening Process Flow Chart (Figure 7-1), no vibration impact is likely to occur as a result of Alternative A. This alternative also involves the reconstruction and smoothing of the roadway surface, where it is deteriorated, resulting in holes, dips, and bumps. By smoothing these irregular portions of Wilshire Boulevard, Alternative A would result in a benefit due to the net reduction in vibration from roadway surface irregularities affecting buses along the project corridor.

No adverse effects related to operational vibration would occur under Alternative A.

Figure 7-1. Flow Chart of Vibration Screening Process



Source: FTA. Traffic Noise and Vibration Impact Assessment, 2006.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur; therefore, no mitigation measures are required.

Proposed Action

No adverse effects would occur; therefore, no mitigation measures are required.

Alternative A – Truncated Project Without Jut-Out Removal

No adverse effects would occur; therefore, no mitigation measures are required.

Cumulative Impacts

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no cumulative adverse effects would occur.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

Vibration levels are not readily perceptible at noise/vibration-sensitive land uses in the project vicinity. This condition would continue to be the case without or with implementation of the proposed action. The proposed action would not create vibration impacts to alter the existing ambient vibration levels in the surrounding areas when combined with existing uses. Therefore, no cumulative adverse effects regarding vibration impacts would occur as a result of the proposed action.

No cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, Alternative A would not create vibration impacts to alter the existing ambient vibration levels in the surrounding areas when combined with existing uses. Therefore, adverse effects would not occur either individually or cumulatively under Alternative A.

No cumulatively adverse effects would occur under Alternative A.

7.2.11 Land Acquisition, Displacement, and Relocation

Affected Environment

As discussed above, the Wilshire corridor is a densely developed corridor with an abundance of commercial land uses. In general, the majority of land uses adjacent to the Wilshire corridor consist of parcels zoned for office, retail, commercial, residential or institutional uses (e.g., museums). Commercial development and some multi-family residences front both sides of the project alignment and the intersecting north/south streets.

Impacts

No Project Alternative

Under the No Project Alternative, proposed improvements to 9.9 miles of the Wilshire corridor included under the proposed action would not be implemented.

No adverse impacts related to land acquisition, displacement, or relocation would occur under the No Project Alternative.

Proposed Action

The Wilshire BRT Project would be implemented within existing City and County public rights-of-way. The proposed action would not require the acquisition of any properties or result in the displacement of land uses currently in the project corridor. Therefore, no impacts related to land acquisition, displacement and relocation would occur as a result of the proposed action.

No adverse impacts related to land acquisition, displacement, or relocation would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, this alternative would be implemented within existing City and County public rights-of-way. Alternative A would not require the acquisition of any properties or result in the displacement of land uses currently in the project area. Therefore, no impacts related to land acquisition, displacement and relocation would occur as a result of Alternative A.

No adverse impacts related to land acquisition, displacement, or relocation would occur under Alternative A.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur; therefore, no mitigation measures are required.

Proposed Action

No adverse effects would occur; therefore, no mitigation measures are required.

Alternative A – Truncated Project Without Jut-Out Removal

No adverse effects would occur; therefore, no mitigation measures are required.

Cumulative Impacts

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no cumulative adverse effects would occur.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

The proposed action would not require the acquisition of any properties or result in the displacement of land uses currently in the project corridor. Therefore, the proposed action would not contribute to any cumulative impacts related to land acquisition, displacement and relocation of businesses and residences in the project alignment. BRT operations are already occurring along the project alignment. The proposed action would create peak period bus lanes to accommodate existing buses. Accordingly, no adverse effects related to land acquisition, displacement and relocation would occur either individually or cumulatively.

No cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, no adverse effects related to land acquisition, displacement and relocation would occur either individually or cumulatively.

No cumulatively adverse effects would occur under Alternative A.

7.2.12 Hazardous Materials

Affected Environment

Properties along the Wilshire corridor are predominantly developed with commercial and residential land uses. Some commercial development may contain, may have formerly contained hazardous materials, or may have potentially contributed to soil and/or groundwater contamination. Certain chemical and physical properties of a substance may cause it to be considered hazardous. As defined by the California Code of Regulations (CCR), Title 22, Section 66084, a “hazardous material” is a “substance or combination of substances which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or (2) pose a substantial present or potential hazards to human health, or environment when improperly treated, stored, transported or disposed of or otherwise managed.”

According to the California Health and Safety Code, Section 25124, a “hazardous waste” is any hazardous material that is abandoned, discarded or in storage prior to recycling. For example, excavated soil containing hazardous materials would be a hazardous waste if the concentration of contaminants exceeded specific CCR Title 22 criteria.

A review of federal and state regulatory agency lists was conducted to determine if locations within the project corridor contain suspected hazardous waste sites. The California Environmental Protection Agency Office of Environmental Information has compiled a Hazardous Waste and Substances Sites List (Cortese list), which includes sites designated by the State Water Resources Control Board, the Integrated Waste Management Board, and the Department of Toxic Substances Control. The Cortese list was reviewed for any sites located within or in the vicinity of the project corridor, and no such sites were identified. However, a review of the list of Leaking Underground Storage Tanks (LUST) and other cleanup sites identified 12 sites that are located along the project corridor, as identified in Table 7-2.

The City of Los Angeles has designated a Methane Hazard Zone, which includes a segment of the proposed corridor, generally from La Brea Avenue on the east to San Vicente Boulevard on the west.¹⁴⁰

¹⁴⁰ LACMTA, *Final EIS/EIR for the Mid-City/Exposition LRT Project*, October 2005.

Table 7-2: List of Leaking Underground Storage Tanks and Other Cleanup Sites within the Wilshire Corridor

Address	Name	Status	Potential Contaminants of Concern	Potential Media Affected
12054 Wilshire Blvd.	Mobil #18-ldm (former)	Open - Remediation as of 10/16/2007	gasoline	Well used for drinking water supply
11666 Wilshire Blvd.	Mobil #18-484	Open - Remediation as of 11/8/2007	gasoline	Other groundwater (uses other than drinking water)
10375 Wilshire Blvd.	Wilshire Terrace	Open - Site Assessment as of 1/18/2008	diesel	Soil
9988 Wilshire Blvd.	Tosco - 76 Station #0703	Open - Site Assessment as of 8/8/2007	gasoline	Other groundwater (uses other than drinking water)
605 Whittier Dr.	Beverly Hills Unified School District	Open - Site Assessment as of 3/17/2008	heating oil/fuel oil	Other groundwater (uses other than drinking water)
9815 Wilshire Blvd.	Budget Rent-a-Car	Open - Site Assessment as of 2/26/2001	gasoline, waste oil / motor/ hydraulic/ lubricating	Under investigation
8567 Wilshire Blvd.	Mobil #18-Gwx (Former #11-Gwx)	Open - Site Assessment as of 1/15/2008	gasoline	Other groundwater (uses other than drinking water)
5034 Wilshire Blvd.	Highland Express Cleaners	Open - Site Assessment as of 4/16/2001	PCE	None specified
5020 Wilshire Blvd.	Tidewater Service Station (Former)	Open - Site Assessment as of 10/18/2000	other solvent or non-petroleum hydrocarbon	Other groundwater (uses other than drinking water)
4180 Wilshire Blvd.	Alright Parking Lot (Chevron Heritage #21-1315)	Open - Remediation as of 4/8/2008	gasoline	Other groundwater (uses other than drinking water)
3807 Wilshire Blvd., #720	Korean Drycleaners and Laundry	Open - Site Assessment as of 10/1/1999	VOC	Aquifer used for drinking water supply
3201 Wilshire Blvd.	Shell Service Station	Open - Site Assessment as of 5/17/2006	gasoline	Other groundwater (uses other than drinking water)

Source: California Environmental Protection Agency, List of Leaking Underground Storage Tanks and Fiscal Year from Water Board GeoTracker Database, last updated October 21, 2008.

Impacts

No Project Alternative

Under the No Project Alternative, proposed improvements to 9.9 miles of the Wilshire corridor included under the proposed action would not be implemented. No construction activities would take place, and no existing structures, pavement, or soils would be disturbed.

No adverse effects related hazardous materials would occur under the No Project Alternative.

Proposed Action

The proposed action follows the Wilshire Boulevard right-of-way, which is lined on both sides by commercial and single/multi-family residential properties. Several sites along the Wilshire corridor are listed on the list of Leaking Underground Storage Tanks and other cleanup sites, as shown in Table 7-4. However, these sites are all located outside of the existing street right-of-way. The proposed action along the project corridor is divided into segments of non-construction related work, such as restriping of Wilshire Boulevard, and ground disturbing construction work, such as widening the boulevard and reconstruction of curb lanes. It is not expected that the proposed action would require the removal of significant (greater than 2 feet below the surface) soil or ground excavation. Based on the historic commercial use along the corridor, there is a potential that some soils and/or groundwater may be contaminated below ground surface. However, it is highly unlikely based on the extent of the excavation (2 feet or less) that any potentially contaminated soil and/or groundwater (usually encountered in major excavations) would be disturbed as a result of the proposed action. The proposed action would primarily involve repaving/resurfacing of existing curb lanes or removing portions of existing sidewalks to accommodate roadway widening along a small segment of Wilshire Boulevard west of I-405. During construction, all waste debris and spoils resulting from roadway repaving/resurfacing and sidewalk removal would be disposed of appropriately, in approved landfill facilities. The quantity, and potential risk of exposure to hazardous materials during this process would be relatively low, and all work and transportation of these materials would be performed in accordance with established construction BMPs and safety guidelines. It is not anticipated that hazardous materials or contaminated soils and/or groundwater would be encountered during construction, and no adverse impacts are anticipated. Similarly, it is not likely that methane gas would be encountered during project construction.

The Wilshire Bus Rapid Transit system is currently operational along the project corridor. The proposed action would create peak period bus lanes to accommodate existing buses. The buses that use this route are fueled by compressed natural gas (CNG) and also utilize various petroleum lubricants, solvents, and chemical cleaning agents. However, these materials are contained within the vehicles and typically do not leak onto the ground or into the surrounding environment. The proposed action would not introduce any

new hazardous materials as part of the operation of the proposed action, as the same types and numbers of buses would continue to operate along the Wilshire corridor. As such, project operation would not create any new impacts related to the use of hazardous materials beyond existing conditions.

No adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, this alternative would create peak period bus lanes to accommodate existing buses utilizing Wilshire Boulevard, within a smaller project area. The restriping and limited ground disturbance along the project corridor would be performed within the existing right-of-way and would involve disturbance of no more than 2 feet below surface of the existing street. As discussed under the proposed action, the buses that use this route are fueled by compressed natural gas (CNG) and also utilize various petroleum lubricants, solvents, and chemical cleaning agents. This alternative would not introduce any new hazardous materials as part of project operation as the same type and number of buses would continue to operate along the Wilshire corridor. As such, project operation under this alternative would not create any new impacts related to the use of hazardous materials beyond existing conditions. Therefore, no adverse effects would occur.

No adverse effects would occur under Alternative A.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur; therefore, no mitigation measures are required.

Proposed Action

No adverse effects would occur; therefore, no mitigation measures are required.

Alternative A – Truncated Project Without Jut-Out Removal

No adverse effects would occur; therefore, no mitigation measures are required.

Cumulative Impacts

No Project Alternative

No adverse effects would occur; therefore, no adverse cumulative impacts would occur under the No Project Alternative.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

Implementation of the proposed action would occur within the existing street right-of-way and would not require any major excavation (i.e., excavation would be limited to 2 feet or less) during construction. In addition, BRT operations are already occurring along the project corridor and would not result in any new impacts related to hazardous materials. Therefore, the proposed action would not contribute to any cumulative impacts related to hazardous materials use within the project corridor. No adverse effects related to hazardous materials use would occur either individually or cumulatively.

No cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-out Removal

Similar to the proposed action, implementation of Alternative A would occur within the existing street right-of-way and would not require any major excavation during construction. In addition, BRT operations are already occurring along the project alignment and would not result in any new impacts related to hazardous materials. Therefore, this alternative would not contribute to any cumulative impacts related to hazardous materials use within the project alignment. No adverse effects related to hazardous materials use would occur either individually or cumulatively.

No cumulatively adverse effects would occur under Alternative A.

7.2.13 Geology, Soils, and Seismicity

Affected Environment

The Wilshire corridor is located within a geological area called the Los Angeles Basin. The basin is surrounded by the Santa Monica Mountains, the Simi Hills, and the Santa Susana Mountains to the northwest, the San Gabriel Mountains to the northeast, and the Santa Ana Mountains, San Joaquin and Puente Hills to the east. The Pacific Ocean and the Palos Verdes Hills make up the southern border of the basin.

Faults

The Los Angeles Basin is an area known to be seismically active and there are a number of active and potentially active faults within the corridor area.¹⁴¹ According to a review of Alquist-Priolo Fault Hazard maps from the California Department of Conservation (Division of Mines and Geology), the Wilshire corridor is located within a fault zone. The nearest known earthquake fault

¹⁴¹ Active faults are believed to have moved between 11,000 and 2 million years ago.

mapped under the Alquist-Priolo Earthquake Fault Zoning Act is the Hollywood–Santa Monica Fault Zone, which encompasses the western half of the project corridor. The Hollywood-Santa Monica Fault is oriented in an east west direction and has a probable magnitude of a seismic event projected to range from 6.0 to 7.0 on the Richter Scale.

Seismicity

According to the California Seismic Safety Commission, all of California lies within either Seismic Zone 3 or 4. There are four zones in the United States, ranging from 1 to 4 (the higher the number, the higher the earthquake risk). A majority of the southern California region is in Seismic Zone 4, the highest hazard zone and, therefore, is susceptible to strong ground shaking and associated seismic hazards.¹⁴² Numerous regional and local faults are capable of producing severe earthquakes of magnitude 6.0 or greater.

Liquefaction

Liquefaction describes a phenomenon where cyclic stresses, which are produced by earthquake-induced ground motions, create excess pore pressures in soils lacking cohesion. As a result, the soils may acquire a high degree of mobility, which can lead to lateral spreading, consolidation and settlement of loose sediments, ground oscillations, flow failure, loss of bearing strength, ground fissuring, sand boils, and other damaging deformations. According to State geologic hazard maps, portions of the Wilshire corridor are located within a designated liquefaction zone.¹⁴³

Soil

The Wilshire corridor is located in a highly disturbed and developed area of Los Angeles, with very minor open space areas. In addition, Wilshire Boulevard is paved and maintained by the City of Los Angeles. According to the Natural Resource Conservation Service Report and General Soil Map for Los Angeles County, the Wilshire corridor is generally situated on young alluvium and young fan deposits from the Holocene and late Pleistocene era. In addition, some portions of the corridor are underlain by old fan deposits of the late to middle Pleistocene era.¹⁴⁴

¹⁴² California Seismic Safety Commission, Homeowner's Guide to Earthquake safety, Edition 2005, <http://www.seismic.ca.gov/>, accessed on November 8, 2008.

¹⁴³ State of California Department of Conservation, Seismic Hazards Zone Map Hollywood Quadrangle, March 25, 1999, available at: <http://www.conservation.ca.gov/cgs/shzp/Pages/Index.aspx>, accessed November 12, 2008.

¹⁴⁴ U.S. Department of the Interior U.S. Geological Survey. Aeromagnetic Map with Geology of the Los Angeles 30 x 60 Minute Quadrangle, Southern California By V.E. Langenheim, T.G. Hildenbrand, R.C. Jachens, R.H. Campbell, and R.F. Yerkes 2006

Impacts

No Project Alternative

Under the No Project Alternative, proposed improvements to 9.9 miles of the Wilshire corridor included under the proposed action would not be implemented. No construction activities would take place, no street facilities would be altered, and new impacts related to geology or seismicity would occur.

No adverse effects would occur related to geology or seismicity would occur under the No Project Alternative.

Proposed Action

The proposed action would not involve construction of new structures along the Wilshire corridor that would be exposed to seismic shaking, liquefaction, and soil erosion or ground subsidence. The Wilshire Bus Rapid Transit system is currently operational along the project alignment. The proposed action would involve improvements to an existing transportation corridor already used by buses and other vehicles and create peak period curbside bus lanes to accommodate existing buses. Accordingly, implementation of the proposed action would not create any new impacts related to geology, soils, and seismicity beyond existing conditions. Any activities associated with the development of the bus lanes (e.g., resurfacing, roadway widening, etc.) would be required to comply with the requirements of the Uniform Building Code, LACMTA Design Guidelines, the City of Los Angeles Municipal Code, and various City departments, including but not limited to, and specifications regarding seismic considerations for roadway construction, which will be enforced through plan review and inspections during construction. Compliance with these requirements would provide an acceptable level of safety and substantially lessen the effects of potential seismic-related ground failures.

The potential for soil erosion during the operation of the proposed action is low because the project alignment is currently entirely paved. During construction, all grading and excavation activities would incorporate BMPs that are designed to limit the potential erosion impacts to acceptable levels. By implementing standard engineering tools and practices, adverse effects related to geological hazards would be minimized.

No adverse effects would occur related to geology or seismicity would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, Alternative A would not involve construction of new structures along the Wilshire corridor that would be exposed to seismic shaking, liquefaction, and soil erosion or ground subsidence. Compliance with established building codes, design guidelines, and

municipal codes related to roadway construction would provide an acceptable level of safety and substantially lessen the effects of potential seismic-related ground failures. The potential for soil erosion during the operation of the project under this alternative is low because the project alignment is currently entirely paved. During construction, all grading and excavation activities would incorporate BMPs that are designed to limit the potential erosion impacts to acceptable levels. By implementing standard engineering tools and practices, adverse effects related to geological hazards would be minimized.

No adverse effects would occur related to geology or seismicity would occur under Alternative A.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur; therefore, no mitigation measures are required under the No Project Alternative.

Proposed Action

No adverse effects would occur; therefore, no mitigation measures are required for the proposed action. Nonetheless, the proposed action would comply with all established building codes, design guidelines, and municipal codes in order to lessen the effects of potential seismic-related ground failures. During construction, all grading and excavation activities would incorporate BMPs that are designed to limit the potential erosion impacts to acceptable levels.

Alternative A – Truncated Project Without Jut-out Removal

Similar to the proposed action, no adverse effects would occur under Alternative A. Therefore, no mitigation measures are required. Nonetheless, the project under this alternative would comply with all established building codes, design guidelines, and municipal codes in order to lessen the effects of potential seismic-related ground failures. During construction, all grading and excavation activities would incorporate BMPs that are designed to limit the potential erosion impacts to acceptable levels.

Cumulative Impacts

No Project Alternative

No adverse effects would occur; therefore, no adverse cumulative impacts would occur under the No Project Alternative.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

Geotechnical and seismic effects are site-specific. Implementation of the proposed action would have construction effects along segments of the project corridor but would not likely combine with other commercial or non-commercial building construction along the corridor to create a cumulative impact that would adversely affect the geological integrity or slope/ground stability of adjacent areas. In addition, BRT operations are already occurring along the project corridor and would not result in any new impacts related to geology, soils, and seismicity. Therefore, the proposed action would not contribute to any cumulative impacts within the project alignment. No adverse effects related to geology, soils, and seismicity would occur either individually or cumulatively.

No cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-out Removal Alternative

As discussed for the proposed action above, geotechnical and seismic effects are site-specific. Implementation of Alternative A would have construction effects along segments of the project alignment but would not likely combine with other commercial or non-commercial building construction along the corridor to create a cumulative impact that would adversely affect the geological integrity or slope/ground stability of adjacent areas. In addition, BRT operations are already occurring along the project alignment and would not result in any new impacts related to geology, soils, and seismicity. Therefore, Alternative A would not contribute to any cumulative impacts within the project alignment. No adverse effects related to geology, soils, and seismicity would occur either individually or cumulatively.

No cumulatively adverse effects would occur under Alternative A.

7.2.14 Community Disruption and Environmental Justice

Affected Environment

A Community Impact Assessment (CIA) Memorandum (see Appendix G) was prepared in April 2010 to evaluate community impacts as a result of the proposed Wilshire BRT Project. The concept of environmental justice is required under NEPA to analyze the extent to which minority or lower-income populations would be disproportionately impacted by a proposed action. The analysis was performed in compliance with the requirements of Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Lower-Income Populations (February 11, 1994). This provides that the Environmental Assessment (EA) addresses “disproportionately high and adverse human health or environmental effects” of Federally-funded projects “on minority populations and lower-income

populations” and that the project does not “have the effect of subjecting persons to discrimination because of their race, color, or national origin.”

Since the proposed action would occur along an extent of Wilshire Boulevard spanning a total of approximately nine miles, an in-depth demographic and housing study was not conducted. Instead, data for the community plan areas, County, and the City of Los Angeles were gathered to present a demographic profile of the communities. According to the 2000 Census Data, the City as a whole has a population of 3,694,820 people. Approximately 46.5 percent of the population was identified as Hispanic, 29.7 percent was identified as White, 10.9 percent was identified as African-American, and approximately 12.9 percent was identified as other.¹⁴⁵ On the other hand, the County of Los Angeles had a total population of 9,519,338. Out of this total population, approximately 44.6 percent of the population was Hispanic, 31.1 percent of the population was identified as White, 9.5 percent as African-American, and the remaining population of approximately 14.8 percent belonged to other racial/ethnic groups.

In comparison to the City and County, three of the five community plan areas along the project alignment are predominantly White. The Brentwood-Pacific Palisades Community Plan Area has a majority of White population, with about 87 percent of the population identifying themselves as White. In the Westwood Community Plan Area, approximately 63 percent of the population identified themselves as White, followed by about 23 percent of the population being Asian, and only 7 percent of the population identified themselves as Hispanic. In the West Los Angeles Community Plan Area, approximately 65 percent of the population identified themselves as White, followed by about 14 percent of the population being Asian, another 14 percent of population identified themselves as Hispanic, and the rest (7 percent) belonged to other racial/ethnic groups.

The Westlake and Wilshire Community Plan Areas are dominated by a minority population. Only about 4 percent of the population in Westlake and approximately 24 percent of the population in the Wilshire Community Plan Area identified themselves as White. Approximately 78 percent of the population in the Westlake Community Plan Area and 41 percent in the Wilshire Community Plan Area identified themselves as Hispanic. Population of Asian origin formed the next largest racial/ethnic group in both community plan areas.

In terms of low income population, approximately 18 percent and 22 percent of the County and City populations, respectively, are below the poverty line, as shown in Table 7-3. In comparison, the Brentwood-Pacific Palisades and West Los Angeles Community Plan Areas have a lower share of population below the poverty line. In the Westlake and Wilshire community plan areas, 53 percent and 32 percent of the respective populations live below poverty. Both these numbers are higher than County (17.9 percent) and City (22.1 percent) levels. The Westwood Community Plan Area has 22 percent of its

¹⁴⁵ Other includes people identified as Asian, Pacific Islander, Native American, and biracial.

population below the poverty line, which is comparable to the City of Los Angeles but higher than the County.¹⁴⁶

Table 7-3: Poverty Level

Jurisdiction/ Community Plan Area	Population for Whom Poverty Is Determined	Population below Poverty Line	% of Population below Poverty Line
County of Los Angeles	9,349,771	1,674,599	17.9
City of Los Angeles	3,622,606	801,050	22.1
Brentwood-Pacific Palisades	54,110	3,258	6.0
Westlake	106,711	56,138	52.6
Wilshire	292,059	92,735	31.8
Westwood	49,306	10,838	22.0
West Los Angeles	71,944	10,336	14.4

Source: U.S. Bureau of Census, 2000, Summary File (SF) 1; Los Angeles City Planning Department website, 2008.

Impacts

No Project Alternative

Under the No Project Alternative, the improvements under the proposed action would not be implemented. No alteration of the existing conditions would occur.

No adverse effects related to community disruption or environmental justice would occur under the No Project Alternative.

Proposed Action

The analysis conducted in the CIA (Appendix G) indicates that the proposed action would not result in any disproportionately high or adverse human health or environmental effects along the project corridor in any of the relevant environmental issue areas. Furthermore, during construction, disruptions to electricity, water, gas, and other public utilities would not be expected since project activities would not involve excavation or disturbance of subsurface facilities.

The proposed action would not require acquisition of any residential or commercial properties. Therefore, it is anticipated that the community, including businesses and residences, within and adjacent to the project corridor would remain intact. Construction activities would result in lane closures during street reconstruction/ resurfacing work. In order to reduce or avoid adverse effects to businesses and residential street access, traffic

¹⁴⁶ Personal correspondence with Tim Lindholm, LACMTA, Director of Capital Projects, Facilities-Operations, January 24, 2007.

detours and truck routes would be required during construction. Traffic disruptions would likely occur and result in adverse effects to local traffic circulation. **Mitigation Measures C-1** through **C-3** shall be implemented to ensure that traffic disruptions are reduced to a level that would not be considered adverse.

In addition, the impacts borne by the minority and low-income communities along the project corridor would be similar to and no greater than impacts borne by all populations and populations in non-minority communities. It should be noted that minority populations may rely on transit heavily and, therefore, transit improvements as a result of this project would be beneficial to these communities. The construction and operational impacts of the proposed action would not disproportionately impact minority or low-income groups, and, therefore, effects related to community disruption and environmental justice are not anticipated.

No adverse effects related to community disruption or environmental justice would occur under the proposed action.

Alternative A – Truncated Project Without Jut-out Removal Alternative

Similar to the proposed action, Alternative A would not result in any disproportionately high or adverse human health or environmental effects along the project corridor. Similar to the proposed project, the construction and operational impacts of Alternative A would not disproportionately impact minority or low-income groups, and, therefore, effects related to community disruption and environmental justice are not anticipated.

No adverse effects related to community disruption or environmental justice would occur under Alternative A.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur; therefore, no mitigation measures are required.

Proposed Action

No adverse effects would occur; therefore, no mitigation measures are required.

Alternative A – Truncated Project Without Jut-Out Removal

No adverse effects would occur; therefore, no mitigation measures are required.

Cumulative Impacts

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no cumulative adverse effects would occur.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

The proposed action would not adversely affect community integrity or result in community disruption or environmental justice impacts. Therefore, the proposed action would not contribute to any cumulatively adverse impacts on the communities along the project alignment. Increased efficiency and ridership of public transportation would potentially result in an improvement of regional transit connectivity, which may result in cumulatively beneficial impacts on pedestrian and commuter access within the greater Wilshire corridor.

No cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, no adverse effects related community disruption or environmental justice would occur under this alternative. Alternative A would involve a smaller project area and, therefore, would have less of an effect on the surrounding community. Nonetheless, no adverse effects would be anticipated.

No cumulatively adverse effects would occur under Alternative A.

7.2.15 Public Parkland and Recreation Areas

Affected Environment

The City of Los Angeles has approximately 15,710 acres of parkland that are administered by the City's Department of Recreation and Parks. According to the City of Los Angeles Public Recreation Plan, parks can be classified into three groups: neighborhood, community, and regional. A neighborhood park should be a minimum of five acres in size (ideally 10 acres), with a service radius of one-half mile. Vest pocket parks, which are less than five acres are also considered neighborhood parks. A community park should be a minimum of 15 acres in size (ideally 20 acres), with a service radius of two miles. Regional parks are generally over 50 acres in size and serve the city region. In order to meet long-range recreational standards, it is recommended that there be two acres of neighborhood and community

recreational facilities for every 1,000 people and a minimum of six acres of regional recreational facilities for every 1,000 residents.¹⁴⁷

The City of Los Angeles, in comparison with other large metropolitan areas in the United States, has less parkland per number of residents. Los Angeles is a highly urbanized city with a population growing at a significant rate. The development needs of anticipated population growth are of great concern, but at the same time the needs for open space and recreation areas to meet the needs of the population are equally important. According to the City of Los Angeles, two of the main issues in regards to open space and conservation are that “[t]here is a deficiency of open space in the City” and that “[p]ark acquisition is limited due to existing patterns of development and lack of funding.”¹⁴⁸ There is a strong need for not only the conservation of existing park and recreational land, but also a need for acquiring enough park and recreation land to help meet these needs in a highly urbanized and built environment. Table 7-4 identifies the parks and recreational areas located along the project alignment.

Table 7-4: Public Parks Located along the Project Alignment

Property	Neighborhood
MacArthur Park	Westlake/MacArthur Park
Lafayette Park/Multipurpose Community Center	Koreatown, Mid-City
Robert F. Kennedy Memorial Park (Planned)	Koreatown, Mid-City
Hancock Park/Rancho La Brea Tar Pits	Miracle Mile

Source: ICF International 2010

MacArthur Park

MacArthur Park is located in the Westlake neighborhood of the City of Los Angeles, less than two miles southwest of the Los Angeles Civic Center and approximately one mile directly west of the 110 freeway. This park is bordered on the northeast by 6th Street, on the southeast by Alvarado Street, on the southwest by 7th Street, and on the northwest by Park View Street. Wilshire Boulevard runs east and west through the park splitting it into two main segments. MacArthur Park is a public park under the ownership of the City of Los Angeles. The City of Los Angeles Department of Recreation and Parks manages the park and its facilities. Located within the park is MacArthur Park Lake on the southern segment. The lake features paddle boats, which are available for public rental on weekends. Other facilities located in the park include an auditorium, bandshell, children’s play area, active and passive recreational areas, and the MacArthur Park Community Center (which features an after-school club and various community and cultural activities). Picnic tables and walking paths are located throughout the park.

¹⁴⁷ Christopher A. Joseph & Associates. 2006. *Draft Environmental Impact Report for The Grand Avenue Project*. June 2006.

¹⁴⁸ City of Los Angeles Planning Department. *The Framework Element of the Los Angeles General Plan: Goals, Objectives, and Policies; Chapter 6 Open Space and Conservation*. Available: <http://cityplanning.lacity.org/cwd/Framwk/chapters/06/06.htm>. Accessed October 27, 2008.

Lafayette Park Multipurpose Community Center

The Lafayette Park Multipurpose Community Center, formerly known as Lafayette Park/Senior Citizen Center, is located just four blocks northwest of MacArthur Park on Wilshire Boulevard. The facility is bordered on the east by Lafayette Park Place, on the north by 6th Street, on the west by Commonwealth Avenue, and a Los Angeles County Superior Court building on the northwest. Wilshire Boulevard is the southern boundary for most of the facility, except a small triangular area south of Wilshire Boulevard and bordered by Hoover Street on the west and Lafayette Park Place on the east. The Lafayette Multipurpose Community Center is actually comprised of several facilities located on the parkland property. This approximately 234,790 square feet of public park property features open spaces with several trees and shade locations, jogging/walking paths, picnic tables, outdoor lighted basketball courts, soccer field, tennis courts, a children's play area, auditorium, community room, and the Felipe De Neve Branch Library. The Community Center offers several classes and activities for both children and adults of the neighborhood throughout the year. The property is owned by the City of Los Angeles and is managed by the Department of Recreation and Parks. Recently, the City of Los Angeles and Heart of Los Angeles (HOLA), a non-profit organization, have partnered to renovate and expand facilities on Lafayette Park. Completion of the renovations and expansion is expected in April of 2009 and features the following improvements: renovations for a field turf soccer field, state-of-the-art gymnasium, wireless computer lab, classrooms and community meeting rooms, as well as HOLA's existing art studios, fine arts library, dance studio, digital media center and education learning center.¹⁴⁹ HOLA runs many of its programs which benefit the local community from the facilities at this facility.

Robert F. Kennedy Memorial Park (under construction)

Based on recent communication with the Los Angeles Unified School District's (LAUSD) architects for one of its schools, Gonzalez Goodale Architects,¹⁵⁰ it has become known that a park is under construction at 3400 Wilshire Boulevard on property owned by the LAUSD. Based on the preliminary information available, the park will be open to the public, and is located along Wilshire Boulevard.

Hancock Park and Rancho La Brea Tar Pits

The Rancho La Brea Tar Pits and Hancock Park are located in the Miracle Mile area of Los Angeles. The property is bordered on the north by 6th Street, on the east by Curson Avenue, and on the west by the Los Angeles County Museum of Art (LACMA). Wilshire Boulevard forms the southern boundary of the property. The approximately 1,006,329-square-foot property contains the La Brea Tar Pits, a group of pools which have been spewing asphalt for the past 40,000 years and where over three million fossils from the last Ice

¹⁴⁹ Heart of Los Angeles (HOLA). *About HOLA*. Available: <http://heartofla.org/about> Accessed October 28, 2008.

¹⁵⁰ Phone Conversation with Victor Guevara of Gonzalez Goodale Architects on 11/21/2008.

Age have been excavated.¹⁵¹ Also located on the site is the George C. Page Museum of La Brea Discoveries, where many of the fossils discovered are displayed to the public. Today, excavations continue on the property and, in the summer, some excavation sites are open to the public. The Tar Pits and the Museum are both preserved and managed by the Natural History Museum of Los Angeles County Foundation. Open green space featuring a variety of different trees encompasses the property known as Hancock Park (not to be confused with the residential neighborhood of the same name located approximately one mile to the east). Several paths traverse the property for the public to walk and view the pits, as well as the large display models of prehistoric mammals located around the park.

Impacts

No Project Alternative

Under the No Project Alternative, the proposed action would not be implemented. No parks or recreational areas would be adversely affected.

No adverse impacts related to parklands or recreational areas would occur under the No Project Alternative.

Proposed Action

The proposed action does not include a housing component, and, therefore, increased demand on park service, typically resulting from an increase in residential population, is not anticipated. The proposed action involves repair, improvement and reconstruction of existing facilities along the Wilshire corridor. The current existing bus routes serving this corridor would continue to operate and would not require new or additional employees.

As stated above, parkland is not equally distributed throughout the City of Los Angeles, resulting in some communities lacking a significant amount of parkland. However, because the proposed action would not include a housing component and would not add new employees to the area, the proposed action would not result in any increase in the demand on local parks. Because the proposed action would not require the acquisition of any parkland, or incur temporary or constructive “use” pursuant to Section 4(f) (see Section 4(f) Applicability Evaluation Memo), these impacts would not be applicable. Therefore, no adverse environmental effects are anticipated related to parklands and recreational areas.

No adverse impacts related to parklands or recreational areas would occur under the proposed action.

¹⁵¹ Natural History Museum of Los Angeles County, *Return to the Ice Age: The La Brea Exploration Guide*, 2002. Available: <http://www.tarpits.org/education/guide/index.html>. Accessed October 29, 2008.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, Alternative A does not include a housing component and would not add new employees to the areas or result in any increase in demand on local parks. No parkland would be acquired, and no temporary or constructive use impacts would occur. Therefore, no adverse environmental effects are anticipated related to parklands and recreational areas.

No adverse impacts related to parklands or recreational areas would occur under Alternative A.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur; therefore, no mitigation measures are required.

Proposed Action

No adverse effects would occur; therefore, no mitigation measures are required.

Alternative A – Truncated Project Without Jut-Out Removal

No adverse effects would occur; therefore, no mitigation measures are required.

Cumulative Impacts

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no cumulative adverse effects would occur.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

BRT operations are already occurring along the project corridor. The proposed action would create peak period bus lanes to accommodate existing buses. The proposed action does not include a housing component, which typically results in increased demand for parks and recreational facilities. Therefore, the proposed action would not contribute to any cumulative impacts related to the use of parkland and recreational facilities in the project corridor. Accordingly, no adverse effects on parkland and recreation would occur either individually or cumulatively.

No cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, this alternative would not contribute to any cumulative impacts related to the use of parkland and recreational facilities in the project corridor. Accordingly, no adverse effects on parkland and recreation would occur either individually or cumulatively.

No cumulatively adverse effects would occur under Alternative A.

7.2.16 Wetlands and Floodplains

Affected Environment

According to the California Wetlands Information System (a program of the California Resources Agency), the project corridor is not located within or adjacent to any areas that would be considered a wetland as defined by Section 404 of the Clean Water Act. The nearest wetland is the Ballona Wetland located approximately 1.3 miles south of the project corridor.

Executive Order 11988 (Flood Plain Management) links the need to protect lives and property with the need to restore and preserve natural and beneficial flood plain values. Specifically, federal agencies are directed to avoid conducting, allowing, or supporting actions on the base flood plain unless the agency finds that the base flood plain is the only practicable alternative location. Similarly, Department of Transportation (DOT) Order 5650.2, which implements Executive Order 11988 (Flood Plain Management) and was issued pursuant to the National Environmental Policy Act of 1969, the National Flood Insurance Act of 1968, and the Flood Disaster Protection Act of 1973, prescribes policies and procedures for ensuring that proper consideration is given to the avoidance and mitigation of adverse flood plain impacts in agency actions, planning programs, and budget requests.

Los Angeles County is subject to a wide range of flood hazards, including those caused by earthquakes, intense storms, and failure of man-made structures. Two damaging regional tsunamis caused by the 1812 Santa Barbara and the 1927 Point Arguello earthquakes indicate that faults off the coast of Southern California are capable of producing large local tsunamis. The tsunami concern is heightened because the short historical record does not adequately characterize the long-term tsunami risk.

The Federal Emergency Management Agency (FEMA) has prepared flood maps identifying areas in Los Angeles County that would be subject to flooding during 100- and 500-year storms events. These maps indicate that portions of the project corridor are located within these flood zones. At the intersection of Wilshire Boulevard and Wilton Place, the project corridor passes through a two-city block area that is within a 500-year flood zone and small areas (less than one city block) within the 100-year flood zone at the intersection of Wilshire Boulevard and Mariposa Avenue and between

Commonwealth Avenue and Hoover Street.¹⁵² However, the risk for flooding in these areas is not any greater than that for most areas in the remaining portions of the Central Los Angeles Basin.

Impacts

No Project Alternative

Under the No Project Alternative, proposed improvements to 9.9 miles of the Wilshire corridor included under the proposed action would not be implemented. Therefore, no impacts on wetlands or floodplains would occur.

No adverse effects would occur under the No Project Alternative.

Proposed Action

The project corridor is located in a fully industrialized area and would not affect any federally protected wetlands. Therefore, no impacts on wetlands would occur.

The proposed action would not involve construction of new structures along the Wilshire corridor that would be exposed to 500-year or 100-year flood events. During these storm events, portions of the Wilshire corridor are, and will continue to be, subject to limited flooding of short duration. Implementation of the proposed action, which would involve improvements to an existing transportation corridor already used by buses and other vehicles to create peak period bus lanes to accommodate existing buses, would neither create nor contribute to flooding that would exceed the storm drain system capacity nor impede or redirect flood flow. Accordingly, implementation of the proposed action would not create any new impacts related to flooding beyond existing conditions. Therefore, no adverse effects related to flooding are anticipated to occur.

No adverse impacts related to wetlands or floodplains would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, Alternative A would be built within the existing Wilshire corridor and would not affect any federally protected wetlands. Alternative A would not contribute to flooding that would exceed the storm drain system, or impede or redirect flood flow, or otherwise increase or alter existing conditions related to flooding in the area.

No adverse impacts related to wetlands or floodplains would occur under Alternative A.

¹⁵² City of Los Angeles, NavigateLA Website, available online: <http://navigateLA.lacity.org/>, accessed November 19, 2008.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur; therefore, no mitigation measures are required.

Proposed Action

No adverse effects would occur; therefore, no mitigation measures are required.

Alternative A – Truncated Project Without Jut-Out Removal

No adverse effects would occur; therefore, no mitigation measures are required.

Cumulative Impacts

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no cumulative adverse effects would occur.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

The project corridor is located in a developed urban area of the City of Los Angeles. Designated and federally protected wetlands or floodplains do not exist in the vicinity of the project corridor. Therefore, no adverse cumulative impacts on wetlands are anticipated from project implementation.

BRT operations are already occurring along the project corridor. The proposed action would create peak period bus lanes to accommodate existing buses. Therefore, the proposed action would not contribute to any cumulative impacts related to flooding in the project corridor. Accordingly, no adverse effects related to flooding would occur either individually or cumulatively.

No cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, no adverse effects related to wetlands or floodplains would occur either individually or cumulatively under Alternative A.

No cumulatively adverse effects would occur under Alternative A.

7.2.17 Water Quality, Navigable Waterways, and Coastal Zones

Affected Environment

The primary federal law governing water quality is the Federal Water Pollution Control Act of 1972, amended as the Clean Water Act in 1977. This landmark legislation established the National Pollutant Discharge Elimination System (NPDES) permit process to regulate point source discharges to surface waters. The 1987 amendment to the Clean Water Act added Section 402(p) that requires the United States Environmental Protection Agency (EPA) to develop regulations for the control of nonpoint source discharges, such as urban storm water runoff, that ultimately ends up in receiving waters.

There are no surface water bodies located near the project corridor. The closest water bodies are the Santa Monica Bay and the Pacific Ocean, approximately 2.5 miles west of the project corridor. The Pacific Ocean is the ultimate receiving water body in the region. Santa Monica Bay is a United States Federal navigable water body and is listed as an impaired water body in the Federal listing established under the Clean Water Act, Sections 131.1, 303, 304, and 319.

Because the western end of the project corridor is approximately 2.5 miles east of the Pacific Ocean, no segment of the project corridor is located within a designated coastal zone, which ends at Wilshire Boulevard and 4th Street in the City of Santa Monica.

Impacts

No Project Alternative

Under the No Project Alternative, proposed improvements to 9.9 miles of the Wilshire corridor included under the proposed action would not be implemented.

No adverse impacts related to water resources would occur under the No Project Alternative.

Proposed Action

Implementation of the proposed action, which would involve improvements to an existing transportation corridor already used by buses and other vehicles to create peak period bus lanes to accommodate existing buses, would neither create nor contribute to water quality degradation. Project construction, which would involve resurfacing/repaving and roadway widening in some segments of Wilshire Boulevard, would comply with applicable federal, State,

and local regulations, as well as other code requirements and permit provisions to prevent any violation of water quality standards or waste discharge requirements. These codes and requirements include the City of Los Angeles Municipal Code (Chapter IX, Division 70), the National Pollutant Discharge Elimination System (NPDES) stormwater regulations, implementation of the Stormwater Pollution Prevention Plan (SWPPP), and Standard Urban Stormwater Mitigation Plan (SUSMP). Accordingly, implementation of the proposed action would not create any new impacts related to water quality beyond existing conditions. Therefore, no adverse effects related to water quality are anticipated to occur.

The proposed action would not alter the existing drainage pattern of the project corridor that would result in erosion or siltation. The project corridor is nearly flat in a heavily urbanized area and has been previously developed with impervious surfaces, with stormwater moving as sheet flow across the paved areas. The proposed action would not interfere with runoff flow patterns.

No natural streams or waterways or navigable waterways are located in the project corridor that would be considered ecologically sensitive or potentially harbor endangered species. Further, the western end of the project corridor is located more than two miles east of the Pacific Ocean and is not located in a designated coastal zone. Therefore, adverse environmental effects related to water quality, navigable waterways, and coastal zones are not anticipated with the proposed action.

No adverse impacts related to water resources would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, Alternative A would be built within the existing Wilshire corridor and would not affect existing conditions related to water quality, navigable waters, or coastal zones. No adverse effect would occur under Alternative A.

No adverse impacts related to wetlands or floodplains would occur under Alternative A.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur; therefore, no mitigation measures are required.

Proposed Action

No adverse effects would occur; therefore, no mitigation measures are required.

Alternative A – Truncated Project Without Jut-Out Removal

No adverse effects would occur; therefore, no mitigation measures are required.

Cumulative Impacts

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no cumulative adverse effects would occur.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

BRT operations already occur along the Wilshire corridor. The proposed action would create peak period curbside bus lanes to accommodate existing buses. Therefore, the proposed action would not contribute to any cumulative impacts related to water quality, navigable waters, and coastal zones. The indirect effects of reducing traffic congestion would be a beneficial effect to water quality in the region since reductions in on-road vehicles would result in a reduction in the level of water-borne pollutants that migrate to surface and groundwater through stormwater runoff. Accordingly, no adverse effects related to water quality, navigable waters, and coastal zones would occur either individually or cumulatively.

No cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, no adverse effects related to water quality, navigable waters, or coastal zones would occur either individually or cumulatively under Alternative A.

No cumulatively adverse effects would occur under Alternative A.

7.2.18 Ecologically Sensitive Areas and Endangered Species

Affected Environment

The project corridor is located in an urban area, where BRT operations are already occurring. The project corridor is not within or adjacent to natural open space or significant ecological areas (SEAs) that would support threatened or endangered species. There are no natural or landscaped features in the project corridor that would support any sensitive biological resources. Wildlife use of the project corridor is limited largely to feral cats,

rats, mice, and birds, which adapt to urban areas and are not considered sensitive species. No natural streams or waterways are located in the project vicinity that would be considered ecologically sensitive. The nearest concrete-lined stream is the Ballona Creek, located 1.3 miles south of the project corridor.

Impacts

No Project Alternative

Under the No Project Alternative, proposed improvements to 9.9 miles of the Wilshire corridor included under the proposed action would not be implemented. No ecological resource impacts would occur.

No adverse impacts related to ecologically sensitive areas or endangered species would occur under the No Project Alternative.

Proposed Action

Because the project corridor is within a highly developed urban area, and there are few suitable habitats for wildlife, there are no expected impacts related to ecologically sensitive areas, sensitive or special-status species, riparian habitat or other sensitive natural communities.

Implementation of the proposed action, which would involve improvements to an existing transportation corridor already used by buses and other vehicles to create peak period curbside bus lanes to accommodate existing buses, would not create any new impacts to existing biological resources, including sensitive or special-status species (i.e., trees and birds), in the project corridor and vicinity. In addition, the project's urban setting provides no opportunity for accessible movement between two or more existing open spaces. Project operation would not create any new impacts related to ecologically sensitive areas and endangered species beyond existing conditions. Therefore, no adverse effects related to sensitive biological resources are anticipated to occur.

However, during project construction, there is moderate potential for violation of the federal Migratory Bird Treaty Act and similar laws in the California Fish and Game Code protecting native birds, if any tree removal or other project construction were to occur during the nesting season. The segment of the project corridor, where jut-outs are proposed to be removed, would involve the removal of a maximum of 40 magnolia trees along Wilshire Boulevard between Comstock Avenue and Malcolm Avenue, which may serve as habitat for migratory birds. This may result in conflict with state and federal laws protecting native birds and their active nests. Implementation of **Mitigation Measure BR-1** would ensure that this conflict is avoided. The segment of the project corridor, where the eastbound left-turn pocket at Sepulveda Boulevard would be lengthened and the street widened between Bonsall Avenue and Federal Avenue, would involve the removal of approximately 30 small jacaranda trees. However, these trees are ornamental

and would not provide suitable habitat for migratory birds. Therefore, no impacts related to migratory birds are anticipated along this segment.

*With the incorporation of **Mitigation Measure BR-1**, no substantial adverse impacts related to ecologically sensitive areas or endangered species would occur under the proposed action.*

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, Alternative A would be built within the existing Wilshire corridor and would not create any new impacts to existing biological resources, including sensitive or special-status species, in the project corridor and vicinity. Alternative A does not include the removal of the jut-outs between Comstock Avenue and Malcolm Avenue, and, therefore, the existing magnolia trees along this portion of the project corridor would not be adversely affected. The segment of the project corridor, where the eastbound left-turn pocket at Sepulveda Boulevard would be lengthened and the street widened between Bonsall and Federal Avenues, would involve the removal of approximately 30 small jacaranda trees. However, these trees are ornamental and would not provide suitable habitat for migratory birds. No adverse effects to ecologically sensitive areas or endangered species would occur under Alternative A.

No adverse impacts related to ecologically sensitive areas or endangered species would occur under Alternative A.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur; therefore, no mitigation measures are required.

Proposed Action

The proposed action involves the removal of a maximum of 40 magnolia trees along Wilshire Boulevard between Comstock Avenue and Malcolm Avenue, which may serve as habitat for migratory birds. Accordingly, the **Mitigation Measure BR-1** shall be implemented to prevent conflict with existing federal, state, and/or local laws, regulations and/or ordinances protecting biological resources that may be encountered during construction of the proposed action. This mitigation measure is discussed in detail in Section 4.7.

Alternative A – Truncated Project Without Jut-Out Removal

No adverse effects would occur; therefore, no mitigation measures are required.

Cumulative Impacts

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no cumulative adverse effects would occur.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

The project lies entirely within a developed urban area. Accordingly, ecologically sensitive areas, special-status species, and their occupied habitat do not have reasonable potential to be present in the immediate project area. Therefore, no adverse cumulative impacts to wetlands, special-status species, or wildlife corridors would occur. However, as discussed above, the removal of some trees along the project corridor may conflict with state and federal laws protecting native birds and their active nests. Construction activities as a result of the proposed action and other projects in the area could potentially result in an adverse cumulative impact to natives birds. **Mitigation Measure BR-1** has been identified to ensure that adverse impacts to nesting birds are minimized.

With the incorporation of mitigation, no cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

No adverse effects would occur under Alternative A on ecologically sensitive resources or endangered species. Therefore, no cumulatively adverse effects would occur.

No cumulatively adverse effects would occur under Alternative A.

7.2.19 Energy Resources

Affected Environment

California's overall energy consumption continues to be dominated by growth in passenger vehicles. California is the third largest consumer of transportation fuels in the world (behind the United States as a whole and China) – more than 16 billion gallons of gasoline and nearly three billion gallons of diesel consumed each year.¹⁵³ Demand for gasoline and diesel is

¹⁵³ California Energy Commission, *2007 Integrated Energy Policy Report*, October 2007.

normally expected to increase by one to two percent each year as a growing population registers more vehicles and drives more miles.¹⁵⁴

While national demand grew by 1.5 percent in the first half of 2007, consumption in California has dropped. Californians used nearly one percent less gasoline in April 2007 – 10.5 million fewer gallons of gasoline than the previous April.¹⁵⁵ This was the fourth straight quarter in which Californians have used less gasoline than they did during the same period the year before.

Within the project corridor, as examined by the Traffic Impact Analysis, approximately 44 out of 74 of the study intersections currently experience a traffic level of service (LOS) of D, E, or F during either A.M. or P.M. peak traffic periods. While a specific amount of transportation-related energy usage cannot be ascertained based on LOS alone, LOS of D, E, or F indicates a high degree of traffic congestions and delay times during peak travel periods in the project corridor. Traffic congestion and the corresponding vehicle idling indicate a low degree of transportation-related energy-efficiency along Wilshire corridor.

Impacts

No Project Alternative

Under the No Project Alternative, proposed improvements to 9.9 miles of the Wilshire corridor included under the proposed action would not be implemented. Over time, regional population growth would be expected and would lead to increased vehicle use, increased traffic congestion, and, thus, decreased transportation-related energy efficiency in the project corridor and the larger region. No increase in bus ridership or decrease in VMT would occur. However, this would not be considered a direct impact as a result of the No Project Alternative. Therefore, no adverse effects related to energy would occur under the No Project Alternative.

No adverse impacts related to energy use would occur under the No Project Alternative.

Proposed Action

The proposed action would be accommodated along the existing Wilshire Boulevard ROW. Regional population growth would be expected that would generally lead to an increased demand in transportation needs. Based on previous studies related to the Los Angeles Metro Rapid Demonstration Program (see Appendix I), it has been determined that with improved bus passenger travel times and bus service reliability, ridership can increase dramatically. Accordingly, the proposed action would be expected to reduce VMT in personal vehicles as the proposed action would encourage a shift from automobile use to public transit by continuing to attract new transit

¹⁵⁴ *Ibid.*

¹⁵⁵ *Ibid.*

riders. The overall effect of the proposed action is expected to result in increased use of public transportation. In turn, this would result in decreased traffic congestion, vehicle idling, thereby increasing the transportation related energy efficiency within the project corridor for both public transportation and private vehicle use. Therefore, the proposed action would result in less energy consumption than baseline conditions and, as such, would result in a beneficial energy impact.

No adverse impacts related to energy use would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, Alternative A is expected to result in increased use of public transportation, with a corresponding decrease in traffic congestion and vehicle idling. Increased transportation related energy efficiency under Alternative A would result in less energy consumption than baseline conditions and, as such, would result in a beneficial effect (reduction) on energy use.

No adverse impacts related to energy use would occur under the Alternative A.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur; therefore, no mitigation measures are required.

Proposed Action

No adverse effects would occur; therefore, no mitigation measures are required.

Alternative A – Truncated Project Without Jut-Out Removal

No adverse effects would occur; therefore, no mitigation measures are required.

Cumulative Impacts

No Project Alternative

No adverse effects related to energy use would occur under the No Project Alternative; therefore, no cumulative adverse effects would occur.

No cumulatively adverse effects related to energy use would occur under the No Project Alternative.

Proposed Action

No adverse effects related to energy use would occur under the proposed action; therefore, no cumulative adverse effects would occur. Increased transportation-related energy efficiency along the Wilshire corridor would serve to reduce energy use by reducing total VMTs for personal vehicles. Therefore, the proposed action would be expected to have a cumulatively beneficial effect (reduction) on energy use.

No cumulatively adverse effects related to energy use would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, Alternative A would not result in adverse effects on energy use, and, therefore, no cumulative adverse effects would occur. As with the proposed action, under Alternative A, increased transportation-related energy efficiency along the Wilshire corridor would serve to reduce energy use by reducing total VMTs for personal vehicles. Therefore, this alternative would be expected to have a cumulatively beneficial effect (reduction) on energy use.

No cumulatively adverse effects related to energy use would occur under Alternative A.

7.2.20 Safety and Security

Affected Environment

LACMTA oversees the operation of bus, heavy rail transit, and light rail transit services throughout Los Angeles County. As part of its responsibilities, LACMTA implements its System Safety Program Plan to maintain and improve the safety of commuter operations, reduce accidents and associated costs, and comply with state regulations. These safety measures have been established to ensure worker and passenger safety, prevent crime, allow for adequate emergency response, and include emergency procedures to be followed in the event of a natural disaster. LACMTA currently provides police surveillance (via contracts with the Los Angeles County Sheriff's Department), non-uniformed police inspectors on transit buses and at major transit nodes, closed-circuit television in some locations, and an emergency radio response system.

In addition, LACMTA works closely with the LADOT to improve intersections with transit signal priority and all the necessary street infrastructure to enable motorists, bicyclists, and pedestrians to interact safely with the Metro Rapid buses as they cross through the Wilshire corridor intersections between Central and West Los Angeles.

LACMTA currently operates the Wilshire Metro Rapid Bus 720 and 920 lines along the Wilshire corridor. Bus stops have already been constructed as part

of these lines with necessary safety features that ensure pedestrian, motorist and bicyclist safety.

Impacts

No Project Alternative

Under the No Project Alternative, proposed improvements to 9.9 miles of the Wilshire corridor included under the proposed action would not be implemented.

No adverse impacts related to safety and security would occur under the No Project Alternative.

Proposed Action

The proposed action would convert existing curb lanes on Wilshire Boulevard to bus and right-turn only lanes operating in the peak periods on weekdays. The curb lanes would be repaired or reconstructed, where necessary, and restriped and signed as peak period bus lanes. In other areas, curbside bus lanes would be added as new lanes to Wilshire Boulevard by widening or removing jut-outs. These improvements would be implemented following design guidelines by the City of Los Angeles and LACMTA in order to continue to ensure pedestrian, motorist, and bicyclist safety. Implementation of the proposed action, which would involve improvements to an existing transportation corridor already used by buses and other vehicles, would neither increase the number of crimes occurring on LACMTA property or service corridor nor substantially change the operation of the Wilshire Metro Rapid bus service. Therefore, no adverse effects related to safety and security are anticipated. During construction, traffic detours and truck routes would be required. Maintaining an adequate level of signage, construction barriers, and supervision of trained safety personnel as part of the construction team would ensure that pedestrian and motorist safety is maintained during construction.

No adverse impacts related to safety and security would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, the improvements under Alternative A would be implemented following design guidelines by the City of Los Angeles and LACMTA in order to continue to ensure pedestrian, motorist, and bicyclist safety. Implementation of Alternative A, which would involve similar improvements described for the proposed action within an existing transportation corridor already used by buses and other vehicles, would neither increase the number of crimes occurring on LACMTA property or service corridor nor substantially change the operation of the Wilshire Metro Rapid bus service. Similar to the proposed project, during construction, traffic detours and truck routes would be required. Maintaining an adequate

level of signage, construction barriers, and supervision of trained safety personnel as part of the construction team would ensure that pedestrian and motorist safety is maintained during construction.

Therefore, no adverse effects related to safety and security under Alternative A are anticipated.

No adverse impacts related to safety and security would occur under Alternative A.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur; therefore, no mitigation measures are required.

Proposed Action

No adverse effects would occur; therefore, no mitigation measures are required.

Alternative A – Truncated Project Without Jut-Out Removal

No adverse effects would occur; therefore, no mitigation measures are required.

Cumulative Impacts

No Project Alternative

No adverse effects would occur under the No Project Alternative; therefore, no cumulative adverse effects would occur.

No cumulatively adverse effects would occur under the No Project Alternative.

Proposed Action

Implementation of the proposed action would not change the operation of the Wilshire Metro Rapid bus service or cause adverse cumulative effects on safety and security. The improved service would entice some drivers to choose public transit as a choice for commuting, which could theoretically reduce the potential for traffic accidents. Similarly, average travel speeds on Wilshire Boulevard may increase slightly during peak periods relative to the cumulative base condition but would remain well below the posted speed limit. At the system level, this would be a beneficial cumulative effect of the proposed action.

No cumulatively adverse effects would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, no adverse effects related to safety and security would occur either individually or cumulatively under Alternative A.

No cumulatively adverse effects would occur under Alternative A.

7.2.21 Construction

Affected Environment

Construction activities within public rights-of-way are not typically considered to be adverse due to their short term nature, particularly with implementation of construction management and abatement measures. Project construction would employ conventional construction techniques and equipment used in the Southern California region. All work would conform to industry specifications and standards. Construction could possibly begin in early 2011 and take approximately two years to implement all the proposed improvements.

Impacts

Traffic

No Project Alternative

No construction activities would occur under the No Project Alternative; therefore, no adverse effects related to construction traffic would occur.

No adverse effects related to construction traffic would occur under the No Project Alternative.

Proposed Action

Major project elements involving construction include the following:

- From Western Avenue to Fairfax Avenue (approximately 3.0 miles), curb lanes would be reconstructed/resurfaced and converted to peak period bus lanes;
- From Comstock Avenue to Malcolm Avenue (approximately 1.0 miles), various curb improvements, including jut-out removal and realignment of curbs, would be implemented;
- From Sepulveda Boulevard to Bonsall Avenue (approximately 0.2 mile), no bus lanes would be implemented. However, at Sepulveda Boulevard, the eastbound left-turn pocket would be lengthened by approximately 470 feet to accommodate a greater number of vehicles that are currently queued in the No. 1 eastbound traffic lane, resulting in full use of the No. 1 lane for through traffic movements.

- From Bonsall Avenue to Federal Avenue (approximately 0.4 mile), in order to accommodate an eastbound peak period bus lane, the sidewalk widths on both sides of Wilshire Boulevard would be reduced to a uniform width. Both eastbound and westbound lanes would be restriped. Wilshire Boulevard between Interstate 405 and Federal Avenue is bordered by the Veterans Administration (VA) property. The sidewalk widths on both sides of Wilshire Boulevard in this segment vary between 10 and 15 feet.
- From Federal Avenue to Barrington Avenue (approximately 0.1 mile), both sides of Wilshire Boulevard would be widened by reducing the sidewalk widths on the north and south sides, allowing restriping of the street and creation of a new eastbound peak period bus lane and conversion of the westbound curb lane to a peak period bus lane.

The equipment that would be used in construction may include graders, dozers, cement-mixers, flat bed trucks, and dump trucks to haul asphalt debris. These construction vehicles would be used along the alignment to implement the project improvements identified above and would possibly impede traffic mobility in areas of construction. Traffic detours and truck routes would be required during construction. Traffic disruptions would likely occur and result in adverse effects to local traffic circulation.

It is anticipated that construction work may temporarily reduce the capacity of, and cause delays to, the traffic flow along Wilshire Boulevard. The City and County of Los Angeles would be required to prepare and implement a Traffic Management Plan that would best serve the mobility and safety needs of the motoring public, construction workers, businesses, and community, as well as facilitate the flow of automobile and pedestrian traffic during construction. The plan would consist of a temporary traffic control plan that addresses both the transportation operations and public information components. In order to minimize the traffic impacts to the extent possible, several mitigation measures will need to be implemented along the project corridor to help mitigate the temporary construction impact to traffic and the adjacent businesses. Some of these measures include traffic control devices and possibly flagmen and/or traffic officers, frequent street sweeping, and the implementation of diversions/detours to facilitate traffic flow throughout the construction zones. In addition, a Construction Phasing and Staging Plan would be required to control the impacts of construction in any segment by limiting the areas that may be constructed at a particular time. The goal of the construction phasing plan would be to maximize the work area under construction while minimizing the inconvenience to the businesses and motoring public. The proposed action would be required to comply with the Holiday Moratorium, which prohibits construction work from November 15 through January 2.

A minimum of one-week advance notice would be provided to individual owners (businesses and residences), owner's agents, and tenants of buildings adjacent to work-site before impairing access to those buildings and use of adjacent public ways or prohibiting stopping and parking of vehicles. Additionally, temporary special signs would be used to mitigate the effects of construction on businesses by informing customers that merchants and other

businesses are open and to provide special access directions if warranted. A minimum 3-foot pedestrian access along sidewalks would be maintained at all times.

Public awareness strategies include various methods to educate and reach out to the public, businesses, and the community concerning the project and work zone. The public component piece of the Traffic Management Plan may include organizing and hosting project briefings for area residents, local workforce, commuters and business owners; consultation with area homeowner associations, neighborhood councils, and Business Improvement Districts (BID); responding to telephone calls and e-mails; design and distribution of a project brochure; issuing construction notices to inform public of construction schedules; attending weekly construction progress meetings and reporting community concerns; working closely with affected Council Districts, as well as the Mayor's Los Angeles Business Team to mitigate concerns; issuing news releases to local media to inform public of traffic impacts; and, developing and managing a project website and/or telephone hotline.

The above measures are included in **Mitigation Measures C-1** through **C-3** and shall be implemented to ensure that traffic disruptions are reduced to a level that would not be considered adverse.

Construction of the proposed action would result in a temporary adverse effect related to traffic circulation.

Alternative A – Truncated Project Without Jut-Out Removal

Major project elements involving construction include the following:

- From Western Avenue to San Vicente Boulevard (approximately 3.6 miles) and from the western boundary of the City of Beverly Hills to Westholme Avenue (approximately 1.2 miles), curb lanes would be reconstructed/resurfaced and converted to peak period bus lanes;
- From Sepulveda Boulevard to Bonsall Avenue (approximately 0.2 mile), no bus lanes would be implemented. However, at Sepulveda Boulevard, the eastbound left-turn pocket would be lengthened by approximately 470 feet to accommodate a greater number of vehicles that are currently queued in the No. 1 eastbound traffic lane, resulting in full use of the No. 1 lane for through traffic movements.
- From Bonsall Avenue to Federal Avenue (approximately 0.4 mile), in order to accommodate an eastbound peak period bus lane, the sidewalk widths on both sides of Wilshire Boulevard would be reduced to a uniform width. Both eastbound and westbound lanes would be restriped. Wilshire Boulevard between Interstate 405 and Federal Avenue is bordered by the Veterans Administration (VA) property. The sidewalk widths on both sides of Wilshire Boulevard in this segment vary between 10 and 15 feet.
- From Federal Avenue to Barrington Avenue (approximately 0.1 mile), both sides of Wilshire Boulevard would be widened by reducing the sidewalks on the north and south sides, allowing restriping of the street

and creation of a new eastbound peak period bus lane and the conversion of the westbound curb lane to a peak period bus lane.

The equipment that would be used in construction may include graders, dozers, cement-mixers, flat bed trucks, and dump trucks to haul asphalt debris. These construction vehicles would be used along the alignment to implement the project improvements identified above and would possibly impede traffic mobility in areas of construction. Traffic detours and truck routes would be required during construction. As with the proposed action, traffic disruptions would likely occur and result in adverse effects to local traffic and pedestrian circulation and businesses in the area under this alternative. As described for the proposed action (above), **Mitigation Measures C-1** through **C-3** shall be implemented to ensure that traffic disruptions are reduced to a level that would not be considered adverse.

Air Quality

No Project Alternative

No construction activities would occur under the No Project Alternative; therefore, no adverse effects related to air quality would occur.

No adverse effects related to construction emissions would occur under the No Project Alternative.

Proposed Action

Regional Impacts. The Air Quality Assessment Report assumed a conservative worst-case impact scenario in calculating regional air quality impacts. For modeling purposes, it was assumed that construction would have a duration of approximately 4 months. The total amount of construction, the duration of construction, and the intensity of construction activity could have a substantial effect upon the amount of construction emissions, the concentrations, and the resulting impacts occurring at any one time. As such, the emission forecasts provided herein reflect a specific set of conservative assumptions based on the expected construction scenario wherein a relatively large amount of construction is occurring in a relatively intensive manner. Because of this conservative assumption, actual emissions could be less than those forecasted. If construction is delayed or occurs over a longer time period, emissions could be reduced because of (1) a more modern and cleaner burning construction equipment fleet mix, and/or (2) a less intensive buildout schedule (i.e., fewer daily emissions occurring over a longer time interval).

Table 4.2-4 (Section 4.2), shows the emissions calculated for construction of the proposed action. As shown therein, it was found that criteria pollutant emissions would be less than the applicable SCAQMD significance thresholds. Therefore, a substantial adverse effect related regional air quality would not result from construction activities under the proposed action.

Construction of the proposed project would not result in a substantial adverse effect related to regional criteria pollutant impacts.

Localized Impacts. The SCAQMD has developed a set of mass emissions rate look-up tables that can be used to evaluate localized impacts that may result from construction-period criteria pollutant emissions, including PM₁₀, and PM_{2.5}. If the on-site emissions from proposed construction activities are below the Localized Significance Threshold (LST) emission levels found in the LST mass rate look-up tables for the project site's SRA, then project emissions would not have the potential to cause a significant localized air quality impact.

When quantifying mass emissions for LST analysis, only emissions that occur on site are considered. Consistent with SCAQMD LST guidelines, emissions related to offsite delivery/haul truck activity and employee trips are not considered in the evaluation of localized impacts. Based on the Air Quality Assessment Report, the worst-case maximum emissions for all criteria pollutants would remain below their respective SCAQMD LST significance thresholds (see Section 4.2, Table 4.2-5). As such, localized impacts that may result from construction-period criteria pollutant emissions would not be considered substantially adverse.

The greatest potential for TAC emissions would be related to diesel particulate emissions associated with heavy equipment operations during site grading activities. The SCAQMD does not consider diesel-related cancer risks from construction equipment to be an issue due to the short-term nature of construction activities. Construction activities associated with the proposed project would be sporadic, transitory, and short term in nature. The assessment of cancer risk is typically based on a 70-year exposure period. Because exposure to diesel exhaust would be well below the 70-year exposure period, construction of the proposed project is not anticipated to result in an elevated cancer risk to exposed persons due to the short-term nature of construction. As such, localized project-related toxic emission impacts during construction would not be considered substantially adverse under the proposed project.

Construction of the proposed action would not result in a substantial adverse effect related to localized criteria pollutants or toxic air contaminants.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, regional and localized construction-period impacts under Alternative A would be similar to or less than those for the proposed action, since less construction activity would occur under the project alternative than under the proposed project. There would be no jut-out removal between Comstock Avenue and Malcolm Avenue, and there would be no bus lane-related construction from approximately 300 feet east of Veteran Avenue to the I-405 northbound ramps and from S. Park View Street east. However, there would be some additional curb lane reconstruction/resurfacing from Fairfax Avenue to San Vicente Boulevard and from the western boundary of the City of Beverly Hills to Westholme Avenue. Similar to the proposed project, criteria pollutant emissions under Alternative A would be less than the applicable SCAQMD significance thresholds. Construction-period TAC emissions, as with the proposed project, would be temporary in nature, and as such, would not result in substantial adverse effects related to regional or localized air quality impacts.

Construction of Alternative A would not result in a regionally or localized substantial adverse effect related to criteria pollutants or toxic air contaminants.

Noise

No-Project Alternative

Under the No Project Alternative, proposed improvements to the Wilshire corridor included under the proposed action would not be implemented. No construction activities would take place, and, therefore, no construction noise would be generated.

No adverse effects related to construction noise would occur under the No Project Alternative.

Proposed Action

Project construction would increase noise levels temporarily at noise-sensitive locations near the project site. The magnitude of the increases would depend on the type of construction activity, the noise level generated by various pieces of construction equipment (see Table 4.4-7 in Section 4.4 of this document), site geometry (i.e., shielding from intervening terrain or other structures), and the distance between the noise source and receiver.

Noise from construction activity is generated by the broad array of powered, noise-producing mechanical equipment used in the construction process. The types of equipment range from hand-held pneumatic tools used for installation of signage and traffic signals, to jack-hammers, rock drills, and pile drivers to break the sidewalk and roadway surface, to compactors, graders, scrapers, and pavers used in roadway reconstruction. The exact complement of noise-producing equipment that would be in use during any particular period has not yet been determined. However, the noise levels from construction activity during various phases of a typical public works and roadway construction project have been evaluated, and their use provides an acceptable prediction of a project's potential noise impacts.

Assuming an average noise level of 89 dBA (at 50 feet distance from roadway centerline) during excavation activities for roadway reconstruction of the curb lanes in the segment between Western Avenue and Fairfax Avenue, noise levels would temporarily increase by more than 15 decibels from the typical ambient daytime noise levels measured in the area at four of the six measurement locations (ST-1, ST-3, ST-4, and ST-6), as discussed in detail in Section 4.4 of this document. Although the increases in noise levels would be substantial, the increases would be intermittent and temporary, and during daytime hours, it is unlikely that significant impacts on noise-sensitive uses or activities would occur. The other corridor segments that would require roadway and/or curb reconstruction would not result in an increase in noise from existing levels above the 15-decibel threshold of significance.

In addition, Section 1508.27 of the Council on Environmental Quality's (CEQ) regulations for implementing NEPA requires considerations of both context and intensity when determining the significance of an impact.

Context considers several factors, such as society as a whole (human, national), the affected region, the affected interests, and the locality, while intensity refers to the severity of impact. Several factors are considered in evaluating intensity. Particularly applicable to the proposed action are the following two factors – (1) the degree to which the proposed action affects public health or safety, and (2) whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.. Construction noise from the proposed action would be temporary and intermittent and would not substantially threaten public health. The construction activities required for the proposed action would not occur simultaneously along all segments of the project corridor and would be of short-duration (e.g., one to two weeks), completed in segment by segment intervals (e.g., a few blocks at a time). Furthermore, the proposed action would be required to comply with the City’s Noise Ordinance, which limits construction between the hours of 7:00 a.m to 9:00 p.m., Mondays through Fridays, and 8:00 a.m. to 6:00 p.m. on Saturdays. Noise control measures (**Mitigation Measures N-1** through **N-4** identified in Section 4.4) are also recommended during project construction to reduce the noise levels to the extent practicable in order to minimize the impact on nearby sensitive receptors. Based on these considerations, construction noise effects would not be considered substantially adverse under NEPA.

No adverse effects would occur due to construction period noise under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, construction noise impacts anticipated under this alternative would not be considered adverse. This alternative would include mobility improvements along 8.7 miles of Wilshire Boulevard. These improvements include converting existing curb lanes to dedicated weekday peak period bus lanes in both the eastbound and westbound directions.

This alternative would be truncated at S. Park View Street and would neither convert existing curb lanes into bus lanes east to Valencia Street nor from approximately 300 feet east of Veteran Avenue to the I-405 northbound ramps. In addition, jut-out removal between Comstock Avenue and Malcolm Avenue would not occur under this alternative. However, noise impacts from Western Avenue to Fairfax Avenue would be extended from Western Avenue to San Vicente Boulevard under Alternative A. In addition, reconstruction of curb lanes would also occur from the Beverly Hills western city limit to Westholme Avenue under Alternative A. Similar to the proposed action, construction noise generated by Alternative A would be temporary and intermittent and would not substantially threaten public health. The construction activities required for Alternative A would not occur simultaneously along all segments of the project corridor and would be of short-duration, completed in segment by segment intervals. In addition, Alternative A would be required to comply with the City’s Noise Ordinance, which limits construction between the hours of 7:00 a.m to 9:00 p.m., Mondays through Fridays, and 8:00 a.m. to 6:00 p.m. on Saturdays. Noise control measures (**Mitigation Measures N-1** through **N-4** identified in Section 4.4) are also recommended during project construction to reduce the noise levels to the extent practicable in order to minimize the impact

on nearby sensitive receptors. Based on these considerations, construction noise effects would not be considered substantially adverse under NEPA.

No adverse effects would occur due to construction period noise under Alternative A.

Vibration

No-Project Alternative

Under the No Project Alternative, proposed improvements to the Wilshire corridor included under the proposed action would not be implemented. No construction activities would take place, and, therefore, no construction-related vibration would be generated.

No adverse effects related to construction-related vibration would occur under the No Project Alternative.

Proposed Action

Construction activities (e.g., breaking of pavement, reconstruction of the roadway base, repaving/resurfacing) have the potential to result in a temporary minor increase in vibration levels in the project area resulting from the short-term use of construction equipment. Table 7-5 shows vibration source levels for different kinds of construction equipment.

Table 7.5: Vibration Source Levels for Construction Equipment (from measured data^{a,b,c,d})

Equipment		PPV at 25 feet (in/sec)	Approximate L _v * at 25 feet
Pile Driver (impact)	Upper range	1.518	112
	Typical	0.644	104
Pile Driver (sonic)	Upper range	0.734	105
	Typical	0.170	93
Clam shovel drop (slurry wall)		0.202	94
Hydromill (slurry wall)	In soil	0.008	66
	In rock	0.017	75
Vibratory Roller		0.210	94
Hoe Ram		0.089	87
Large bulldozer		0.089	87
Caisson drilling		0.089	87
Loaded trucks		0.076	86
Jackhammer		0.035	79
Small bulldozer		0.003	58

* RMS velocity in decibels (VdB) re 1 micro-inch/second
^a D.J. Martin, "Ground Vibrations from Impact Pile Driving during Road Construction," Supplementary Report 544, United Kingdom Department of the Environment, Department of Transport, Transport and Road Research Laboratory, 1980.
^b J.F. Wiss, "Vibrations During Construction Operations," Journal of Construction Division, Proc. American Society of Civil Engineers, 100, No. CO3, pp. 239 - 246, September 1974.
^c J.F. Wiss, "Damage Effects of Pile Driving Vibrations," *Highway Research Record*, No. 155, Highway Research Board, 1967.
^d David A. Towers, "Ground-borne Vibration from Slurry Wall Trench Excavation for the Central Artery/Tunnel Project Using Hydromill Technology," Proc. InterNoise 95, Newport Beach, CA, July 1995.

Source: FTA. Traffic Noise and Vibration Impact Assessment, 2006.

From the equipment listed in the table, the proposed action would likely only require the use of pavement rollers, loaded trucks, and possibly jack hammers on the project site. The equipment used for the proposed action would generate vibration levels of approximately 0.2 inches per second (in/sec) peak particle velocity (PPV) and less at a distance of 25 feet. Groundborne vibration in excess of 0.2 inch PPV would be considered adverse. Since most sensitive receptors are located approximately 40-50 feet away from the roadway, vibration levels associated with the project would not exceed 0.2 inch PPV and would not be considered adverse.

In addition, construction activities for the proposed action would be temporary and intermittent. The construction activities required for the project would not be required along all segments of the project corridor and would be of short-duration, completed in segment by segment intervals. Furthermore, construction activities would adhere to best management practices (BMPs) per LACMTA's Construction Specifications, including Section 01565 (Construction Noise and Vibration). Therefore, no adverse construction vibration effects are anticipated.

No adverse effects related to construction-related vibration would occur under the proposed action.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, construction vibration impacts anticipated under this alternative would not be considered adverse. This alternative would include mobility improvements along 8.7 miles of Wilshire Boulevard. These improvements include converting existing curb lanes to dedicated weekday peak period bus lanes in both the eastbound and westbound directions.

This alternative would be truncated at S. Park View Street and would not convert existing curb lanes into bus lanes east to Valencia Street nor from approximately 300 feet west of Veteran Avenue to the I-405 northbound ramps. In addition, the jut-out removal between Comstock Avenue and Malcolm Avenue, one of the activities most likely to generate vibration, would not occur under this alternative, and, therefore, construction vibration impacts expected from this activity would not occur. Under this alternative, there would also be additional curb lane reconstruction/resurfacing from Fairfax Avenue to San Vicente Boulevard and from the western boundary of the City of Beverly Hills to Westholme Avenue.

No adverse effects related to construction-related vibration would occur under Alternative A would occur.

Measures to Minimize Harm

No Project Alternative

No adverse effects would occur related to construction; therefore, no mitigation measures are required.

Proposed Action

No adverse effects would occur related to construction, with the exception of construction traffic. Traffic disruptions would likely occur and result in adverse effects to local traffic circulation. **Mitigation Measures C-1** through **C-3** below would ensure that construction-related traffic impacts would be reduced to a level that is not considered adverse.

C-1 The City and County of Los Angeles shall prepare a traffic management plan to facilitate the flow of traffic during construction. The plan shall include the following:

- Implement diversions/detours to facilitate traffic flow throughout the construction zones;
- Implement traffic control devices and flagmen/traffic officers, if possible, to maintain traffic flow throughout the construction zones; and
- Implement a public outreach/education program to inform the public about the planned construction process and encourage motorists to consider alternate travel routes.

C-2 The City and County of Los Angeles shall develop Worksite Traffic Control plans to accommodate required pedestrian and traffic movements. The plan shall include the following:

- Location of any roadway/lane or sidewalk closure;
- Traffic detours and haul routes;
- Hours of operation;
- Protective devices and warning signs; and
- Access to abutting properties.

C-3 The City and County of Los Angeles shall develop a Construction Phasing and Staging Plan to minimize the inconvenience to businesses and motorists within the construction zones. The plan shall control the impacts of construction in any segment by limiting the areas that may be constructed at a particular time.

Alternative A – Truncated Project Without Jut-Out Removal

Similar to the proposed action, no adverse effects would occur related to construction under Alternative A, with the exception of construction traffic. Traffic disruptions would likely occur and result in adverse effects to local traffic circulation. **Mitigation Measures C-1** through **C-3** above would ensure that construction-related traffic impacts would be reduced to a level that is not considered adverse.

7.3 Statutory Checklist

Table 7-6 identifies the determinations or compliance for each listed statute, executive order or regulation for the proposed action and Alternative A.

Table 7-6: Statutory Checklist

Documentation	Determinations and Compliance
Historic Preservation [36 CFR 800]	No effect on historic resources is anticipated (refer to Subsection 7.2.7 above) for either the proposed action or Alternative A.
Floodplain Management [24 CFR 55, Executive Order 11988]	According to the City of Los Angeles General Plan Public Safety Element and the Federal Emergency Management Agency (FEMA), and the City of Los Angeles NavigateLA website, at the intersection of Wilshire Boulevard and Wilton Place, the project corridor passes through a two-city block area that is within a 500-year flood zone and small areas (less than one city block) within the 100-year flood zone at the intersection of Wilshire Boulevard and Mariposa Avenue, and between Commonwealth Avenue and Hoover Street. Implementation of the proposed action or Alternative A, which would involve improvements to an existing transportation corridor already used by buses and other vehicles to create peak period bus lanes to accommodate existing buses, would neither create nor contribute to flooding that would exceed the storm drain system capacity nor impede or redirect flood flow. No adverse effects related to flooding are anticipated (refer to Subsection 7.2.16 above).
Wetlands Protection [Executive Order 11990]	No wetlands are located in the project corridor or its surrounding area (refer to Subsection 7.2.18 above).
Coastal Zone Management Act [Sections 307(c), (d)]	The western end of the project corridor is approximately 2.5 miles east of the Pacific Ocean and is not located in a designated coastal zone area (refer to Subsection 7.2.17 above).
Sole Source Aquifers [40 CFR 149]	According to the U.S. Environmental Protection Agency, the nearest designated sole source aquifers (SSA) to the project corridor are the Fresno County SSA and the Campo-Cottonwood SSA located in San Diego County adjacent to the U.S.-Mexico border. ¹⁵⁶
Endangered Species Act [50 CFR 402]	No effect on sensitive biological resources is anticipated. However, in order to ensure avoidance of any impacts, particularly for the proposed action related to migratory birds, Mitigation Measure BR-1 is required to ensure that active nesting sites are not affected during construction activities. (refer to Subsection 7.2.18 above).
Wild and Scenic Rivers Act [Sections 7(b), (c)]	The project corridor is not within one mile of a U.S. Department of Interior, National Park Service listed Wild and Scenic River. ¹⁵⁷ No effect is anticipated.

¹⁵⁶ U.S. Environmental Protection Agency, Region 9 Water Program, Sole Source Aquifer, <http://www.epa.gov/region09/water/groundwater/ssa.html>, updated March 24, 2008.

¹⁵⁷ U.S. Fish & Wildlife Service, National Wild and Scenic Rivers System, <http://www.rivers.gov/wildriverslist.html>, updated November 22, 2008.

Table 7-6: Statutory Checklist (Continued)

Documentation	Determinations and Compliance
<p>Air Quality [Clean Air Act, Sections 176(c) and (d), and 40 CFR 6, 51, 93]</p>	<p>The project action and Alternative A both qualify for an exemption from the requirement to determine conformity. As such, both the proposed action and Alternative A do not require a project-level conformity analysis.</p>
<p>Farmland Protection Policy Act [7 CFR 658]</p>	<p>The project corridor does not include prime or unique farmland.¹⁵⁸ No effect on agricultural resources is anticipated.</p>
<p>Environmental Justice [Executive Order 12898]</p>	<p>Neither the proposed action nor Alternative A would result in any disproportionately high or adverse human health or environmental effects. The construction and operational impacts of the proposed action or Alternative A would not disproportionately impact minority or low-income groups and, therefore, effects related to community disruption and environmental justice are not anticipated (refer to Subsection 7.2.14 above).</p>

¹⁵⁸ California Department of Conservation, Division of Land Resource Protection, Important Farmland Categories, available at: http://www.consrv.ca.gov/dlrp/fmmp/mccu/map_categories.htm, accessed: November 13, 2008.

Chapter 8 References and Organizations and Persons Consulted

8.1 References

- Allen, Patricia A. 1978. *Janss: A Brief History*. Thousand Oaks, CA: Janss Recognition Committee, p. 6.
- Bean, L. J., and C. R. Smith. 1978. Gabrielino. In *Handbook of North American Indians*, Vol. 8, California, R. F. Heizer (ed.), pp. 538–549. Washington, DC: Smithsonian Institution.
- Brentwood Branch Library (Library Staff). n.d. *Brentwood*, p. 2.
- California Department of Conservation. n.d. *Important Farmland Categories*. Division of Land Resource Protection. Available: <http://www.consrv.ca.gov/dlrp/fmmp/mccu/map_categories.htm>. Accessed: November 13, 2008.
- California Department of Fish and Game. 2010. California Natural Diversity Database. Available: <<http://www.dfg.ca.gov/biogeodata/cnddb/>> Accessed: April 2010.
- California Department of Transportation. 1997. Transportation Project-Level Carbon Monoxide Protocol. December.
- California Energy Commission. 2007. *Integrated Energy Policy Report*. October.
- California Office of Historic Preservation. 2003. *California Historical Resource Status Codes*. December.
- California Seismic Safety Commission. 2005. *Homeowner's Guide to Earthquake Safety*. Available: <<http://www.seismic.ca.gov/>>. Accessed: November 8, 2008.
- Christopher A. Joseph & Associates. 2006. *Draft Environmental Impact Report for The Grand Avenue Project*. June.
- City of Los Angeles, Urban Forestry Division, 2010.
<http://www.ci.la.ca.us/boss/UrbanForestryDivision/index.htm>.
- City of Los Angeles. 1994. *Los Angeles General Plan*, Safety Element, Appendix E. May.
- City of Los Angeles. 1999. *City of Los Angeles General Plan*, Noise Element. Los Angeles, CA.

- City of Los Angeles. 2004. *City of Los Angeles Municipal Code*. Available:
<<http://lacodes.lacity.org/NXT/gateway.dll?f=templates&fn=default.htm>>.
- City of Los Angeles. 2006. *L.A. CEQA Thresholds Guide*. Available:
<<http://www.ci.la.ca.us/EAD/programs/Thresholds/A-Aesthetics%20and%20Visual%20Resources.pdf>>. Accessed: April 10, 2010.
- City of Los Angeles. n.d. *City of Los Angeles General Plan*, Conservation Element. Available:
<<http://cityplanning.lacity.org/cwd/gnlpln/consvelt.pdf>>. Accessed: April 10, 2010.
- City of Los Angeles. n.d. *Navigate L.A.* Available:
<<http://navigatela.lacity.org/>>. Accessed: November 19, 2008.
- City of Los Angeles. n.d. *The Framework Element of the Los Angeles General Plan: Goals, Objectives, and Policies*. Chapter 6, Open Space and Conservation. Planning Department. Available:
<<http://cityplanning.lacity.org/cwd/Framwk/chapters/06/06.htm>>. Accessed: October 27, 2008.
- City of Los Angeles. n.d. Westwood Community Plan. Available:
<<http://cityplanning.lacity.org/complan/pdf/wwdcptxt.pdf>>. Accessed: April 10, 2010.
- Clary, William H. 1966. *History of the Law Firm of O'Melveny & Myers: 1885–1965*, vol. II, p. 499.
- County of Los Angeles. 1975. *City of Los Angeles General Plan*, Noise Element. Los Angeles, CA.
- Faris, Gerald. 1963. Pioneer A. H. Wilkins Recalls Dynamic History of “Village.” *West Los Angeles Citizen*. January 10 (Clipping from the Los Angeles Public Library’s California Index Database. Available:
<<http://www.lapl.org>>).
- Federal Highway Administration. 2004. *Traffic Noise Model*, version 2.5.
- Federal Transit Administration. 1995. *Transit Noise and Vibration Impact Assessment*.
- Fehr and Peers. 2007. *Beverly Hills Gateway Project Environmental Impact Report*. June.
- Gebhard, David, and Robert Winter. 2003. *An Architectural Guidebook to Los Angeles*. Salt Lake City: Gibbs Smith, p. 136.
- Hamilton, M. Colleen, Mark C. Robinson, Nina Harris, David M. Livingstone, and Kevin B. Hallaran. 2004. *Archaeological Survey Report for the 103rd Street Blue Line Parking Project, City of Los Angeles*.

- Angeles. Hemet, CA. Prepared for Community Redevelopment Agency of the City of Los Angeles and California Department of Transportation.
- Harris Miller Miller & Hanson, Inc. 2003. *Noise and Vibration Impact Assessment for the San Francisco Bay Area Rapid Transit District (BART) Warm Springs Extension Project*. Draft report. February. (HMMH Report No. 298760-01.) Burlington, MA.
- Harris, Cyril M. 1979. *Handbook of Noise Control*. Second Edition. McGraw-Hill Book Co.
- Heart of Los Angeles. n.d. *About HOLA*. Available: <<http://heartofla.org/about>>. Accessed: October 28, 2008.
- ICF International. 2010. *Archaeological Survey Report for the Wilshire Bus Rapid Transit Project, Los Angeles, California*, April.
- Iteris. 2010. *Wilshire Boulevard Bus Rapid Transit Project Traffic Impact Analysis*.
- Janss Investment Corporation. n.d. *A Short History of Los Angeles, 25th Anniversary Brochure*.
- Janss, Harold. 1940. *History of the Janss Family*. Katy Lain collection.
- Kielbasa, John. 1997. *Historic Adobes of Los Angeles County*. Pittsburgh, PA: Dorrance Publishing Co., Inc.
- Kilner, William H. B. 1927. *Arthur Letts, A Biography*. Los Angeles: Young and McCallister, Inc.
- Kroeber, A. L. 1925. *Handbook of the Indians of California*. Berkeley, CA: California Book Company.
- Longstreth, Richard. 1997. *City Center to Regional Mall: Architecture, the Automobile, and Retailing in Los Angeles*. Cambridge, MA: MIT Press, pp. 115–118.
- Los Angeles County Metropolitan Transportation Authority. 2005. *Final EIS/EIR for the Mid-City/Exposition LRT Project*. October.
- Los Angeles Times*. 1950. Large Apartment Structure Being Built in Westwood. August 13.
- Los Angeles Times*. 1960. Scarcity of Land for Urban Use Stresses Need of Proper Planning. February 7.
- Los Angeles Times*. 1999. Building on the Past for a Future Westwood. December 26.

- McCawley, William. 1996. *The First Angelinos: The Gabrielino Indians of Los Angeles*. Banning, CA:
- McClelland, Linda Flint, and David L. Ames. 2002. *Historical Residential Suburbs in the United States, 1830–1960*. Historic context statement for multiple property documentation form. September. Prepared on behalf of the National Park Service.
- McLeod, Samuel A., Ph.D. 2009. *Report of Paleontological Resources for the Proposed Wilshire Boulevard Bus-Only Lane Project in Los Angeles, Los Angeles County, Project Area*. December 21.
- Moratto, M. J. 1984. *California Archaeology*. Orlando, FL: Academic Press.
- Natural History Museum of Los Angeles County. 2002. *Return to the Ice Age: The La Brea Exploration Guide*. Available: <<http://www.tarpits.org/education/guide/index.html>>. Accessed: October 29, 2008.
- Newmark, Harris. 1984. *Sixty Years in Southern California*. Los Angeles, CA: Dawson's Book Shop.
- Pitt, Leonard. 2000. *Los Angeles A to Z*. Berkeley and Los Angeles: UC Press, p. 457.
- Rasmussen, Cecilia. 1994. L.A. Scene. *Los Angeles Times*. August 29, p. B3.
- Robinson, W. W. 1939. *Ranchos Become Cities*. Pasadena, CA: San Pasqual Press.
- Robinson, W. W. 1959. *Lawyers of Los Angeles: A History of the Los Angeles Bar Association and of the Bar of Los Angeles County*. Los Angeles Bar Association. Los Angeles, CA: The Ward Ritchie Press.
- Roderick, Kevin, and J. Eric Lynxwiler. 2005. *Wilshire Boulevard: Grand Concourse of Los Angeles*. Los Angeles: Angel City Press, Introduction.
- South Coast Air Quality Management District. 2008. *MATES III Carcinogenic Risk Interactive Map*. Available: <<http://www2.aqmd.gov/webappl/matesiii/>>. Accessed :July 25, 2008.
- Southern California Association of Governments. 2008. *2008 Regional Transportation Plan*. Available: <<http://www.scag.ca.gov/rtp2008/final.htm>>. Accessed: March 2009.
- State of California. 1999. *Seismic Hazards Zone Map, Hollywood Quadrangle*. Department of Conservation. Available:

<<http://www.conservation.ca.gov/cgs/shzp/Pages/Index.aspx>>. Accessed: November 12, 2008.

Transportation Research Board. 1982. *Highway Traffic Data for Urbanized Area Project Planning and Design*.

Transportation Research Board. 2000. *Highway Capacity Manual*.

U.S. Department of the Interior. 1995. Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings.

U.S. Department of Interior. 1997a. *National Register Bulletin, How to Complete the National Register Registration Form*. National Park Service.

U.S. Department of Interior. 1997b. *National Register Bulletin, How to Apply the National Register Criteria for Evaluation*. National Park Service.

U.S. Department of the Interior. 2006. *Aeromagnetic Map with Geology of the Los Angeles 30 x 60 Minute Quadrangle, Southern California*. U.S. Geological Survey. Prepared by: V. E. Langenheim, T. G. Hildenbrand, R. C. Jachens, R. H. Campbell, and R. F. Yerkes.

U.S. Environmental Protection Agency. 1971. *Noise From Construction Equipment and Operations, Building Equipment, and Home Appliances*. Prepared by Bolt, Beranek and Newman for the U.S. Environmental Protection Agency, Office of Noise Abatement and Control. Washington, D.C.

U.S. Environmental Protection Agency. n.d. *Region 9 Water Program, Sole Source Aquifer*. Updated: March 24, 2008. Available: <<http://www.epa.gov/region09/water/groundwater/ssa.html>>.

U.S. Fish and Wildlife Service. 2008. *National Wild and Scenic Rivers System*. Updated: November 22, 2008. Available: <<http://www.rivers.gov/wildriverslist.html>>.

Westwood-Holmby Historical Society. 1989. *Westwood-Holmby Hills Community, History of Westwood* (included in brochure celebrating the 60th anniversary of Westwood).

8.2 Organizations and Persons Consulted

Guevara, Victor. Gonzalez Goodale Architects. November 21, 2008—
telephone conversation.

Lindholm, Tim. Director of Capital Projects, Facilities – Operations.
Los Angeles County Metropolitan Transportation Authority. January
24, 2007.

Chapter 9 List of Preparers

9.1 Public Agencies

CEQA Lead Agency

Los Angeles County Metropolitan Transportation Authority

One Gateway Plaza
Los Angeles, CA 90012-2952

Rex Gephart, Director, Regional Transit Planning
Martha Butler, Project Manager
Brad McAllester, Executive Officer, Long Range Planning and Coordination
Michael Richmai, Transportation Planning Manager
Carl Ripaldi, Principal Environmental Specialist
Jody Feerst-Litvak, Community Relations Manager

NEPA Lead Agency

**U.S. Department of Transportation
Federal Transit Administration**

888 S Figueroa, Suite 1850
Los Angeles, CA 90017

Ray Tellis, Senior Transportation Program Specialist
Ray Sukys, Director of Planning and Program Development
Liz Zelasko, Environmental Protection Specialist
Jonathan Klein, Transportation Program Specialist

Responsible Agencies

Los Angeles Department of Transportation

100 S. Main St., 10th Floor
Los Angeles, CA 90012

Susan Bok, AICP, Supervising Transportation Planner
Kang Hu, P.E., Senior Transportation Engineer

Los Angeles County Department of Public Works

Programs Development Division
900 S. Fremont Avenue
Alhambra, CA 91803

Josephine Gutierrez, Senior Civil Engineer
Waqas Rehman, Principal Civil Engineering Assistant

9.2 Consultants

Lead Consultant

ICF International
811 W. 7th Street, Suite 800
Los Angeles, CA 90017

Lee Lisecki, Project Director
Madonna Marcelo, Project Manager
Gabriel Olson, Deputy Project Manager
Mike Greene, Senior Technical Analyst – Noise
Mario Anaya, Environmental Planner – Noise
Tamseel Mir, Environmental Planner
Keith Cooper, Senior Technical Analyst – Air Quality
Victor Ortiz, Environmental Planner – Air Quality
Cate Wood, Archaeologist
Elizabeth Hilton, Architectural Historian
Peter Moruzzi, Senior Architectural Historian
Jonathan Riker, Environmental Counsel
Namrata Belliappa, GIS/Graphics Specialist
John Mathias, Technical Editor

Traffic Consultant

Iteris, Inc.
707 Wilshire Boulevard, Suite 4810
Los Angeles, CA 90017

Steven Greene, Associate Vice President, Project Manager
Michael Meyer, Vice President, Western Region – Planning
Deepak Kaushik, Transportation Engineer

Public Outreach Consultant

The Robert Group
3108 Los Feliz Boulevard
Los Angeles, CA 90039-1507
(323) 669-9100

Christine Robert, President
Ginny-Marie Brideau, Project Manager